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**Universitat Autònoma
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TESIS DOCTORAL

**The Dream and the Reality: Rural-Urban
Migration to Shanghai (1927–1937)**

LEI SHI

DIRECTORA
DRA. CARMEN SARASÚA

Programa de Doctorado en Historia Económica
Departament d'Economia i Història Econòmica
Facultat d'Economia i Empresa
Universitat Autònoma de Barcelona

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A mis padres, Shi Benzhi y Zhang Zhilan;

A mi vida como inmigrante.

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ABSTRACT

As a result of massive rural-urban migration, Shanghai transformed from a small coastal city into the largest metropolis in China. Using the official statistics published by the Nanjing Government, and historical archives and surveys, this research is one of the first attempts to quantify the population of Shanghai and internal migration in Republican China, and to analyse the characteristics of Shanghai's immigrants. The research findings show that around four million migrants flocked to Shanghai between 1850 and 1949 to make up almost 80 per cent of its population. The scale and duration of the migration make Shanghai's case an exceptional one. Most of the immigrants were young men from nearby rural areas — Subei and Jiangnan.

This massive migration to Shanghai was caused by 'push factors' in the countryside and 'pull factors' in the city. In rural areas, agricultural productivity had stagnated, land holdings were unevenly distributed, and both agricultural and non-agricultural production were tied in with international markets after China's opening up to foreign trade following The Opium War. When 'push factors', such as natural disasters or economic crises arose, hordes of labourers were forced to leave their villages to seek opportunities elsewhere. 'Pull factors' were Shanghai's rapid development of commerce, industries and business with the growth of foreign trade and investment. This created huge numbers of jobs — especially in manufacturing — as Shanghai began industrialising in the 1930s.

Labour force segmentation occurred among immigrants, largely based on their places of origin and as a result of their different personal connections and networks. Using the industrial wage statistics (1930-1936), this research uses regression analysis of income to verify this segmentation and compare it with other, traditional segmentation patterns such as those based on gender, occupations and type of workers.

The Great Depression had differing impacts on China's economy. With its silver-based currency and a sufficient money supply, China did not suffer a banking crisis. Thus, unlike in Western countries, Chinese industry received enough investment and liquidity to continue growing. Although the crisis caused evident unemployment in some sectors, overall demand for workers kept rising and real wages grew slowly. This was the key reason why net migration to Shanghai rose throughout the crisis.

RESUMEN

Desde finales del siglo XIX, la masiva emigración desde las zonas rurales convirtió a la ciudad de Shanghai en la mayor metrópoli de China y una de las mayores del mundo. Utilizando como fuentes las estadísticas oficiales publicadas por el Gobierno de Nanjing y numerosos archivos históricos e informes contemporáneos, esta tesis es una de las primeras investigaciones que se propone cuantificar la población de Shanghai y la migración interna durante la República China, y analizar las características de los inmigrantes. El resultado muestra que cerca de 4 millones de inmigrantes entraron en Shanghai entre 1850 y 1949, constituyendo casi el 80 por ciento de la población de la época. Tanto el volumen como la duración de esta masiva migración son excepcionales en la historia. La mayoría de los inmigrantes eran jóvenes, hombres y mujeres, que llegaron de las zonas rurales cercanas, principalmente de dos zonas: Subei y Jiangnan.

Esta migración a Shanghai se explica por factores de expulsión del campo y factores de atracción en la ciudad. En las zonas rurales la productividad agrícola se había estancado, la tierra estaba distribuida de manera muy desigual, y la producción agrícola y no agrícola estaba cada vez más integrada en el mercado internacional después de la apertura forzada por la Guerra de Opio. Cuando surgieron ‘factores de expulsión’, como desastres naturales o crisis económicas, los campesinos tuvieron que abandonar el campo para buscar oportunidades en otros lugares. En cuanto a los factores de atracción, el rápido desarrollo del comercio, la industria y los negocios en Shanghai después de la apertura trajeron una gran prosperidad a Shanghai, y crearon gran cantidad de oportunidades de empleo. La acelerada industrialización de Shanghai después de 1920 creó una gran demanda de mano de obra en las industrias manufactureras, intensivas en trabajo, que producían especialmente para la exportación.

La importancia de las redes sociales, formadas por las conexiones personales y las asociaciones de origen, explica la fuerte segmentación de inmigrantes de diferentes orígenes en el mercado de trabajo de Shanghai. A partir de las estadísticas de salarios industriales (1930-1936), la tesis analiza la desigualdad del ingreso mediante el análisis de regresión, para verificar esta segmentación de lugares de origen, que se suma a las segmentaciones tradicionales de género, sector ocupacional y tipo de remuneración.

La Gran Depresión tuvo un impacto diferente en la economía de China que en los países occidentales. Debido al patrón monetario de plata y a la oferta de dinero suficiente, no se produjo la devastadora crisis bancaria que existió en Occidente, y la industria siguió mostrando crecimientos positivos gracias a la inversión. La crisis provocó desempleo en algunos sectores, pero la demanda de trabajo agregada siguió creciendo y el salario real incluso aumentó ligeramente. Esta es la razón fundamental que explica la aparente paradoja de que los inmigrantes siguieran llegando a Shanghai durante la Depresión.

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Introduction

The history of my family is a real reflection of the migration history of Modern and Contemporary China. There was a big flood in 1931 and my grandparents fled from Yangzhou (Jiangsu Province) to Jianli (Hubei Province) to earn a living. When China strove to develop heavy industries in the 1970s, my parents had to move to Puyang (Henan Province) with a State-owned enterprise to explore a new oil field. For my generation, “studying at a university in Beijing” was our dream because it meant getting a chance to change one’s life. Following this dream, I went to Beijing and lived there for many years.

Seven years ago, in a class on Migration History, the lecturer said: “There are few studies on the migration history of China, and in Europe we know next to nothing about it.” It made me recall my experiences and my family’s migration stories, and it inspired me to embark on this research.

From the late 1950s, large scale rural-to-urban migration and rapid urbanisation in developing countries drew the attention of demographers, economists and sociologists. Here, China is a particularly interesting case and these subjects have sparked considerable interest over the last thirty years. The remarkable ‘Made in China’ success story is inextricably linked to massive internal migration. Since the country began a series of wide-ranging reforms and policy initiatives in the late 1970s, hundreds of millions of rural labourers have migrated to cities to work in export-oriented factories. This vast supply of cheap labour laid the foundations for China’s export industries and the transformation of its economy.

Such migrations in China are nothing new. Over a hundred years ago, there were similar cases when China began to develop its first modern industries. A large number of rural immigrants flocked to the cities in search of opportunities, and some cities experienced explosive population growth. Indeed, the populations of Beijing and Nanjing — the two capitals of The Republic of China (1911-1949) — each rose by over a million during this period (Han, 1986: 41-43; Nanjing Local Chronicle, 2001:55-58). Shanghai’s case

was even more remarkable. In a few decades, it had swollen from a small coastal settlement with a couple of hundred thousand town-dwellers into China's largest metropolis and one of the world's biggest cities. By the mid-twentieth century, it had over five million souls (Wang *et al.*, 2002:522-523; Lu, 1999: 25-27). This population expansion was the result of migration. It is thus small wonder that Shanghai was dubbed 'The Immigrants' City'.

However, the history of this 'Immigrants' City' and the stories of those millions who flooded into it to build a future are hardly known. Unlike migration research in Europe and America, where there is a wealth of studies on the subject (and upon which various classical models and theories have been based), Shanghai's migration history remains shrouded in mystery. The reasons for this include the special nature and complexity of Shanghai's development in general and the dearth of data in particular. Collecting reliable data on Shanghai's migrations is a Herculean task. There are few sources on either the city's population or migration. Local government did draw up official statistics but these only cover some years and not others, it is hard to get hold of the records and much of the key information is missing. This means one has to resort to other sources in compiling data. The process is not one for the faint-hearted. Most historical archives from The Chinese Republic era are not open to the public. On the face of it, The Shanghai Municipal Archives is one of the exceptions to this rule but in fact it is strictly controlled and free-access to documents is very limited. For foreign scholars, the language is a hurdle to conducting their research and while it is not insuperable, it is nevertheless a formidable one.

For these reasons, there are no specific studies on Shanghai's immigrants in the literature. Instead, to date the subject has merely formed part of other studies. Urban and demographic history introduced the general phenomenon of rapid population growth in Shanghai but a complete, detailed analysis of the city's immigrants was missing (Zou, 1980; Ge, *et al.*, 1997; Pan and Wang, 1999; Zhang, 1989). Some scholars have studied immigrants' origins and networks by drawing on the archives of immigrant associations but they only selected one or two groups for this purpose (Honig, 1992; Song, 2007; Goodman, 1995). Some studies covered factory workers, for instance, women employed in textile mills, however they were confined to explaining where the immigrants hailed from (Honig, 1986; Song *et al.*, 2011). Other studies on Shanghai life and society

mentioned the work and lives of the immigrants during this period (Lu, 1999; Xin, 1996). We do not even know the exact total population of China at the time, let alone the population of the country's major cities. Here, there is heated debate on both the population figures and the reliance one can place on the statistics for Republican China (Hou, 2001, 159-162; Hou, 2000, 3-15; Hu, 1987, 45-47).

This dissertation tries to uncover the mystery in which Shanghai's immigrants have long been shrouded. Using the case of massive rural-urban migration to Shanghai during the Nanjing Government Era of Republican China (1927-1937), it aims to quantify their numbers, analyse their basic demographic characteristics, explain the reasons why they chose Shanghai as the city that would become their home, and their place in Shanghai's Labour Market. It will seek answers to the following questions:

(1) How many people emigrated to Shanghai during The Republic of China?

The first key aim of this research is to discover how large Shanghai's population was and what proportion of this comprised immigrants. It attempts to first quantify and then explain the city's population growth and immigration from Shanghai's designation as a Treaty Port after The First Opium War to the end of The Republic of China (1850-1949) in general, and during the Nanjing Government (1927-1937) in particular.

(2) Who were the migrants to Shanghai?

As the literature showed, immigrants made up the lion's share of Shanghai's population during this period. From 1888 to 1949, 80 per cent of the city's population were newcomers (Zou, 1980:112). Yet we must still ask ourselves where they came from and what their demographic characteristics were (age, gender, origin, educational level). These immigrant characteristics will be examined in a second strand of analysis, which will take into account several special features that set Shanghai apart from other immigrants' cities.

(3) Why did they leave their home towns and villages and choose Shanghai to work and live?

Unlike other big cities abroad (in which there were immigrants from every corner of the world), native rural-urban immigrants formed the vast majority of Shanghai's population. However, we do not know what caused this huge rural-urban migration to Shanghai. Just why did the migrants leave the land and choose Shanghai as their destination? To tackle these questions, we should put them in both China's economic context and even that of the wider world. The early 20th was a crucial period, when agricultural development faced a 'bottleneck' as Shanghai (and some other Chinese cities) opened as Treaty Ports. After having closed its doors to the world for over a century, the country was forced to globalise under The Treaty of Nanjing. The impact of these changes was huge, and crucial for internal population movements. In this context, this research seeks the deep-seated reasons for such a massive, rapid rural-urban migration.

(4) What was the situation of these immigrants in Shanghai's labour market?

When studying immigrants in the labour market, scholars proved that this is usually segmented. Inequalities in the labour market are usually defined by factors such as gender, age, race, ethnic group, religion or nationality (Honig, 1992). As in other international cities with large immigrant communities, Shanghai's labour market was also segmented. Yet besides the traditional segmentation based on gender or age, Shanghai seems to exhibit other factors that had a major impact on the city's labour market. Immigrants from different 'native places' but with similar backgrounds were divided in the city's dual labour market. This segmentation by 'native place' is neither fully explained by the theories or borne out by experiences in other countries. This is what makes the phenomenon particularly fascinating and lends support to the idea that Shanghai is a special case. An analysis of immigrants' occupations and of wage gaps will be conducted in this research in order to delve deeper into the phenomenon.

(5) Why did so many migrants continue to flood into Shanghai during The Great Depression?

The period covered by this research coincides with The Great Depression but relatively little is known about the slump's impact on China's economy. Here, there is a pressing need to study both the Depression's impact on the economy and on the labour market. Contrary to generally-held migration theories, The Great Depression in Shanghai was a period of rising net migration to the city. This phenomenon will also be focused on in this research.

Based on the above questions, this research has the following objectives:

1. To quantify migration to and the population growth of Shanghai (1850-1949).
2. To analyse the demographic profile and characteristics of immigrants in Shanghai, comparing these with other big cities.
3. To explore the reasons for massive rural-urban migration to Shanghai. Examination will be made of both 'push' factors in rural areas and the city's 'pull' factors. These reasons and factors will be considered in both the context of Chinese and of international economic development.
4. To find the ways migrants to Shanghai sought jobs, and in particular, their use of networks and their access to information.
5. To study segmentation in Shanghai's Labour Market in general and inequalities among immigrants in particular.
6. To analyse the impact of The Great Depression on Shanghai's economy, labour market and wages.

The methodological approach is a combination of quantitative and qualitative methods, spanning Demography, Economic History, Econometrics, and Labour Economics. This research is one of the first attempts to conduct a comprehensive, in-depth analysis of

Shanghai's immigrants. It is also the first study to use demographic methods to quantify Shanghai's population and the incomers, and employ econometric methods to analyse their wages. The case of Shanghai's immigrants is also used to ascertain whether migration and labour market theories and scholarly debate on them is consistent with China's historical experience.

The thesis is split into five chapters:

Chapter I will cover migration theories and the main areas studied, giving an overview of earlier studies and debates on population, internal migration, crises, and economic development in China before 1949. The research case and theoretical framework will be formulated in the light of these reviews. This chapter will also discuss the main sources used for this research.

Chapter II will reconstruct Shanghai's population and immigration growth, relying on official historical statistics with modifications where appropriate. It will then analyse the characteristics of the city's immigrants in terms of age, gender, marital status, education, and origin, using the archives of 'native-place associations' (tong xiang hui) and the official surveys carried out during The Republic of China. Several unique features of Shanghai as a destination for emigrants will be discussed, as will the way immigration transformed the city's population structure.

Chapter III will explain the reasons behind such large-scale emigration of Chinese peasants from their villages in the early 20th Century. To this end, emigration in rural areas will be analysed. Then the 'push' factors from rural areas will be analysed by comparing the two provinces — Subei and Jiangnan — whence most of Shanghai's immigrants came. Last, an analysis of income and debts in rural areas will be conducted and placed in the context of the special economic structure of China's rural areas. Here, I will look at the way the nation's industrialisation and opening up to global markets impacted China's agrarian economy and peasantry.

Chapter IV focuses on the immigrants in Shanghai's labour market. First, an explanation will be given for the attraction Shanghai had for immigrants. The growth of foreign trade and the development of industrial sectors after China opened up its economy to

the world created many demands for immigrants, which was the key reason for trekking to Shanghai. Then, an analysis of the economic and occupational structure of immigration will be conducted. Next, the importance of immigrants' networks and access to information will be argued and their role as one of the main determinants of the labour market. Third, the segmentation based on immigrants' places of origin (mainly Subei and Jiangan) will be analysed. The wage differential between occupations may be used as a proxy for immigrant wage gaps, given that the various groups of immigrants were concentrated in specific occupations. The regression analysis results will be used to prove labour market segmentation.

Chapter V will analyse the impact of the 1929 crisis on China's economy and the labour market, and then its influence on migrant flows. The impacts of The Great Depression on China's economy contributes to the famous debate on "growth or depression in the Economy of China" in this period. Three significant examples — agriculture, silk-reeling and cotton-spinning industries — are chosen to weigh up the economic slump's different impacts and processes in China. Then unemployment and wages are used to analyse the impacts of the crisis on the labour market. Last but not least, the reconstruction of real wages during the slump reveals the reason for ongoing immigration to Shanghai during The Great Depression.

I. Rural-Urban Migration and Urbanisation

Since the late nineteenth century, migration has been widely studied by sociologists, economists, demographers, historians, geographers, and anthropologists. Much of the research, both theoretical and empirical, has aimed to explain the causes, the social and economic impacts, and the process and changes of migration. Even so, many topics and theories remain underdeveloped (Oliver, de Haas and Kubal 2011). Recently, attention in this field has begun to swing from international migration to a more traditional focus—internal migration (Lucas, 2015).

In this chapter I offer a brief overview of migration theories and debates, with particular attention to internal migration and its problems. Then I review the main literature concerning the topics of this dissertation: population and migration in China before 1949, economic growth in prewar China, and the impact of the Great Depression on China. From these debates, I highlight problems and deficiencies in the Shanghai case and in the theoretical framework. Finally, I close the chapter with a review of the sources used in this dissertation.

I.1 Internal migrations: A Theoretical Perspective

As early as 1885, Ravenstein established a series of “laws of migration” to attempt to explain migration patterns both within and between nations. More than one hundred years later, these laws and his other studies continue to serve as the starting point for all subsequent models and patterns of migration. In the 1960s, sociologists gave migration a broad definition: “Migration is a permanent or semi-permanent change of residence” (Lee, 1966:49). Not all mobility of people is considered migration.

Migrations are less frequent and tend to be related to such episodic events as marriage, graduation and retirement... It is at least a residential movement in space” (Roseman, 1971:590).

According to the distance, direction, duration, aims, and juridical nature of the movement, we can classify different types of migration.

On the basis of distance, there exist short distance or local migration and long distance migration. In the migration literature another widely used classification for distance is internal and external or international migration. International migrants are those who cross state borders, and internal are all forms of population movements within a country (Matthijs, 2009).

With regard to direction, migration can be distinguished as rural-to-urban migration, urban-to-urban migration, rural-to-rural migration, and urban-to-rural migration. Scholars also identify population movements from the less developed regions to the developed regions as periphery-to-core migration, and its opposite, core-to-periphery migration (Puschmann 2011, 28). In accordance with the duration, we classify it as temporal migration and permanent migration. There also exist seasonal migrations, which mainly refer to farmers who work part of the year in other regions because of the farm season, and step migrations, which are those movements that the migrants take before reaching their final destination (Parnwell 1993).

Different intentions also cause different types of migrations. For example, there are innovating and conservative migration, free and forced migration, labor and marriage migration, career migration, and so on (Kok, 2010). And finally, from the juridical point of view, there is a well-known distinction between regular migration and irregular migration.

The literature on migration is massive. During more than a hundred years, demographers, economists, and sociologists have never stopped debating migration, both in theoretical and empirical studies.

Starting in the late 1950s, when massive population redistribution occurred in much of the developing world, research shifted its focus to internal migration, and especially to large-scale rural-to-urban migration (along with rapid urbanisation) in developing countries.

The theoretical frameworks for rural-urban migration can be broadly classified into three types. The first covers the dual economy models that emerged in the 1950s and 1960s. The second covers the Harris-Todaro models developed in the 1970s and 1980s.

And the third covers the more elaborate microeconomic models on which much of research has focused over the past 20 years, called New Economics of Labor Migration (Lall, Selod and Shalizi, 2006).

The first theoretical work involving rural-to-urban migration is the Lewis model of development (1954), which tries to explain the transition from a stagnating economy based on a traditional rural sector to a growing economy driven by the development of a modern urban sector. Lewis—together with Fei and Ranis (1961)—justifies rapid internal migration as a desirable process by which surplus rural labour is withdrawn from traditional agriculture to provide cheap human resources to fuel a growing modern industrial complex. Rural-urban migration also contributes to the urban economy by supplying unmet demand for labour in certain employment sectors.

The above model has been criticized for failing to explain where the demand for goods produced by the industrial sector will come from and for assuming the existence of entrepreneurs who act in a specific way (Elkan, 1973; Hirschman, 1958; Meier, 1975). Todaro (1976) also questioned this model, querying how it could explain the rising tide of migration to cities of Africa, Asia and Latin America in the face of growing urban unemployment.

Contrary to the Lewis-Fei-Ranis model, the Todaro (1969) and Harris-Todaro (1970) models represent a break with the traditional, neoclassical equilibrium model of labour markets and a demonstration of how conventional Western theory needs to be adjusted to fit the realities of developing nations. Although they also consider the role of internal migration in a dual economy—in which the urban sector draws labor force from the rural sector—the focus is on explaining the existence of unemployment in urban areas and its link with internal migration. Moreover, they recognize the persistent wage differential between the urban and rural sectors, and argue that this differential is what the migration decision is based upon.

The Todaro “paradox” conveys the idea that internal migration can be harmful because it exacerbates urban unemployment. Given high unemployment rates and significant migration to cities in developing countries, this idea has inspired many governments to implement restrictive policies even though the empirical validity of the Harris-Todaro

model and of the Todaro paradox are not clearly established. In any case, the Harris-Todaro model suffers from theoretical oversimplifications, which tend to overestimate the link between migration and urban unemployment.

The critiques to the Harris-Todaro model revolve around several points.

(a) It ignores the effects of migration on rural areas, the possibility of job search in urban areas from rural areas, the possibility of return migration, and the existence of rural unemployment (Lall, Selod and Shalizi, 2006).

(b) It fails to distinguish unemployment and underemployment in the informal sector. The assumption that urban workers are either employed in the manufacturing sector or unemployed has been criticized as too simplistic (Cole and Sanders, 1985).

(c) The job rationing mechanism and hypothesized hiring model are not realistic. In particular, assuming random job selection in each period overestimates the likelihood of finding a job (Stiglitz, 1974).

(d) The assumption of migration led by expected income differentials may overlook other important elements in the migration decision (Katz and Stark, 1986).

Despite these critiques, the Harris-Todaro model has had an important impact on theoretical, empirical, and policy debates. Even today, it is the most widely used model for the study of internal migration, urban unemployment, and development.

More recent models of internal migration adopt a complete change in perspective—they do not try to explain urban unemployment. These models attempt to provide a better explanation of: (a) migration selectivity (who chooses to migrate), (b) job-search (when and how to migrate), and (c) the role of migration on rural development.

The issue most explored in the literature is the “who migrates question,” which can be more complex than it seems. A school of thought called “new economics of migration” has provided subtle analyses of the issue, stressing the role of information asymmetries, incomplete insurance and credit markets, and relative deprivation (Stark, 1984; Katz and Stark, 1987). Migration models with job-search can account for a variety of patterns, including differences in unemployment duration among migrants, the choice of repeat or return migration, diversity of search choices, and the selection by migrants of particular destination areas (Harris and Sabot, 1982; Vishwanath, 1991; Bhattacharya,

1990; Carrington, Detragiache and Vishwanath, 1996; Ortega, 2000; Sato, 2004). People from underdeveloped countries or regions migrate to earn a living and to contribute to families left behind by sending remittances home. The phenomenon of remittances cannot be explained by neoclassical theories (De Haas, 2003). The most important contribution of new migration economics is its insight into the potentially positive link between internal migration and rural development, which emphasizes the role of remittances sent back to rural areas. According to these researchers, if we want to understand migration, we should focus on families or households, rather than individuals, because migration decisions have been considered within a wider network of relatives (Stark and Levhari, 1982; Stark and Lucas, 1988; Hoerder, 2002; Kok, 2010).

According to historical-structuralist theories, migration is caused by political and economic systems as they distribute inequalities among different regions, countries, provinces, municipalities, and even communities and individuals. Rooted in Marxism and the ideas of Fernand Braudel, these theories emphasize that underdevelopment is caused by the penetration of capitalism in the developing world. The integration of regions into the world system is the basis of migration. All resources, including human resources, are transferred from peripheral regions to the core, and migration creates a cheap labour force, reinforcing social and geographical inequalities (Frank, 1966; Wallerstein, 1974, 1980; Castles, de Haas and Miller 2014). Historical-structuralist theorists of migration are criticized because they take migrants as pawns, victims of capitalism who have no choice but to move to survive, and because they do not consider the free choice of individual migrants or the diversity of migration (De Haas, 2015).

In the past few years there has been remarkable interest in the field of migration and development. Scholars have observed long-term correlations among demographic, economic, and social transitions and the emergence of particular forms of internal and international migration (Hatton and Williamson, 1998; De Haas, 2015). Scholars have also shown that increasing incomes, improving education, infrastructure expansion—and the concomitant economic transformations—can lead to increases in migration. When one region or country becomes wealthy, emigration decreases and immigration increases. This migration transition was first hypothesized by Zelinsky (1971) and confirmed by later studies (Clemens 2014; de Haas 2010; Hatton and Williamson 1998;

Skeldon 1990; Skeldon 2012). The transition, both internal and international, had defied functionalist and historical-structural migration theories, which argue that the reduction of poverty and economic gaps will reduce migration. In the latest article of De Haas, he elaborates an aspiration-capabilities framework to explain migration and development, and takes migration as an intrinsic part of broader processes of social transformation and development (De Haas, 2015).

Two other theories are popular in the literature of rural-urban migration, especially in research for the case of China. Chain-and-network theories give weight to family members and people from the same regions. These scholars believe that neoclassical approaches can only explain the initiation of migration flows, while the causes of ongoing migration can be found in the network of personal ties connecting the origin and destination of migrants (De Haas 2003; Goodman 1995). The push-pull theory claims that four variables determine the decision of migrants: factors associated with the origin area, factors associated with the destination area, intervening obstacles, and personal factors (Lee 1966). This model has been criticized and modified. Pooley and Turnbull put more importance on personal decisions in the migration process, replacing the push-pull framework with a model of constraints and choices (Pooley and Turnbull 1998; Kok 2002). Kneer argues that the decision-making process of migrants should be analyzed within the basis of the push-pull framework, since individuals facing the same push-pull factors may reach different conclusions (Kneer 1996).

Other important migration debates exist, including the links among internal migration, income inequality, economic growth, and poverty (Bodvarsson and Van den Berg, 2009). It is difficult to explain all aspects of rural-urban migration within a single theoretical framework, but the theories outlined here help focus attention on certain key elements of rural-urban migration in China.

Basically, this dissertation will use the push-pull model to explain the reasons for ongoing rural-urban migration to Shanghai. I will explore push factors in the origin areas, as well as pull factors in the city, examining both sets of factors through a structuralist lens. I will also apply theories of segmented labour markets and economic crises to the situation in Shanghai, and then analyze certain features that cannot be explained by these theories.

I.2 China: Debates about Population, Internal Migration, Crisis, and Economic Development before 1949

China is a topic of great interest for economists and demographers, but due to the complexity of its history, language barriers, and problems with data, research is difficult to carry out. Here I will explain some of the debates about China with respect to its internal migration, labour markets, and economic growth. I will focus on problems and shortcomings of earlier research, putting migration in context and setting the starting points for this dissertation.

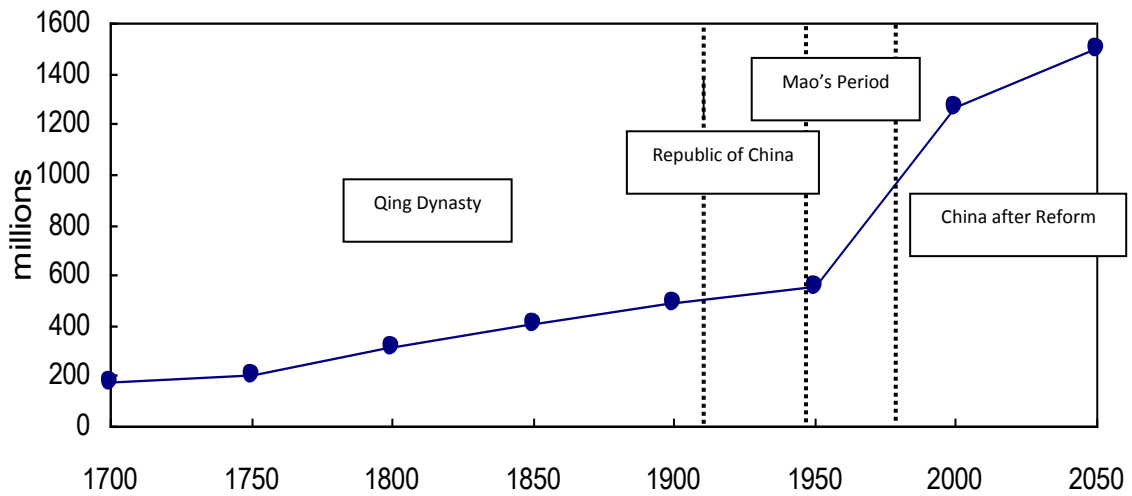
I.2.1 Overview of Chinese Population in the Twentieth Century

In China, the study of population and migration did not begin until the 1980s, and today many facts about demography, migration, and history remain “mysteries.”

(1) The Chinese demographic transition and political-economic periodization

In the early eighteenth century, China’s population began a sustained process of almost exponential growth. As Figure 1 shows, three stages of this population increase can be identified: (a) 1700-1800, a rapid rise from 160 million to 350 million; (b) 1800-1950, a slower increase to almost 600 million; and (c) 1950-2010, a sharp acceleration to over 1.3 billion. Chinese population continued to increase, though at a slower rate, and is projected to increase until the middle of the next century. By then, the population will be at least 1.6 billion (Figure 1. Lee and Wang, 1999, 27-29).

Fig. I.1 China's Population Explosion (1700-2050)



Source: Author, based on data from Lee and Wang, 1999:27-29.

In this process of demographic transition, the most drastic change occurred in the twentieth century, when China experienced one of the most extreme and rapid changes in economic regimes in history.

Before 1911, China was a feudal imperial country. That year the establishment of the Republic of China ended the last dynasty, also putting an end to over 2,000 years of imperial rule. From the beginning, the republic experienced many difficulties and challenges, including wars against foreign invasion and civil wars. Due to a complicated domestic situation, the mainly capitalist economy was mixed with feudal and colonial characteristics. In 1949 the Communist Party won the civil war and founded the People's Republic of China. China became a communist country with a planned economy, and in Mao's Period it experienced some critical political movements like the "Great Leap Forward" and the Cultural Revolution. In 1978 Deng Xiaoping began political reform and the opening of China. The economy shifted from a planned economy to a market one, and China entered a period of unprecedented change and development.

These transitions in the political-economic arena, together with various policies on internal migration in different periods, have had a profound influence on rural-urban migration across China.

(2) China's internal migration and urbanisation

During the twentieth century, China underwent history's largest internal migration and a massive process of urbanisation.

In the first half of the century, migration waves consisted principally of:

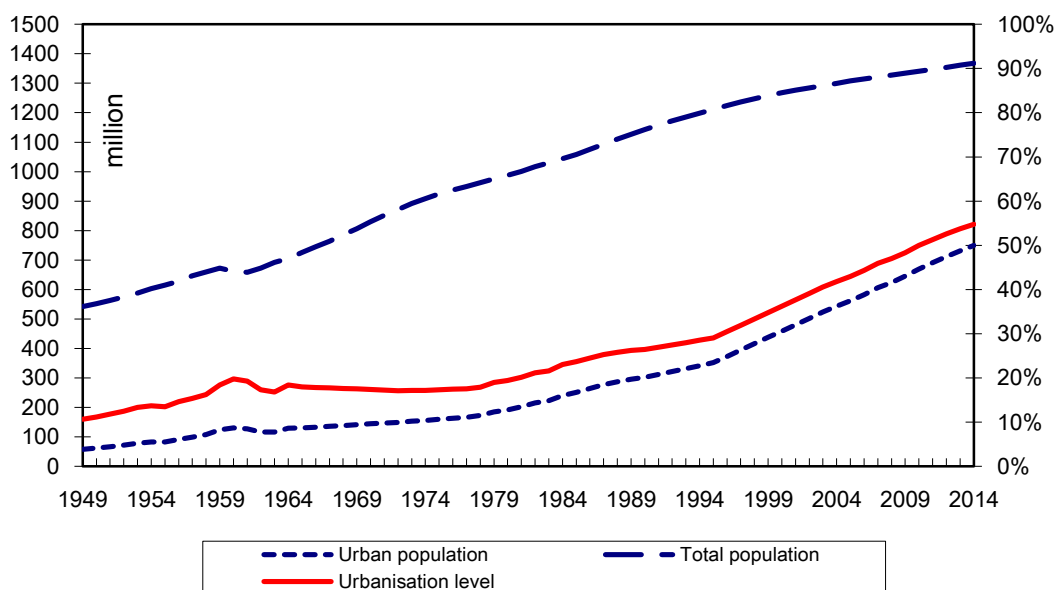
- (a) millions of farmers and townspeople from central China who sought land or fortune in northern and western frontiers;
- (b) war refugees, whose number reached nearly 100 million during the war against Japan (1937–1945);
- (c) rural migration to big cities like Shanghai, Nanjing, Tianjin, and Beijing (Shi, 1990; Ge, 1997).

“Urbanisation ration”—the proportion of urban population to total population—is used to measure the urban development of a country. In this period China had a very low urbanisation level—below 10 percent, lower than the level of developed countries before industrialization (17–26 percent) and other developing countries between 1950 and 1975 (from 16 to 28 per cent) (Wu, 1994).

After the foundation of modern China, and despite sustained growth in urbanisation, internal migration experienced big fluctuations. As Figure I.2 shows, urban in-migration and out-migration were fairly policy-oriented. Urban influx was always brought about by industrial campaigns or relaxation of migration controls. Urban loss often took place immediately after the collapse of such industrial campaigns or with the tightening of migration controls. For example, the Great Leap Forward led to a big urban influx in 1958, while its collapse brought a big urban outflow in 1961–62. The enhanced “Rustication Movement” campaign of urban youth led to another big urban population loss in 1968–69, and the policy-directed “mass return” of urban youth led to another influx in 1978–79. The relaxation of peasant migration to small urban areas led to another influx in 1984.¹

¹ The “Rustication Movement, also called “The Up to the Mountains and Down to the Countryside Movement” (in Chinese “Shang Shan Xia Xiang”) was a policy instituted by Mao in the late 1960s and early 1970s. More than 17 million urban youth were sent to mountainous

Fig. I.2 Total Population, Urban Population, and Urbanisation Levels in China (1949–2014)



Source: Author, based on data from *China Statistical Yearbook*, National Bureau of Statistics (1949 - 2015).

Since 1978, with the transition from a planned economy to a market-oriented economy, China has experienced a rapid and unprecedented process of urbanisation, created by history’s largest flow of rural–urban migration. Each year, millions of rural people moved to urban areas. As a result, the share of urban population rose from 18 percent in 1978 to 55 percent in 2014, an increase of more than 576 million people. In 2011 the urban population overtook the rural population for the first time (Figure I.2). The actual urbanisation level could be larger, however, if the huge number of “floating population” is taken into account.²

In the following sections I will review the main debates about internal migration to big cities in republican China, especially during the Great Depression. I will highlight problems and gaps in the theories, then explain which case I have chosen for study.

areas or farming villages to learn from the workers and farmers there.

² “The floating population” are the migrants in China without local household registration status (in Chinese “hu kou” system), which are not included in the official statistics.

I.2.2 Internal Migration to Large Cities in China

Shanghai's pre-war history (1842–1937) is quite well studied. Indeed, one researcher comments, “Western historiography of twentieth century China had been marred by a singular focus on Shanghai” (Horesh, 2012: 61). However, there has been very little research about some aspects of Shanghai's history, such as migration. In this section, I present the main studies and debates about migration and population in the big cities, especially Shanghai during the republican period.

(1) Demographic changes and data issues

Collecting reliable data for China's migrations is a difficult process. Official data on population and migration does not exist before 1950, and only a few researchers have attempted to reconstruct figures from historical archives for specific years and regions (Ge, et al., 2001; Ge, Wu, and Cao, 1997; Jiang, 1993; Shi, 1990). The first national census was carried out in 1953, but not until the third full census in 1982 was there an official figure for China's urban population. So the main debates concern exact population numbers and sources for true and reliable data.

The most complete work about migration in China is *The History of Migration in China*, by Ge, Wu, and Cao (1997). In six volumes, the authors cover the main migration flows in China during more than 2,000 years. In the chapter “Urbanism and Migration” in the sixth volume, they estimate the population growth in large cities caused by migration during the republican period, and analyze the demographic changes in the four biggest cities: Shanghai, Tianjin, Beijing and Wuhan (Ge, Wu, and Cao, 1997: 583 – 613). Other important books about China's population also include chapters about internal migration in big cities in this period (Shi, 1990; Hou, 2001; Ho, 1959). However, none of these works gives exact numbers for the populations of big cities—just rough estimates or references to other research. All agree that due to lack of reliable statistics, rigorous analysis of city populations in republican China cannot be conducted. Some scholars even criticize much of the data used in previous research, since the data's reliability has not been proven (Jiang, 1993).

Although the data for this period has been widely criticized, the statistics of the Shanghai government have been acknowledged as reliable by most experts. Shanghai maintained detailed and continued population registration (Hou, 2000, 3-10; Hou, 2001:161-164; Hu, 1987:45-47). Based on this data, much research has been done. The most detailed and cited work is *Study of Demographic Transition in Old Shanghai* (Zou Yiren, 1980). The author summarizes original official statistics for Shanghai's population before 1949. His book is still used as the basic database for studying the population of Shanghai. Zhang analyzes migration to Shanghai in different periods (Zhang, 1989). Other scholars have explored Shanghai's history and urban development, as well as its demographic changes and migration in this period (Tang, 1989; Zhang, 1990; Xin, 1996; Lu, 1999; Shen, 1993, etc).

However, none of these researchers has reconstructed detailed population figures or migration figures for Shanghai for each year. It's worth noting that Zou enumerated the existing registration numbers for the total population, but without modification (Zou, 1980: 90-97). Therefore, the basic job of this dissertation is to complete the annual population figures for Shanghai while reconstructing and estimating migration numbers during the republican period.

(2) Regional networks and ethnicities of the immigrants

In the 1990s some American scholars began to pay attention to the ethnicities of migrants and their networks in Chinese big cities (mainly Shanghai). They have turned Chinese migration into a frontier of migration studies, especially in recent years, with the opening of the historical archives of Shanghai's native-place associations (*tong xiang hui*).

In his book *Native Place, City and Nation: Regional networks and identities in Shanghai 1853-1937*, Goodman demonstrates the importance of these native-place associations for immigrants in Shanghai. The associations influence immigrants' social lives, employment, and adaptation to the big city, and also promote urban development (Goodman, 1995). Other Chinese historians and sociologists also analyze the evolution, distribution, characteristics, and functions of these associations in different periods (Gao, 1990; Cao, 1995; Song, 1996; Ma, 1996; etc).

Some specific groups of immigrants have been closely researched. The most influential work is the examination of people from Subei by Honig in her book *Creating Chinese ethnicity: Subei people in Shanghai 1850–1980*. From a sociological perspective, she analyzes the reasons for the discriminations that Subei immigrants received in labour markets and society in Shanghai (Honig, 1992). Immigrants from Ningbo and Guandong have also received scholarly attention. Most of this research has concentrated on migrant organizations and their function in commercial and financial industries. Song analyzes the reasons for migration, its impact on industry and finance, and the social life of people from Guandong in Shanghai (Song, 2007). Leung compares these two groups and their impact on Shanghai's economic development (Leung, 1984). Mann, Huang, Cai, and Chen have investigated the relationship between “Ningbo Pang” (immigrants from Ningbo) and Shanghai's financial and industrial sectors (Mann, 1974; Huang, 1994; Cai, 1996; Chen, 1989).

These researchers have created new viewpoints for analyzing migration to big cities like Shanghai. However, their work has been criticized as being too general or too isolated. For example, Honig argues that Subei people were at the bottom of the society in Shanghai. But she does not provide enough comparison with their opposite—immigrants from Jiangnan and Guangdong, who reached Shanghai's “elite.” How did this segmentation among immigrants play out? Moreover, her work lacks quantitative analysis of salary or living conditions. These will be areas that I focus on in my dissertation.

(3) Income and living conditions of workers in Shanghai

During the republican era, the income and living conditions of Shanghai's workers were already a focus of research. Government agencies and academics did more than 80 large-scale surveys of salaries, income, and family consumption in big cities from 1917 to 1930, publishing results for Beijing, Shanghai and Tianjin. These surveys did not clearly define consumption or living standard, and they are short of analysis. Still, they have supplied abundant original data for researchers. In *Workers in Shanghai* (Li, 1920) and *Industry and Labor in Shanghai* (Zhu, 1938), the authors examine the situation of workers in various industrial sectors in 1920s and 1930s. These books are taken as the starting point for later research on industry and labor in Shanghai.

Starting in the 1980s, Western and Chinese scholars have done a large amount of research on this topic, focusing on: (a) wages in industrial sectors, including changes in real wages, differences between sectors, and the role of gender inequality; (b) unemployment and poverty; (c) family living conditions; and d) women workers.

For the wage studies, a big debate concerns whether wages increased or decreased during the republican period, especially during the Great Depression. Analyzing nominal wages in Shanghai during 1927–1937, Huang argues that wages stopped increasing after 1927 and fell during the crisis, (Huang, 1987). Other studies take a similar view (Lu, 1995; Zhang, 2000; Zhou, 2006). But some scholars come to the opposite conclusion: although the Great Depression affected industry and economic growth in China, wage levels increased in this period. Rawski, in his book *Economic Growth in Prewar China*, uses the price of rice to calculate the real wage of laborers in Shanghai and Jiangsu province. He argues that not only did real wages in industries in the big cities increase, but so did the wages of farmers in this period (Rawski, 1989). Zhang has analyzed real wages of Shanghai workers and a price index,. He concludes that real incomes and living conditions of people in Shanghai maintained the same level or even slightly improved during the economic crisis (Zhang, 2011). Some scholars have shown that wage gaps existed among different sectors and between genders. The sectors in which immigrants worked usually paid less than those with local people, and sectors with concentrations of Subei people paid less than sectors with immigrants from other regions (Honig, 1992). Women workers were usually paid less than men (Honig, 1986).

Most of these studies conclude that workers' families in Shanghai had a hard life, and that they lived beyond their income if only the men worked (Fan, 2004; Lu, 1999). However, Zhang argues in his research that the price of food, which was more than 50 percent of Shanghai families' total expenses, decreased when the crisis came. Since increases to rent and fuel almost did not affect total family expenses, family living standards did not change a lot (Zhang, 2011). Lü and Xu studied the effect of housing prices in Shanghai. They found that an overabundance of silver in Shanghai caused a boom in the real estate market at the beginning of the crisis (1929–1931), affecting workers' living standards during this period (Lü and Xu, 2006).

Poverty and unemployment are other topics of research, but most scholars have only

examined these topics from the perspective of government relief or from that of the social associations (Chen, 2004; Cai, 2003; Tan and Fan, 2005). Qin argues that rural migration is one of the causes of poverty in Shanghai; to some extent, workers' poverty can be considered as a problem of shifting rural poverty to urban areas (Qin, 2011). Tan systematically explores the issue of urban unemployment in China from 1927 to 1937 (Tan, 2006). Overall, however, there is a lack of research on the causes and effects of unemployment and poverty in Republican China.

Women workers have also been the focus of many researchers. Emily Honig's *Sisters and Strangers: Women in the Shanghai Cotton Mills 1919-1949*, is one of the most influential gender studies in the field of Chinese labor research. She analyzes the working conditions of women workers in the textile sector, as well as their places of origin. From this, she examines segmentation of immigrants from different regions in the Shanghai labour market (Honig, 1986).

Although immigrants made up more than 80 percent in the population of Shanghai—their share of the labor force should be even higher—none of this research has analyzed different groups of immigrant workers separately. There is general a lack of detailed analysis about immigrant worker. In which sectors did different groups of immigrants concentrate? What were the salary differences among immigrant groups? Did immigrants working in the same sectors have the same income? If there were differences, what caused them? These questions will be answered in this dissertation.

1.2.3 Economic Growth in Prewar China and Shanghai

Economic growth in China before 1945 is a hot topic, and many famous economists have entered the debate. The focus of the debate is whether the economy of China grew or stagnated, or even fell into recession, during the 1920s and 1930s. It is important to know whether the crisis existed—and, if so, to what degree it affected the Chinese economy—before exploring its impact on internal migration.

On one side, represented by Friedman and Schwartz, and followed by many Chinese scholars, the U.S silver purchase program in the early 1930s set off a chain of negative economic consequences for China's economy, included high inflation, production

stagnation, bank failures, and worker layoffs. Together, these led China into a long-term economic depression (Friedman and Schwartz, 1963, 1986; Dai, 2005; Liu and Wu, 2010). A similar viewpoint was published in an official document of this period:

With the abandonment of the gold standard in recent years by many leading nations, and the rapid rise in the world price of silver, our currency has become seriously affected, resulting in severe internal deflation, with growing unemployment, widespread bankruptcies, flight of capital abroad, fall in government revenues, and an adverse balance of payments. It was evident that unless immediate measures were taken, the country would be drained of its silver stock. (Chinese Yearbook 1936-1937: 810)

On the other side, Rawski, Brandt, Sargent and other scholars propose an opposite view. They argue that China's economy was not affected by these policies or the international crisis, and that its economy kept growing. Brandt and Sargent calculate that the GDP of China during 1931 to 1936 had an average growth rate of 1.5 percent, with industrial production growing a lot. China was a free financial market before 1931, and the fall in prices in this period was not caused by monetary deflation (Brandt and Sargent, 1989). Rawski comes to a similar conclusion. In his book *Economic Growth in Prewar China*, he analyzes the situation of manufacturing, agriculture, finance, transport, and communication in the public and private sectors. He argues that China's economy grew strongly before 1937. He also shows that the money supply in China did not decrease in response to America's silver policy (Rawski, 1984, 1989).³

This debate has brought a new view about economic growth in China in this period, a view that is more complicated than just growth or depression. Agriculture declined, while industry developed. And within industry, not every sector fared the same. In this dissertation, I will distinguish among different sectors, and analyze the different impacts that the crisis and government policies had on them.

The development of Shanghai City is another important focus for researchers. One of

³ The debate continued through the 1990s. In *Franklin D. Roosevelt, Silver and China*, Friedman insists that U.S. silver policy caused China's crisis in the 1930s and was the origin of the depression and turbulence in the 1930s and 1940s. But Rawski responds in *Milton Friedman, Silver and China* that a fall in prices only existed in the agricultural sector, while the monetary supply, production, and other prices were not affected.

the first books to explore the city's development is *Shanghai—The Key to Modern China*, written by Rhoads Murphey (Murphey, 1953). Murphey explains the evolution of Shanghai's population, transport, geography, commerce, and industry before 1949, placing this development within a national and international context.

The development of foreign trade, industry, and the financial sector are main fields of Shanghai study. Chen, Wang and other scholars study the conditions and reasons for trade development, concluding that geographical advantages, historical conditions (economic openness after the Opium War), regional economic conditions, and demand (both national and international) were the crucial factors (Chen, 1986; Wang, 1996; Ding and Shen, 1994). Many studies of different industrial sectors have revealed Shanghai's important status. Here the research is rich, covering almost all aspects of industry—machines, manufacturing, textile, flour, paper, cigarettes and so on, along with the history of some important companies (Ding and Shen, 1994; Fang, 1989; Shanghai Administration for industry and commerce, 1966, 1979, 1987, 1989; Pan, 1998; Huang and Lu, 2002). All this economic growth, especially the industrial development, created one of the most important “pulls” for immigrants.

1.2.4 China During the Great Depression

During the Great Depression, government and scholars began examining the economic crisis and its impact on China. Large numbers of articles and books from the 1930s can be found in Shanghai Municipal Library. Some recorded economic and social changes in China during this period (Kun, 1933; Rao, 1935); some analyzed the influence of the depression on China (Tian, 1934; Qian, 1935); some looked at people's wellbeing (Lu, 1935); and some discussed the responses by government and the social associations (Jiang, 1935).

Most of the research on China in the Great Depression concentrates on the monetary system. As with the debate among Friedman, Rawski, Brandt, and Sargent, the focus has been on China's monetary system, with its silver standard. China was the only country with this system during the period, and silver prices affected its economy. So the principal points of discussion have been deflation, banks, the financial system, adjustments by economic institutions, and government policies (Friedman, 1992;

Rawski, 1993; Shiroyama, 2008).

Some Chinese scholars have studied the impact of the Great Depression on certain economic sectors. Wang investigates the depression's influence on agriculture, arguing that a steep fall in agricultural prices caused the decline in agriculture, and that this led to economic crisis in other sectors (Wang, 2004); Some researchers have studied the silk sector, arguing that lower demand caused by economic crisis in western countries took the silk sector into depression (Zhang, 1986; Xu, 1990; Zhang, 2010); Cotton, on the other hand, experienced a short prosperity at the beginning of the Great Depression (1929–1931) because of the devaluation of silver, but after that also fell in into decline (Yan, 2011).

In *China During the Great Depression: Market, State, and the World Economy, 1929-1937*, Tomoko Shiroyama examines financial and monetary issues and then analyzes their impact on the rural economy and textile industries in the lower Yangzi area (Shiroyama, 2008). She also offers a detailed analysis of government economic policies, especially during the post-1935 recovery.

There are still many gaps in the research on China during the Great Depression. I have not found any studies about the consequences of the crisis on labour markets and immigrants, so that will be the main objective of this dissertation.

As mentioned earlier, this research will study migration to Shanghai during the 1920s and 1930s. I will try to solve some of the problems and fill some of the gaps mentioned above:

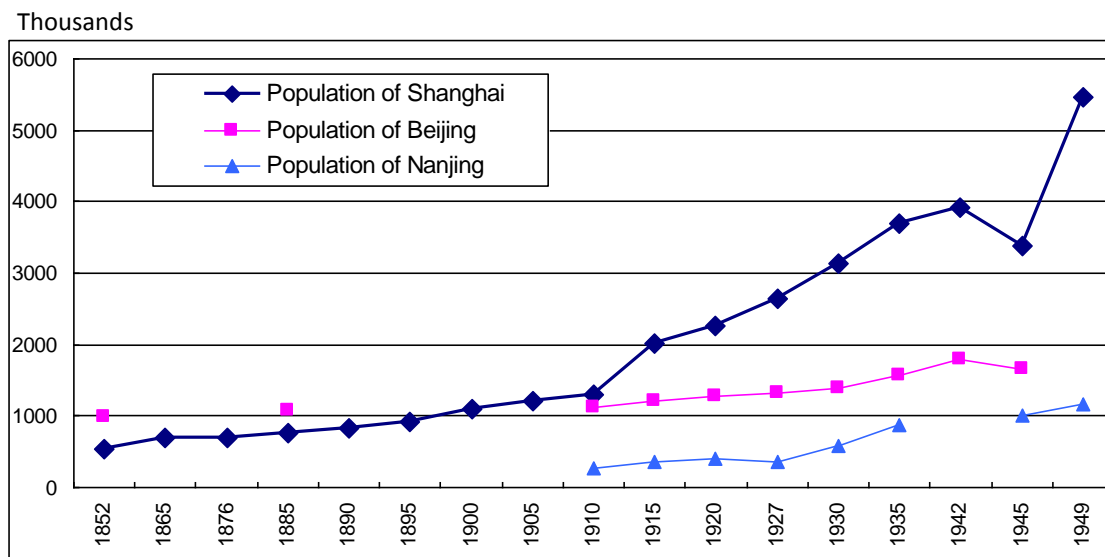
- (1) Reconstruct and complete a series of population and migration statistics for Shanghai during the republican era.
- (2) Build a quantitative analysis of real wages of immigrant workers in different sectors in Shanghai, and use this analysis to examine the causes of migration, labor market segmentation, and the influence of the Great Depression on immigrants.
- (3) Explore the causes of segmentation among immigrants and the affects of the economic crisis on immigrants.

I.3 The Case and the Data Sources

I.3.1 Setting the Case and Period

Due to China's large population, vast territory, and complicated situation, it would be difficult to cover the country's internal migration in just one dissertation. Fortunately, Shanghai provides a suitable setting to examine one example of the dynamic process of migration in China. About 170 years ago, Shanghai was a small city situated along the Huangpu River, with less than a quarter of a million people. Although it was known for its booming cotton trade in the Qing Dynasty, in comparison with major Chinese cities like Beijing, Nanjing, Guangzhou and Hangzhou, Shanghai was an unimportant coastal settlement with a very short history. It never served as a capital for any dynasty of imperial China. Indeed, Shanghai could be called a "third-level city" under the provincial capital of Nanjing and the prefectural capital of Songjiang. Compared with western cities, Shanghai's population was about the same as that of Madrid or Amsterdam, while the population of Paris had already surpassed 1 million, and London more than 2 million (Chandler, 1987).

Fig. I.3. Population of Shanghai, Beijing and Nanjing (1852-1949)



Source: Author, based on data from: Population of Shanghai: Statistics of Shanghai 1933 and Yearbook of Shanghai 1945; Luo 1932: 20-21; and Zou 1980: 90-91; Zhang, 1989: 28. Population of Nanjing: Nanjing Local Chronicle, 2001:55-58. Population of Beijing: Han, 1996:120-134.

After the First Opium War (1840–1842), Shanghai became one of five British treaty ports opened on China's mainland, and from then on the city experienced rapid development. Within a few decades, Shanghai turned into the largest metropolis of China—and the center for transportation, industry, and finance (Wang et al., 2002: 522; Lu, 1999: 25-26). It also became one of the world's largest cities. By the mid-twentieth century, Shanghai's population reached more than 5.4 million, making it the fifth largest city in the world (Chandler, 1987). Fig.3 illustrates the rapid growth in Shanghai's population from 1850 to the end of the Republic of China in 1949.

Shanghai's population grew at a much faster rate than that of Nanjing and Beijing, and greater numbers of migrants went to Shanghai for economic reasons. People migrated to Shanghai in search of job opportunities and dreaming of a better life (Lu, 1999: 43-44; Xin, 1996: 49-52; Zhu, 2007: 7-8), while migrants to Nanjing and Beijing were more likely moving for political reasons related to the central government or war (Han, 1986: 41-43; Nanjing Local Chronicle, 2001: 55-58).

Shanghai's rapid migration-fueled population growth is not unusual. A number of cities across the globe have experienced a similar process—New York, Osaka, Buenos Aires, and Sao Paulo. However, migration patterns in these big cities are different than those in Shanghai. Migrants to New York and Buenos Aires were mainly international, especially European, while Shanghai primarily received internal migrants. Although there were also plenty of foreign immigrants in Shanghai, they never exceeded 4.5 percent of its total population (Zou 1980: 141). Cities like Osaka and Sao Paulo received many internal, rural migrants in the 1950s, 1960s, and 1970s, but the process did not last as long as in Shanghai and never reached the same scale.

This dissertation focuses on the internal migration to Shanghai during the 1920s and 1930s. It is a period with one of the most rapid population growth rates in Shanghai's history. The annual growth rate reached 38.5 per thousand; more than 1 million people migrated to Shanghai in just ten years.

In 1927 the central government moved the capital from Beijing to Nanjing, thus beginning the Nanjing Government Era (1927–1937). In the same year, Shanghai City separated from Jiangsu Province and became a municipality directly under the central

government. The decade of the Nanjing Government Era was the most peaceful period of the Republic of China, with political stability, economic growth, and few wars. This period also coincided with the Great Depression started from 1929, making it an ideal case for studying the impact of the economic crisis on the Chinese economy and migration.

Moreover, these ten years were when the government carried out censuses and published a large number of detailed statistics about the population and labour market. These historical data, together with the surveys conducted by other scholars in this period, will form the database of this research.

I.3.2 Data Sources

This dissertation relies on four types of data sources: (1) published statistics (official censuses and surveys), (2) historical archives, (3) newspapers and magazine articles, (4) secondary literature.

(1) Published statistics

The ten years of the Nanjing Government (1927–1937) were unique—the government performed censuses and published population and labor market statistics. The following government sources will be used in this dissertation.

(a) The Yearbook of Shanghai (1929–1937) contains detailed statistical information about the city’s population, labour, industry, business, and almost all aspects of Shanghai’s economy and society.

(b) Labour statistics in Shanghai (1930–1939), published by the International Labour Office in China, include salary statistics for different industrial sectors and living costs for laborers.

(c) Survey reports, published by the Bureau of Social Affairs and the Shanghai Government, cover industry, wages of factory workers, working time, family consumption, living standards, prices, unemployment, and effects of the economic crisis during the late 1920s and early 1930s.

Although data from the republican period has been criticized, the population registers of some provinces and cities, including Shanghai, are widely accepted and recognized. During the republican period, China's central government intended to perform nationwide population censuses in 1912 and 1928. Only some provinces actually carried them out, including Jiangsu Province and Shanghai City. "These censuses were the most complete and detailed in the Republican period, and even the first time in history until that time". (Hou, 2001: 159-162; Hou, 2000: 3-15). Among China's large cities, Shanghai was unique for its annual registration of population information from 1929 to 1936 (Hu, 1987: 46-47). In the three districts of Shanghai City, the Police Department of the Chinese Districts conducted the annual census between 1929 and 1936, which included not only population data, but also monthly figures on population mobility.⁴ The International Settlement and French Concession held population censuses every five years between 1865 and 1937 and 1890-1936 separately. All this information was published by the local government, and I will use it to reconstruct the population and migration situation in Shanghai.

These statistics have been widely used in research about Shanghai's population, and Zou even listed much of this information: total population, age, sex, fertility, morality, marriage, and foreign immigrants (Zou, 1980). However, as pointed out earlier, he just cited the original figures, and this data needs to be adjusted, or reconstructed. For example, registration for Shanghai's three districts do not coincide in some years due to different census periods. Also, the exact number of immigrants has not been calculated, although registration of in-flows and out-flows exist for 1929 - 1936.

Although these population statistics are reliable, they have some problems. (1) Researchers do not have access to individual information from the censuses, just the general result. So I cannot analyze the demographic characteristics of immigrants directly, which would be easier and more precise. Instead, I had to find other archives and sources to investigate the age, family, education, and employment of Shanghai immigrants. (2) Registration of population movements occurred only from 1929 to

³ Before 1945 Shanghai city was divided into three municipalities: the Chinese Districts (also called the Greater Shanghai), the International Settlement (formed by British Concession and American Concession in 1862), and the French Concession (formed in 1849).

1936, a relatively short period. I had to calculate the migration rate by finding the difference between the real population growth rate and the predicted natural increase rate.

The published statistics about industry, labor, and living standards are widely used in research. As Zhang argues, in comparison with individual research, the surveys by the Bureau of Social Affairs of Shanghai Government, with the help of International Labour Office, are higher quality due to their preparation, coverage, and continuity (Zhang, 2011: 3-4). The surveys lasted from 1928 to 1937 and covered more than 30 industrial sectors, 1,500 factories, and 250,000 workers. Survey results were published in various books, such as *Wage Index of Shanghai City* (1929), *Wage and Working Time in Shanghai* (1931), *Living Expense Index of Laborers in Shanghai* (1932), *Standard of Living of Shanghai Laborers* (1934), *Wage Rates in Shanghai* (1935), and so on. Finally, the principal results were published in the book, *Statistics of Labors in Shanghai (1930-1937)*.

The main contribution of these surveys is their detailed statistics about industrial sectors, numbers of factories and workers, and wages and living conditions of laborers in Shanghai. Almost all research about workers and industrial development in Shanghai rely on these data (Huang, 1987; Zhang, 1997; Honig, 1986; Du, 2005; Song et al, 2011, etc.) Thanks to this research, we know a lot about the labor situation in Shanghai. However, none of the previous research has distinguished the salaries and living situations of different immigrant groups. An important defect of the statistics is that wages are just averaged for each sector. What I will do here is compare the wages of different sub-sectors—where immigrants from different regions concentrated—and then analyze the wage differences. For example, in the cotton textile industry, wages are divided into seven sub-sectors: blowing, carding, spinning, twisting, reeling, baling, and waste cotton. Each of these encompasses three or four different jobs. Previous research has shown that in the roving and reeling departments more than 90 percent of workers were women from Subei. Workers from other regions mainly worked in weaving and spinning. Here, if there are no data for wages of immigrants from different regions, comparison of these different sub-sectors can give a good representation of the wage disparity among these groups.

Another important point for such a wage study is to analyze real wages rather than nominal wages. But most of the previous research does not distinguish between real and nominal wages, or simply uses the price of rice to calculate real wages (Rawski, 1989: 297). Here I will select a package of products that connected closely to the daily lives of immigrant workers, establishing a price index to calculate real wages. From this real wage, I will show the real reasons for the increase of immigrants during the Great Depression.

(2) Historical archives

The archives of the native-place associations (*tong xiang hui*) in the Municipal Archives of Shanghai are another important data source. Among more than 100 native-place associations, the Association of Guangdong (1,009 volumes of member registration) and the Association of Pudong (1,349 volumes) have been chosen. Immigrants from these two regions formed a large part of Shanghai's immigrant population, and the associations' files contain detailed information about their members (age, sex, education, profession, and address). Table I.1 shows an example of the registration forms for members of these associations. This data has been used in a few studies (Xin, 1996:65-81; Goodman, 2004; Chen, 2004; Song, 2009, etc), but has not been statistically analyzed. In this dissertation I choose more than 1,000 samples from each association, analyzing the age, sex, job, and education of the members. One problem of this data is that members of the associations were generally better educated and male. So the result of any statistical analysis of association records cannot be viewed as representative of the whole immigrant population.

Table I.1 Registration Form of Native-place Association in Shanghai
(Guangdong Association, 1935)

姓名	性別	年齡	籍貫	學歷	經歷	現在職業及其地位	黨籍	住址或通訊處	備考
左子英	男	30	番禺私	塾	商	商		靜安寺路 二〇七六號 上海法租界 七三〇弄	
馮耀	"	33	"	"	"	"		廣文路 二二二弄	
潘永光	"	34	"	"	"	"		廣文路 三五二弄	
唐金魁	"	38	中山	"	"	"		廣文路 三五二弄	
李洪	"	20	南海私	中	政	上海鐵路		廣文路 三五二弄	
周志新	"	33	番禺私	塾	商	商		海鹽路 順安里 廿五弄	
林景山	"	36	"	"	"	"		廣文路 三五二弄	
梁日明	"	40	中山	"	"	印刷		廣文路 三五二弄	
陳重華	"	男	三水	"	"	商		廣文路 三五二弄	
陳伯端	"	"	"	"	"	大業		廣文路 三五二弄	

附註 如係國民黨員應於黨籍欄內填明黨證字號

上海特別市社會局印製

上海特別市社會局印製

Name	Sex	Age	Birth Place	Education	Sector	Occupation	Address
Zuo Ziyang	Male	40	Panyu, Guangdong	Primary School	Business	Own business	No. 2076, Jingansi Road, second floor.
Feng Yao	Male	32	Panyu, Guangdong	Primary School	Business	Own business	No. 73, Tongchang Street, Haining Road
Pan Yongguang	Male	45	Panyu, Guangdong	Primary School	Business	Own business	No.25, Aiwenyi Road
Tang Jinbiao	Male	38	Zhongshan, Guangdong	Primary School	Business	Own business	No. 385, Maiwenshi Road
Li Hong	Male	20	Nanhai, Guangdong	Middle School	Construction	Shangchuan railway	No. 4, Jiuxing Road
Zhou Zhixin	Male	43	Panyu, Guangdong	Primary School	Business	Own business	No.25, Shunan Street, Haining Road
Lin Jingshan	Male	46	Panyu, Guangdong	Primary School	Business	Own Business	Yexing Leather Store
Liang Riming	Male	40	Zhongshan, Guandong	Primary School	Printing	Worker	No. 374, Maitong Road
Chen Zhongfeng	Male	49	Sanshui, Guangdong	Primary School	Business	Own Business	No.20, Faxing Street, Peng Road
Chen Bozhao	male	59	Nanhai, Guangdong	Primary School	Wood	Worker	No. 875, Xinzha Road

Note: This table is a translation of the above registration form.

Source: Archives of Guangdong Association, Shanghai Municipal Archives.

The Association of Pudong also provides archives of unemployed members who registered for job search (96 volumes of registration forms, letters and resumes). These files can be used to analyze the unemployment situation of migrants in Shanghai during the economic crisis. I have not found any previous research that used this data, perhaps because it was not easy to classify. Not all of the forms include complete personal information. Some of them just contain a simple letter asking for help finding a job, and some of them cannot be read (Examples are showed in the following pictures). I selected 60 samples for statistical analysis about the age, sex, origin, education, former job, family situation, and expected salary of these unemployment immigrants, which can then be used to explain the unemployment situation of immigrants. The sample size is small, and only for one region of origin. But other associations did not keep, or save, unemployment archives. So I will need other sources of information, like newspapers.

四 校 總 辦 公 處 用 牋

<p>校 址 第一號 上海公共租界四川路 第二號 上海公共租界四川路 第三號 上海公共租界四川路 第四號 上海公共租界四川路</p>	<p>履 歷 單</p>	<p>姓名 蔣頡時 性別 男 年歲 三六 籍貫 江蘇奉賢</p> <p>資格 前上海海潤英文專門學校畢業 前上海遠東大學文科英文系畢業 江蘇省黨部中等學校訓育主任公民教員資格審查委員 會檢定合格</p> <p>經歷 歷任前奉賢私立尚公女校中學部主任兼教員 前奉賢私立五道一女子中學校校長 前上海私立東亞中學校事務主任兼初中一英文及史地教員 上海私立肇基中學校訓育主任兼初中一英文及史地教員 現任私立上海中學校英文教員 顧蘭洲公館家庭教師</p>	<p>教育訓練班 上海中學 上海幼稚師範 上海各級師範之室 上海小學 上海幼稚師範</p>
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一九三二年九月八日

Resume registered for job search, 1930s. Archives from Association of Pudong, Shanghai Municipal Archives.

30th Dec, 1932.

Dear Sir,

Having informed from Mr Nec there is a vacancy left in your firm I beg to make an application to apply for it.

I have worked in Graphic Chemical Products Co. for one year, then I join the China Printing and Finishing Co. for five years during which period I have learned a lot of finishing processes and machine services etc.

I can work very hard if you will let me have a trial I can soon proved to you my ability.

Hoping your early reply.

Yours obediently
Song Chen Sing.

Letter for job search, 1932. Association of Pudong, Shanghai Municipal Archives.

(3) Newspapers and journal articles

I also use newspapers and magazines from the period to analyze the supply and demand for labor, information about jobseekers, and ways that immigrants sought jobs. *Shen Bao*, *Economic Statistics*, *Industry Magazine* and *Life of Women* will be used, especially *Shen Bao*, which created a special section for job information for the large numbers of unemployed. This section came under different titles: “Self Introduction for Jobs” (for those seeking jobs), “Self Introduction for Special Jobs” (for those seeking special professions), and “Attention for Unemployed Friends” (for those offering jobs). The section ran from December 1932 until July 1935, which was the crisis period in Shanghai and China. But there was no fixed date or space for this section. It was an occasional publication, with 5 to 10 job ads appearing each time.

I have not found any published research that uses this information, except one dissertation titled, *Urban Unemployment in China 1927-1937* (Tan, 2006). The author analyzes the unemployment situation in major cities, such as Beijing, Shanghai, Guangzhou, Tianjin, and Hankou, and the public policies to resolve it.

I have collected all the job ads from this section in *Shen Bao*, a total of 76 individual advertisements. Since I do not have access to a digital version of the newspaper, omissions are inevitable. I try to supplement this information with articles from other newspapers and journals found in Shanghai Municipal Library, including articles about the general unemployment situation in Shanghai, the lives of unemployed people, ways that they found jobs in factories, and so on. In total, I collected more than 100 announcements and articles to analyze unemployment.

I also refer to about 10 articles from *Economic Statistics* and *Industry Magazine*.

II. “Moving to Shanghai”. Population Growth and Massive Immigration

在沪之人，多系客居，并无土著。

The people of Shanghai are all sojourners, and there are no natives.

--*Shenbao*, August 10, 1900:2

As seen in Chapter I, the historical trend in China's population is highly controversial. Lack of population censuses and registers at national level makes it even harder to verify the total population of China before the first census of 1953, and the debate has raged until today.⁵ Except for three years (1912, 1928 and 1936) and for very few provinces or municipalities (Zhejiang, Beijing, Shanghai, Nanjing), there are scant demographic statistics for other provinces, and no reliable statistical information on either the volume of immigration or its stages. As explained in Chapter I, the thesis focuses on Shanghai during The Republic of China for two reasons: first, Shanghai is the best example of intense urbanisation in China; second, there is detailed demographic information on Shanghai for this period, making the study of population and immigration possible.⁶

Over a hundred years ago, Shanghai underwent great population growth. In just a few decades, the city grew from a small coastal city with a population of under a quarter of a million into the largest metropolis in China and one of the biggest cities in the world, with over five million people by the mid-twentieth century (Wang *et al.*, 2002: 522-523; Lu, 1999: 25-27). This population expansion was, as will be shown in this chapter, the

⁵ Before 1953, it is believed that the total population of China during 1911 and 1949 was around 400 million, which was widely referenced by officials and Chinese and Western scholars (Domestic Affairs Year Book, 1928, 1937, 1949; Chinese Economic Yearbook 1929:18-21; Demographic Yearbook of UN, 1954; Caldwell, 1984:395; Hou 2000:3; Ho 1959:78). However, this was only an estimate and the figure was completely overturned by the 1953 census. China's population had reached 580 million by then, which may well indicate that it had already passed the 500 million mark in the 1930s. It is likely that China's population was almost near 500 million by 1900 (Lee and Wang, 1999: 216).

⁶ Established on January 1, 1912, The Republic of China lasted until the establishment of People's Republic of China in 1949. It was a relatively stable period from the set-up of the Nanjing government in 1927 to the outbreak of The Second Sino-Japanese War in 1937, and official statistics were drawn up during this time.

result of immigration. Due to the huge number of immigrants in the city, Shanghai was also called “The Immigrants’ City”.

This chapter attempts to first quantify and then explain the population growth and immigration in Shanghai, from The Port Opening after The First Opium War to the end of The Republic of China (1850-1949), especially during the Nanjing Government (1927-1937).⁷ I seek: (1) To quantify the population growth of Shanghai (1850-1949); (2) To estimate migration to Shanghai during the same period, and to quantify the immigration numbers during the Nanjing Government Era (1927-1937); (3) To analyse the demographic profile and characteristics of immigrants in Shanghai, comparing these with other big cities.

Relying on official historical statistics such as *General Records of Shanghai County* (1852-1910), compiled during The Qing Dynasty, *Yearbook of Shanghai* (1934-1937, 1945), by the Government of The Republic of China, and *Historical Archives of Foreign Settlement* (1855-1937), the first part of Chapter I will reconstruct population and immigration growth in Shanghai.⁸

The official figures of the censuses and population registers of this period have been criticised.⁹ According to Ho Ping-ti, in his *Studies on the Population of China 1368-1953*, “It would not be too unfair to say that all the official population figures between 1902 and 1927 were the result of governmental self-deception.” (Ho, 1959: 79). He argues that there was an unbelievable disproportionality in the sex ratio in Sichuan and Fujian provinces; that part of the household statistics in some towns and villages were

⁷ To end The First Opium War, the Qing Dynasty and United Kingdom signed the Treaty of Nanking in 1842. Five ‘Treaty Ports’ were opened for foreign trade, one of which was Shanghai.

⁸ Before 1927 Shanghai was a county under Jiangsu Province named ‘Shanghai County’ and from that year it became a municipality directly under the Central Government.

⁹ The official population statistics were given different names in different periods, and were given different names by different sources. In 1912, they were called National Household Statistics (全国户口统计), from 1915 the name changed to Household Census (户口调查) or Household Census Statistics (户口调查统计), in 1935 it changed again to Land and Population Census (土地人口调查), and in 1938 the name was Household Statistics (户口统计). Scholars usually use population censuses (普查), population registers (人口登记), or household registration (户口登记) with the corresponding years, such as for the 1912 census, 1937 household registration (Hou, 2000:3-15). To avoid confusion, in Chapter I term them ‘population/household statistics’. In some specific cases, I use the literal translation of the Chinese name.

identical, and the fabrication and copying of figures were even recorded in some local county annals (Ho, 1959: 73-79). In addition, there was no special institution for compiling a census from 1924 to 1934 due to frequent changes in the household register, and because it was difficult to stick to the same standard. The Police Department used to register households until the Special Police Corps took its place, and later it changed again to the restorative Neighbourhood Administrative System (Baojia System), which had once been abolished (Ho, 1959: 82-86). Household statistics during The Republic of China were not verified or revised to accurately reflect population changes (Jiang, 1993: 87). Perkins argued that the statistical error caused by the census methods used during The Republic of China was much bigger than that of the census methods used by industrialised countries (Perkins, 1984:251). Hou has analysed the problems of several censuses conducted during The Republic of China. As for the 1912 census, there were eight provinces with no statistics; the data of Henan and Shanxi provinces were clearly fudged; Beijing's population was counted into Hebei province; the lack of timely submission of returns was the gravest problem in the 1928 census, with only 13 provinces reporting the household statistics by 1930. Compared with the sources above, the National Household Statistics by Electoral Districts in 1936 was more comprehensive than the national demographics statistics, as it covered almost all the cities and counties in China (Hou, 2000:3-10).

Although national statistics have been criticised by scholars, Shanghai's statistics have been considered to be of higher quality. In fact, Shanghai reported its complete population statistics to the central government in each national census on time, in spite of its administrative region changes.¹⁰ During the years of the Nanjing Government (1929-1937), population registration both in Chinese Districts and foreign concessions was detailed and uninterrupted (Hou, 2000: 3-10; Hou, 2001: 161-164; Hu, 1987: 45-47). There were also supplementary surveys conducted by academic groups that were recorded in the series reports published by the Social Bureau of Shanghai Government (Social Bureau Reports from 1927-1937). Even though there were problems in the national statistics, the credibility of the regional household statistics cannot be denied, which is what counts for research on the regional population of The Republic of China (Hou, 2000: 7).

¹⁰ The change from Shanghai County to Shanghai City in 1927.

Thanks to these data, Shanghai's population can be traced back to 1852. However, Shanghai's migration statistics are only available for eight years (1929-1936), and I reconstruct the immigration series for these years.¹¹ For all the other years, I have produced estimates based on the difference between real population growth and natural growth. To solve the problem of the lack of data, studies on historical migrations usually use indirect methods to calculate the net migration volume, and use the difference between real population growth rate and natural growth rate (Schmertmann, 1992). I follow this method to estimate the series for immigration in Shanghai. After the reconstruction of the series of Shanghai's population, I calculate its real growth rate in each period. The existing data on Shanghai only allowed calculation of the natural growth rate for 1927-1937 based on official birth and death rates. For the remaining years, I use Zhang (1989) and Hou's (2001) estimates. Based on their data I have estimated the number of Shanghai immigrants for each period. Due to the limited data available, this is the best estimate one can come up with.

Finally, using the archives of 'native-place associations' (*tong xiang hui*) and the official surveys during the Republic, I will analyse the characteristics of the immigrants to Shanghai, such as age, sex, marital status, education, and origin. Shanghai had several unique features as a destination for emigrants and the incomers transformed the city's make-up.

II.1 Shanghai's Population growth

II.1.1 Population series of Shanghai 1852-1949

There have been several attempts to reconstruct the population of Shanghai: the most cited one is the comprehensive collection of data by Zou (1980), a summary of statistics from various sources during the Chinese Republic, including population, demographic distribution, gender and age, widely cited by scholars.¹² Xie (1980) and Chu (1985)

¹¹ During 1929-1936, Shanghai Government recorded the city's population mobility on a monthly basis. The figures were broken down by male and female immigrants and emigrants.

¹² The sources used by Zou to compile Shanghai's demographic statistics table include: *Shanghai County Annuals* (《上海县志》), *Shanghai Yearbook* (《上海市年鉴》), *Shanghai Municipal Government Bulletin* (《上海市政公报》), *Shanghai International Settlement Annual Report* (《上海公共租界工部局年报》), *Shanghai French Concession Municipal*

have reviewed the history of Shanghai's population changes, the first starting from the Northern Song Dynasty (1074) when Shanghai was established as a town (*zhen*), and the latter since the establishment of Shanghai County during the Yuan Dynasty (1292).¹³ Hou and Ge both briefly reviewed the demographic changes of Shanghai in *History of China's Population* (2001) and *Immigration History of China* (1997), two large-scale studies on Chinese population history. In addition, Hou (1995) analyses the population changes in Shanghai based on the current administrative division of Shanghai.

These studies have laid sound foundations for the study of Shanghai's population but they are nevertheless subject to the following limitations:

1. Most of these population series are incomplete and discontinuous, selecting data of a certain period instead of constructing a complete long-term population series. In Hou's study, only five years' population statistics of Shanghai (1931, 1936, 1946, 1947, 1948) were fully listed, and all of them came from the National Household Statistics (Hou, 2001: 160-162). The series by Xie included data from only the years 1914, 1920, 1928, 1937 and 1945, which the author explained thus "due to the social unrest, there were no reliable Shanghai population statistics for reference except those from the concessions" (Xie 1980:108-109). Zhou and Wu's study was based on *Shanghai County Annals* (《上海县志》) and Shanghai Household registration during 1927-1936 but only the population of Shanghai in 1865, 1910, 1915, 1927 and 1930-1937 was listed (Zhou and Wu, 1985:94-96). Xie, Zhou and Wu did not explain the reasons for choosing these years.

2. Shanghai's administrative divisions are confusing. The administrative divisions of modern Shanghai have changed on several occasions. From the affiliation of Jiangsu Province to the municipalities directly controlled by Central Government, both the area and the authority of Shanghai have gone through major changes, which have not been

administration Council Annual Report (《上海法租界公董局年报》), *Shanghai in the Statistics Table* (《统计表中之上海》), *Brief Records of Population of Shanghai* (《上海人口志略》), *Consolidated Statistics of Shanghai in 1949* (《1949年上海市综合统计》), etc. The first five were the official documents published by Shanghai Government, and are also the main sources for this research. However, *Brief Records of Population of Shanghai* (《上海人口志略》) did not explain a clear data source and could not be tracked and verified.

¹³ *Zhen* was one of the lowest levels of the administrative divisions in China, which could equal to small towns in western countries.

systematically taken into account in the analysis of the population. Changes in Shanghai's administrative division were not reflected in Zou's study (Zou, 1980). Hou took this change into account but his study was based on the current administrative division of Shanghai. Areas such as Songjiang, Jiading, Baoshan and Chongming, were not included in the city's population records until 1958, so his study might fail to reflect the total population of Shanghai during The Republic of China (Hou, 1995).¹⁴ Chu's was the only study that fully discussed the changes in the city's administrative limits and it also includes an analysis of the population density (Chu, 1985).

3. Data were used without verification. Some studies neither evaluated the credibility nor adjusted the data for specific usage, causing data inconsistencies.

Zou's (1980) and Zhang's (1989) are the only studies that establish a long-term, complete series of Shanghai's population among the existing studies and their data have been used by almost all later researchers (Chu, 1985; Honig, 1992; Hou, 1995; Xin, 1996; Lu, 1999). Zhang conducted his studies based on Zou's work but he did not review any of the data he used. Although he added five years to the series (1876, 1885, 1890, 1900 and 1905), it is hard to verify their accuracy because he failed to disclose the source of his data (Zhang, 1989:27-29). However, as the first complete series of Shanghai's population, Zou's data still has two main problems:

Firstly, instead of calculating the population for the years without data, he filled the gap with exactly the same data as that from a year before or a year after (1865, 1910, 1915, 1927, 1935, 1937 and 1942). For example, the population of Chinese Districts in 1910 (missing) was directly replaced by that in 1909 as 671,866 in Zou's data. Yet the increase of population in 1910 should be 751,163 if it were calculated using an average annual growth rate of 11.8% from 1909 to 1914, so the total population of Shanghai for that year should be 1,368,650 rather than Zou's 1,289,353. This methodology might be particularly misleading in years with large population changes.

Secondly, some figures were referenced without verification. For example, according to Zou, the population of The International Settlement in 1853 was less than 500

¹⁴ In 1958 ten counties of Jiangsu Province were incorporated into Shanghai, which expanded the city area eight-fold.

individuals, explaining that this figure was mentioned in both *Shanghai General Social Situation* (《上海社会概况》) and *Shanghai County Annals* (《上海县志》). Yet we know that the population of the international settlements was 20,243 two years later (1855), which suggests that Zou's figure for 1853 is unreliable, since the area of the concessions had stayed the same and there had been no sudden population influx.¹⁵ According to the re-verification of *Shanghai County Annals* (1853), the figure of 500 actually referred to the population of the British Concession in that period, rather than to the whole International Settlement. As the first census of The International Settlement was conducted in 1865, the population before it was unknown.

Considering the shortcomings and problems of existing studies, the primary objective of this chapter is to reconstruct the population of Shanghai with verified data and following the standard international methodology for this. The main contributions made by this reconstruction are:

(1) To verify and correct Zou's population series (1852-1950), and to reconstruct a complete population series of the population of Shanghai from 1865 to 1950.

(2) Adopting the commonly accepted official data, removing the data from unknown sources by Zou and others, and screening out the doubtful data, such as the population of concessions in 1853 and that of the Chinese District in 1942.

(3) Instead of replacing the missing years with the figure one year before or later, I calculate the annual average growth rate of the interval estimation by drawing on the existing data in the most similar years, then the estimated population, and fill the missing data with these estimated figures, in italics (Table II.2). Data for the population of The Chinese Districts, the international settlement and The French Concession has been calculated separately rather than employing the general calculation with the total population growth rate, which ensures the accuracy of the figures.

I also identify the main changes in the population series, from the Shanghai Port-Opening (1842) to the establishment of The People's Republic of China (1949). The

¹⁵ The set-up of Britain and American concessions was in 1843 and 1848 separately, and after that the area of International Settlement was stable.

official census data available during this period include:

(1) Census during the Xuantong Era towards the end of The Qing Dynasty (1908-1911). In view of the objectives and the methodology used, the first modern Chinese census (Ge and Hou, 2001:54) is considered. In particular, the Household Registration Law was drafted based on this census.¹⁶ Because of its effective implementation, the data from this census are considered credible (Ge and Hou, 2001:20-26). However, since Shanghai was not an independent city but affiliated to Jiangsu Province at that time, the data refers only to the population data of Shanghai County.

(2) The first population census during The Republic of China (1911-1949), which was carried out in 1912. This census includes, for the first time, information on the number of households, sex, age, occupation, marriage, and deaths caused by infectious diseases, and is considered to be the most detailed census in Chinese history (Liu, 1931:11-12). Based on the standards and problems during the execution of this census, the government of The Republic of China also promulgated two census rules: *Police Agency Households Investigation Rules* (《警察厅户口调查规则》) and *County Households Investigation and Formulation Rules* (《县治户口编查规则》), and the census continued to 1927. As Shanghai was still affiliated to Jiangsu Province at that time, only the provincial data is available in the Ministry of the Interior statistical report, yet The Chinese Districts of Shanghai conducted the censuses in 1914 and 1927 in accordance with the rules of this national census.

(3) The Nanjing Government census and household registration (1928-1936). The Nanjing Government of The Republic of China was established in 1927, and conducted a national census the next year. Although the implementation of this census was incomplete — only 16 provinces and 5 municipalities (including Shanghai) reported — the government gradually improved the household registration system after that. On April 27, 1934, the Republican government promulgated the *Household Registration Law* (《户籍法》), which was the first household registration law that was formally

¹⁶ *Household Registration Law* 《户籍法》 was China's first ever attempt to regulate the household registration system, using international methods and practices to manage the census. It was planned by Emperor Xuantong in 1908, but finally the Act was not put into effect because of the collapse of The Qing Dynasty in 1911.

implemented in Chinese history. Thus, the statistics of the population in Shanghai during this period are the most accurate. Not only the population for each year but also data on migration, age, gender, marital status, occupation and other information were gathered. This is one of the most important statistical sources for the study of the population in Shanghai during The Republic of China, and it is also the main source of data in this research.

(4) Demographic statistics of the Shanghai concessions (1865-1937).¹⁷ After The Treaty of Nanking was signed, Britain, France and the U.S. established the concessions in Shanghai one after another in 1845. The International (Anglo-American) Concession conducted the first census in 1855, and then every five years from 1865 to 1937; The French Concession conducted two censuses, one in 1865 and the other in 1879, and censused every five years from 1890 to 1936. This data has been added to the data from the Chinese residential areas of Shanghai to yield a complete data source on the city's population.

Table II. 1. shows the population of Shanghai according to official sources:

Table II.1 Population of Shanghai according to official statistics (1852-1949)

Years	Chinese Residential Areas	International Settlement	French Concession	Total
1852	544,413	--	--	--
1855	--	20,243	--	--
1865	--	92,884	55,925	--
1866	543,110	--	--	--
1870	--	76,713	--	--
1876	--	97,335	--	---
1879	--	--	33,660	--
1880	--	110,009	--	--
1885	--	129,338	--	--
1890	--	171,950	41,616	--
1895	--	245,679	52,188	--

¹⁷ As explained in Chapter I, before 1945, the city was split into Chinese Districts, The International Settlement, and The French Concession.

1900	--	352,050	92,268	--
1905	--	464,213	90,963	--
1909	671,866	--	--	--
1910	--	501,541	115,946	--
1914	1,173,653	--	--	--
1915	--	683,920	149,000	--
1920	--	783,145	170,229	--
1925	--	840,226	297,072	--
1927	1,503,922	--	--	--
1928	1,516,090	--	--	--
1929	1,620,187	--	--	--
1930	1,702,130	1,007,868	434,807	3,144,805
1931	1,865,832**	1,025,231	456,012	3,347,075
1932	1,580,436	1,074,794	478,552	3,133,782
1933	1,795,953	1,111,946	496,536	3,404,435
1934	1,925,778	1,148,821	498,193	3,562,792
1935	2,044,014	1,159,775	--	3,701,982
1936	2,126,603**	1,180,969	477,629	3,785,201
1937	--	1,218,630	--	--
1940	1,479,726	--	--	--
1942	--	1,585,673	854,380	--
1945	--	--	--	3,370,230
1946	--	--	--	3,599,193**
1947	--	--	--	3,853,511**
1948	--	--	--	4,630,385**
1949	--	--	--	5,062,878

Notes: ** There are differences between the results of the Shanghai Yearbook (published by the Shanghai Government) and National Household Statistics (published by the Central Government's Ministry of the Interior). Here I use the Central Government's figures.

Sources: Archives of the General Records of Shanghai County (1852-1910); Statistics of Shanghai 1933; Yearbook of Shanghai (1934-1937, 1945); National Household Statistics of the Ministry of the Interior (1931, 1936, 1946, 1947, 1948); and Annual Reports of Foreign Settlements (1855-1937).

During this period, the administrative divisions of The Chinese District changed: During 1850-1927, it was Shanghai County and belonged to Chuansha (a prefecture-level city

of Jiangsu Province), then in 1927 it became the areas of Greater Shanghai except The International Settlement and The French Concession, and which mainly comprised Chinese Residential Areas. In Table, I put ‘Chinese Residential Areas’, which refer to the same region in order to measure the long-term demographic changes. The size of the three areas in the table changed slightly during these 100 years: The Chinese District shrank from 557.8 square kilometers to 527.5 km² in 1927; The International Settlement grew from 7.67 to 22.60 km² in 1899, and The French Concession spread from 1.45 to 10.22 km² in 1914. The real changes were very small, and the total area of Shanghai stayed about the same during the period from 1852 to 1949, so this had little impact on the population.

Based on the table above, I have calculated the figures for the added gaps by using the average annual growth rate of Shanghai’s population for similar years. Because of the given data, the calculation started from 1865, for each 5 years, and each column is calculated separately. For example, for 1880, the population of Chinese Residential Areas was based on the population in 1866, using the average growth rate of this area between 1866-1909 (the two closest years with available official figures), yielding a population of 582,063 for this year. A similar method is used in some studies to estimate historical demography when the data is insufficient (Ho, 1959:328-330; Luo, 1932:21-22). Following the method, the Shanghai population series was reconstructed as below:

Table II.2 Reconstruction of Shanghai’s Population (1852-1949)

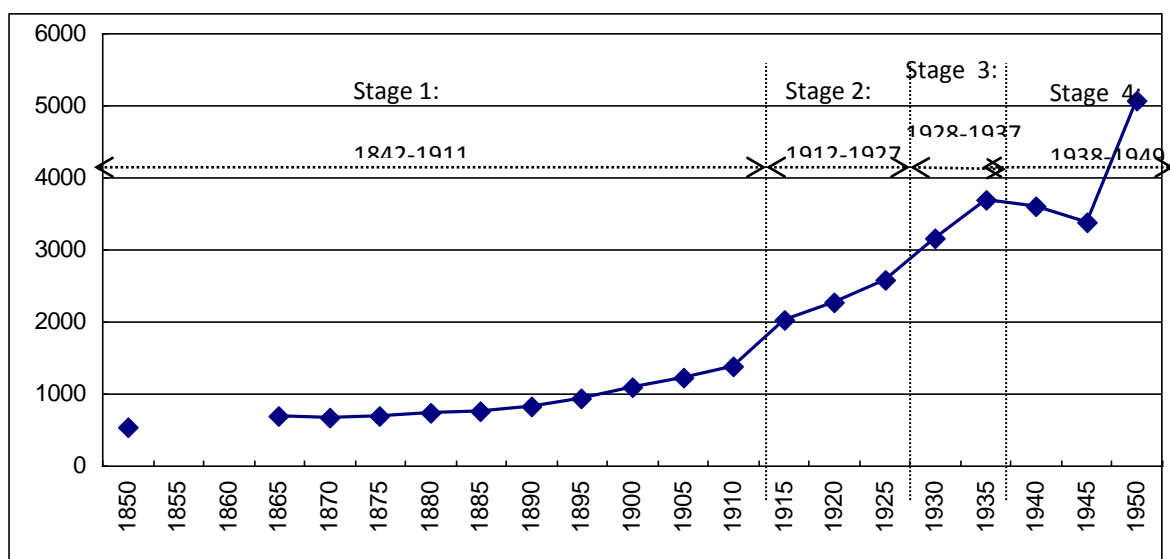
Years	Chinese Residential Areas	International Settlement	French Concession	Total	
				Population	Average annual growth rate (%)
1852	544,413	--	--	544,413	--
1865	543,110	92,884	55,925	691,919	1.86
1870	553,965	76,713	46,651	677,329	-0.43
1875	567,840	91,865	38,915	698,620	0.62
1880	582,063	110,009	34,316	726,388	0.78
1885	596,641	129,338	37,790	763,769	1.01
1890	611,585	171,950	41,616	825,151	1.56
1895	626,903	245,679	52,188	924,770	2.31

1900	642,605	352,050	92,268	1,086,923	3.28
1905	658,700	464,213	90,963	1,213,876	2.23
1910	751,163	501,541	115,946	1,368,650	2.43
1915	1,196,253	683,920	149,000	2,029,173	8.19
1920	1,315,954	783,145	170,229	2,269,328	2.26
1925	1,447,632	840,226	297,072	2,584,930	2.64
1930	1,702,130	1,007,868	434,807	3,144,805	4.00
1935	2,044,014	1,159,775	487,803	3,691,592	3.26
1940	1,479,726	1,427,174	703,824	3,610,724	-0.44
1945	--	--	--	3,370,230	-1.37
1949	--	--	--	5,062,878	8.48

I plot the above data in Figure II.1 below:

Fig. II.1 Population of Shanghai and Main Stages (1850-1950)

Thousands



Sources: Author, based on data from Table II.2.

In addition to the above recalculation, numbers have been adjusted for several years for the following reasons:

(1) Before 1853, there were very few people in The International Settlement but the exact number is unknown (Chu, 1980:73; Hou 1995: 61-62). I have used The Chinese District populations instead of the total population for 1852.

(2) Before the foundation of The Republic of China in 1911, there is a lack of information on the population of The Chinese District of Shanghai. We can only find the population statistics for 1852, 1866 and 1909 in the official statistics (*General Records of Shanghai County*). The five-year census of The International Settlement and The French Concession began in 1865. This explains why the first part of the series is discontinuous.

(3) Since data for The Chinese District were missing for 1865, I adopted the figures for 1866. As shown in the statistics, the population of The Chinese District remained stable during that period, so the difference in the figures between 1865 and 1866 would be very minor.

(4) The census of The Chinese District before 1929 excluded foreigners. However, foreigners never made up over two per cent of the population so their impact on the total figures would be very slight.

II.1.2 Main stages in Shanghai's population growth

As Fig. II.1 shows, within the span of close on a century, Shanghai's just over nine-fold growth from 544,413 in 1852 to 5,062,878 in 1949. Taking the changes of governments and the expansion of Shanghai into account, one can discern four stages in the city's population growth.

Stage 1. 1842-1911: The first stage stretches from the opening of the trading port in 1842 to the foundation of The Republic of China in 1911. The population rose from under half a million to about 1.3 million, and the annual growth rate reached 15 per thousand, while China's growth rate was just 0.6 per thousand (Zhang, 1989: 28-29).¹⁸ Shanghai's population growth was much higher than the national average.

The spurt in population growth in this period was not the result of city enlargement. From The Jiaqing Emperor of The Qing Dynasty (1810), when Shanghai County's

¹⁸ Average annual growth rate of total population of Shanghai (calculated at five- year intervals) is shown in Table II.2, and average growth rate according to four stages could be seen in Table II.5.

administration area was altered, the city's area stayed at 557.85 square kilometers until 1927. Thus one can rule out changes in area as a factor affecting Shanghai's population growth.

Phase 2. 1911-1926: The Revolution of 1911 overthrew the last feudal dynasty and gave birth to The Republic of China. Shanghai's population growth peaked during the first period of The Republic of China, from 1911 to 1926. Population doubled in just 16 years, soaring from 1.3 million to 2.6 million. The annual growth rate was 49 per thousand, one of the fastest growth rates in China's and the world's urban population history (Zhang, 1989:30-32).¹⁹

Western countries underwent rapid urbanisation from the nineteenth century but the increase in urban population in developing countries from 1950 onwards had no historical precedent and was double that undergone in developed countries (Preston, 1979; Firebaugh, 1979:201; Rogers and Williamson, 1982:463; Kasarda and Crenshaw, 1991:467). From 1950 to 1985, urban population in developing countries expanded from 285 million to 1.2 billion²⁰, which equates to a growth rate of over 40 per thousand. For example, Mexico City and Sao Paulo grew by over 8 million in under 15 years, however it took New York City nearly a century and a half to achieve this growth (Lowry, 1990:7; Kasarda and Crenshaw, 1991:469; Williamson, 1988: 287-314). The population growth rate of Shanghai during this phase reached or even outstripped that in developing countries after 1950.

During this period, China's population grew by an average of about 1.2 per thousand per year and the world's population growth rate was 6 per thousand (Zhang 1989, 30-31). Had Shanghai grown at 6 per thousand (that is to say, at the world's average population growth rate), and taking 825,000 people in 1890 as the base, one would have expected the gross population of Shanghai in 1927 to have been 1.03 million — much less than the 2.64 million actually reached. Clearly, the average growth rate over the

¹⁹ According to Zhang, the fastest urbanisation in the world took place between 1950 and 1975, and the average growth rate reached 31‰ (Zhang, 1989:30-32). But calculated with the data of other scholars, this rate could exceed 40‰ in developing countries after 1980 (Kasarda and Crenshaw, 1991:469).

²⁰ The short-scale [*échelle courte*] billion is used throughout (10^9) rather than the long-scale [*échelle longue*] billion (10^{12}).

period was much greater than 6 per thousand.

Stage 3. 1927-1937: Shanghai's rapid population growth lasted throughout the Nanjing Government (1927-1937). Total population rose from 2.64 million to 3.85 million, and the annual growth rate was 38.5 per thousand. It was another peak period in Shanghai population growth and set a record for the world's fastest-ever urbanisation, mentioned above. Had natural population growth followed the world average of 2.1 per thousand during this period (see Table II.5) until 1937, the population of Shanghai should have been about 2.8 million. That would have been about a million short of the city's actual population at the time. Here, one should note that the administrative area change during this period was not a factor of population growth for Shanghai. In 1927, The Nanjing Government established Shanghai as a municipality directly administered by Central Government and also altered its area, reducing it from 557.85 to 527.5 square kilometers (comprising: The Chinese District (494.7 km²); The International Settlement (22.6 km²); The French Concession (10.2 km²). Thus population growth was not caused by an increase in city area.

Stage 4. 1938-1949: The last period of The Republic of China was a turbulent time, and the population of Shanghai rose and fell as events unfolded. During the first period of The Second Sino-Japanese War (1937-1945), Shanghai's population grew slowly from 3.85 million in 1937 to 3.91 million in 1942, and then plummeted to 3.37 million as many fled the city. At the end of The Civil War (1945-1949), an influx of over 2 million people caused a new peak in Shanghai's population. By March 1949, the population of Shanghai reached almost 5.5 million, making it one of the biggest cities after New York, London, Tokyo, and Paris (UN database).

During 1945-1949, the annual growth rate of Shanghai's population reached an exceptionally high 119.7 per thousand, caused by the return of those who had fled the city at the outbreak of The Second SinoJapanese War and the influx of refugees from other provinces during The Civil War. In this period, the administrative area of Shanghai grew from 527.5 km² to 617.9 km² but the new area was less populated than the suburban area and the gross population gain attributable to the enlargement was under 50,000 people, or 1 per cent of Shanghai's total population (Chu, 1980:73-75).

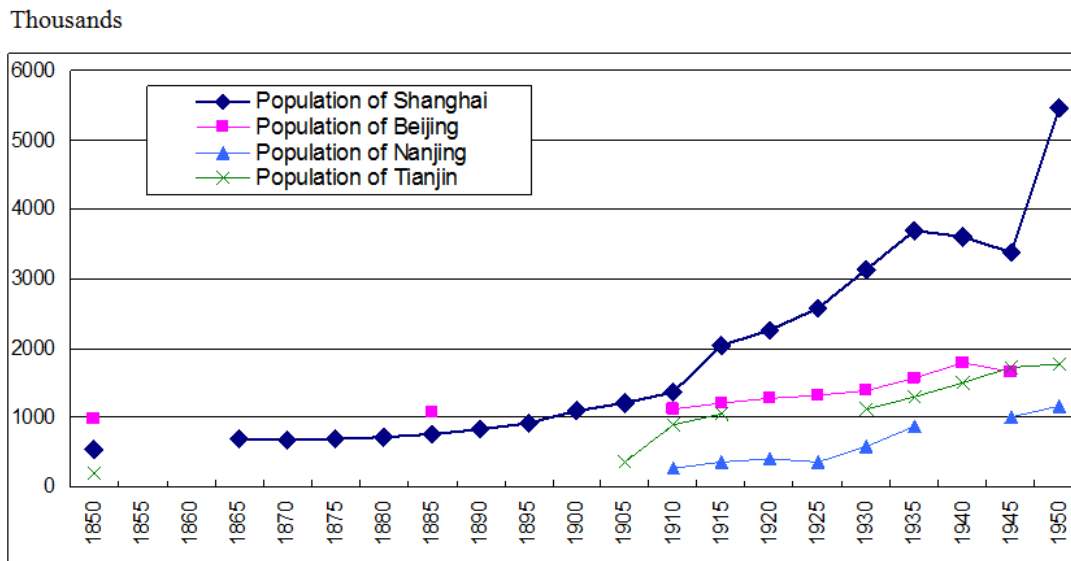
II.1.3 Shanghai's growth in comparison with the world's largest cities

In under a century, Shanghai developed from a small county to a vast metropolis, the largest in China and one of the world's biggest cities. Such population growth has few equals in either China or abroad.

From the mid-19th century to the establishment of The People's Republic of China in 1949, Shanghai's population soared from 540,000 to 5.45 million, an almost ten-fold increase, in which average annual growth was 22.2 per thousand; During the same period, the population of China rose from 430 million to 550 million, with an average annual growth rate of just 2.5 per thousand (Zhang, 1989:30; Wang and Lee, 1999: 40-41). Shanghai's population growth rate was nine times that of China's. From 1850 to 1950, the world's population grew from 1.26 billion to 2.51 billion. Although the world's population doubled, the average annual growth rate was 6.9 per thousand, which was also much lower than that of Shanghai (UN database; Maddison, 2008: Historical Statistics of the World Economy).

As Fig. II. 2 shows, compared with the largest cities in China (Beijing, Nanjing and Tianjin), Shanghai's population growth is still exceptional. The population expansions of Beijing and Nanjing amounted to no over one million people during the same period. The population of Tianjin increased by over a million but never reached 2 million. Since 1910, the population of Shanghai has overtaken that of other cities and it has become the largest metropolis in China. From then on, the population gap between Shanghai and other cities gradually widened. By the end of The Republic of China, Shanghai's population was over double that of other big cities.

Fig. II.2 Population of the four largest Chinese cities (1850-1950)



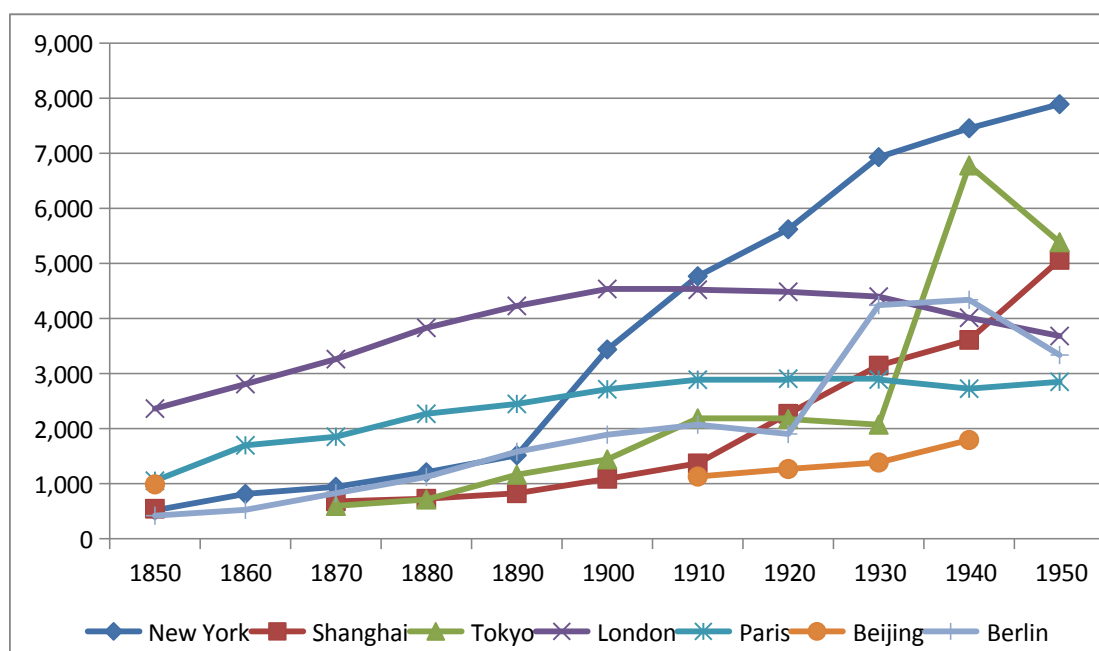
Source: Author, based on data from: Population of Shanghai: sources as above. Population of Nanjing: Nanjing Local Chronicle, 2001: 55-58. Population of Beijing: Han, 1996: 120-134; Ge and Hou, 2001: 105-107. Population of Tianjin: Ge and Hou 2001: 105-107; Zhang 1998: 192-195.

Subject to the economic development and the agriculture-based economic structure, China's population growth pattern followed a "high birth rate, high death rate and low growth rate" pattern (Zhang 1989: 30-32), with a natural population growth rate below 1 per cent for a long time. Although the natural population growth rate in Shanghai was slightly higher than China's average, the main reason for the spurt in the city's numbers was neither this nor changes in the city's administrative area. Although the city's administrative divisions were changed several times, they had little impact on population size.

Compared with large international cities during the same period, the population growth of Shanghai was also one of the fastest, especially after 1910 (Fig II.3). In only 30 years, its population outstripped that of the main European cities. Furthermore, this growth came without expansion of the urban area. This marks an important difference with cities, such as Berlin in 1920 and Tokyo after 1932, where growth was fuelled by expansion of the city area.

Fig. II.3 Population of the world's largest cities (1850-1950)

Thousands



Note: To facilitate comparison, figures for London correspond to Inner London, and the total population of Greater London from 1850 to 1950 went from 2.65 million to 8.20 million. For Paris, data of the City Proper is used, meanwhile the Urban Area of Paris had over 5 million inhabitants in 1925.

Source: Drawn up from the official data of each country: U.S. Bureau of the Census; Historical Census Population, Office for National Statistics (ONS), UK; INSEE, France; Government Statistics Portal, Japan; Berlin State Statistical Office, Germany. The sources of Beijing and Shanghai are the same as in the above Figure.

The population expansion of Shanghai happened almost in the same period as in Western cities and was caused by the Industrial Revolution. In 1850, only three cities in the world had over a million population: London, Beijing and Paris, and only 110 cities had over 100,000 inhabitants. After the urbanisation in The West, in 1950 the number of large cities grew to almost 1,000, and more mega-cities sprang up, one of them being Shanghai (Golden, 1981). Its growth was slower in the first 50 years but it caught up with these European and American cities as a result of strong growth from 1910 onwards. As a city in a pre-industrial country that had started economic expansion much earlier than other cities in developing countries, it might be seen as an exceptional case in the population studies field.

II.2 Ongoing Growth of Immigration to Shanghai

Scholars who have studied Shanghai's population history have all argued that its rapid population growth was mainly due to massive migration (Wang *et al.*, 2002:523; Lu, 1999:43; Xin, 1996:40-44). The large-scale, continuous flow of immigration from all the Chinese regions caused the city's huge population expansion. The statistics on the origins of those living in Shanghai confirmed revealed that it was indeed an 'immigrant city'. From the late nineteenth century to the late 1920s, non-Shanghai natives consistently made up about 85 per cent of the city's population. During the Nanjing decade (1927-37), the percentage of non-Shanghai natives dropped slightly (to near 78% in The International Settlement, and to about 75 per cent in Greater Shanghai (Tables II.2 and II.3), possibly because second and third generations of migrants already identified themselves as Shanghainese and reported their native place as Shanghai.²¹ Yet the outbreak of the Sino-Japanese War in 1937, followed by The Civil War (1946-49), brought new tides of immigrants to the city. By the end of the Sino-Japanese War, non-natives still accounted for 80 per cent of the population; in January 1950, the percentage of non-natives had risen 85 per cent (Zou 1980:113-117).

Table II.3 Shanghai and non-Shanghai natives in the city's International Settlement (1885-1935)

Year	Shanghai natives	Non-Shanghai natives	Shanghai natives %	Non-Shanghai natives %
1885	15,814	93,492	15	85
1890	24,315	118,839	17	83
1895	40,470	178,836	19	81
1900	56,742	242,966	19	81
1905	67,600	322,797	17	83
1910	72,132	341,182	18	82
1915	91,161	448,054	17	83
1920	117,039	565,437	17	83

²¹ The ration of natives to non-natives in The Chinese Districts was slightly higher since The Chinese Districts included certain rural areas where inhabitants were mostly Shanghai natives. No data on the ratio are available for The French Concession. But the 1947-49 surveys on the three districts (Songshan, Lujiawan, and Changshu) that formerly made up The French Concession found that the populations of non-natives in these districts were as high as 90 per cent of the total. See Zou Yiren 1980: 112-113, tables 20 and 21.

1925	121,238	660,848	27	83
1930	200,230	710,644	22	78
1935	236,477	884,383	21	79

Source: Author, based on data from Zou 1980:112; Luo 1932: 21-31; Statistics of Shanghai 1933:19.

Table II.4 Shanghai and non-Shanghai natives in The Chinese Districts of Shanghai (1885-1935)

Year	Shanghai natives	Percentage in total population %	Non-Shanghai natives	Percentage in total population %
1929	426,648	28	1,073,852	72
1930	486,337	26	1,255,998	74
1931	455,662	25	1,368,327	75
1932	430,875	28	1,140,214	72
1933	473,638	26	1,362,991	74
1934	488,631	25	1,426,063	75
1935	513,704	25	1,518,695	75
1936	513,810	24	1,631,507	76

Source: Author, based on data from Statistics of Shanghai (published in 1933, 1934, 1935, 1936, 1937), The Shanghai Civic Association.

Compared with Shanghai, the proportion of immigrants in the total population in other cities is much lower. New York is the city with the highest population growth in Western countries in the same period (Lowry, 1990: 150), and its highest population growth rate was similar to that found in Shanghai's fastest growth spurt.²² However, New York's immigrants did not reach such a high percentage of the total population as in Shanghai. During the fastest expansion period of 1850-1910, the population of New York grew from 500,000 to over 5 million but the proportion of immigrants in the total population did not exceed 50 per cent. The peak was in 1870, with 50 per cent, and in the remaining years it was around 40 per cent (Rosenwaik, 1972:77; Bogen, 1987:36). The population of London once made up over 50 per cent of Britain's urban population (before 1800), and it attracted the lion's share of immigrants in the UK. However,

²² The population growth rate reached 39‰ during 1880- 1920, and Shanghai rapidest growth period was 49‰ in 1911-1927, and 38.5‰ in 1927-1937. Calculated according to the sources given for Fig. II. 3.

during the period with the highest migration rate, the immigrants accounted for just 40 per cent of its total population. After the Industrial Revolution, other cities attracted more immigrants and London's population as a proportion of the British urban population dropped to about 25 per cent. As a result, the immigrants' weight in London's population was further reduced. (Boulton, 2000: 315; Landers, 1993: 41).

The situation in developing countries after 1950 is similar. The population of Mexico City grew from 1.6 million in 1940 to 14.8 million in 1990, and it was mainly caused by internal migrants and their reproduction. However, during this period, the proportion of immigrants never exceeded 50 per cent of the total population, which hovered around 45 per cent (Gutiérrez and González, 1990). One explanation of this phenomenon could be that Shanghai was not a big city (indeed, it was a small town) before The Port Opening (1842), and the original population was small. The massive migration in a short time led to a high proportion of immigrants in its population. Other cities such as London were already large cities, and the number of immigrants did not exceed the existing population. The growth of megacities in developing countries after 1950 was driven by both high natural growth (over 30 per thousand, Gutiérrez and González, 1990) and immigration. However, China's natural population growth in this period was very low at below 5 per thousand (Hou, 2001). Therefore, this comparison further confirms that rapid, massive migration turned Shanghai from a small town into a megacity.

II.2.1 Massive immigration in Shanghai

The lack of immigration statistics makes it impossible to reconstruct the immigration series of Shanghai as I did with the population series. Demographers use two ways — direct and indirect — to measure the internal migration. Direct measurement requires the existence of a complete and continuous registration of the movement of population, a type of data that only exists in a few developed countries (Schmertmann, 1992:103). Indirect methods are used in those countries with insufficient data. For instance, the survival ratio from censuses has been used to estimate inter-provincial migration in Pakistan between 1971 and 1981 (Perveen, 1993). However, this method needs to follow the same cohorts in successive censuses to calculate the ratio of numbers. Shanghai's data do not allow one to trace the same groups in different periods.

Schmertmann proposed estimating a country's internal migration using a single census. Focusing on Brazil, he used place of birth, place of residence, and age information to compare observed lifetime migration rates (Schmertmann, 1992). It is a good method for measuring internal migration with scarce data but it also requires the census to be of different regions — something that is also missing in China. As explained in Chapter I, censuses in Shanghai only offer information on place of birth for the period 1929-1936. When only very limited information is available, the literature has tried to estimate the volume of immigration by calculating the difference between the natural population increase and the population growth.²³ This method has been used by both Chinese and European scholars to estimate historical migration before 1949 (Zhang 1989:30-32; Xin, 1996:40-44); in Barcelona during 1901-1930 (Silvestre, Ayuda and Pinilla, 2015:4); net migration in London 1550-1750 (Wrigley and Schofield, 1981:168); and in Casablanca before 1950 (Puschmann, 2011:82), among others.

Chapter I follows this latter method: to estimate the net migration rate and numbers by breaking down population growth in Shanghai and analysing the difference between real population growth and natural increase. The results are shown in Table II.5 and Fig. II.4.

The real population series of Shanghai have been reconstructed in the above section, and I use this to base my calculation of the city's growth rate of different periods. The natural growth rate data are not complete, and I use the following methodology: calculation of the natural increase rate for 1927-1937 is based on birth and death rates in Shanghai during 1929-1936 as shown in Shanghai Government statistics; Natural increase rates of Shanghai during 1911-1926 and 1938-1949 are calculated by Zhang and Hou (Zhang, 1989:28-29; and Hou 2001:355-357, 443); Finally, I use the national average rate of 1852-1910 to substitute the natural increase rate of Shanghai because of lack of data.

²³ Natural increase is the difference between the numbers of births and deaths in a population. The population growth depends on the rate of natural increase and net migration. United Nations Statistics Division (2014): *Overview of Demographic Concepts and Methods*.

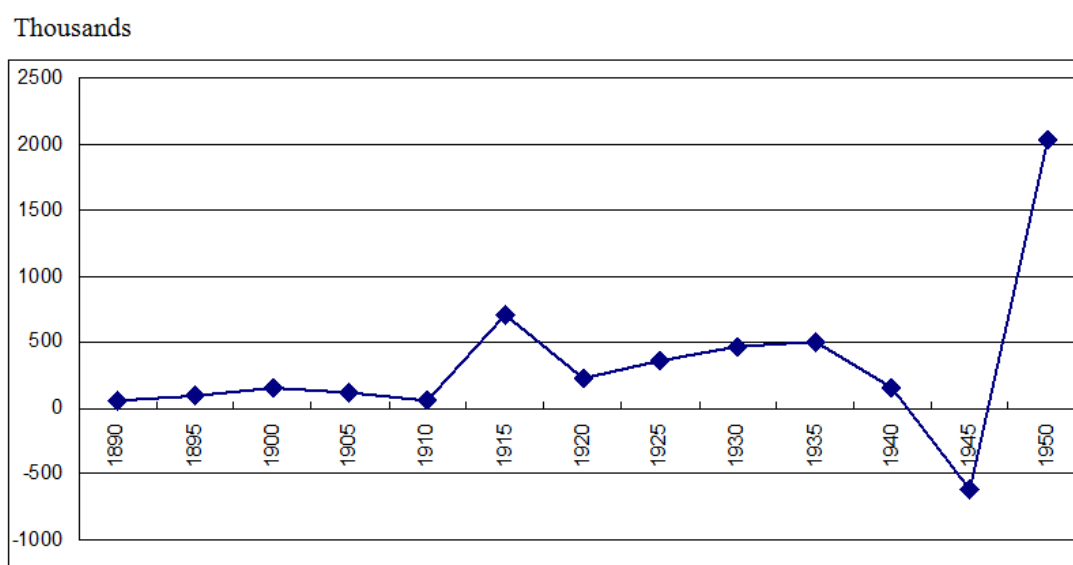
Table II.5 Estimation of Net Migration Rate in Shanghai

Period	Annual growth rate (‰)		
	Population growth	Natural increase	Net migration
1852-1910	15.0	0.6	14.4
1911-1926	49.0	9.8	39.2
1927-1937	38.5	2.1	36.4
1938-1949	25.2	3.6	21.6

Sources: Author, based on data from Statistics of Shanghai 1933 and Yearbook of Shanghai 1945; Zou 1980: 90-91; Zhang, 1989: 28-29; and Hou 2001: 355-357, 443.

As Table II.5 shows, net migration accounted for almost the total population growth in Shanghai from the 1850s onward, especially after 1911. With this methodology, I can roughly estimate the volume of immigration for each five year, and reconstruct the immigration series (Fig. II.4). Except for the years 1927-1937, I can calculate the exact natural increase rate of Shanghai using the official statistics. These , data are not available for the remaining years. Shanghai’s natural increase rate was usually almost double the national average rate (Zhang 1989, 32). For the missing years, I have used double the national rate to substitute Shanghai’s natural increase rate.

Fig. II.4 Estimate of Immigrants to Shanghai (1890-1950)

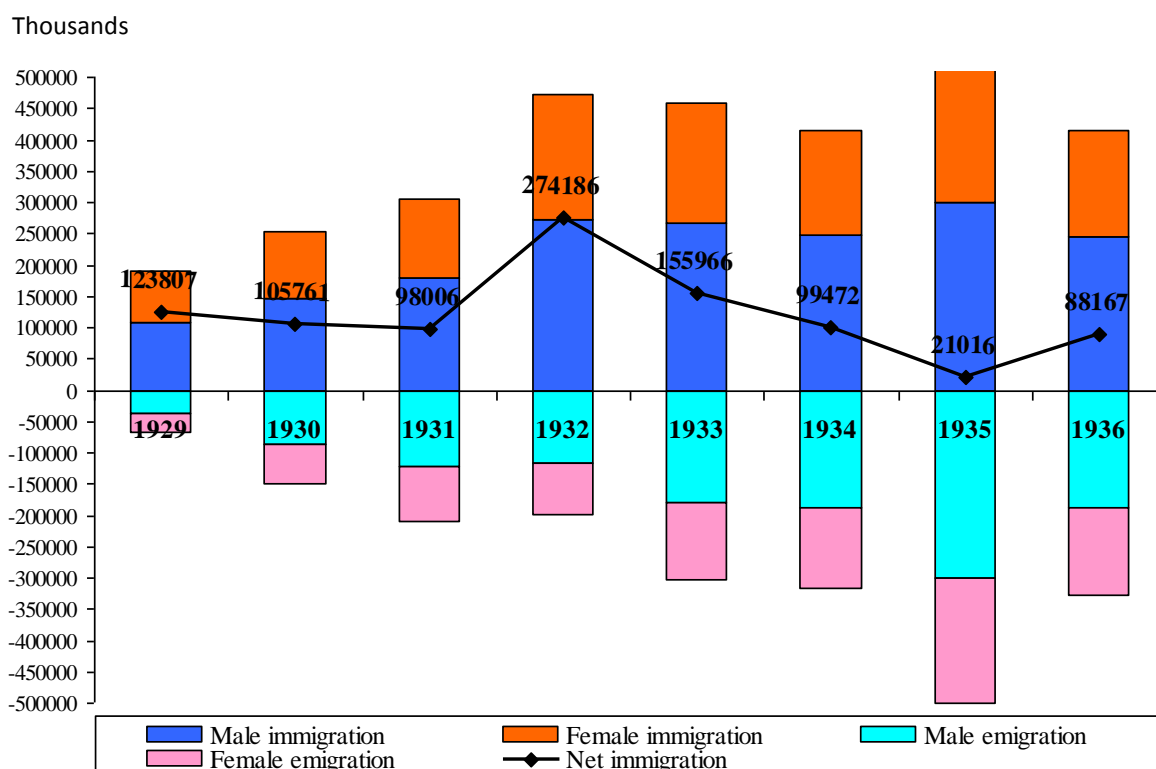


Sources: Own calculation according to the sources in Table II.4. The natural increase rate for China as a whole is taken from Zhang 1989: 27-33.

Fig. II.4 shows that over 4 million people in Shanghai were immigrants, a result that is consistent with the result of the Origin Statistics of Shanghai's Population (Yearbook of Shanghai 1937 and 1945), which confirmed that 80 per cent of Shanghai residents were born in other provinces. It also shows that the two periods of The Republic of China (1911-1927 and 1927-1937) were ones with peaks in immigration.

The years between 1929 and 1936 were the only years during The Republic of China when the government registered Shanghai's population mobility on a monthly basis. I aggregated the statistics for each month to draw up Figure II.5 below.

Fig. II.5 Immigration and Emigration in Shanghai (1929-1936)



Source: Author, based on data from Statistics and Yearbook of Shanghai (published in 1933, 1934, 1935, 1936).

The Figure shows that:

(1) During this period, over three million people migrated to Shanghai, while two million moved out, the net immigration reaching one million. If we recalculate it with the above methods, had population followed the natural growth rate, it should have reached 2.8 million but the population actually soared to 3.85 million. This difference of

about one million people was basically consistent with the net immigration. The annual net rate of migration was 36 per thousand, one of the fastest growths in China's history (Xin, 1996: 41-42).

(2) There was a big rise in immigration after 1931 but there was also a growth in outflow. Migration continued to grow but the rate fell. Especially from 1932 onwards, each year over 250 thousand of people left Shanghai as the economic crisis triggered by the 1929 Great Depression began to bite.

(3) More men left Shanghai than women; the net men immigrants reached 550 thousand in these eight years, a figure 140 thousand higher than that of net women. The male immigrants represented 57.1 per cent of the total net migration to Shanghai during this period, and women 42.9 per cent.

II.2.2 Origin of the immigrants

Shanghai's immigrants came from all over the nation (indeed from all over the world) but mainly from the rural areas of nearby provinces.

1) Rural immigrants

There are no detailed statistics of immigrants' characteristics in this period, no population census or registration of migrants that distinguishes between rural and urban population. Yet most of the literature states that the lion's share of Shanghai's immigrants came from rural areas (Song *et al.*, 2011:35-36; Lu, 1999: 44; Xin, 1996: 44-48; Wang, 2002:523). A survey conducted by the Shanghai Academy of Social Science (SASS) on immigrants during The Republic found that half of the incomers had come directly from the countryside, 21 per cent from small rural towns, and just under 30 per cent came from urban areas (Lu, 1999:323-324).²⁴ Another study on immigrants' occupations before and after moving to Shanghai during the 1920s and 1930s also showed that most of the incomers were farmers, who made up nearly 60 per cent of the total.

²⁴ The survey was conducted by the Shanghai Academy of Social Science (SASS) from 1989 to 1999, and the result was published in Lu, 1999: 323-332.

Rural immigrants came from Shanghai's suburban rural areas and mostly from counties in the Lower Yangzi Delta. They saw Shanghai as a kind of 'Promised Land' where they could build better lives. In places like Wuxi, over three quarters of the emigrants chose Shanghai as their destination (Song, *et al.*, 2011:37). In the County Annals of some nearby rural areas, one could find the following kinds of comments:

Where is the market for agricultural and handicraft products? Shanghai.

Where is the place for people to seek an occupation? Shanghai.²⁵

Most of the 300,000 workers in Shanghai in the 1930s were rural labourers (Statistics of Shanghai, 1933:156-161). Some research on Shanghai factory workers was carried out in the 1920s and 1930s (Table II.6.) found the same: in the textile industry, the largest industrial sector in modern Shanghai, most workers had been farmers from nearby areas. In the 1920s, textile factories recruited their workers, especially women, from nearby rural areas.

Women workers, regardless of their ages, mostly came from the rural areas that were two or three hundred miles away from Shanghai. It was said that "a crowd of rural women can be summoned in a jiffy" (Ding: 1994:216).

These rural immigrants (Shanghai native people called them "Kemin") mainly came from Nantong, Chongming, and Haimen County (Li, 1920:8-10). The registration of the workers of a Japanese textile factory in the 1930s also showed that 87.9 per cent of them were women from rural areas near Shanghai, such as those from Subei and Jiangnan (Song, 2011:35-36). In other sectors too, such as tobacco and printing, workers also came mainly from rural areas.

²⁵ See the preface and introduction of Vol. 5, *Chuansha xianzhi* (Chuansha Country Annals). Today Chuansha is one of ten counties under the administration of the Shanghai City Council.

Table II.6. The rural origin of Shanghai's workers, 1920s and 1930s

Factory	Year	N	Workers of peasant origin	%
Fuxin Tobacco Factory	1930	1500	1125	75
Shanghai Printing Factory	1935	189	151	79
Silk-filature Factory	1925	2000	1440	72
Shenxin Textile Factory No.2	1931	2100	1722	82
Dakang Cotton Mill (Japanese)	1935	8000	7032	87.9

Sources: For textile factories Zhu, Hu and Xu, 1939: 35-36; 186-187; Song, 2011: 35-36; Li, 1920:8-9. Printing Factory: Liu 1985:167. Tobacco Factory: Zhu, Hu and Xu, 1939: 574-577.

Rural immigrants were also in service occupations. For example, during the 1930s, there were over 100,000 rickshaw drivers in Shanghai, of which 95 per cent were from the rural areas of Subei. There was a concentration of rural Subei people in this sector, as a result their dialect became the “official language”. (Li 1920:71-73; Chen, 2005: 147). The same happened with dockers in Shanghai ports: 90 per cent of the 50,000 workers were rural immigrants.

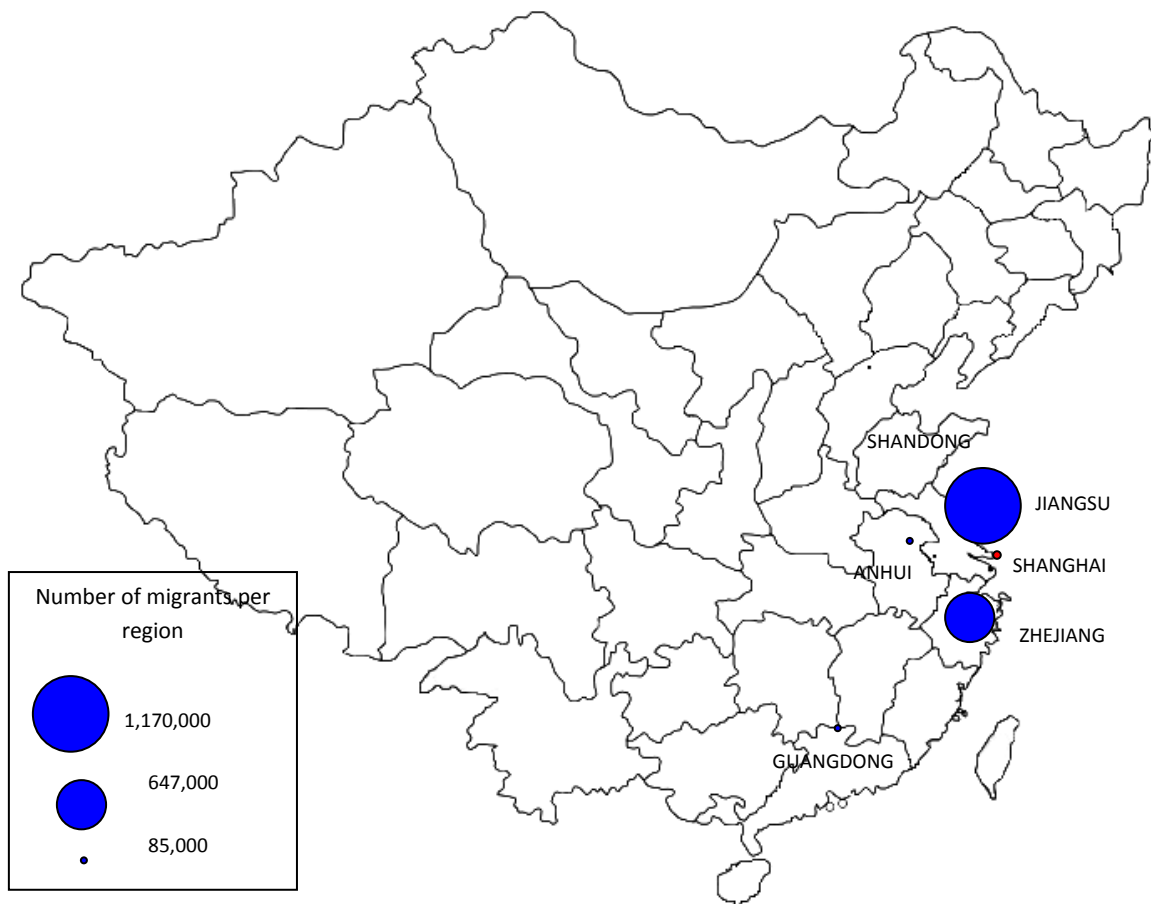
Most of the labourers who carry goods at Luosifu Port and Taigu Port are farmers from Subei. The rest are from cities such as Nanjing, Wuxi, Ningbo, Changzhou, who worked in warehouses. The same happened at Xinguan Port, where Subei farmers are also the majority. The language used at the ports, primarily is the dialect of Subei, and then the dialect of Shanghai (Hu 1939:573).

2) Immigrants' main areas of origin

Although immigrants to Shanghai were from over 50 countries and nearly all provinces and cities of China, most came from a few provinces on the Lower Yangzi Delta and Southern China (Fig. II.6). In the 1920s and 1930s, the five provinces from which Shanghai drew most of its immigrants were: Jiangsu (54 per cent of total immigrants), Zhejiang (29.8 per cent), Guangdong (3.9 per cent), Anhui (2.7 per cent) and Shandong

(1.6 per cent).²⁶ Most of them were from two provinces near Shanghai: Jiangsu and Zhejiang, which occupied over 80 per cent of the total immigrants in The International Settlement and over 60 per cent in Greater Shanghai. During the 1930s, the immigrants from Jiangsu and Zhejiang added over 1.8 million, which was nearly 60 per cent of Shanghai's total population. Complete data is shown in Fig. II.6 and Appendix II.1 and II.2.

Fig. II.6 Origin of Immigrants to Shanghai (1930)



Sources: Author, based on data from Statistics of Shanghai 1933; Zou 1980, 114-115.

These two provinces — Jiangsu and Zhejiang — were the main areas from whence the immigrants initially came. Both provinces could each be divided into two areas, reflecting distinctive cultural and social histories: Jiangnan (the Ningbo/Shaoxing region of Zhejiang, and the Wuxi/Changzhou area of Jiangsu), and Subei (the northern

²⁶ Calculation according to the statistics of International Settlement and Greater Shanghai of 1930. No data on immigrants' origin are available for The French Concession. In the 1920s and 1930s, the provinces of origin maintained the same position and similar percentages.

part of Jiangsu, between the north of Yangzi River and south of Huai River). Immigrants from these regions were clearly segregated in Shanghai's labour market (Honig, 1992: 10; Honig, 1989: 244-245; Li, 1920: 48-49; *Shenbao*, April 26, 1915).

The Theory of Labour Market Segmentation has explained the division of workers into two or three levels depending on gender, ethnicity, religion or nationality lines. Shanghai's labour market segmentation was not determined by ethnicity, religion or nationality as in European or American cities, but by the places immigrants hailed from. This feature will be analysed in Chapter IV.

Apart from Chinese immigrants drawn mainly from rural areas, there were some foreign immigrants from over 50 countries. British, Japanese and Russian citizens made up the bulk of these. Yet their total number was very small, always under 5 per cent of Shanghai's total population (Zou 1980:141-142).

Table II.7 Foreign population in Shanghai (1852-1949)

Years	Chinese Residential Areas	International Settlement	French Concession	Total
1844	--	50	--	50
1850	--	210	10	220
1860	--	569	--	--
1870	--	1,666	--	--
1880	--	2,197	307	2,504
1890	--	3,821	444	4,265
1900	--	6,774	622	7,396
1910	--	13,536	1,476	15,012
1920	--	23,307	3,562	26,869
1930	9,795	36,471	12,341	58,607
1945	--	--	--	122,798
1949	--	--	--	28,683

Sources: Yearbook of Shanghai 1945; Zou 1980: 141.

Shanghai's rapid migration-fuelled population growth is not unusual. A number of cities have undergone a similar process—Beijing, New York, London, Paris, Tokyo, Mexico

City, Sao Paulo (Fig. II.3). Compared with these cities, the migration pattern in Shanghai has the following characteristics:

1) The high proportion of immigrants in the total population. Immigrants made up over 80 per cent of the population of Shanghai in the period (which spans almost a century). In the same period, immigrants accounted for 60 per cent of the population of Beijing and Tianjin, and made up under 50 per cent in Western cities such as New York and London (See II.2). Also, the range of areas from which Shanghai's immigrants were drawn was wider than in other cities. Although most immigrants were from nearby provinces, Shanghai attracted people from all provinces of China and from many foreign countries. By comparison, the vast majority (93%) of immigrants in Beijing and Tianjin came from their former affiliated provinces (Hebei and Shandong) (Ge and Cao, 1997: 611-613). "This situation is significantly different from other cities or regions in China, Shanghai was more like an international metropolis." (Zou, 1980: 66).

2) Immigrants to Shanghai were mainly from the rural areas of neighbouring provinces, while for instance immigrants to New York arrived from all European countries, with Irish and Germans, Jews from Eastern Europe and Italians from Southern Europe (Rosenwaik, 1972; Bogen, 1987). In early Europe, urban population growth was also the result of rural-urban migration like in Shanghai (Hoerder, 2000), and in fact before 1800, high mortality rates made cities unsustainable without a constant inflow of rural migrants (Moch, 2003; Woods, 2003; Lucassen & Lucassen, 2009). Before the growth powered by The Industrial Revolution, London's population had long exhibited negative natural growth (Landers, 1993), while Shanghai's population kept rising from the establishment of Shanghai County. Rural migration has also played an important role in the expansion of developing countries. In the 1970s, half of the urban inhabitants in developing nations were born in the countryside (Hay, 1977), and 40 per cent of the growth of megacities is the result of massive rural-urban migration (Mitra, 2008). Yet Shanghai's rural-urban movement was much earlier than in developing countries and occurred at the same time as in developed countries. Shanghai's population has surged since 1980 in a process that so far shows no signs of slackening.

3) The duration and sheer scale of migration to Shanghai is also exceptional. The period of greatest expansion in other cities lasted just a few decades, for instance Mexico City and Sao Paulo received massive inflows during the 1950s and 1970s but the tidal wave of immigrants to Shanghai continued for over a hundred years, from 1850s to the present day. No other cities reached the scale of migration to Shanghai. Between 1850 and 1950, over 4 million immigrants made Shanghai into the biggest city in China. Yet a second wave of migration since the 1980s has made Shanghai's population soar to 24.2 million (2015, China Statistic Bureau), making it one of the most populous cities in the world.

II.3 The immigrants' demographic characteristics

During the 1920s and 1930s, Shanghai drew all kinds of immigrants from all over China and the rest of the world: from multimillionaires to poor peasants, political dissidents and refugees, intellectuals and illiterates, modern women and rural girls. As the old Chinese saying goes: “*Wu Hu Si Hai* (the five lakes and four seas--everywhere)”, meaning they were drawn from the vastness that is China. These highly diverse people from all over formed the Modern Shanghai, and built it into a unique international metropolis. Did these immigrants have some common characteristic? Were they different from the immigrants in other big cities? Demographic characteristics such as age, sex, marital status and education set Shanghai's migrants apart during this period, changing the make-up of the city's population. These characteristics will be analysed in Section II.3 below.

II.3.1 Age

As might be expected, Shanghai's population was very young (Zou 1980: 52-55; Xin 1996: 67-69) According to the SASS Survey, the average age of the immigrants on arrival in Shanghai was 18.2 years old in the 1930s (Lu, 1999: 323-324).

Our analysis of the registration of two of Shanghai's native-place associations (*tong xiang hui*) in the 1930s (Table II.8) reveals that male immigrants aged between 20 and 40 accounted for 56.0 per cent for members of the Guangdong Association (1,009 individuals) and 69.6 per cent in the Pudong Association (1,417 individuals).

Table II.8 Age structure of the Guangdong and Pudong Native-place Associations, 1930s

Age	Guangdong Association 1933		Pudong Association 1937	
	Registered members	%	Registered members	%
<20	24	2.4	43	3.0
20-29	276	27.4	537	37.9
30-39	289	28.6	449	31.7
40-49	280	27.8	298	21.0
50-59	118	11.7	63	4.4
>60	22	2.2	27	1.9
Total	1009	100	1417	100

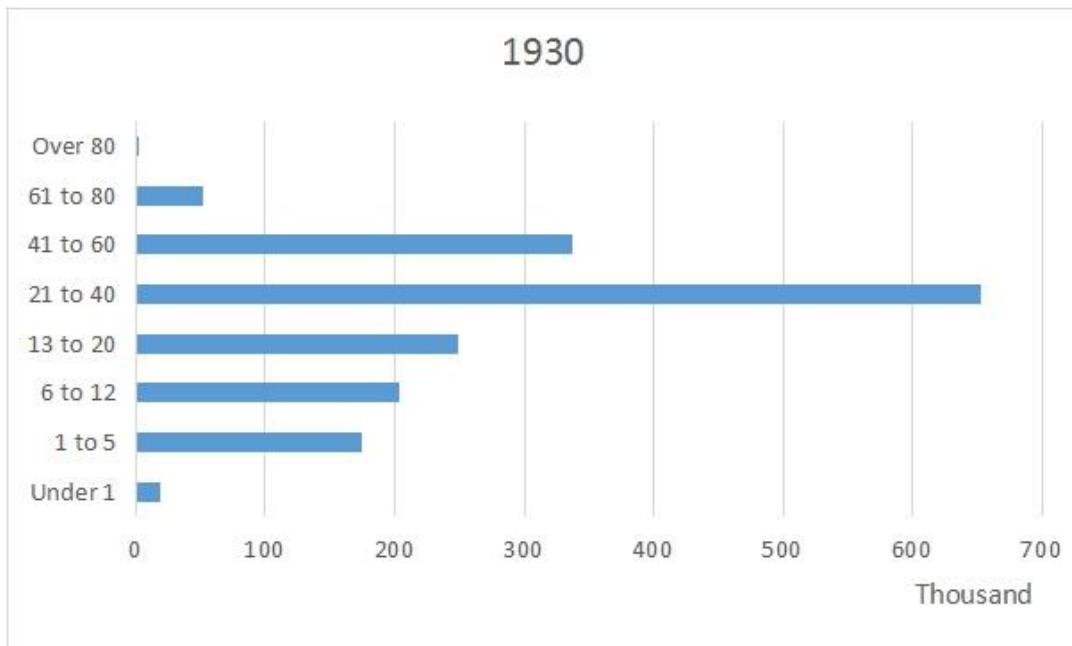
Note: There are few women samples in the registration, for Guangdong associations just 17 women, and for Pudong 41 women members, all of them aged between 18 and 35.

Source: Own calculation based on the archives of Guangdong Immigrants Associations in Shanghai, number of archives Q 117-2-76; and archives of Pudong Immigrants Associations in Shanghai, number of archives Q 117-1-80~93, Shanghai Municipal Archive.

The population structure of Shanghai also changed due to the arrival of large numbers of young labourers, . As Fig. II.7 shows, about 77.5 per cent of the population was aged under 40 , and the 21 to 40 age group accounted for the biggest population segment (38.55 per cent) (Statistics of Shanghai, 1933). Although official statistics failed to collect data on women’s ages, secondary sources have also concluded that most immigrant women were also young (Honig, 1986: 46-47).

This immigration-induced change in population structure greatly shaped Shanghai’s economic take-off and industrialisation, giving the city an abundant supply of labour (see the detailed explanation in the next chapter).

Fig. II.7 Age Structure of Shanghai's Male Population (1930)



Sources: Author, based on data from Statistics of Shanghai 1933: 18.

II.3.2 Sex and marital status

More male immigrants flocked into Shanghai than women, causing a gender imbalance in the population.

As shown in Fig. II.5, during the years for which migration statistics were available (1929-1936), the net number of male immigrants outstripped that of net female immigrants by over 140,000, with male immigrants making up almost 60 per cent of total net migration. The other years show the same pattern. As a result, there were always more men than women in Shanghai and the male to female sex-ratio stayed above 140:100 (1850-1949).

In comparison with China and other cities around the world, the male to female sex-ratio in Shanghai was much higher than elsewhere. During the same period, the average sex-ratio of China was around 107.5:100 (male population was 51.82 per cent and female was 48.16 per cent). This number was lower in other countries: the sex-ratio in US was 102.5:100 (in 1930); in the UK it was 92.7:100 (1936). (Zou, 1980: 47-48).

Moreover, due to the changes of migration, the sex-ratio in Shanghai fluctuated wildly: At the beginning of The Port Opening (1842), the sex ratio in The International Settlement and French Concession, the ratio reached 290:100 (Zou 1980:47). As more immigrants flooded in, the ratio became less skewed, shifting to 146.7:100 in 1930 and 143.3:100 in 1935 (Zou 1980: 48). Nevertheless, the predominance of men over women remained marked.

This high sex-ratio reflected the structure of labour demand and gender segregation in Shanghai's labour market. During the city's industrial development, there were simply more job opportunities for men than for women. This is why more men migrated to Shanghai than women. The structure of Shanghai's labour market will be analysed in the next chapter.

Most migrants (63.2 per cent of respondents) were single when they came to Shanghai per cent of the informants (Lu, 1999:325). Most married male migrants left their wives and children in the countryside because bringing up a family in the city would have involved unbearable hardship (Xin, 1996: 69).

For the same reason, single men made up the bulk of Shanghai's population. To some extent, the low male-female ratio caused the low marriage rate, which was 3.2 per thousand (Yearbook of Shanghai, 1935).

Table II.9 Sex-ratio and civil status of the population in Shanghai, 1934-35

Marital status	1934	Sex ratio	1935	Sex ratio	Average sex ratio
Single man	113,462	227:100	103,757	206.3:100	216.7:100
Single woman	49,976		50,301		
Married man	618,245	121.7:100	653,908	134.2:100	128:100
Married woman	507,983		487,162		
Widowed man	7,549	40.5:100	6,829	35.7:100	38.1:100
Widowed woman	18,621		19,119		

Source: Xin 1996:77; Zou, 1980:134.

As shown in Table II.9, in 1934 and 1935 the sex ratio in the married population was 128, but in the unmarried people it reached to 216.7. That means a big imbalance between the unmarried male and female population, and was directly caused by the low natural population rate in 1930s Shanghai. However, in the countryside near the city, things were the other way round, with more women than men, because the young men had left the land to work in Shanghai. In 1930 in Shanghai County, the sex ratio was just 89.9 (Mao, 1993:154).

II.3.3 Education

There are no direct statistic data on Shanghai immigrants' education (Yu 2008:50; Xin 1996:100). I have only found some small-scale surveys and registration information in the archives of the Origin Associations. The information proves that immigrants in Shanghai were generally poorly-educated and that women were worse-educated than men, as revealed by the following study:

**Table II.10 Educational Levels of Shanghai Immigrants during
The Republic of China**

	Men (persons)	%	Women (persons)	%	Total (persons)	%
Illiterate	9	4.7	105	42.5	114	26.0
Semi-literate	14	7.3	36	14.6	50	11.4
Elementary School	92	48.2	77	31.2	169	38.6
Middle School	53	27.8	21	8.5	74	16.9
High School	17	8.9	6	2.4	23	5.3
College Graduate	6	3.1	2	0.8	8	1.8
Total	191	100	247	100	438	100

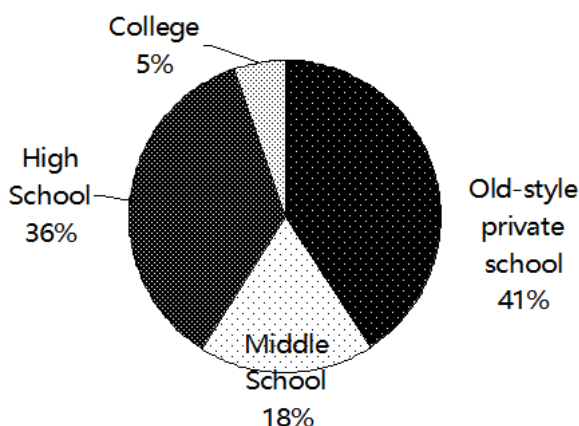
Source: Survey of SASS (Lu, 1999:326).

As shown by the SASS study (Table II.10) about 76 per cent of male immigrants had graduated from Elementary School or Middle School, and 12 per cent had a High School or College Education. However, over half of women were illiterate or semi-literate, and just 10 per cent had studied in Middle School or had received Higher Education.

The same happened in industry. Over 80 per cent of the rural immigrants who came to work in the industrial factories were illiterate (the illiteracy rate was 60 per cent for men and 90 per cent for women) (Xin, 1996:157). A survey conducted by the Bureau of Social Affairs in 1930s on the education of workers' families revealed that over 60 per cent of those interviewed interviewees had received under one year of education, and those who finished primary education were less than 6.5 per cent of the total (Bureau of Social Affairs, 1934:26, 81). As one immigrant worker recalled:

Very few people who worked in my factory could read and write. Among 3,000 female workers, fewer than 50 could barely read, fewer than 20 could read newspapers, and those who had read Three-Character Classics were very rare. (Shanghai Year Book, 1935:30).

Fig. II.8 Education of members of the Guangdong Association (1930)



Sources: Author, based on data from Archives of Guangdong Immigrants Associations in Shanghai, number of archives Q 117-2-76.

The native-place associations' registrations, where dominated by male immigrants with higher income levels and social status, also showed that almost half of their members had received education in the old-style private schools, which was the basic education in Old China, and 5 per cent had a college education (Archives of Association of Guangdong in 1930s).

Immigrants' poor educational also reflected labour demand in Shanghai, where there was great demand for cheap workers to man the city's labour-intensive industries.

This chapter has reconstructed the population and immigration of Shanghai during The Republic of China, using all available statistical sources and literature. These have allowed us to show that the intensive population growth of Shanghai at the beginning of the twentieth century was the result of massive migration, most of which was from the land to the city. Like the internal migration in other countries and periods, most rural migrants to Shanghai were poorly-educated young men seeking jobs in industry. This population movement to Shanghai is not a unique case but rather is typical of what occurs in developing countries.

However, in comparison with other large Chinese cities, such as Beijing and Nanjing, internal migration to Shanghai had special features: 1) So many immigrants and such massive population growth rate were unusual in history. In under a century, the population grew ten-fold, and in some years the growth rate was over 40 per thousand. As a result, Shanghai transformed from a small town to one of the biggest cities in the world. 2) Shanghai attracted immigrants from all provinces of China. Although it was the country's main port for trade with the rest of the world, over half of its population hailed from nearby provinces. Yet compared with Beijing and Nanjing, its immigrants were more diverse, helping turn the city into a unique international metropolis.

The next chapter will analyse the causes of the large influx of rural migrants into Shanghai. Based on the Push-Pull Theory, I will explore the pull factors from Shanghai, as well as the push factors that inclined rural migrants to leave the countryside.

III. Fleeing villages: Rural Labourers and the Collapse of the Rural Economy

There are districts in which the position of the rural population is that of a man standing permanently up to his neck in water, so that even a ripple is sufficient to drown him.

-- Richard Tawney, *Land and Labor in China*, 1966: 77

In Chapter II, we concluded that the intensive population growth in Shanghai was caused by immigrants. Accounting for eighty per cent of the population in Shanghai, these immigrants were mainly young male farmers from the neighbouring provinces, especially Jiangsu and Zhejiang. Why did so many rural labourers choose to leave their land and go to work in the cities?

Migration theories have discussed and explained various factors and reasons for rural-urban migration, which I have reviewed in Chapter I. There, I mainly follow the classic Push and Pull Theory to analyse rural migration in China. According to this theory, four variables determine rural-urban migration: factors associated with the area of origin, attraction factors of destinations, intervening obstacles and personal factors (Lee, 1966:50). Among them, the 'push' factors of poor chances of survival and developing conditions in the places of origin are what triggers migration.

Some scholars studied the rural problems that forced those working on the land to leave. The famous demographer Thomas Malthus warned that agricultural production would never keep up with unchecked population growth, and that this was one of the causes prompting migration (Malthus, 1798/1826: 61).²⁷ Lee and Wang challenged the Malthusian Models with Chinese demographic patterns. Analysing subsistence, morality, marriage and fertility, they proved that the Malthusian Model does not apply to China (Lee and Wang, 1999). Some migration scholars also took part in this discussion. They thought that push factors in rural areas played a more important role in developing countries (Sovani, 1964). The Chinese scholars tried to apply the above-

²⁷ For detailed discussion on the constraints on population growth, agricultural production and social well-being, see: Malthus, *An Essay on the Principal of Population* (1826), especially 61-80. The book was first published in 1798, here I use the sixth edition, published in 1826.

mentioned theory to the situation of Republican China. Most studies on the immigrants in Shanghai during the Republican Period highlighted natural disasters or population pressure in places of origin, arguing that farmers left the land mainly because of ‘push factors’, such as poverty and “fleeing disasters” (Liu, 2004; Zhou, 2007; Zhou and Wang, 2011; Peng, 1999; etc.).

In this chapter, I will analyse the reasons why so many farmers emigrated from villages in the early 20th Century. Emigration from rural areas in China stemmed from a complex combination of factors and this chapter will use historic data in an attempt to explain the following ones:

(1) The fundamental problem in China’s rural areas, which was the deep-seated reason that had led to large rural population movement: China’s agriculture had long been under land and population pressures, and farmers could only eke out a bare living. Agricultural productivity had stagnated for a long time and land holdings were unevenly distributed. The lack of capital in rural areas could not make use of technology to improve productivity, meaning that agriculture could not absorb population growth.

(2) The special economic structure of China’s rural areas: Because of the lack of land, people in rural China supplemented their income through non-agricultural production—something was especially true of the Jiangnan Area (Fig.IV.1).²⁸ Over half of peasants’ income here came from non-agricultural production. Agriculture and non-agricultural productions had long gone hand-in-hand in rural China. Therefore, in analysing the reasons for leaving the village, priority should be given to the issue of rural non-agricultural production.

(3) The impact of opening up to the world and industrialisation. The Opium War (1840-1842) opened the door to China, and China’s economy was forced into globalisation. On the one hand, the entry of foreign capital fostered the development of China’s industry. On the other hand, imported products and manufactured goods had a great impact on China’s rural handicraft industry. China’s agricultural and non-agricultural products

²⁸ The non-agricultural production is also called ‘rural sideline sectors’ (nong cun fu ye) in research and archives on China (Buck, 1930; Central Political Academy, 1936; Xie, 2007; Guan, 2009).

were forced to enter the international market and needed to compete with other countries' products. They were deeply influenced by the fluctuation of international prices, which had greatly affected rural non-agricultural production. The combination of competition and wildly fluctuating prices had all but ruined China's rural economy.

(4) Natural disasters and the impact of war. As farmers struggled to make ends meet, they were easily affected by external causes such as natural disasters and wars, which could lead to an exodus of peasants from villages.

(5) Because of China's vast territory and varying rural conditions, regional differences should be taken into account and analysed separately. To yield better analysis, this chapter focuses on two rural areas — Subei and Jiangnan — which were the main origins of immigrants to Shanghai (Fig. III.1).²⁹

²⁹ Detailed explanation of these two areas could be seen in Section III.2.1.

Fig. III.1 Subei and Jiangnan areas, 1935



Source: Drawn by Meritxell Gisbert, with data of Honing, 1992: 21.

To analyse these issues, I will begin by briefly discussing emigration from rural areas, using the rate of emigration. I will then discuss the ‘push’ factors from rural areas, which caused the large amount of rural emigration. The analysis is split into three parts:

Using the statistics of changes of arable land per capita, the first part will contribute to the debate on population-land conflict in the country and reveal the fundamental problems of rural China.

In the second part, I will analyse the farmers' main problems in Subei and Jiangnan area separately. Various circumstances caused the massive emigration from these two regions. Subei's main problem was farmers who were stricken by poverty and burdened with debt as a result of natural disasters and wars. By contrast, in Jiangnan, the problem was that farmers engaging in rural non-agricultural activities had to face the decline or bankruptcy of the rural handicraft industry in the face of internationalisation and the impact of the world market.

In the last part, I will analyse rural incomes and debts. The selection of survey subjects is very important. I will examine the average incomes of the surveyed rural areas in Subei and Jiangnan Area, paying special attention to the incomes of landless farm labourers since they were the most likely to emigrate. The heavy debts in rural families will also be explained. This analysis will make the reasons for farmers leaving their villages clear.

Given the dearth of official statistics, the sources bearing on rural areas are taken from scholars' surveys during the Republican Period, which include (Table III.1): (1) the survey undertaken by American scholar John Buck, who spent 5 years in the 1920s and the 1930s in researching 2,866 rural households in 17 places in 7 provinces (Buck, 1930 and 1937); (2) the survey conducted by the Institute of Economics and Statistics (headed by Liu Dajun) Wuxing county, the city of Huzhou, Zhejiang in March 1935, (Liu, 1939); (3) the survey carried out by Qian Chengze who researched 121 rural households in the 1930s (Qian, 1931); (4) the survey undertaken by Zhejiang University in 5 counties in Jiaying Province, covering 5,113 households in 1935 (Zhejiang University, 1936); (5) the survey jointly conducted by the Central Political School and the government of the county of Pinghu, covering 38,800 rural households between April and June, 1936 (Central Political School, 1937); (6) the survey undertaken by Dong Chengxun at Wuxi in Jiangsu Province in 1923 (Dong, 1923); (7) the surveys by the students of Jinling University, Sun Fang and Xu Xinwu during 1933-1936 in Tangshan and Jiangning in Jiangsu Province separately (Sun, 1934; Xu, 1937). These

surveys are considered reliable because they were undertaken for academic purposes and done by scholars or jointly by scholars and local governments. The surveys were mentioned in some documents or studies (Zhou and Wang, 2011; Lu, 1995; Honig, 1992), however, few scholars compared the surveys' results and conducted a systemic analysis of their data.

Table III.1 Surveys of rural China during the 1920s and the 1930s

Researchers	Years	Region	Samples (households)
John Buck (1930; 1937)	1920-1937	7 provinces	2,866
Institute of Economics and Statistics (1939)	1935	Wuxing County, Zhejiang Province	--
Qian Chengze (1931)	1930	Jiaxing, Zhejiang Province	121
Zhejiang University (1936)	1935	Jiaxing, Zhejiang Province	5,113
Central Political School (1937)	1936	Pinghu County, Zhejiang Province	38,800
Dong (1923)	1923	Wuxi, Jiangsu Province	--
Sun (1934)	1933	Tangshan, Nanjing	249
Xu (1937)	1933-1936	Jiangning, Jiangsu Province	100

In addition, some material-based documents, such as *Materials on the Land Problem in Mainland China in the 1920's (1935)*, *Agricultural Report (1936)*, *Materials on China's Rural Economy (1934)*, *Materials on China's Modern Agricultural History (1957)*, and *Materials on China's Economic History (1955)*, are included in this chapter. They are also very trustable since they include many references (Ci, 2007:5).

III.1 The emigration rate in rural China

During the early 20th Century, the number of farmers who left villages rose, reaching a peak in the 1930s. Both the amount and the percentage of emigration in rural China were very high during the country's thousands of years of agricultural development (Zhou and Wang, 2011:13; Liu, 2004: 56). I will analyse this phenomenon in this section using the emigration rate in rural areas.³⁰

³⁰ In the studies during Republican period, the emigration rate was called 'Rate of rural dwellers

I analysed the data and accounts from scholars' surveys mentioned in Table III.1 and summarised these in Table III.2, below. Subei and Jiangnan, the two major regions of origin of immigrants to Shanghai, were listed separately for a better comparison. I also compared these two regions with other provinces and the national average rate.

Table III.2 Emigration in rural areas in the early 20th century (1922-1936)

Region	Villages	Year	Emigration rate (%)	Males aged 16-40 (%)	Labour force in total emigrants (%)	Percentage of rural labourers leaving (%)
Subei	Yizheng	1922	1.44	--	--	--
	Taipingmen, Jiangning	1924	1.12	--	87.50	2.11
	Chunhua, Jiangning	1924	7.86	--	97.87	15.11
	Yangliu, Jiangning	1926	2.66	--	--	--
	Tushan, Jiangning	1934	6.91	--	98.15	11.91
	8 villages of Yancheng	1928	4.0	--	--	--
	8 villages of Yancheng	1933	7.0	--	--	--
	8 villages of Qidong	1928	3.1	--	--	--
	8 villages of Qidong	1933	3.4	--	--	--
Average of Subei		1922-1934	4.17	--	--	--
Jiangnan	Xiaoshan	1930s	7.55	97.26	--	--
	Jiaxing	1930s	21.8	--	--	--
	17 villages of Jiangyin	1922	2.34	72.8	--	--
	20 villages of Wujiang	1922	4.88	76.12	--	--

leaving villages (li cun lü)", and did not include the massive emigration caused by wars (Buck, 1930; Zhang, 1932; Yan, 1935). In the following I will use the term 'emigration rate' but will adapt the definition of these studies.

	Wujin	1922-1923	3.21	--	93.62	5.47
	7 villages of Changshu	1928	3.85	--	100	5.84
	7 villages of Changshu	1933	3.92	--	100	6.36
	20 villages of Wuxi	1929	8.70	--	83.95	11.79
	11 villages of Wuxi	1933	9.53	--	87.07	13.71
	11 villages of Wuxi	1936	10.77	--	--	--
Average of Jiangnan		1922-1936	7.66	--	--	--
Other regions	Zunhua, Zhili Province	1929	2.65	--	--	--
	Tangxian, Zhili Province	1929	4.55	--	--	--
	Handan, Zhili Province	1929	1.82	--	--	--
Average of Zhili Province		1933	3.0	--	--	--
Average of Shandong Province		1933	3.8	--	--	--
Average of Henan Province		1933	3.9	--	--	--
National Average		1933	4.61	--	--	--

Notes: Only the surveys by Buck (1930), Yan (1935) and the Rural Revival Committee (1936) gave the percentage of the labour force in terms of the total number of emigrants and of the total labour population.

Sources: Author, based on data from: Data of Subei and Jiangnan: Buck, 1930, 1937; Zhang, 1932; Yan, 1935; Tanaka, 1931; Rural Revival Committee, 1936. Data of other provinces: Central Research Institute of Agriculture, 1936; Zhang, 1957.

From the above table we can conclude that:

(1) *The emigration rate in rural areas was high and kept rising during the 1920s and the 1930s.* The surveys indicate that during the 1920s and the 1930s, emigrants represented about 4.6 per cent of China's entire rural population. Based on the national population number (400 million) and the ratio of rural population to national population

(90 per cent), it can be concluded that over 16 million farmers left their villages during this period (Zhang, 1957:636).³¹

Things varied from region to region. In Subei the average rate was 4.17 per cent — close to the national average. However, in Jiangnan, the rate was 7.33 percent, much higher than the national average. The rates in both these regions were much higher than those in Northern provinces, such as Zhili, Shandong and Henan. The villages with the highest emigration rate were in Jiaying, which reached 21.8 per cent and was 5 times greater than the national average.

Surveys conducted regularly in some villages indicated that the emigration rate was rising during this period. According to the surveys in the province of Jiangsu, the average rate of three villages — Yizheng, Jiangyin and Wuxian — was 2.89 per cent in 1922, rising to 4.06 per cent in 1924, 4.91 per cent in 1929, and 6.15 per cent in 1934 (Ma, 1936). Similarly, the rate in Wuxi (Jiangnan), was 8.7 per cent in 1929, rising to 9.5 per cent in 1933, and to 10.77 per cent in 1936 (Chen, 1989).

(2) *Labourers were leaving their villages and most of them were young men.* The surveys in three counties — Jiangning, Changshu and Wuxi — showed that most emigrants were farm labourers, who made up over 80 per cent of the population leaving villages. In some areas, this number reached 100 per cent. The lion's share of these labourers were young men, as shown in the above table. Those surveys that came up with this number showed that in Jiangyin and Wujiang, young men made up over 70 per cent of total emigrants, and in Xiaoshan, 97.26 per cent of the population leaving the village were males aged between 16 and 40.

The survey conducted by the Central Research Institute of Agriculture in 1933 also showed that the emigration rate of young male labourers in Jiangsu and Zhejiang was far higher than the national average. The average rate in these two provinces was

³¹ As explained in Chapter II, scholars believed that the total population of China during the 1920s and the 1930s was around 400 million, however it might have passed 500 million in the 1930s (Lee and Wang, 1999). The rural population made up over 90% of the total population before 1949 (Zhang, 1957).

respectively 11.2 per cent and 10.9 per cent, double the national average of 5.5 per cent (*Agricultural Report*, 1936: 173).

(3) *The emigration rate was higher in economically-developed regions.* A comparison of various regions shows that the rate in developed ones was clearly higher than that in less-developed ones. Jiangnan was one of the most developed regions in Modern China's agricultural economy, and its emigration rate reached 7.66 per cent — higher than Subei, which was 4.17 per cent. It was much higher than that of the less developed Hebei, Shandong and Henan provinces, nearly doubling their average rates.

The same conclusion can be drawn for Wuxi and Jiaxing, the most developed counties in Jiangnan and where the emigration rate was 10 per cent and 20 per cent, respectively— higher than in the province's other counties. In Subei, Yancheng had a higher emigration rate than Qidong and Yizheng. As these counties began to develop early industries, and formed a business network with Shanghai, it means that the emigration rate was affected by the development of industrial sectors nearby and of cities, which will be explained in the following chapter.

There are both similarities and differences between rural emigration in China and that in other countries. A common feature is that young labourers made up the bulk of emigrants. The Chinese data is discussed above and shown in Table III.2. In European countries, typified by Great Britain, young people aged between 15 and 29 years made up over 60 per cent of rural emigrants, who mainly worked as apprentices and servants in big cities in the 16th and 17th centuries (Beier, 1986: 154). The same happened in the rural areas of developing countries. In Mexico, rural emigrants aged 15-29 made up over half of all emigrants between 1975 and 1985 (Gutiérrez and González, 1990).

The difference lies in the gender ratio. In China, rural emigrants were overwhelmingly male (Table III.2). In Mexico almost half of rural emigrants were male (Gutiérrez and González, 1990). However, the situation in Europe was different. From the 16th century to the early 17th century, male emigrants slightly outnumbered female ones but females took the lead after the second half of the seventeenth century. This was due to the following reasons: (1) primogeniture in rural families, whereby property passed to the eldest son, forcing rural women without private means to seek their fortune in the city;

(2) The development of the urban economy, which spawned ‘service’ and other tertiary industries that gave women many employment opportunities in the cities; (3) the decline of the apprenticeship system, leading to a fall in the number of men moving to the city as apprentices (Clark and Slack, 1976).

III.2 The population-land Conflict and unequal distribution of land resources

谁赢得农民，谁就能赢得中国；谁能解决土地问题，谁就能赢得农民。

Whoever wins the peasants will win China; Whoever solves the land problem will win the peasants.

--Mao Zedong (1936)³²

Mao’s Communist Party always regarded the issue of farmers as the most important issue in China, and the most important issue for farmers was land tenure. Mao believed that the feudal land system was the main barrier to the development of China.³³ The lion’s share of farmland was in the hands of relatively few landlords and many peasants were landless. Therefore, efforts should be made to meet the needs of peasants’ desire to own some land (Mao, 1947:37-39).

Land belongs to the peasants. This means land should be transferred from feudal exploiters and be put in the hands of the peasants, and the private property of feudal landlords should be changed to the private property of farmers, so that farmers are freed from the fetters of feudal land ownership, making it possible to turn China from an agricultural country into an industrial one (Mao, 1945: *Speech at the 17th National Congress of the CPC*).

³² Quoted in Edgar Snow, interview to Mao Zedong at Yan’an, *Red Star over China* (1961:70).

³³ The ‘feudal society’ or ‘feudal system’ defined by Marxist historian refers to the social form in which landlords occupied the land and exploited peasants or serfs. The ‘feudal society’ defined by non-Marxist scholars refers to the royal families or empires enfeoffed to family members or heroes, which was a state management system rather than a society. After the establishment of the People's Republic of China, the education system in mainland China did not distinguish between the connotations of the feudal society and the feudal system, and unified the social and political system in China after the Qin Dynasty (221BC-206BC) to 1949 (Feng, 2006: 1-2).

Through the land reform and the peasant based revolution, Mao finally won the revolution and established the People’s Republic of China.³⁴

The Communist Party of the Soviet Union represented by Lenin also regarded the problem of peasants and land as an important issue. Lenin published the *Outline of Peasants’ Issues* in 1921 (Lenin, 1930: 333).

The issue of farmers and land has also been the focus of debate among scholars. Many academics attribute the large number of farmers who left villages during the 1920s and the 1930s to population pressure, caused by overpopulation and the lack of arable land: Peng estimated the area of farmland in China and concluded that from 1840 to 1936, farmland per capita was less than 3 acres. However, on the basis of the agricultural productivity of China during this period, the cultivated land per capita needed to sustain farmers was 3.5 acres per capita. Therefore, the “population-land conflict” was the main reason for farmers leaving their villages (Peng, 1999: 149-155). According to a calculation by Zhou and Wang, the farmland per capita in China was 2.7 acres in 1873, 2.27 acres in 1890, 2.14 acres in 1901, 2.62 acres in 1910, and 2.71 acres in 1932, which was always under 3 acres (Table III.3. Zhou and Wang, 2011: 12-13). As estimated in the *National Report on Land*, drawn up by the National Land Commission, in the 1930s the average arable land per household was between 5.88 and 41.55 acres, and the farmland per capita in China was 14.08 mu, which equals about 2.27 acres.³⁵ This result also ties in with scholars’ conclusion that “arable land per capita was under 3 acres” (National Land Commission, 1936).

Table III.3 Farmland per capita in China (1873-1932)

Year	1873	1890	1901	1910	1932
Farmland per capita (acres)	2.7	2.27	2.14	2.62	2.71

Sources: Zhou and Wang, 2011: 12-13.

³⁴ The Communist Party of China was founded in 1921, based on the vast rural areas, and gradually developed and expanded. After the end of the Second Sino-Japanese War (1937-45), a full-scale civil war broke out between the Republican Party (Guo min dang) and the Communist party (Gong chan dang). Mao’s Communist Party won the Civil War in 1949 and established the People’s Republic of China on the 1st of October 1949.

³⁵ Mu is a unit of area in China. 1 mu= 0.0667 hectares.

Table III.4 shows that in modern China, both the average household and farm area were much smaller than in developed countries. This explains why there was no large-scale agricultural production in China. In addition, the slow increase in population and demographic dips caused by wars and natural disasters in the early 20th century made for only slight fluctuations in arable land per household.

Table III.4 Comparison of arable land in China and in developed countries (1919-1933)

Country	China 1929-1933	Netherlands 1930	Germany 1933	Denmark 1919	Britain 1924	United States 1930
Per Farm (acre)	3.76	14.28	21.59	39.74	63.18	156.85
Country	China 1932	Canada 1931	Germany 1930	France 1930	Italy 1930	United States 1930
Per Household (hectare)	1.1	90.6	5	11.7	6.3	63.5

Sources: Farm data: Buck, 1937: 268; Household data: Zhao, 2006: 235-240.

The American scholar, Buck, divided the arable land of China into 9 areas according to the main agricultural production (Fig. III.2). He did so after in-depth research into land use and farmers' income in China during the 1930s.³⁶

³⁶ Data on the division and the data can be found in *Land Utilization in China*, Buck (1937).

Fig.III.2 China's arable land by plant regions, the 1930s



Sources: Drawn by Meritxell Gisbert, with data of Buck, 1937: 28.

Table III.5 shows the arable land per household according to this regional division. From 1870 to 1910, China's arable land per household fell from 2.7 acres to 2.62 acres, and then rose to 2.71 acres in the 1930s. Each region had its own ups and downs. In the Wheat Cropping area, Rice Area of Sichuan and Southwestern China, there were

marked falls in landholdings per capita, whereas there were only slight fluctuations in this figure in other regions.

Table III.5 China's arable land by regions (1870-1933)

Region		National	Wheat Cropping Area	Spring Wheat Area	Winter wheat-millet area	Rice Area	Rice-wheat Area near Yangtze River	Rice-Tea Area	Rice Area of Sichuan	Double cropping Rice Area	Southwestern Rice Area
Cultivated land for each household (Acre)	1870	3.78	4.32	1.19	2.82	1.65	1.9	1.04	2.03	1.43	--
	1890	3.33	4.37	1.26	3.16	2	2.45	1.04	1.88	1.33	1.28
	1910	2.62	3.26	1.63	2.4	1.9	2.07	1.88	1.58	1.36	1.19
	1933	2.27	2.72	1.75	2	1.78	1.95	1.83	1.36	1.31	0.89

Source: Author, based on data from Buck, 1937: 270.

However, in my opinion, the lack of arable land was not the main reason farmers left their villages.

First, the population-land conflict was a long-standing problem in China's rural areas. In a period spanning just over six decades from 1870 to 1933, China's arable land per capita fluctuated between 2 and 3 acres, with no significant rises or falls. The average size of holdings in China has always stayed more or less the same (Zhou and Wang, 2011: 12).

Furthermore, the emigration rate in various regions did not correspond with changes in their farmland. Wheat-cropping regions in Northern China experienced a faster fall in cultivated land, with arable land per household decreasing from 4.32 acres to 2.72 acres. However, in this area only 3 per cent of the farmers left their villages, less than the national average (Zhili Province in Table III.2). Meanwhile, in the Subei and Jiangnan areas (Rice-wheat farming near Yangzi and a Rice-Tea Area — see Table III.5), the arable land per capita even rose yet there was higher emigration in these areas. For example, the arable land per capita in the Rice-Tea Area rose from 1.04 acres in 1890 to 1.83 acres in 1933, which meant less population-land pressure but at the same time the

emigration rate of farmers rose in this area (Jiangyin, Wuxian and Wuxi in Table III.2) by over 3 per cent.

Modern China has always been characterised by population pressure. If the arable land per capita remained stable or even rose but the emigration rate in rural areas increased, it means that the population-land pressure was not the main reason for farmers leaving their villages. As Peng Nansheng argued in his article:

Population pressure was always a serious problem in the history of China, and that was also true in the 1930s. It could not be the only reason for emigration at the time. Some more direct factors, together with this population-land pressure could cause this growing emigration in rural areas. (Peng, 1999:150)

Many studies focused on problems in China's agricultural development, spawning some controversies in the process. A major one was on 'The Great Divergence', which sought to discover why the Industrial Revolution occurred in Britain, instead of in Jiangnan, a wealthy region of China.³⁷ By analysing the population, labour productivity, agricultural production and technology in *The Great Divergence: Europe, China, and the Making of the Modern World Economy*, Kenneth Pomeranz concluded that before the 19th century, the development of economic centres, such as Jiangnan in China, rivalled economic development in Britain. They shared a common development model — slow growth based on division of work and professionalisation. Both China and Europe were facing the same ecological limits. The Industrial Revolution finally happened in Britain because coal and ecological resources in The New World allowed Britain to break its ecological limits (Pomeranz, 2000). Huang Zongzhi disagreed with Pomeranz and argued that the growth of China was an "involution without development" (Huang, 2000: 427). According to Huang, from the early Ming Dynasty to 1949 China's agricultural productivity was in the doldrums. The slow rise in peasants' income was mainly due to cash crops and family handicrafts. However, this rise in income came at the expense of declining agricultural productivity, which was ultimately mirrored in the population-land conflict. It was very different from commercialisation in modern

³⁷ To see more on this debate: Pomeranz, 2000; Huang, 2000; Shi, 2002; Brien, 2002; Zhu, 2004, Bassino and Ma, 2005; Allen, 2011; Broadberry, 2015; 2016, and so on.

Britain, which was of a fundamentally different nature from Jiangnan's age-old prosperity based on cash crops and family handicrafts. Therefore, it can be defined as involutory growth without development (Huang, 2000: 412-458). Other scholars also contributed other perspectives on this debate: differences in agricultural productivity in China and Britain (Zhu, 2004); empirical analysis using the data of other regions of China (Xing, 2000); the institutional differences (Zhang, 2003; Parthasarathi, 2002); and population growth (Li, Wang and Kang, 2004).

The debate then turned to the quantitative comparisons between Europe and Asia. Scholars began by using part of the economic data such as real wages or urbanisation rates to compare their development, and demonstrated that during the early modern period, real wages were much lower in Asia than in Europe, even after taking regional variations into account (Broadberry and Gupta, 2006; Bassino and Ma, 2005; Allen *et al.*, 2011). Recently, they began to measure the divergence from the overall level of economic development, using GDP per capita — an approach epitomised by Broadberry (Broadberry *et al.*, 2015; Broadberry, 2016). They showed that Europe began to overtake Asia during the first half of the 18th Century — a century earlier than that posited by Pomeranz (Broadberry, 2016:21).

However, whether China's agricultural economy "increased slowly" or "remained stagnant", both sides in the debate agreed that in the period running from the early Ming Dynasty to 1949, population growth was the main driver of agricultural productivity given that farming technology and land ownership remained unchanged. Table III.6 shows that in modern China the average grain output per capita did not increase, and during 1930-1950 it even fell slightly. As estimated by Li, in the Jiangnan area during late 19th Century, the average annual growth rates of population and GDP were both about 0.3 per cent, which means that average productivity did not improve (Li, 2003: 174-175). However, during the same period the average annual growth rate of Britain's GDP was around 1 per cent. Meanwhile, Britain's population grew at an average annual growth rate of 0.54 per cent. Therefore, Britain's productivity increased slowly — slightly faster than that in Jiangnan of China (Crafts, 1994: 51).

Table III.6 Average grain output per capita in China (1822-1957)

Year	1822-1833	1914-1918	1924-1929	1931-1937	1938-1947	1949-1951	1952-1954	1955-1957
Grain output per capita	558	506	578	488	446	447	528	551

Source: Wu, 1989: 270

This type of agriculture, which was highly intensive and was in the doldrums in productivity terms, faced a 'bottleneck' during its development. It could not absorb any more rural population and there was a lurking crisis in rural China. When 'push factors', such as natural disasters or economic crisis arose, hordes of labourers had to leave their villages to seek opportunities elsewhere.

Second, China's land system in the feudal period (211 BC-1949) led to an unequal distribution of land resources. A small number of landlords owned plenty of land, while most farmers owned very little land or were even landless, and had to work as tenant farmers or farm labourers.³⁸ *These farmers without land or short of land had to struggle to survive. When their income could not support their or the families' needs, they had to leave their villages.*

Both official data and researchers' surveys revealed the high concentration of land in China. Table III.7 shows that, during the Republican Period, landlords and rich farmers (who accounted for just 10 per cent of the rural population) owned over 80 per cent of farming land. Meanwhile, 20 per cent of the rural population owned under 10 mu of land per household, and over half of the peasants did not own any land. In other words, tenant farmers and farm labourers accounted for 75 per cent of the rural population. This finding was also borne out by scholars' surveys (Table III.8), which showed that tenant farmers and farm labourers accounted for over 70 per cent of the total rural population.

³⁸ Tenant farmers (dian nong) mean those renting land for planting and paying rent to landlords. Farm labourers (gu nong) were those farmers without land, who temporarily worked others' land in return for a wage. These two categories were the poorest peasants in Old China (Guan, 2009: 19).

Table III.7 Rural land distribution in 1927

Type	Owned land (Mu)	Percentage of total population %	Percentage of owned land %
Landless peasants	0	55	0
Poor peasants	1-10	19.8	6
Middle peasants	10-30	10.8	13
Rich peasants	30-50	8.1	19
Small and medium landlords	50-100	4.05	19
Large landlords	> 100	2.25	43
Total		100	100

Notes: Mu is a unit of measure for land area in China, 1 Mu= 666.67 m².

Sources: Statistics published by the National Land Commission in June, 1927, and collected in Zhang, 1957: 67.

Table III.8 Rural land distribution in academic surveys

Surveys and studies		Landlord	Rich peasant	Middle peasant	Poor peasant	Farm labourers and others	Total
Tao (1934)	Household %	4	6	20	70		100
	Land %	50	18	15	17		100
Wu (1934)	Household %	3	7	22	68		100
	Land %	26	27	25	22		100
Xue (1947)	Household %	3.5	6.4	19.6	70.5		100
	Land %	45.8	18	17.8	18.4		100
Zhou (1938)	Household %	4	6	22	60	8	100
	Land %	39	17	30	14	0	100

Statistics published by the National Land Commission in June, 1927, and collected in Zhang, 1957: 67.

In 1932 the Ministry of the Interior conducted a survey on 240 million rural households in 17 provinces. The results confirmed the high concentration of land ownership in rural China (Table III.9). In the provinces of Jiangsu and Zhejiang, which were the major origins for immigrants to Shanghai, farmers without land or short of land respectively accounted for 60 per cent and 76 per cent of the rural population. The percentage in Jingsu was similar to the national average and higher than the ratios in Northern

provinces. The percentages of tenant farmers and farm labourers in Zhejiang were much higher than those of the other regions.

**Table III.9 Survey of the rural land in 17 provinces
by the Ministry of the Interior in 1932**

Owned land (Mu)	Jiangsu (46 counties)		Zhejiang (61 counties)		Hubei (19 counties)		Suiyuan (8 counties)		National Average	
	Household	Land	Household	Land	Household	Land	Household	Land	Household	Land
< 10	57.59	17.29	76.42	28.13	67	24.06	15.2	1.48	58.66	16.99
11-30	24.88	23.12	15.43	21.74	20.81	23.78	20.61	6.34	23.9	22.11
31-50	10.9	23.02	5.32	16.99	7.38	20.85	23.85	13.11	10.57	22.22
51-100	5.43	20.07	2.21	13.59	3.71	16.16	21.26	22.62	5.19	19.27
>100	1.20	16.5	0.62	19.55	1.1	15.15	19.26	56.45	1.68	19.41
Total	100	100	100	100	100	100	100	100	100	100
Gini coefficient	0.532379		0.550884		0.532917		0.504166		0.557268	

Sources: Ministry of the Interior: *Internal Affairs Yearbook*, 1932.

Farm labourers almost always came bottom of the heap when it came to wages in Old China. In 1933, farm labourers accounted for over 10 per cent of the rural population. The ratios in North-Western and North-Eastern China were higher than the national average while the ratios in Central and Southern China were slightly lower than the national average. The proportion of farm labourers in Jiangsu and Zhejiang was respectively 8.78 per cent and 9.27 per cent, approaching the national average (Table III.10).

Table III.10 Proportion of landless farm labourers on total farming households in 1933

Province	Surveyed counties	%	Province	Surveyed counties	%
Zhejiang	22	9.27	Hebei	62	11.62
Jiangsu	20	8.78	Shandong	28	10.24
Anhui	21	8.24	Suiyuan and Chahaer	8	15.07
Fujian	5	5.83	Guizhou	7	6.02
Jiangxi	13	10.87	Yunnan	12	8.5
Hubei	14	6.04	Total	--	10.29

Sources: *Collection of Historical Data on Modern China's Economy*, 1949 :263

Worse still, starting from the 1920s, the problem of land concentration and consolidation became graver. From 1905 to 1924, in the county of Kunshan, the ratio of tenant farmers rose by 20 per cent and the percentage of land-holding peasants fell by 18 per cent. In Changshu's rural area, from 1900 to 1933 the percentage of the land owned by landlords making up just 1.3 per cent of the total population, rose from 70 per cent to 81.7 percent; meanwhile the percentage of the land owned by poor farmers, who accounted for 65 per cent of total population, decreased from 10 per cent to 5.7 per cent (Zhang, 1957:55; Xue and Feng, 1983: 477).³⁹ Around 1937, in many villages in Subei and Jiangnan, farmers without land or short of land accounted for over 90 per cent of total households. Those villages became "villages of tenant farmers /farm labourers" (Cao, 1996: 25).

In a traditional agricultural society, since other sectors could only absorb a very small number of surplus workers, rural labourers had to rely on land to generate income and to survive. In a highly involutory agricultural economy, more income required more labour. So if the farmers owned very little land or no land, they could hardly support themselves and their families. In the 1920s and the 1930s, land ownership in China was highly concentrated: most of the rural population was made up of tenant farmers and landless farm hands, both of which worked for landlords who ruthlessly exploited them. Once external conditions permitted, these farmers were most likely to flee their villages and look for opportunities in cities. We could conclude that in the Republican Period, the unequal distribution of land ownership was a major force driving farmers to leave their villages. As written in a book published in the Republican Period:

Along with the bankruptcy of China's villages, more and more farmers left their villages. Thirty years ago, in rural areas in the provinces of Jiangsu and Zhejiang, farmers, regardless of landlords or tenants, did not easily leave their villages. But now, in many villages over 10 per cent or 20 per cent of farmers have left their villages, such as in Lishe in Wuxi. Poor farmers, whose land was insufficient, became part of the surplus labour force and were highly motivated to leave their villages (Mu, 1936: 59).

³⁹ Kunshan and Changshu were the counties near Shanghai, both belonged to the Jiangnan Area. See Fig. III.1.

In short, the fundamental problem of China's rural areas was not only the shortage of arable land or population pressure. Here, one should bear in mind that China had always been a country with limited land resources per capita. This and the use of traditional farming techniques meant that resources were stretched almost to breaking point that agriculture was close to saturation. Due to the small-scaled agricultural operations and insufficient capital input, agricultural productivity in China rose slowly or even stagnated. It could hardly absorb any more population growth. It had reached the "high-level equilibrium trap" (Elvin, 1973: 298-315).⁴⁰ Worse still, the unequal distribution of land led to a huge number of landless farmers. They could hardly eke a living given the high rent of the land and low income. In some areas, non-agricultural income made up over half of a rural household's income. Yet paradoxically, this reliance on non-agricultural production increased the rural economy's vulnerability rather than diminishing it. When China entered the international market after the Opium War (1840-1842), it was highly influenced by imports and exports, which created market forces capable of dealing a crushing blow to China's farmers.

As Mao believed, the core problem of China was the country's farmers and its land issues. The Communist Party of China has made efforts to resolve land distribution problems and to improve the living conditions of farmers. This is not the only reason that Mao won the Civil War in 1949 but it did become a key factor in China's prosperity from the late twentieth century onwards.

III.3 Comparison of two region's rural economies: Subei and Jiangnan

As concluded in the last section, flat rural productivity and the unequal land distribution in rural China, which led to the surplus labour force, were the underlying reasons why farmers left their villages. However, they were not the direct 'push' factors for this rural emigration. According to scholars, some factors, such as natural disasters, wars, and economic crisis quickly trigger mass-migrations (Zhou and Wang, 2011:13-14; Peng, 1999: 151).

⁴⁰ The high-level equilibrium trap was a concept firstly defined by Mark Elvin, to explain the problems of China's development and the reasons for not achieving an Industrial Revolution, despite China's wealth, stability and high level of scientific achievement. See Elvin (1972; 1973).

Since China is a country with big agricultural differences between its regions, this section will focus on villages in Subei and Jiangnan areas, the major places of origin for immigrants to Shanghai, to explain the direct push factors for the rural emigration.

III.3.1 Location of Subei and Jiangnan and their economic differences

As mentioned before, Jiangsu and Zhejiang were the main provinces from which Shanghai's immigrants hailed, accounting for 80 per cent of all immigrants to the city and 60 per cent of Shanghai's entire population (See Chapter II). However, given cultural, social and economic differences between the provinces, they were often divided into two areas for academic purposes: Subei and Jiangnan (Honig, 1992, 10; Honig, 1989, 244-245; Li, 1920, 48-49).

The definitions of Jiangbei and Jiangnan have been controversial in academe (Wang 1938:348-349; Ash 1976: 268-269; Spence 1978:118; Honig 1992: 20-28). Literally, they refer to different parts of Jiangsu and Zhejiang provinces divided by economic, social, language and cultural differences with the boundary of the Yangtze River but the reality is far more complex. 'Subei' in the broad sense includes the broad areas to the north of the Yangtze River in Jiangsu Province and south of the Longhai Railway, encompassing 34 counties and cities including Fengxian, Peixian and Xiaoxian counties and Suzhou City (宿州) in today's Anhui Province in the north, bordering Shandong, Henan and Anhui provinces, as well as Nantong City and Chongming Island in the south. Jiangnan in the broad sense refers to areas south to the middle and lower reaches of the Yangtze River, i.e. Sunan, Zhejiang, areas of Anhui south to the Yangtze River, Jiangxi, Hunan and areas of Hubei south to the Yangtze River. Subei and Jiangnan in the narrow sense are much smaller: here Subei includes areas of Jiangsu north to the Yangtze River, areas south to Huai River surrounding its northern bank and may broadly refer to today's cities of Yangzhou, Taizhou, Nantong, Yancheng, Huai'an and southern parts of Suqian in Jiangsu Province; Jiangnan refers to areas of Jiangsu Province north to south Qiantang River and parts of Zhejiang Province, including such cities as Ningbo, Shaoxing, Wuxi and Changzhou (Subei Famine Relief Committee, 1947; Guo, 2003; Su, 2006: 27-28). In the book *Creating Chinese Ethnicity — Subei People in Shanghai*, Honig took the narrow definition, namely "Jiangnan (the Ningbo/Shaoxing

region of Zhejiang and the Wuxi/Changzhou area of Jiangsu), and Subei (the area of Jiangsu north of the Yangzi River and south of the Huai, sometimes called Jiangbei)” (Honig 1992:20-22). Here I follow her scope, and it can be seen in the map in Figure III.1.

Before discussing their economic differences, one should briefly note the importance of distance and transport in connection with migration. Table III.11 shows that the main counties of Jiangnan area were closer to Shanghai and had better railway links. Although the two areas were not far from Shanghai (their main cities were within 300 kilometres of Shanghai), the average distance of Jiangnan’s cities was 100 km closer to Shanghai than Subei’s cities.

Table III.11 Distance from Subei and Jiangnan to Shanghai, the 1930s

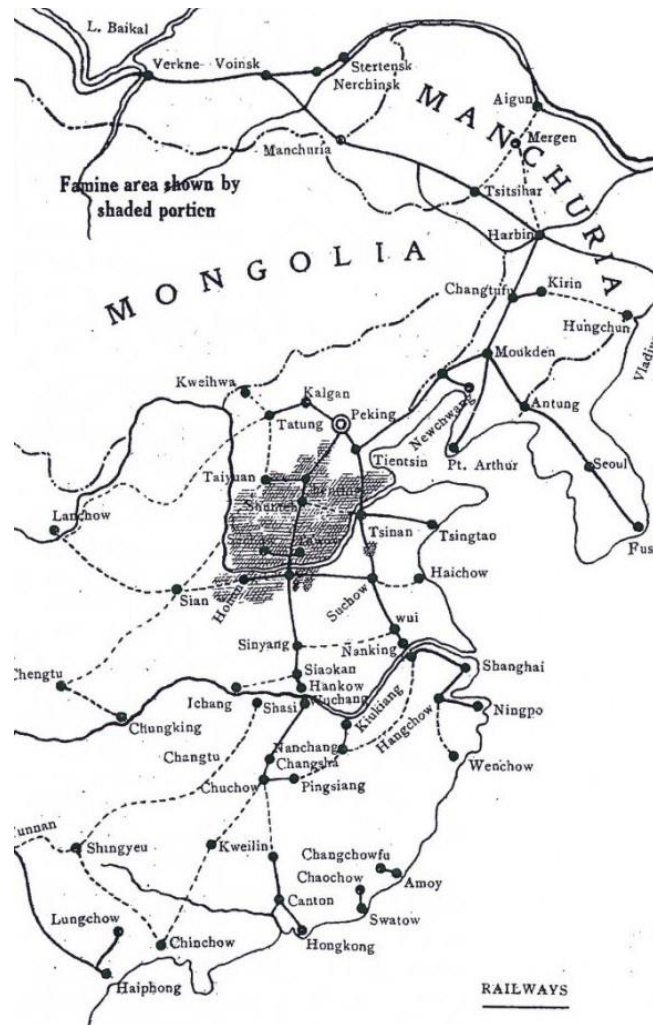
Area	Counties	Direct distance to Shanghai (KM)	Distance to Shanghai by road (KM)	Railway access
Jiangnan	Ningbo	152	216	Yes
	Shaoxing	162	196	Yes
	Wuxi	114	140	Yes
	Changzhou	156	189	No
	Suzhou	85	112	Yes
Subei	Yangzhou	234	276	Yes
	Taizhou	200	242	No
	Yancheng	266	308	No
	Nantong	100	129	No
	Huaian	352	428	No

Sources: Author, based on data from Database, China’s Ministry of Transport .

Until the 1930s, most cities in the Jiangnan area had direct train links to Shanghai (Fig.III.3).⁴¹ From Wuxi, there were 8 trains a day and it just took two hours to reach Shanghai. However, in the Subei area, everyone from small cities or rural areas had to take a train in Nanjing, the capital of Jiangsu Province, which was 311 km away from Shanghai.

⁴¹ The region with the largest railway network in the 1930s was Manchuria. The railway from Peking to Hangzhou and Ningbo was built in the 1920s.

Fig. III.3 China's railways in the 1930s



Source: Rawski and Li, 1992.

There was another big difference between the Subei and Zhejiang rural areas:

Although separated by a river, Jiangnan and Jiangbei their divisions are rooted in a thousand years of history. Since ancient times, Jiangnan was known for its fertile soil, beautiful scenery, convenient communications and refined culture; on the contrary, Jiangbei's soil was infertile, its people were impoverished, the land was desolated and the culture was backward (*Jiangsu Monthly*, August 1935: 1).

Such is the description of the differences between Subei and Jiangnan in the historic records. The marked contrast between the agriculture of the two regions lay in their differences regarding soil fertility, irrigation and communications (Guan, 2009:12). The

biggest difference lay in economic structure: In Subei, peasants mainly engaged in traditional crop-planting whereas in Jiangnan, farmers also made a living from non-agricultural production (sideline sectors). Thus the relative weights of non-agricultural activities marked the difference between the rural areas of Subei and Jiangnan.

After analysing the sources listed in Table III.1, one can conclude that there were significant income disparities in rural non-agricultural output (see the following Table III.12). In Jiangnan's countryside in places such as Wuxi and Nantong, non-agricultural activities (especially mulberry leaf growing and silk weaving) were bigger than crop planting and had become farmers' main source of income. Yet in Subei and other parts of China, non-agricultural income was less than 20 per cent of total household income and in some cases less than 10 per cent.

Table III.12 Income from non-agricultural activities (1925-1939)

Region	Places surveyed	Survey conducted	Non-agricultural income in total income %	silkworm breeding and mulberry leaf growing as a percentage of total income
Jiangnan	Wuxi	1938-1939	53.76	40.17
	Nantong	1938-1939	55.86	--
	Wujin	1923-1934	49.29	28.22
	Wuxi	1935	59.44	42.27
	Tangshan	1923	60.83	37.58
Subei	Chunhua, Jiangning	1925	12.26	--
	Taipingmen, Jiangning	1925	8.91	--
	Yancheng	1934	15.2	--
Other regions	Kaifeng, Henan	1925	1.96	--
	Pingxiang, Hebei	1925	9.06	--
	Guangzhou	1933-1934	4.03	--

Note: As the methods and measurement of income were very different in each survey, I just calculated the proportion of income from non-agricultural activities to compare the regions. Income from silkworm-breeding and mulberry-growing is included in non-agricultural sectors. Sources: Calculated according to data from Dong (1935):199-200; Buck (1930); Xu (1937); Sun (1934); Liu (1939), Feng (1935), Qian (1930), and the Central Political Academy (1936).

Given this difference in agricultural economic structure, the direct reasons prompting Subei and Jiangnan's farmers to leave the countryside and seek jobs in cities were also fundamentally different.

III.3.2 Natural disasters and wars in Subei

In Subei, traditional crop-planting dominated the rural economy and non-agricultural production was uncommon. Despite the development of industries in big cities and their openness to trade, rural non-agricultural activities did not develop in Subei. Some scholars even believed that household textiles in Subei had declined and all but vanished before The Opium War (Wang, 2004: 269). Yet Wang's research proved that there was no tradition of non-agricultural activities in Subei given that natural conditions were unsuitable for silkworm breeding and mulberry leaf growing (Wang, 2004: 277); Chen believed that rural productivity in Subei was lower than Jiangnan. Subei's traditional cultivation was not the "intensive and meticulous farming" found in Jiangnan. Lower farming efficiency and poorer soils meant more labourers were needed so there were few workers to be spared for non-agricultural production (Chen, 2005: 74-75).

Unlike Jiangnan women, Subei women played a more positive role in agricultural production. According to records in historic newspapers, we found such rare descriptions about Subei women as the following: "In the irrigation and fertilisation season, women ran through the fields carrying 70-80-pound buckets filled with dung on their shoulders."(Cao, 1934: 10-11). Women also raised pigs, harvested wheat, planted rice and piloted boats. Aside from looking after the household, Subei women did everything that a man was supposed to do (Wang 1936: 614-615).

Among the various studies on why Subei people left the countryside, two words crop up again and again: natural disaster and poverty (Cai, 2006:27; Chen, 2005:75; Honig, 1992: 68; Ma, 2002:24). Natural disasters such as flood and drought devastated agricultural production, causing serious famine in many places and forcing Subei's people to flee their towns and villages and seek a livelihood elsewhere.

From 1842 to 1949 major natural disasters and wars caused several waves of migration

from Subei: The famine in the 1860s, combined with The Taiping Rebellion people to leave (*North China Herald*, Feb.1907).⁴² In 1907, various calamities forced many Subei people to flee with their families. Shanghai even created a Jiangbei Famine Relief Committee to deal with the issue of Subei refugees. The influx of Subei refugees caught the attention of foreigners in Shanghai, who called them “Jiangbei Class” (Toa Dobunkai, 1908: 388-389).

Table III.13 Floods in Subei and the Main Wars in China (1900-1949)

	Floods in Subei	Main Wars in China (1911-1949)
Years	1903, 1906, 1909, 1910, 1911, 1916, 1921, 1931, 1938, 1949	1911: Xinhai Revolution 1926-1928: Northern Expedition 1927: Shanghai massacre 1931: Mukden Incident 1936-1945: Second Sino-Japanese War 1945-1949: Civil War

Source: Wu,1996: 158-159.

In 1911, 1921 and 1931, Subei region was struck by three serious floods, forcing local residents to flee to Shanghai and elsewhere in search of a livelihood. The flood in 1931, in particular, hit Subei hard. During the flood, in which both the Grand Canal and Huai River overflowed, 982.4 acres of farmland were under water, affecting over three million households in Subei. Among them, 40,000 households suffered severe famine (Chen, 2005:48-49; *Selection of archives on the 1931 flood*: vol.4). The flood forced whole families to migrate to Shanghai. According to government data, about 78,045 Subei refugees arrived in Shanghai (Shanghai Municipal Council, 1932; 66). A newspaper account of the time gives one an idea of the flood damage:

The city of Gaoyou is threatened by the rising flood waters. After days of rain, the water level rose by over 2 zhang (6.66 meters) and will overflow river banks (...) In the Xiahe region, 90 li (45 kilometers) of land in Dongxiang was flooded, 60 li (30 kilometers) of banks from Touzhakou to Jieshouzhen were breached and under water. Countless livestock was

⁴² The Taiping Rebellion was a revolution led by farmers in the late Qing Dynasty, which founded an oppositional state in China from 1851 to 1864.

drowned and houses were under water. Cries could be heard everywhere. Rice and firewood were very expensive and hard to purchase. It is the biggest disaster for the past 100 years (*Republic of China's Daily*, September 26th 1921: front page).

In the decades that followed, wars became the main reason for migration from Subei (Honig, 1992: 38). In the 1930s, the Second Sino-Japanese War (1937-1945) and the Civil War with the Nationalist Party on one side and the Communist Party on the other forced many Subei people to flee. According to registrations by the Shanghai Committee for the Relief of Subei Refugees, people from the region were the largest group of the 80,000 refugees that swarmed into Shanghai in 1937, accounting for one third of the total (Xu, 1937: 17-18).⁴³ In 1946, the number of registered refugees came to 59,000 (Subei Famine Relief Committee, 1946). According to a report in a Shanghai-based newspaper, “impoverished Subei people could not make a living in the countryside and had to flee with their elders and children to Shanghai as beggars. They spread across Shanghai, from the northern railway station to the inner city, along The Bund area of Nanjing Road and Huangpu River. At night, they slept in the street. Their circumstance were utterly deplorable.” (*Da gong bao*, 20th September 1947). This account is a microcosm of hundreds of thousands of Subei refugees, who desperately fled to Shanghai for survival.

⁴³ According to Xu's report, of the 75,004 registered refugees, 33,053 were from Subei Area.

Fig.III.4 Wars in China during the 1930s



Sources: Thinklink, *China and Japan 1930-1940*, Ch. 37.

While Subei refugees swarmed into Shanghai, some went elsewhere. For instance, Nanjing’s shantytowns also housed many Subei refugees, who accounted for over half of shantytown dwellers. The Jiangnan region also became haven of choice for Subei refugees (Lin, 1937:5). Due to its reliance on farming, Subei’s countryside had long lost the textiles, handicraft and commerce sectors as ways of supplementing agriculture. Yet farming was vulnerable to frequent and devastating natural disasters. In Lixiahe and Huaibei areas of Subei region, after autumn, farmers would travel to Jiangnan for odd jobs, peddling and even begging. “Before flood struck, rural folk sealed their house doors with mud and left.” (Jinling University, 1932:32).⁴⁴

This view is borne out by the Survey on Subei folk, who accounted for 95 per cent of Shanghai’s rickshaw-pullers. According to a survey on 100 rickshaw pullers in Yangshupu during 1929-1930, 85 of them left their places of origin due to famine and nine had fled with their parents as children. Most of them came from the poorest rural

⁴⁴ Survey of the economic impact of the 1931 flood, made by Jinling University, 1932.

areas of Subei, such as Dongtai, Yancheng, Funing, Gaoyou and Taixian counties (Lei, 1930: 18-19; Zhu, 1939:674). In 1929, a rickshaw puller recounted that:

A couple of years ago, famine drove me to Shanghai. My father had five children and I am his second. My elder brother works at a lightbulb factory (in Shanghai). My third and fifth brothers are farmers in Jiangbei. My fourth brother is a rickshaw puller in Shanghai. Due to disasters in Jiangbei, I came to Shanghai and became a rickshaw puller, leaving behind my wife to tend to the farm. My parents are supported by our six siblings. This year, Jiangbei's famine is much worse than before, so my wife and six children recently also came to Shanghai. (Shanghai Social Affairs Bureau, 1934:41).

Another factor during this period was the lack of public administration and help. As a result of the dynastic changes, the turbulence of governments at the beginning of The Republic of China, and endless wars, the central government was unable to manage the country. Despite frequent floods in Subei area and other regions, central government and local governments took virtually no measures to deal with natural disasters. Just one national disaster relief committee was set up by central government in 1931 but lack of public spending meant the committee played only a minor role during the relief work (Zhong, 1936: 39-42).

In short, natural disasters and frequent wars during the Republican Period ruined agriculture in Subei. Farmers suffered starvation and had to flee their villages.

III.3.3 Economic collapse in Jiangnan's villages

As analysed in the last chapter, farmers who could not survive through traditional agriculture had to earn make ends meet through non-agricultural production. Especially in Jiangnan, non-agricultural activities were so important and farmers drew over half their income from sectors that did not involve planting crops (Table III.12).

Rural non-agricultural activities, mainly silkworm breeding and mulberry leaf growing, brought great income for Jiangnan farmers. The following Table III.14 shows the comparison of income from mulberry fields and crop fields for each unit of land in Wuxi County.

Table III.14 Income from mulberry fields and crop fields per unit of land in Wuxi County

Years	Mulberry fields			Crop fields							Difference between Mulberry and Crop fields
	Production (jin)	Unit price (yuan)	Total price (yuan)	wheat			rice			Total grain price (yuan)	
				Production (dan)	Unit Price (yuan)	Total wheat price	Production (dan)	Unit Price (yuan)	Total rice price		
1913-1920	130	0.50	65	0.70	4	2.80	2.30	5.50	12.65	15.45	49.55
1927-1929	150	0.50	75	0.70	5	3.50	2.30	8.00	18.40	21.90	53.10

Note: Jin is a unit of measure in China, 1 jin= 0.5kg. Dan is the old unit of measure for grain, 1 dan = 100 litres, according to the The Republic of China's Units of Measurement Act (1930).

Source: Yan,1986: 247.

As noted by Mr. Fei Xiaotong, famous anthropologist, in his *Peasant Life in China*, in the silk industry's good times in the 1920s, an average Jiangnan household could earn 250 yuan a year by producing raw silk (the price of processed silk was over 1 yuan for each liang⁴⁵ and each household could produce 250 liang of processed silk. Deducting the cost of 50 yuan, their income was about 300 yuan). At that time, the basic cost of living was about 200 yuan for a household, which means that non-agricultural income was enough for a household to maintain good living standards. As can be found in the daily budget of rural households in Jiangnan, their income from silk reeling cannot be seen as supplementary or secondary because it accounted for over half of total household income. Without the income from silk reeling, rural households in this region would not be able to make a living (Fei 1930: 12-16; 170-171; 202-203).

There is a critical point for this model of rural economy in Jiangnan: China's opening up to international trade after The Opium War (1842) and China's long isolation had a big impact on the country's economy.⁴⁶ This was especially true for rural non-agricultural

⁴⁵ Liang was an old unit of measure for weight in China. 1 liang = 50 grams. It also can be used as monetary unit, to refer the weight of silver.

⁴⁶ In 1757 Qianlong Emperor (Qing Dynasty) began the "Seclusion Policy (bi guan suo guo)" and forbade foreign trade. After the First Opium War, with the Treaty of Nanjing five trade ports were opened and China's foreign trade gradually recovered.

activities.

On the one hand, the development of trade and foreign capital investment brought modern industries to China. They not only promoted the export of the non-agricultural products from rural areas but also meshed them into urban industrial activities. The production of textile products (mainly raw silk and cotton) in Jiangnan formed part of Shanghai's industries and trade.

On the other hand, openness to trade made the rural economy more vulnerable. The imports of industrial products, such as machine-woven cloth, machine-spun cotton yarn and new-style industrial products sidelined China's traditional rural non-agricultural activities. They displaced rural handicrafts in cities, towns and even villages, and caused the collapse of the rural economy. Worse still, the exports of rural products were deeply affected by international market turmoil. Changes in international prices sparked an economic crisis, depressing demand and made life harder for peasants.

In this section, I will explain the connection between rural non-agricultural activities and Shanghai's economy. I shall then analyse the impact of foreign trade on the main rural non-agricultural products — cotton yarn, cotton cloth, raw silk and tea, and the reasons for rural emigration in Jiangnan.

III.3.3.1 Integration of rural non-agricultural activities in the modern economy

First, industrial development in Shanghai formed the economic system in the Yangtze River Delta with Shanghai at its centre.⁴⁷ This system strengthened economic ties between Jiangnan's rural areas and Shanghai.

Since the 1880s, the emergence of silk-reeling machines in Shanghai led to growing demand for raw cocoons. However in the countryside around Shanghai, there was no production of raw cocoons. As a result, many Jiangnan regions — especially Wuxi — became important cocoon suppliers for Shanghai's silk mills (Zheng, 2008:172). The

⁴⁷ The Yangtze River Delta includes the southern Jiangsu province and northern Zhejiang province of China. This area coincides with Jiangnan Area, which literally means "south of the Yangtze River".

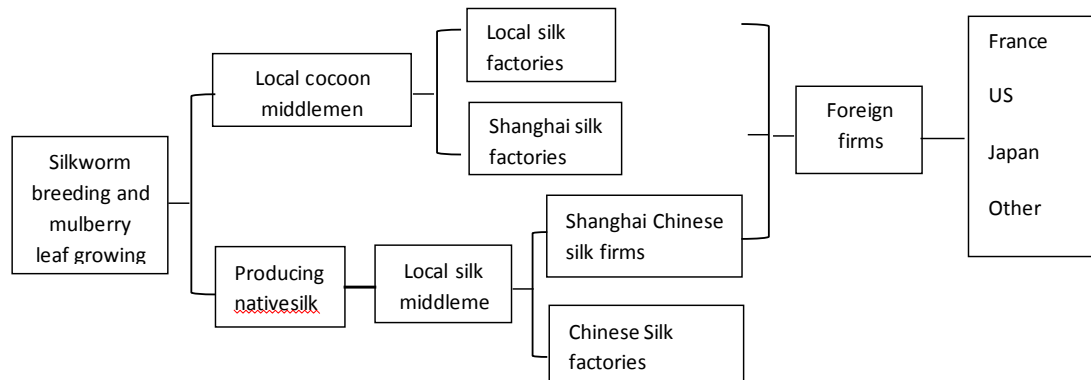
silkworm breeding industry of these cities was closely tied in with mass industry from the outset and entered a new stage of development. Shanghai's burgeoning silk mills needed a growing supply of raw cocoons from Jiangnan.

In 1882, Wuxi supplied about 3,000 loads of dry cocoons to Shanghai. In 1897, Shanghai's silk mills directly or indirectly bought 15,000 loads of dry cocoons from Wuxi (Chen, 1984:5). The growing profitability of the silk industry led Jiangnan's local merchants to open machine-operated silk-reeling mills. Wuxi happened to be extremely well placed to build up a silk-reeling industry — a labour-intensive sector that required relatively small investment and offered quick returns. Wuxi is close to Taihu Lake, which had the good water supplies desirable for silk-reeling. In addition, Wuxi's counties had an abundant supply of cocoon silk. More importantly, Wuxi's farmers had long had the silk-reeling craft skills and know-how (Zheng, 2008:172). After some training, they could easily operate silk-reeling machines. Silk products made at Wuxi's silk mills were transported to Shanghai for export or for distribution to various parts of China.

Since the creation of the first machine silk thread by Zhou Shunqin at Dongjiang in Wuxi in 1904 (Yuchang Silk Mill), the number of silk mills in Wuxi had grown fast. After the 1920s, in particular, the number of silk mills and looms rose rapidly. By 1930, there were 48 silk mills with 14,732 silk looms in Wuxi, which won Wuxi the reputation of "The Silk Capital" (Xu, 1990:196). With the emergence of local silk mills and growing demand for industrial raw materials, Wuxi became a distribution hub for silk mill raw materials and farmers began to sell fresh cocoons instead of self-reeled raw silk, thus creating a close tie between local agriculture and industry. Local supply of goods and raw materials enabled Jiangnan cities such as Wuxi to become part of Shanghai's economic hinterland and to train many skilled workers.

With silkworm breeding and mulberry leaf-growing strongly linked with urban industrial activity, Jiangnan's rural non-agricultural activities developed their own distribution channels (see Figure III.5), which consisted of silkworm breeding and mulberry leaf growing, silk mills and foreign trade. This channel came into fashion in the early 20th century and reached its peak in the 1920s.

Fig. III.5 Distribution Channels of Rural Non-agricultural Output in Jiangnan

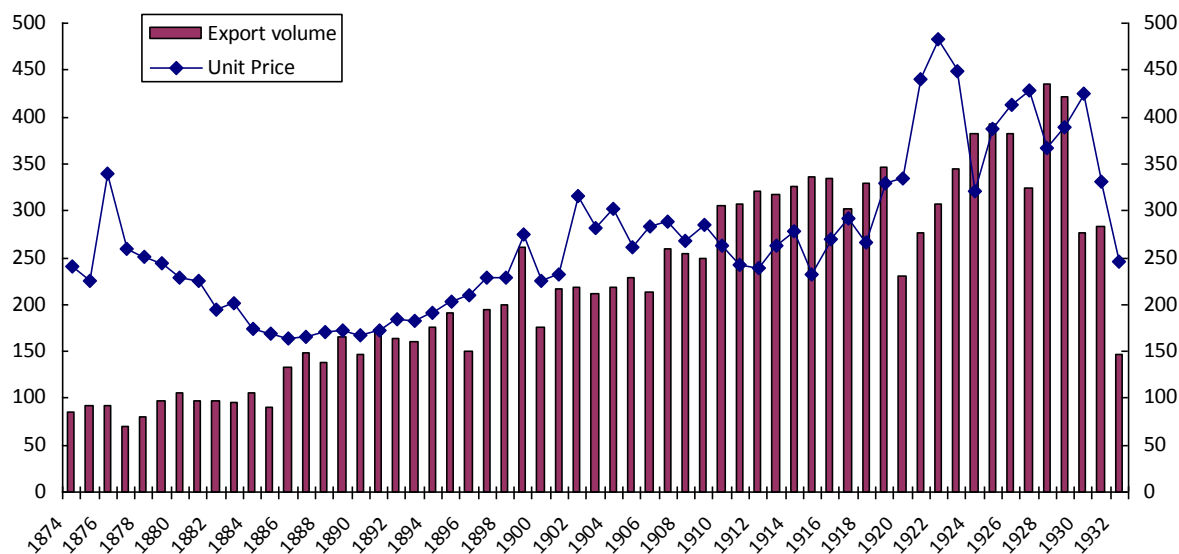


Source: Author, based on data from Yan,1986:254.

Jiangnan's non-agricultural products not only supplied Shanghai's textile industries but also the international market. The international market's demand had been steadily climbing since the 1850s. With low silk production in Europe and the low cost of both labour and raw silk in China, western countries increasingly imported raw silk from China. Good profits attracted more and more farmers into silkworm-breeding. For some it had become a secondary source of income, for others the sole source. Many local governments also encouraged this shift. Silkworm-breeding became the main non-agricultural activity in many rural areas, especially in Jiangnan.

More families turned to raising silkworms. There were over 30 cocoon mills by 1921, capable of producing 200,000 dan of raw silk per year. Mulberry forests stretched for miles. Almost all households have mulberry plantations and silkworms (Lu, 1921:151).

Fig. III. 6 Raw silk export volume and price in modern China (1874-1933)



Notes: 1. The volume unit is in thousand dan. In Republican China, 1 dan= 50kg.

2. The price was measured by liang/dan. 1 liang= 50g silver. According to the calculation of weight and price of silver in January 1928, 1 liang was roughly 92 cents.

Sources: Author, based on data from Historical Archives of China's Customs, archives in China's National Library.

As Figure III.6 shows, international raw silk prices kept rising from 1885-1920. The export price rose from 200 liang per dan to over 400 liang/dan. Exports seemed set to give farmers' incomes a big boost. According to historic records, silk farmers in Jiangnan were able to earn over 400 yuan during the peak years of raw silk export (Howard and Buswell, 1925: 112-115). In the 1920s, farmers could earn at least 200 yuan a year — a figure making up over half of the family income (Fei 1930: 12-16).

It is therefore true that Chinese silk farmers greatly benefited from international trade before the 1930s. Indirect proof of this is furnished by the big expansion of mulberry plantations and raw silk output. However, the rise in revenue was based on greater international demand for silk, the trade in which was controlled by foreign firms. Furthermore, the industry was sensitive to changes in the international market.

III.3.3.2 International market impacts

The impacts of the international market on non-agricultural production fall under two heads: (1) the impacts on imported products in the Chinese market; (2) competition with the products of other countries in the international market.

The products most affected by imports were cotton yarn and cotton cloth.

Since the 1860s, machine-made cotton yarn from India and machine-woven cotton cloth from Great Britain started making inroads into the Chinese market. Because of its smooth, even and fine texture and low price, machine-made yarn became widely used, first in non-cotton producing areas in Southern China and then expanding into Central and Northern China. By 1894, it already accounted for 23.42 per cent of the total yarn used to produce cloth in China, and most of the manual yarn mills, except those in Jiangnan, were driven out of business. This situation was further worsened by the massive influx of Japanese yarn in the early 1900s, which quickly ruined the local industry in Jiangnan. Machine production techniques had a huge impact on the traditional yarn and cotton mills. By 1936, 75.94 per cent of the yarn used in China was machine-made. Machine-produced cloth grew relatively slowly, providing 14.15 per cent of cloth used in China in 1894 and 56.84 per cent by 1936 (Xu and Wu, 1990: 319-320).

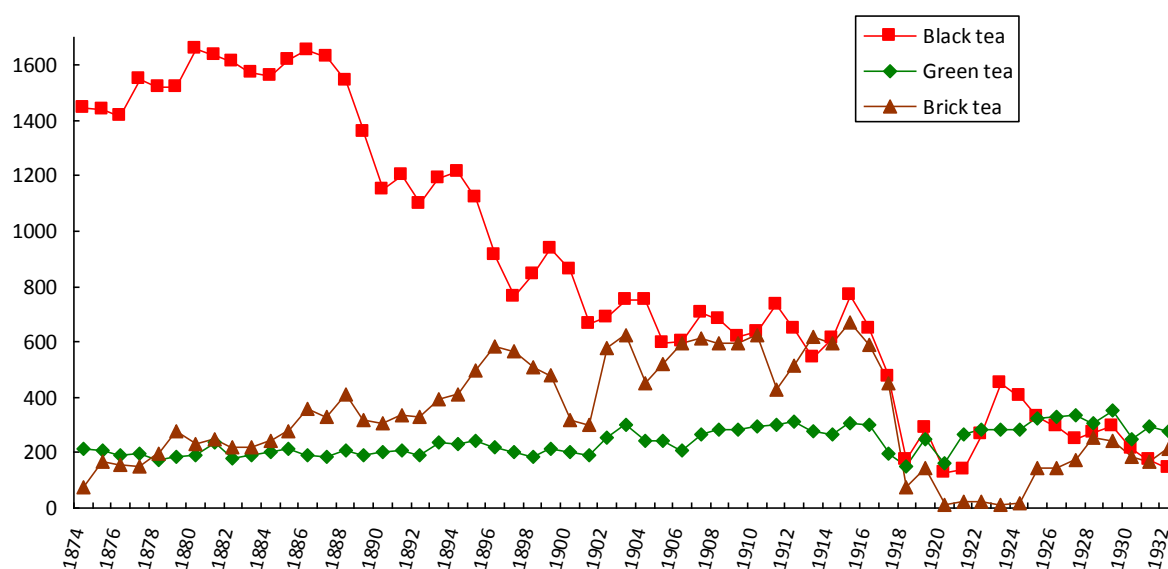
The replacement of hand-made yarn and cloth by machine-made products hit China's rural economy hard. According to Xinwu Xu, 45 per cent of China's rural population made a living from hand-spun cotton in 1840 but this had dropped to just 30 per cent by 1936 (Xu, 1992: 217). The once well-off yarn and cloth region gradually declined, especially in Jiangnan. Songjiang County was just one example of what befell many other Chinese regions:

Under the reign in Emperors Yongzheng and Qianlong, Songjiang was the most prosperous county thanks to its textile industry. Then Suzhou city caught up and overtook Songjiang. Yet of late, cloth from overseas has become popular and so Suzhou too has had to throw in the towel. Since trade started with abroad, Songjiang County has been flooded with foreign cloth. Needlecraft profits have dropped as a result. (Zhang, 1927: 503)

While machine-made yarn and cloth first came only from abroad before 1910, it soon became something that could be woven locally and indeed was mainly Chinese-made since then. By 1936, China had become a net exporter of machine-made cotton yarn. It was mentioned earlier that machine-made cloth accounted for 56.8 per cent of the cloth market in 1936, of which 45 per cent was actually made in China (Xu and Wu, 1990: 319-320). This means textile mill profits had been lost not to foreign machine-based factories but to domestic ones.

In the international market, the traditional export product — tea — met more competition.

Fig. III. 7 Export volume of tea from China (1874-1933)



Notes: The volume unit is in thousand dan.

Sources: Author, based on data from Historical Archives of China's Customs, archives in the National Library of China.

Compared with raw silk, tea yielded little added value and required few special skills. That is why the industry faced international competitors earlier than silk. Black tea, the variety that was most exported, suffered competition from India and Ceylon and saw a sudden drop in export volume from 1890 onwards. By 1920, the trade was only a fifth of that in 1870.⁴⁸ Green tea was mostly sold to the U.S. but competition from the

⁴⁸ Black Tea in Chinese is called 'hong cha'.

Japanese slowed down the growth of green tea exports, from 200,000 dan in 1870 to only 300,000 dan in 1930. Its share in the international market actually grew smaller as the world market expanded (Guan, 2009: 167-168).

As with other products, the trade of tea was also in the hands of foreign trade companies, tea farmers, distributors, and teashops' profits from the trade were dwindling. Jiangnan, as one of the main tea production centres for tea in China, suffered a lot. Other products, the cotton products and raw silk, also met competition from India and Japan, depressing Chinese farmers' incomes.

The changes caused by opening up the domestic market and international trade affected rural non-agricultural production; however, it did not cause this economy to collapse. As a matter of fact, the real big shock to rural non-agricultural activities came from the aftermath of The Wall Street Crash in 1929. Demand for and the prices of non-agricultural products fell sharply, bankrupting many farmers. The impact of the Great Depression will be analysed in Chapter V.

From the above analysis, it can be seen that although machine spinning technologies did have an impact on traditional mills, they only shifted the profit to domestic machine owners. A major share of yarn was still produced and supplied from within China. Some areas that had adopted machine technologies emerged as new cotton-producing centres and did well. There was therefore no evidence to support the idea that the introduction of machines was to blame for rural bankruptcy in Modern China .

Considering the rising export in raw silk and tea in China at the time, the industries did bring some extra income to farmers and also helped build some new business centres in towns and regions and thus had a positive side.

Yet the growth of income from these non-agricultural activities was neither stable nor sustainable. That is because exports and pricing power all lay in the hands of foreign trading companies. How much more the farmers could earn also completely depended on the international market. That is why when the economic crisis hit, the small extra income farmers made disappeared in the twinkling of an eye. As foreign countries raised customs duties, forbade imports and increased dumping of their own products in

China, prices for agricultural and secondary fell steadily. Farmers in China mostly worked in families and could not withstand such volatility. The government lacked the wherewithal to bail them out. In the end, many farmers borrowed to make ends meet or went bankrupt.

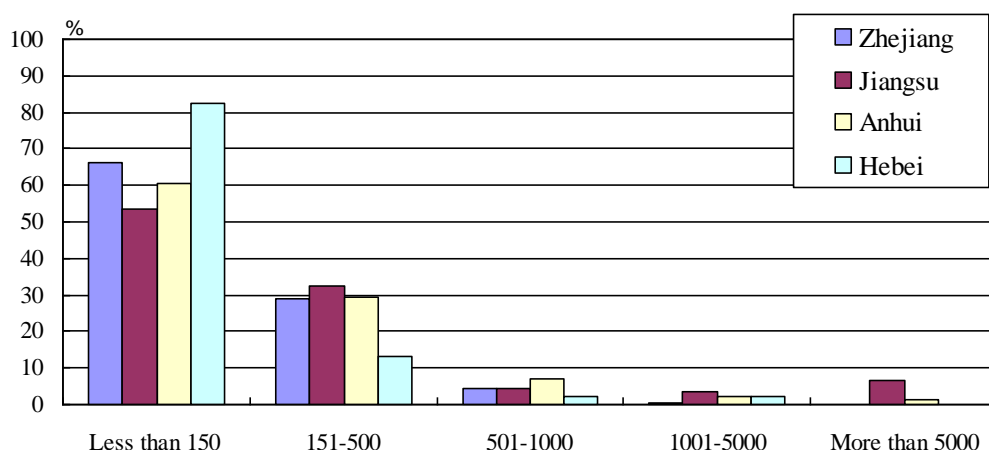
From the information above, it can be seen that the economies of rural areas only developed slowly and on a small-scale, or even stagnated. This happened in both Subei and Jiangnan, notwithstanding their regional differences. Large areas of cash crop plantations took away land from grain crops, making rural economy more vulnerable. Once a disaster or economic crisis struck, with the government unable to stabilise prices, farmers took the full brunt. Many farmers went bankrupt and emigrated.

III.4 Income and Debts in rural China

With the lack of rural information and the big regional differences, it is hard to analyse rural families' economic situations. In this section, I will try to analyse income and debts in rural China by drawing on the results from surveys during The Republic of China (listed at the beginning of this chapter).

Agricultural stagnation kept peasants' income low. A high proportion of country-dwellers lived in grinding poverty. A survey of over 5,000 rural families in four provinces revealed that most rural families earned under 150 yuan a year, which was below the poverty threshold (Li, 1935, 32-37. See Figure III.8). Li set the poverty level as 292.21 yuan for the 1930s in China, and he concluded that over 76.47 per cent of the rural population lived beneath this level (Li, 1934, 97).

Fig.III. 8 The annual income of rural families in four provinces (1930)



Sources: Author, based on data from Li, 1935, 32-37.

As pointed out in the previous section, tenant farmers are most likely to leave their rural homes since they do not own arable land. With any pull from outside or push from within villages, they would be more than ready to go to cities. The fact that they are paid wages instead that bear no relation to the price of agricultural goods made them all the more mobile.

Table III.15 Nominal wages of farm labourers in China 1929-1933

Regions	Counties surveyed	Nominal wage (male)
Wheat Cropping Area	63	34.99
Spring Wheat Area	21	32.32
Winter wheat-millet area	32	36.93
Rice Area	10	41.87
Rice Area of Sichuan	13	22.35
Rice-wheat Area near the Yangtze River	30	37.78
Rice-Tea Area	26	50.31
Double-Cropping Rice Area	18	56.15
South-Western Rice Area	8	36.29
National Average	158	39.02

Note: Rice-Wheat Area near the Yangtze River was basically Subei, and Jiangnan the Rice-Tea Area.

Source: Buck, 1937:305.

Table III.15 shows that the average wage of farm labourers in China was 39.02 yuan. Farm labourers from two major places of origin for Shanghai workers—Jiangsu and Zhejiang—earned 37.78 Yuan and 50.31 Yuan, respectively.⁴⁹ Farm labourers’ wage in these two areas were close to or higher than the national average but they were much lower than workers’ wages in Shanghai. The wage of a worker in the ship-building industry, the best-paying sector at the time, was 10 times and 7 times higher, respectively, than that of a tenant farmer in Jiangsu and in Zhejiang. Even the lowest earning silk-reeling industry provided 2.7 and 2 times higher income than that of a tenant farmer in Jiangsu and Zhejiang.⁵⁰

The farmers’ income was low but at the same time peasants’ bore heavy financial burdens. During the Republic of China, farmers generally took on heavy debt, miring them in deep poverty.

Table III.16 The Income and Expenses of farmers in China 1930-1936

Type	Places	Average household income	Average household expenditure	Surplus	Year and sources
Farmers’ Family	Surrounding areas of Shanghai 1	260.4	399.4	-138.6	1930, Shanghai Social Affairs Bureau, survey of 140 families in one year.
	Surrounding areas of Shanghai 2	192.35	222.40	-29.95	1932, Shanghai Local Association, survey of 800 families in one year.
	Jiangnan Area	201.25	260.51	-59.26	1931-1936, surveys in 17 counties.

⁴⁹ Buck’s data (Buck, 1937). According to a survey by the Internal Affairs Ministry in 1930, these two numbers are 37.91 and 48.01 Yuan, which is fairly close to Buck’s figures.

⁵⁰ According to the wage statistics in Shanghai, the ship-building, printing and machinery industries paid the highest wages, which were 366.3, 316.3 and 254.6 yuan, respectively. The ones at the bottom were match-making and silk-reeling, which paid only 117.5 and 103 Yuan (Statistics of Shanghai, 1935).

Subei Area	187.86	218.96	-31.1	1931-1934, surveys of 4 counties of Anhui Provinces.
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Sources: Calculated using data from Dong (1935):199-200; Buck (1930); Xu (1937); Sun (1934); Liu (1939), Feng (1935), Qian (1930), and Central Political Academy (1936).

Table III.16 contains data taken from the above-mentioned surveys. It shows that almost all farmers spent more than they earned, whether it was in suburban Shanghai, Jiangnan or Subei.

The following four features (enumerated below) should be noted regarding rural debts during The Republic of China period:

(1) Over half of farming families were in deep debt.

The survey conducted by the Central Agriculture Institute in 1933 covering 22 provinces (excluding North-Eastern China) shows that 56 per cent of farmers needed to borrow money while 48 per cent needed to borrow grain (Central Agriculture Institute, 1934, vol.2).

In 1934, Xinzhe Yan conducted a survey of 268 rural households in Tushan Township, Jiang Ning County, Jiangsu Province. Only 38 households earning over 300 Yuan a year had a surplus of 52.54 Yuan at the year end. All the other 248 households were in debt, accounting for 86.71 per cent of all the families surveyed. The total debt was 12384.72 Yuan, or an average of 49.94 yuan per household (Yan, 1934: 211).

Nan Tong is a county in Subei area, “which was relatively better off than other counties in Subei in economic situation.” Yet the indebtedness issue was the same as in other counties. According to a survey in the early 1930s, among rural households 70 per cent of them had debt. Loans had become a serious issue for rural families (Zhan, 1935: 13). The Land Committee conducted a survey in 1936 on 1,745,357 rural households among 163 counties (including landlords, land-holding farmers and tenant farmers). The debt ratio had fallen to 43.87 per cent but on average, each household was indebted to the tune of 112,709 Yuan. Even taking inflation into account, the debt level was much

higher than in the 1920s (Land Committee, 1936).⁵¹ All these surveys showed just how badly farmers were faring during The Republic of China period.

(2) The main reason for farmers' indebtedness was the need to make ends meet and unexpected expenditure rather than investment in production.

According to a survey in July 1929 covering 8 counties including Jinhua in Zhejiang Province, 58.81 per cent of all households were in debt. The main use of borrowed money was not production. Most was used on life's bare necessities, then on weddings or funerals, after that on land, houses, fertilisers, farming tools and gambling, and both last and least, on seeds. No less than 75.1 per cent was spent on consumption while only 24.9 per cent was spent on production (Feng, 1933: 305; 602).

The Department of Economics from University of Nanking carried out a survey covering 852 rural households in Henan, Hubei, Anhui and Jiangxi provinces in the mid-1930s (Table III.17). The conclusion is that most of the debts were raised by rural households for non-productive purposes.

Table III.17 The use made of borrowed money by rural households 1934-1935

Type	Production Purposes	Non-productive purposes			Total %
		Food	Weddings and funerals	Other	
Owner-peasants	7.4	25.6	21.5	45.5	100
Part-tenants peasants	11.6	43.9	12.7	31.8	100
Tenant peasants	5.8	60.3	20.3	13.6	100
Average	8.4	42.1	18.1	31.4	100

Source: Yan, 1955: 344.

⁵¹ The prices were still stable during 1920-1930, however China suffered grave inflation from the 1940s onwards.

From the table above, it can be seen that only 8.4 per cent of the borrowed money was used by rural households to boost production. The remaining 91.6 per cent was spent on food, weddings, funerals or other events that were production-related.

These consumption patterns reflect the grinding poverty in which farmers lived. Money had to be borrowed just to keep the wolf from the door. Borrowings were used to meet day-to-day expenses rather than to boost farm output.

(3) Although borrowing was common in rural areas, most debts were incurred by mid and lower-income rural families. Surveys conducted by scholars in various counties proved this point.

Table III.18 shows a higher debt ratio in poorer families than in mid-income ones, and mid-income ones have deeper debts than richer farmers. That is to say, the poorer the families were, the higher the debt ratio.

Table III.18 Segmentation of farmers in debt 1933-1934

Region	Rich peasants %	Middle peasants %	Poor peasants %	Total %
Dingxian	13.0	24.0	63.0	100
Fanyu	11.0	21.6	67.4	100
Cangwu	1.7	8.7	89.6	100
Sien	4.6	10.6	84.8	100

Sources: Yan, 1955: 343.

(4) Usury was the main source of borrowing for farmers, although other sources were also available such as banks, money shops, co-operatives, pawn shops, shops and individual persons. According to statistics from the Central Agriculture Institute of the government of The Republic of China in Nanking, the sources of borrowing in rural China among 22 provinces in 1934 were as follows: 2.4 per cent from banks, 2.6 per cent from co-operatives, 8.8 per cent from pawn shops, 5.5 per cent from money shops, 24.2 per cent from landlords, 18.4 per cent from rich farmers and 25 per cent from merchants. Banks and co-operatives played a much more limited role than one would expect with regard to rural financing. Merchants, landlords and rich farmers were the

three main sources of rural borrowings, the three of them together accounting for 70 per cent of farmers' total borrowings. This means rural financing was basically in the hand of usurers (Central Agriculture Institute, 1934, vol.11; Feng, 1935:209; 688).

The interest rates imposed by these lenders were usually very high, placing a lot of financial pressure on the borrowers. The table that interest rates were usually over 20 per cent during The Republic of China period.

Table III.19 Interest rates of rural lending, 1936

Interest	<	15-	20-	25-	30-	35-	40-	45-	50-	75-	>	unknown
free	15%	19.9%	24.9%	29.9%	34.9%	39.9%	44.9%	49.9%	74.9%	99.9%	100%	
0.21	2.01	7.87	38.24	4.86	16.38	16.34	2.28	3.26	3.87	0.35	0.16	4.17

Sources: *Collection of historical archives in Republican China*, Vol.7, 39-40.

Life in the country during the early years of The Republic of China was wretched. This meant there was little to keep farmers on the land when things took a turn for the worse. In this context, one can easily grasp why huge numbers of farmers from Subei and Jiangnan poured into Shanghai, eager to work in the city's factories. However, their fates would largely hinge on where they came from. In the next chapter, I will focus on the labour market in Shanghai for rural immigrants.

IV. Shanghai's Economic Growth and Labour Market

人口有余，则移之上海；职业无成，则求之上海。

If there is over-population, move to Shanghai; if you cannot find a job, look for opportunities in Shanghai.

-- *Chuansha xianzhi (Chuansha Country Annals)*, 1937: 1

In Chapter III I explained the 'push factors' for peasants to flee the countryside. From the end of the 19th Century, large numbers of rural migrants left their villages to seek work in big cities. Most of them went to Shanghai. Yet why did they choose Shanghai rather than other cities? How did they seek jobs in Shanghai? What was the structure of Shanghai's booming economy and its occupational structure? What was the immigrants' situation in Shanghai's labour market?

This chapter will attempt to answer these questions. The aim is to show what made Shanghai such an alluring destination for migrants and the characteristics of the labour market for immigrants. It is divided into four parts:

First, Shanghai's strong attraction for migrants to cities. After Shanghai's opening as a Treaty Port in 1842, the city underwent fast economic growth. In particular, foreign trade grew rapidly, boosting the development of industrial sectors, which needed a large number of cheap labourers. This created many job opportunities. The development of commerce and industry also boosted the service sector, which was also a magnet for immigrants. The special features of Shanghai's economy and labour market had been formed by the 1930s and these had a deep impact on immigration in the city.

Second, ways to seek jobs in Shanghai. When rural immigrants arrived in Shanghai, the social network and resources available to them determined their access to information. It played a central role in the jobs they could find, and then determined their social status. It was also one of the most important determinants of the segmentation of Shanghai's labour market.

Third, segmentation of Shanghai's labour market. Classical Labour Market Segmentation Theory considers affecting factors such as those based on gender, race and industry. Yet in Shanghai's labour market, a key factor was migrants' place of origin. This gave rise to a two-tier labour market in Shanghai whose elite mainly comprised people from Guangdong and Jiangnan, while those at the bottom of the heap came from Subei and ended up with the dirtiest, worst-paid jobs. This part will analyse the occupational segmentation between immigrants from Subei and Jiangnan.

Last, I shall examine wage differences in Shanghai. It is hard to conduct quantitative analysis of immigrants' income given that the wage data fails to identify immigrants' birthplace. However, as the various groups of immigrants were concentrated in certain occupations, the wage differential between occupations has been used as a proxy for wage gap. A regression analysis was performed and other non-industrial sectors were taken into account to explain wage differences.

IV.1 Shanghai's economic growth

Like in 19th Century Europe, economic factors played a key role in rural-urban population movement. During booms, migrants poured into big cities such as Paris, Dublin and London (De Vries, 1984; Lee, 1999). Lesger also showed that in Western Europe, there was a strong correlation between economic development (linked to investment patterns) and rural-urban migration (Lesger, 2006). The same happened in Shanghai. The job opportunities arising from Shanghai's economic development were the main reason for mass immigration. As estimated in Chapter II, from 1880 to 1950 over 4 million people migrated to Shanghai, most of them looking for jobs. "It seems that there is endless demand for labour in Shanghai," stated the customs report of 1920 (China Customs Report, 1920:2).

After Shanghai became a Treaty Port, the city's trade boomed. It soon became China's trade and shipping centre, sucking in large amounts of foreign capital, especially from Britain, The United States, France and Japan. Thanks to foreign capital investment in factories and the development of Chinese national industries, by the 1930s Shanghai was China's biggest industrial centre. Growth in commerce and industrial sectors

required armies of labourers. The demand was met by migrants from rural areas, who swarmed to Shanghai to work in the local factories. At the same time, the sharp rise in Shanghai's population stimulated the service sector, and demand for labour in services. The first part of this section analyses the development of Shanghai's trade and industry and explains how Shanghai generated such huge demand for labour in such a short time. The second part will analyse the structure of Shanghai's economy.

IV.1.1 From a trade centre after The Opium War (1842) to China's biggest industrial centre in the 1920s

After opening as a Treaty Port in 1842, Shanghai's commerce and trade took off thanks to the city's unique geographical advantage. Shanghai's economy was transformed. Foreign trade began to predominate and in 1851 Shanghai overtook Guangzhou (Canton) as the largest trading port in China (See the map at Fig. II.6). Imports and exports that used to go through Guangzhou now went through Shanghai instead. The shipping volume of goods at Shanghai's ports soared: in 1844 just 44 foreign ships with 8,584 tons of goods entered Shanghai. In 1849, the figures were 133 ships with 52,574 tons. By 1863, this had grown to 3,400 foreign ships (with 964,309 tons of goods) inbound, and 3,547 foreign ships (996,890 tons of goods) outbound (Lu, 1999, 26-27; Xu, 1987, 14-15). The famous British traveller Robert Fortune wrote in his report:

Shanghai is by far the most important station for foreign trade on the coast of China. No other town with which I am acquainted possesses such advantages: it is the great gate — the principal entrance, in fact, to the Chinese Empire ... there can be no doubt that in a few years it will not only rival Canton but become a place of far greater importance (Fortune, 1847: 1).⁵²

⁵² Robert Fortune is known as the first person who successfully transported Chinese tea plants from China to India in 1848 on behalf of the British East India Company. His comments on Shanghai can be found in *Three Years' Wanderings in the Northern Provinces of China*, 1847.



Port of Huangpu River, 1910s. Shanghai Municipal Archives.

During the period 1870-1905, the value of total trade (foreign and internal) in Shanghai increased by 328 per cent and 535 per cent, respectively (Table IV.1). Until 1905, average per capita trade in China was around 2.52 liang/person, Shanghai's per capita trade was over 200 times the national average.⁵³

Table IV. 1 Shanghai's foreign trade and internal trade (1870-1905)

Year	Value of Foreign Trade	Value of Internal Trade	Total trade value	Population of Shanghai	Trade value per capita (Shanghai)
1870	79,530	83,256	162,786	677,329	240.34
1875	76,670	92,282	168,952	698,620	241.84
1880	92,225	112,619	204,844	726,388	282.00
1885	87,071	--	--	763,769	--
1890	98,993	128,152	227,145	825,151	275.28
1895	168,840	167,513	336,353	924,770	363.72
1900	204,129	178,460	382,589	1,086,923	351.99
1905	366,343	330,549	696,892	1,213,876	574.10

Notes: The trade value was measured in thousands of liang, and the trade value per capita was measured by liang/person.

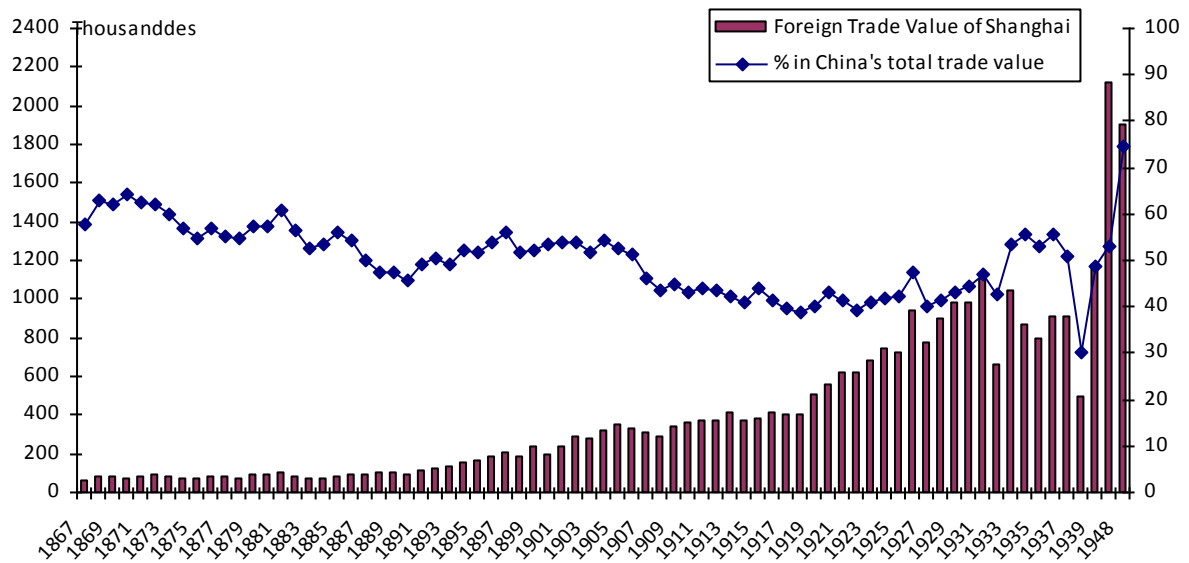
Source: Author, based on data from the Shanghai Customs Records(1867-1937), Shanghai Municipal Archives.

⁵³ The national average trade value is calculated by Fan, 2001: 38.

With the development of trade, Shanghai not only became China's biggest trading centre by value but also became the country's trans-shipment hub. All imports and exports from other Chinese ports were shipped via Shanghai, and a foreign and internal trade network was established. The trans-shipment trade through Shanghai was fairly large. According to the customs records, in the 1880s, imports (excluding opium) included over 10 million liang of cotton, over 1 million liang of cotton yarn, wool, kerosene, coal, hardware products, and hundreds of thousands of liang of dyes, pigments, groceries, sugar, and rice. Over half these imports were distributed to other cities from Shanghai. Domestic goods delivered to Shanghai included over 10 million liang of tea, raw silk and silk fabrics and beans, over 1 million liang of medicine, straw hats, paper, sugar, and tobacco leaves. Between 80 and 90 per cent of these domestic goods were exported to foreign countries. In this period, many of Shanghai's goods were sold to other Chinese cities, which included over 1 million liang of cotton, rice, wheat, and over 500,000 liang of cotton (Shanghai Trade Report, 1888: 208).

Shanghai had become China's leading trade centre by the late nineteenth century (Zhang, 1990, 153). Fig. IV.1 shows that throughout the second half of the 19th Century, *Shanghai absorbed over half of the country's total foreign trade value, sometimes reaching up to 65 per cent*. In the first half of the 20th Century, the value of Shanghai's foreign trade still accounted for over 40 per cent of the figure for China as a whole.

Fig. IV. 1 Shanghai's foreign trade by value (1867-1950)



Notes: The trade value was measured in thousands of liang.

Source: Author, based on data from the Shanghai Customs Records (1867-1937), Shanghai Municipal Archives.

The growth in foreign trade not only boosted urban commerce but also made Shanghai China's largest gathering place for *compradores* [buying agents].⁵⁴ The *Shenbao* [Shanghai News] of 1901 said: “Among over 20 provinces where *compradores* and merchandise gather, Shanghai is second to none and has a key position for all the goods shipped to China.” (February 13, 1901, 1). Since the 1850s, *compradores* from across the country were Shanghai’s first urban settlers. *Compradores* from Guangdong, Ningbo and other places began to play an important role in the city’s foreign trade and commerce. By the end of the 19th Century, the fast growth of trade and commerce in Shanghai led to some 500 foreign trade companies setting up in the city. Over five thousand people worked in the these companies (Fan, 2001:109).

Shanghai began as a commercial centre but it quickly turned into an industrial centre, as foreign and national industrial firms found it more convenient to manufacture near the port and a big Chinese market. This was a crucial step in the transformation of Shanghai’s economy. Hong Kong provides an interesting comparison here. It was

⁵⁴ Comprador (‘mai ban 买办’ in Chinese, ‘buying agents’ in English, originally from Spanish or Portuguese) refers to merchants acting as agent middlemen for foreign firms in their two-way trade in modern China (1840-1949).

opened as a Free Port by the British in the same period (after 1841) and its trade also soared. Yet unlike Shanghai, Hong Kong did not turn into an industrial centre. Instead, it served as the transit port between foreign and Chinese ports, and as the base for big British companies to explore the Chinese and South-East Asian markets (Chen and Long, 2002:49-50).

Shanghai's industrialisation began in the late 19th Century, fuelled by capital from both foreign interests and Chinese *compradores* who had become wealthy from foreign trade. The foreign capital came mainly from Britain, America and France, which set up industries to serve the trade in Shanghai. They began by focusing on trade-related sectors such as shipping, telecommunications and telegraph, export processing, ship repair docks, dock storage, insurance companies. Some big companies, such as Jardine Matheson, Swire Group, Russell & Co. started their business in Shanghai during this period. A combination of 'first-mover advantage', scale and advanced technology gave these companies a commanding or even a monopoly position in their respective sectors.

Shipping was the key industry for port development and was also the most important one supporting foreign trade. In the mid-19th Century, the advent of steam-driven vessels provided the technological underpinning for economic globalisation. Many Western companies opened their ocean shipping businesses in Shanghai. For example, in 1862, Qichang Vessel Company (affiliated with Russell & Co., an American line) began business. The shipping companies affiliated with British companies Butterfield & Swire Co. and Jardine Matheson also entered the market. They controlled major shipping routes in China. Later on, they expanded their businesses to shipping services, such as dock, storage and vessel repair (Li, 1993:383-384; Liu, 1988:3).

In order to meet export needs, foreign merchants built up export-processing factories in the 1850 shortly after the opening of the Treaty Port. These facilities included thread-spinning mills [filatures], brick tea plants, factories, tanneries, cotton ginning mills, and so on. In 1880, the assets of foreign merchants in Shanghai, including investments and personal assets, reached 57 million liang. In 1894, there were 101 foreign-funded companies in China, of which 62 were in Shanghai, and 7 in Xianmen, 6 in Guangzhou, 6 in Hankou and 4 in Tianjin, each about 1/10 of the number in Shanghai (Yan 1955: 116-122). Foreign-funded companies clustered in Shanghai giving birth to the city's

modern industry.

From the First Sino-Japanese War (1895) to World War I, Shanghai's economic structure underwent a sea change.⁵⁵ There were two booms in Chinese investment in modern industry in the periods 1895-1898 and 1904-1908. The weight of modern industry in Shanghai's economy rose rapidly. Modernised manufacturing factories established by Chinese merchants were set up. At the same time, The Treaty of Shimonoseki forced Shanghai to open up even more to foreign trade. Direct foreign investment in the industrial sectors grew. Besides the export-processing (which supported foreign trade and municipal utilities before the First Sino-Japanese War), direct investment poured into manufacturing, including cotton textile industries, machine flour-milling, cigarettes, silk-reeling, machine-tool production, soap, paper-making, rice milling, oil pressing, etc. In particular, the cotton textile industry, which had received no investment before The First Sino-Japanese War, began to attract foreign capital. In the late 19th Century, Ewo Cotton Spinning & Weaving Company, Ilbert & Company, International Cotton Manufacturing Company, and Soy-Chee Cotton Spinning Company, were built in Shanghai by American, British and German merchants, respectively. Japan entered the market in 1902. Though coming later than American and British companies, Japanese made big efforts to expand its market share. From 1905 to 1911, four Japanese cotton mills with capital exceeding 100,000 yuan were set up in Shanghai. The Shanghai Cotton Manufacturing Company, built in 1908, had a capital of 1 million yuan (Xu and Huang, 1998: 89).

Among these foreign capital companies, the largest British trading company in The Far East — Jardine Matheson & Co. — was a good example. It set up a number of new companies with the Chinese name “EWO” (怡和) from the end of the 19th Century, to operate modern industries in China. In 1895, it founded the EWO Cotton Spinning and Weaving Co. in Shanghai, which was the first foreign-owned cotton mill in China. It then set up two more textile companies (Yangtzepoo Cotton Mill and Kung Yik Mill). Up until the 1930s, these three textile companies operated over 180,000 cotton spindles and hired 13,000 workers in Shanghai (Earnshaw, 2012; Honig, 1986:22).

⁵⁵ The First Sino-Japanese War (1894-1895). The Qing Empire lost the war and signed The Treaty of Shimonoseki with Japan.

The 1920s brought prosperity to Shanghai. The city became China's economic powerhouse. During this period, Shanghai continued to make up half of China's foreign trade but it began shift from raw materials to industrial products.

Fig. IV.1 shows that Shanghai's share of China's foreign trade dropped slightly from 60 per cent to around 50 per cent, however its make-up changed.

At this time, trade in Shanghai was no longer centred on the early British imports, and opium had been replaced by tea, silk and other raw materials. With the development of industry, trade gradually shifted into the export of labour-intensive industrial commodities. The manufactured goods exported from Shanghai accounted for over half of China's total exports by value and some products, the figure was as high as 90 per cent. (Table IV.2)

Table IV.2 Shanghai's industrial exports as a share of China's total exports by value

Products	1919		1927		1931	
	Value (liang*)	% of China	Value (liang)	% of China	Value (liang)	% of China
Cotton cloth	2,515,776	50.7	14,922,686	92.7	11,147,992	91.2
Cotton yarn	2,566,016	96.2	15,758,076	79.7	25,135,599	73.4
Paper product	82,547	2.1	373,919	6.5	332,858	8.4
Machines and accessories	23,552	39.5	314,773	88.1	610,256	63.0
Metal products	57,394	4.3	1,225,502	40.6	1,362,117	34.7
Tobacco	9,124,538	67.1	17,883,033	74.0	5,747,992	57.3
Chemical products	1,492,792	13.7	2,919,171	30.9	3,049,131	23.6

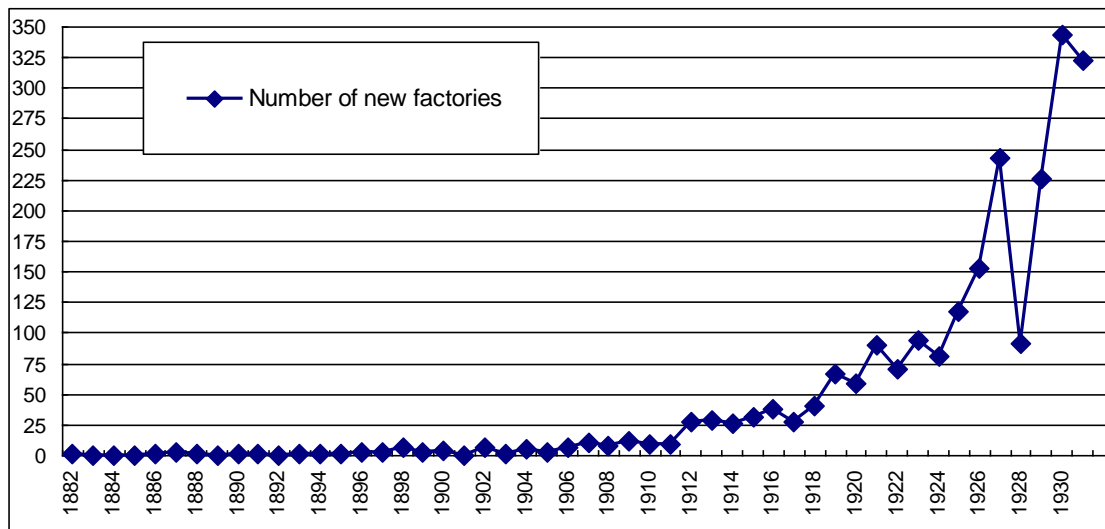
* The liang was both a weight and monetary unit in Old China. 1 liang = 50 grams of silver. Before 1935 China's currency was based on silver.

Sources: Prepared by the author with data of Cai and Zheng (1936), *Trade Statistics of treaty ports in China*, 481-607.

Shanghai quickly became China’s industrial centre. “Shanghai’s manufacturing industry became extraordinarily active, and was booming everywhere.” Furthermore, the factories run by Chinese merchants and government-run enterprises helped make Shanghai “become a major manufacturing centre”(Xu, 1985: 46).

By 1911, a quarter of all of the country’s modern enterprises were in Shanghai. By 1933, this proportion was nearly half. In the 1920s and the 1930s. Figure IV.2 shows the rapid growth of industry in Shanghai during this period.

Fig. IV.2 Opening of factories in Shanghai (1882-1932)



Source: Author, with data from *Yearbook of Shanghai* 1936, 271; Luo 1932, 63.

Market expansion and Shanghai’s booming economy offered lots of business opportunities and this sucked in a great deal of capital from a wide range of sources. This investment came from China and abroad, and both Chinese and foreign products were sold. Here, one can speak of a big Shanghai market”.

Table IV.3 Chinese and foreign capital in Shanghai's industries, 1925-1936

Industries	1925				1930				1936			
	Chinese capital	%	Foreign Capital	%	Chinese capital	%	Foreign Capital	%	Chinese capital	%	Foreign Capital	%
Cotton-spinning	48629	43.9	61966	56.1	-	--	--	--	69419	32.3	145722	67.7
Silk-reeling	10411	95.4	500	4.6	15269	100	0	0	6484	100	0	0
Wool-weaving	389	100	0	0	3264	100	0	0	25258	22.2	5600	77.8
Flour	5411	94.7	300	5.3	8542	100	0	0	10930	100	0	0
Tobacco	10100	9.99	91010	90.01	16690	20.8	63530	79.2	17770	17.98	81080	82.02
Match-making	1046	77.7	300	22.3	2447	59.7	1650	40.3	2447	59.7	1650	40.3
Pharmaceuticals	3680	47.1	4140	52.9	--	--	--	--	2894	77.9	820	22.1
Machinery	2333	18.1	10577	81.9	3174	14.2	19167	85.9	5191	17.2	25000	82.8

Note: Industrial capital is shown in thousands of yuan. The percentage is the proportion of Chinese and Foreign capital in each industry.

Sources: Calculation based on data in *Shanghai Modern Industry History* (1998).

During this period, foreign companies continued to raise their investment in industrial sectors. Until 1931, foreign investment in Shanghai's industrial sectors had reached 1.11 billion⁵⁶ yuan, nearly half of the total foreign investment in China (Xu and Huang, 1998: 176). British, American and Japanese investments in Shanghai respectively accounted for 76 per cent, 64 per cent and 66 per cent of their investment in China. In 1933, there were over 260 foreign-funded factories in Shanghai and they employed over 100,000 workers (Xu and Huang, 1998: 339-342).

As shown in Table IV.3, foreign capital dominated major industrial sectors in Shanghai such as textiles, tobacco, and machinery. In the cotton textile sector (which was the most important industry in modern Shanghai), foreign investment kept flooding in, rising from 62 million yuan in 1925 to 145.7 million in 1936. By comparison, Chinese capital only rose from 48.6 million yuan to 69.4 million. In the tobacco and machinery industries, foreign capital made up over 80 per cent of total capital (Huang and Lu, 2000: 13; 249).

The growth of foreign enterprises spurred the growth of Shanghai's domestic industrial

⁵⁶ The short-scale [*échelle courte*] billion is used throughout (10^9) rather than the long-scale [*échelle longue*] billion (10^{12}).

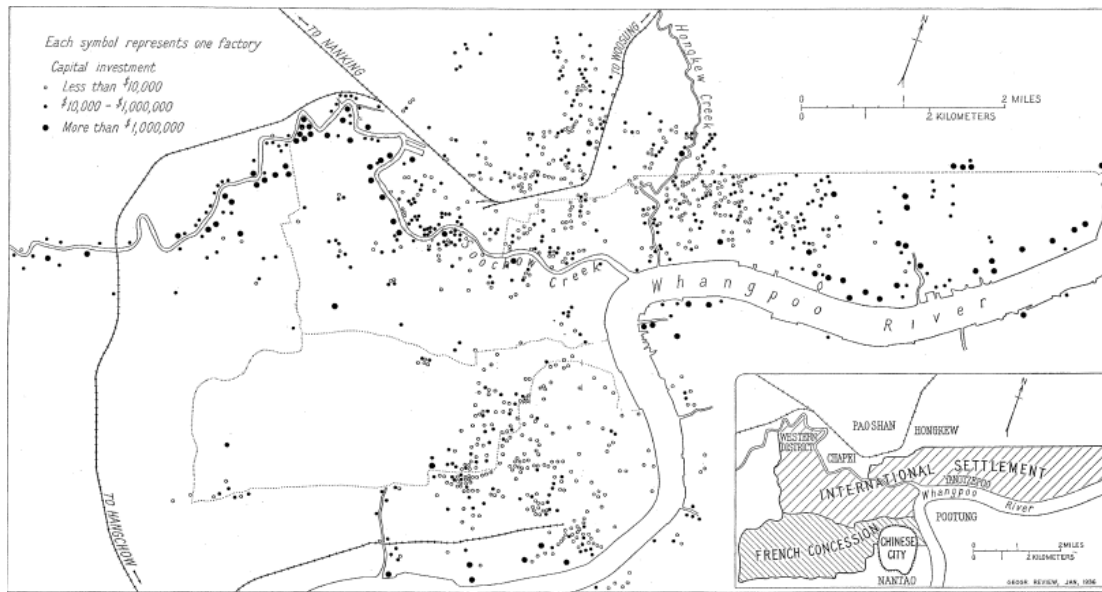
enterprises. From the end of the 19th Century, Chinese private capital began flowing into modern industry. Because of the huge profits to be made, some traditional businesses, handicraft workshops and repair workshops became modern enterprises, creating a well-developed home-grown industrial base. By 1933, there were over 1,500 Chinese-owned industrial companies covering 14 sectors (Wang, 2004:133).

Industrialisation wrought deep changes to Shanghai's economy and industry became the driving force for economic growth. In the 1920s and the 1930s, industrialisation reached its zenith and Shanghai became an industrial centre with many industrial sectors, factories and workers. Indeed the city's industrial firms and workers made up almost half of the figures for China as a whole and over half its output (Zhu *et al.*, 1939, 1-3; Honig, 1992, 59; Song *et al.*, 2011, 34).

Shanghai's industrial sector reached its peak in the early 1930s and covered many sectors. A few industries were missing because of natural resource limitations but 85 per cent of 200 product categories in 16 industrial sectors could be found in Shanghai. Of these products, 46 were advanced ones. At the time, there were 3,485 factories employing over 30 workers, making up 36 per cent of the total figure for China's twelve biggest cities. Their combined capital came to 191 million yuan, accounting for 60 per cent of the country's total industrial capital. Their net output value was 728 million yuan, accounting for 66 per cent of China's total industrial output by value (Statistics of Shanghai, 1933, 156-161).

Most companies were labour-intensive, and the main industries were textiles and foodstuffs. Textiles accounted for 42.36% of all industry by value and 42.17%, of all industrial jobs. The comparable figures for foodstuffs were 26.01% and 11.5%, respectively. By contrast, Shanghai's heavy industry developed slowly given that the city was short of coal. This explains why water, electricity, gas, and smelting made up only 7.98% (by value) and 0.19%, (industrial jobs).

Fig. IV.3 Distribution of factories in Shanghai (1936)



Source: Orchard, 1936: 28.

Shanghai's trade and industry boom mirrored world economic development during the 1920s before The Great Depression. Strong world demand and the plentiful supply of Western capital helped fuel Shanghai's economic growth. After The Opium War, China became tied into international markets and thus the world economy. Shanghai's economic expansion and subsequent recession reflected what was happening in the world at large.

The rapid development of trade, industries and business in Shanghai made the city very wealthy. Under the Nanjing Government (1927-1936), Shanghai became a national commercial, financial and industrial centre, as well as one of Asia biggest cities (Li and Zhu, 2011:19; Lu, 1995:35). It is therefore little wonder that the city proved such a powerful magnet for rural migrants.:

With regard to which immigrants ended up doing which jobs, a tradition slowly took hold whereby people from a given region took up the same line of work as their 'regional kith and kin' who had migrated earlier. This was because those giving jobs to the new arrivals preferred to teach or employ people like themselves and who shared similar their customs and background. This natural tendency is summed up by the following quotation:

In Shanghai, most Chinese people are outsiders, who were attracted here by a variety of employment opportunities. Office clerks, merchants and restaurant owners are mostly from Guangdong; bankers, crew, tailors, and launderers are mainly from Ningbo; maids serving foreign women and embroidery workers are from Suzhou; and those who do jade and watch business are from Nanjing. (Xu, 1985, 21)

The transformation from commerce to industry greatly altered both the number of jobs available and their structure. The development of modern industry made the number of immigrants soar as labour-intensive sectors boomed:

Especially in Shanghai, most industries are small-scale, labour-intensive ones with inadequate investment. A larger labour force is needed to maintain the development of this industry (Murphey, 1953, 24).

In the textile industry, for example, in 1897, the city's 27 spinning and silk-reeling factories employed 2.5-3 thousand workers, with an average workforce of 1,000 per plant. In 1899, there were 43 thread-spinning mills [filatures], textile mills, oil pressing mills and match factories, which altogether employed 34,500 workers. (Wang, 1962:1181).

Industrialisation represented a quantum leap in employment terms and demanded ever more labour to meet its needs. After the foundation of The Republic of China in 1911, over 100,000 people swarmed into Shanghai each year to work in industry. In rural areas near Shanghai, people gave up their work in agriculture and family handicraft industries to find jobs in the city. "Five to ten years ago people's lives were confined to agriculture but now, most young people go to work in Shanghai." As industry grew apace, Shanghai began to widen the net for rural migrants, first to the surrounding rural areas of Jiangsu, Zhejiang, and Anhui provinces and later into half of China.

Shanghai can accommodate the surplus population of Chuansha Country and it has the capacity to keep a large number of people. Whether people do mental or physical work, as long as they are self-reliant, over ninety per

cent are willing to stay in Shanghai. (Chuansha Country Annals, 1937:2)

From the 1920s onwards, Shanghai's labour-intensive offered migrant workers lots of opportunities. Before the First Sino-Japanese War (1898), there were only 37,000 workers in Shanghai's industrial sectors. In 1930, there were 362,000 factory workers in Shanghai, most of them working in labour-intensive enterprises. There were 61 cotton textile factories and 107 thread mills. They respectively hired 110,900 and 52,000 workers, together accounting for 45% of Shanghai's total labour force (Xu and Huang, 1998: 65; Luo, 1932: 75). Most of the workers came from rural areas (Lu, 1995: 36).

The service sectors also boosted demand for labour. Sectors such as business, street-hawking, and domestic service, attracted hordes of rural migrants.

Large and small stores were everywhere in Shanghai. Until 1933, over 70 thousand stores in Shanghai offered in excess of 300 thousand jobs. Shanghai's famous Xianshi department store, opened in 1917, had four floors, with over 100,000 kinds of goods ranging from daily necessities such as clothes, jewellery and furniture, and employed over 300 staff (Wu, 1947:104-107).

Over 100 thousand women arrived from rural areas to work as domestic servants. Those immigrants who could not find jobs in factories or business earned their lives by working as street vendors and rickshaw pullers. Taking just the rickshaw business as an example, in 1933 there were nearly 25,000 rickshaws, and over 80,000 rickshaw pullers in Shanghai, most of whom were peasants coming to the city to make a living. As they said,

We are poor in the rural areas, so we come to Shanghai to make a living but we have no money to do business and no contacts to find a job. That means we have no choice but to pull rickshaws, which is gruelling work and earns us very little money (Shenbao, April 22, 1934, 3).

Shanghai's economic development and the employment opportunities arising from it were thus the most important reasons for the city's ongoing immigration.

IV.1.2 Shanghai's GDP structure in 1936

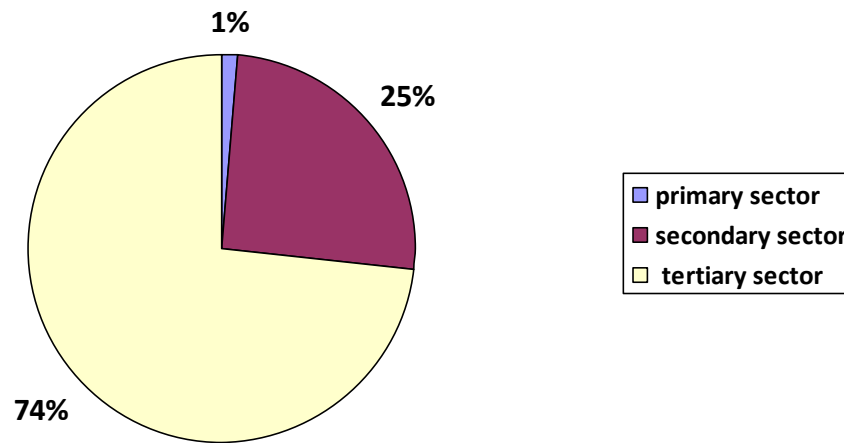
As mentioned earlier, Shanghai's economy underwent a transformation during the boom years. Here, one needs to analyse the nature of Shanghai's economy before examining the city's employment structure and labour market. Unfortunately, there are few sources of data on The Republic of China's economic structure. Nevertheless, the figures for Shanghai in *China's National Income* (《中国国民所得》) by Wu Sanbao, published in 1947, contained preliminary estimates for China from 1931 to 1936. This work elicited great interest and sparked later studies. According to Wu Sanbao, national agricultural net output in 1936 was 16.926 billion yuan, accounting for 65.88 per cent of China's GDP (Wu, 1947:17). China's economy was a largely agrarian one — something that was also borne out by Rawski's analysis. He recalculated China's pre-war GDP and found that agriculture and industry accounted for 62.9 per cent and 4.2 per cent of national GDP, respectively between 1931 and 1936 (Rawski, 1989:324). However, Rawski's research looked at China's overall economy structure rather than Shanghai's specifically. Studies on Shanghai's economy just considered industrial production. Huang estimated that Shanghai's gross industrial production as 1.114 billion yuan in 1933, and up to 1.241 billion yuan in 1947 (Huang, 1989:62-64).⁵⁷ However, there is a lack of comparative analysis on Shanghai's primary and tertiary industrial sectors.

According to one of the few available estimates (Li and Zhu, 2011), Shanghai's GDP was 1.559 billion yuan in 1936; net outputs of the primary, secondary and tertiary sectors were 21.5 million yuan, 392.97 million yuan and 1144.15 million yuan respectively.⁵⁸ Fig.IV.4 shows the broad breakdown of Shanghai's economy in 1936:

⁵⁷ Huang's estimated gross industrial production in Shanghai, not net output.

⁵⁸ Here the calculation is the net output value deducted the financial interest for each sector, so the result of industry was less than the estimation of Huang (1989).

Fig.IV.4 Shanghai's GDP structure 1936



Sources: Author, based on data from Li and Zhu, 2011: 28-29.

(1) Shanghai's GDP per capita was much higher than the national average. Shanghai's GDP reached 1,558.62 million yuan in 1936, while the national GDP was 25,694 million. Shanghai's economy accounted for 6.07 per cent of the whole country's economy. At that time, Shanghai's land area was less than one ten thousandth of the whole of China and the city had only one per cent of the country's population.⁵⁹ As for GDP per capita, the figure for Shanghai was 408.7 yuan, and the national average was just 60.1 yuan. Thus Shanghai's GDP per capita was 6.8 times bigger than for all China (Wu, 1947:17; Li and Zhu, 2011: 29).

(2) Most of Shanghai's economy lay in the secondary and tertiary sectors — especially finance and business. Although China's economy in the 1930s was largely agrarian (65.88 per cent of national GDP), Shanghai's GDP structure was totally different- The city's primary, secondary and tertiary sectors made up 1.38 per cent, 25.21 per cent and 73.41 per cent of Shanghai's GDP, respectively — a structure similar to that of metropolis in developed economies today. These figures reveal Shanghai's extraordinary economic dynamism and the major role played by its industry and services.

The leading position of Shanghai's economy can also be seen from detailed analysis of the secondary and tertiary industries. The secondary sector includes industry, handicraft and

⁵⁹ In 1936, the land area of Shanghai was 527.5 square kilometers, and the territory of total China reached 11,418,194 km² (Chu, 1985:73-74). In the same year, the population of Shanghai was 3.814 million, while that of the whole country was 427.82 million (the population estimation could be seen in Chapter II).

construction.⁶⁰ Shanghai’s industrial production in the 1930s was almost half of that for China as a whole. The total value of the city’s net output was half that of China’s (Shanghai Academy of Social Science, 2005: 1839). Shanghai’s net industrial output reached over 300 million yuan in 1936, and it was the most important industrial centre in China at that time (Wu, 1947:76; Liu, 1940: 253).

Despite the decline in agriculture, rural handicraft workshops did take root in Shanghai. Some sectors, such as the wooden furniture, metal-forging and cotton-spinning sectors, attained scale, reaching 27.17 million yuan. The construction sector was also a thriving one. Over 120 thousand houses had been built in the Concession Areas between 1909 and 1931 (Editorial committee of Shanghai’s real estate history: 1999:3). Many well-known buildings were erected in this period. Shanghai made up over 20 per cent of China’s entire construction sector by value, with a net output value in 1936 that came to at least 39.3 million yuan (Li and Zhu, 2011:21).

The tertiary sector in Shanghai comprised the following sections, of which business, finance and transport made up the lion’s share.

Table IV.4 Shanghai’s Service Sector in 1936

Sectors	Net output value	Percentage %
Business	769,780	66.7
Finance	176,353	15.3
Housing	11,734	1.0
Self-employed	20,445	1.8
Public administration	23,172	2.0
Transport and post	135,870	11.8
Cultural industries	16,570	1.4
Total Tertiary Sector	1,153,924	100

Note: In thousands of yuan.

Sources: Li and Zhu, 2011: 28.

⁶⁰ The construction sector was called “ying zao ye” during The Republic of China, and was later termed “jian zhu ye”.

The largest tertiary sector was commercial business, which accounted for 66.7 per cent of Shanghai's tertiary output. Shanghai was the national commercial centre in the 1930s, and its domestic trade accounted for over half of the total for China in value terms. In terms of the domestic trade of 38 major commercial cities, the output and input of goods from Shanghai accounted, respectively, for 36 per cent and 40 per cent of the total value (Xiong, 1999: 26-33). In 1933, 72,858 commercial stores registered in Shanghai while the number for the whole country was only 228,435. In other words, Shanghai alone had a third of all the stores registered throughout the length and breadth of China. Shanghai's commercial capital accounted for 22 per cent of the country's total volume (Wu, 1947: 104-108).

Finance was the second largest industry in Shanghai's service sector. Shanghai was China's financial centre and there were 86 Chinese banks, 27 foreign banks, 48 money shops (*qian zhuang*) and 6 trust companies in Shanghai up to 1936. The total amount of capital, provident funds, deposits and exchange coupons of these financial institutions had reached 3.27 billion yuan, accounting for 47.8 per cent of the figure for China as a whole. Among them, the capital of Chinese banks in Shanghai was 250 million yuan, making up 70.5 per cent of the total capital of Chinese banks. Shanghai's gold trade reached 11 million USD, becoming the third largest gold trading market in the world after London and New York and surpassing France, Japan and India (Wang, 2005: 20; Editorial Committee of Shanghai's General History, vol.25:3330; Shanghai's Financial History: 2003:3). Shanghai in the 1930s had become not only China's biggest financial centre but also a major international one. Its financial net output value was 60 per cent of that for the whole of China.

Transport includes aviation, shipping, railways, trams and motor vehicles. The net output of shipping and tram transport in Shanghai made up over half the total for China. The net output of motor transport accounted for one tenth of the figure for China (Li and Zhu, 2011:25-26). In addition, rickshaw and dock services were two major sectors in Shanghai's transport industry. In 1936, the net income from rickshaws in Shanghai was about 10.8 million yuan — roughly a seventh of the country's total. Net income from dock transport in Shanghai was 4.5 million yuan (about an eighth of that for China as a whole)(Li and Zhu, 2011:26).

Domestic service, which played a key role in the service sector of European cities, was also important in Shanghai. Although the exact output of domestic service is unknown, adding together other housing-related sectors including house rental, it is estimated that the sector's total value was close on 12 million yuan (Li and Zhu, 2011:26).

The considerable weight of industry and service in Shanghai's economy heavily influenced the occupational structure of the city's labour market and its allure for migrants.

IV. 2 Participation rate and the occupational structure of Shanghai's labour market

The analysis of Shanghai's GDP structure will now be followed by an exposition of the distribution of employment in the city. The only available aggregate official source of employment is the Shanghai Yearbook (1930-1937). This collection of data on Shanghai's employment structure includes the occupational structure in the Chinese District during 1930-1936 and the employment statistics for the International Settlement in 1935. However, this source provided only the total number of employees for each occupation, without distinguishing the gender of workers or other individual characteristics. Since only the 1935 statistics had data on both The Chinese District and The International Settlement, while The French Concession never conducted any occupational statistics, the first two were added up in the following table:

Table IV.5 The occupational structure of Shanghai in 1935

Sectors	Occupations	Chinese District	International Settlement	Total	%
Agriculture		195,258	1,150	196,408	6.23
<i>Industry</i>	--	448,880	204,849	653,729	20.73
<i>Handicrafts</i>	<i>Apprenticeship</i>	49,924	--	49,924	1.58
Secondary sector		498,804	204,849	703,653	22.31
<i>Business</i>	--	185,912	183,328	369,240	11.71
<i>Financial sectors</i>	--	--	10,604	10,604	0.34
<i>Transport</i>	<i>Transport and post</i>	23,535	13,523	37,058	1.18
<i>Coolies</i>	<i>Dock workers and rickshaw-pullers</i>	149,666	--	149,666	4.75
<i>Domestic servants</i>	--	69,840	57,250	127,090	4.03
<i>Other service sectors</i>	<i>Barbers, Bath workers, pedicure workers</i>	71,930	--	71,930	2.28
<i>Public administration</i>	<i>politicians and government officers</i>	7,024	7,989	15,013	0.48
	<i>Soldier and policemen</i>	7,912	410	8,322	0.26
<i>Professionals</i>	<i>Journalists, engineers, lawyers, accountants and doctors</i>	2,055	14,634	16,689	0.53
<i>Artists</i>	--	--	3,706	3,706	0.12
<i>Officer</i>	<i>Clerk and officer</i>	--	3,627	3,627	0.12
<i>Education</i>	--	86,369	--	86,369	2.74
Tertiary sector		604,243	295,071	899,314	28.54
Total of primary, secondary & tertiary sectors		1,298,305	501,070	1,799,375	57.06
Others	--	413,678	619,790	1,033,468	32.78
Unregistered	--	320,416	--	320,416	10.16
Total	--	2,032,399	1,120,860	3,153,259	100

Sources: Author, based on data from the *Shanghai Yearbook, 1936*.

From these numbers one can estimate Shanghai's participation rate. First, supposing the 'Unregistered' in the table as equivalent to the non-active population, the total number minus this figure could be taken as the active population in The Chinese District and The International Settlement of Shanghai, which is 2,832,843. As estimated in Chapter II, in 1935 the total population of Shanghai was 3,691,592 (of which 2,044,014 were in The Chinese District, 1,159,775 in The International Settlement, and 487,803 in The French Concession). In the above employment statistics, the number in The French

Concession was unknown. So using the total figure to divide the summed population of The International Settlement and The Chinese District, the participation rate would be 88.4 per cent. If we suppose a similar level in The French Concession, *the participation rate in Shanghai was 88 per cent*. This high participation rate is consistent with the structure of immigration in Shanghai, which mainly comprised young workers (men and women) whose reason for moving to Shanghai was to make a living.

Table IV. 5. above presents the occupational structure of Shanghai's labour market but needs some adjustments:

- 1) In the statistics on The Chinese District, data on some important industries, such as the financial sectors and construction industries, were missing, and 'apprenticeship' was the only occupation counted in the handicraft sector. The statistics on The International Settlement missed some occupations, such as construction, handicrafts, coolies and education, which made up a large slice of jobs.
- 2) The non-classified occupations and population were large. The number of people without classified occupations ('Others' in the table) and unregistered people added up to 42 per cent of the total employed population, which does not accurately reflect the overall situation in Shanghai's labour market.
- 3) Some figures in the occupational statistics were inaccurate. For example, The Chinese District only had 1,952 doctors, 53 accountants and 212 lawyers. These figures were far too small for a city with over 3 million people.

I have therefore modified the above statistics in accordance with the sector categorisation in the previous GDP analysis, adjusting them in the light of Li and Zhu's estimate (Li and Zhu, 2011:25-26). The adjustments are: (1) adding some occupations that were missed in the official statistics: construction, street vendors, dock workers, rickshaw pullers, and cultural sectors. The numbers of people employed in these occupations is based on Li and Zhu's estimate and subtracted from the number of 'others' in the original table; (2) adjusting the population of some occupations that are not fully registered: handicrafts and other service sectors. Adopting this approach cuts the percentage of unknown occupations ('others') from 32.8 per cent to 16.5 per cent.

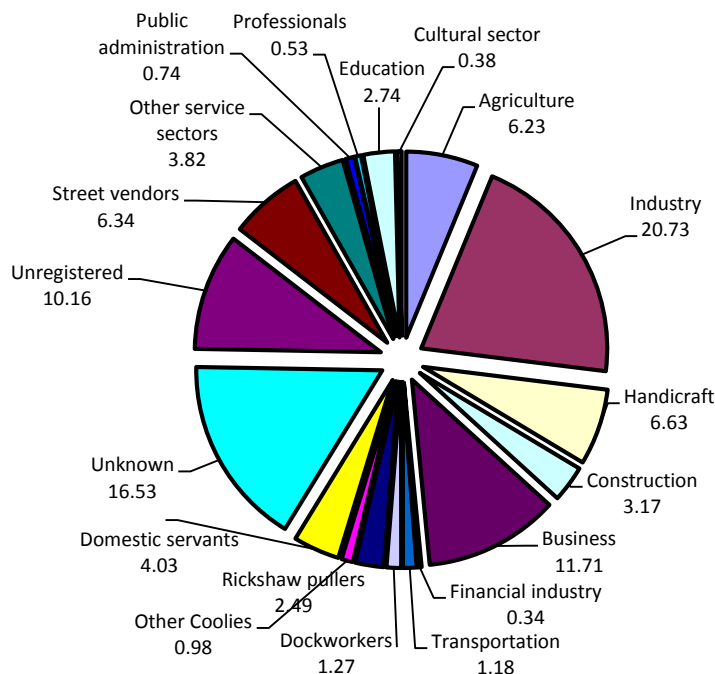
Table IV.6 Modified occupational structure of Shanghai in 1935

Sectors	Official Data			Adjusted Data		
	Sectors	Total	%	Sectors	Total	%
Primary Sector	Agriculture	196,408	6.23	Agriculture	196,408	6.23
Secondary Sector	Industry	653,729	20.73	Industry	653,729	20.73
	Handicrafts	49,924	1.58	Handicrafts	209,000	6.63
	--	--	--	<i>Construction</i>	100,000	3.17
	Total	703,653	22.31	Total	962,729	30.53
Tertiary Sector	Business	369,240	11.71	Business	369,240	11.71
	Finance	10,604	0.34	Financial industry	10,604	0.34
	Transport	37,058	1.18	Transport	37,058	1.18
	Coolies	149,666	4.75	<i>Dock workers</i>	40,000	1.27
				<i>Rickshaw pullers</i>	78,630	2.49
				<i>Other Coolies</i>	31,036	0.98
	Domestic servants	127,090	4.03	Domestic servants	127,090	4.03
	Other service sectors	71,930	2.28	<i>Street vendors</i>	200,000	6.34
	--	--	--	<i>Other service sectors</i>	120,500	3.82
	Public administration	23,335	0.74	Public administration	23,335	0.74
	Professionals	16,689	0.53	Professionals	16,689	0.53
	Education	86,369	2.74	Education	86,369	2.74
	Officers	3,627	0.12	<i>Cultural sectors</i>	12,000	0.38
	Artists	3,706	0.12	--	--	--
Total	899,314	28.54	Total	1,152,551	36.55	
	Others	1,033,468	32.78	<i>Unknown</i>	521,155	16.53
	Unregistered	320,416	10.16	Unregistered	320,416	10.16
	Total	3,153,259	100	Total	3,153,259	100

Sources: Calculation based on the *Shanghai Yearbook, 1936* and Li and Zhu, 2011.

The composition of the occupations is showed in the following figure:

Fig. IV.5 Composition of Shanghai's labour market in 1935 (%)



Sources: Calculation based on the *Shanghai Yearbook, 1936* and Li and Zhu, 2011.

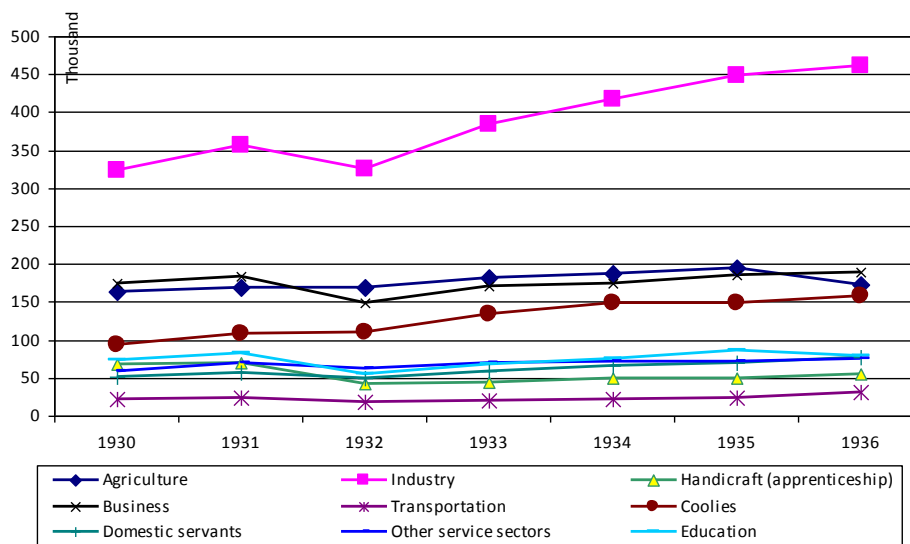
According to this modified data:

- 1) In Shanghai's labour market, those employed in the primary, secondary and tertiary industries were, respectively, 6.77 per cent, 30.53 per cent and 36.55 per cent.
- 2) Industry was with biggest employer with over 20 per cent (650 thousand people) of the total. This shows Shanghai's status as a national industrial centre (Xu and Huang, 1998: 65). The business sector provided 370 thousand jobs, or 11.7 per cent of the employed population, followed by others including handicrafts, domestic service, construction, rickshaw pullers, dock workers and so on. Labour-intensive industries and services furnished many jobs. These industries were also the ones that mainly attracted rural migrants.

3) Unregistered employment made a large slice of Shanghai's labour market. No matter whether the statistics were based on official surveys or scholars' estimates, at least 26 per cent of the jobs were unknown or unregistered, including garbage collectors, beggars, prostitutes, gang members, etc. (Xin, 1996: 88-89). Although there were no exact statistics, the employed population was likely to be large. The *Shanghai Industrial and Commercial Administration Record* estimated the number of garbage collectors and beggars in Shanghai at 20 thousand or more in the 1930s (Industrial and Commercial Administration Committee, 1997: 18).

The continuous statistics of occupations in the Chinese District of Shanghai during 1930-1936 show that employment in most sectors rose and correlated with the ongoing growth of Shanghai's population.⁶¹ The sectors with the fastest-growing employment were: industry (from 320 thousand in 1930 to over 460 thousand in 1936); coolies (63,868, with a growth rate of 68 per cent); domestic servants (25,000 people); business (15 thousand people), and transport (nearly 10 thousand people).

Fig. IV.6 Changes in occupation patterns in the Chinese District of Shanghai 1930-1936



Source: Author, based on data from the *Shanghai Yearbook*, 1936.

The table also shows the gradual shrinkage of the primary sector and growth of the secondary sector. Although the number of people working in agriculture rose slightly, as

⁶¹ Despite the statistical problems outlined above, this source is the only one that allows one to observe the continuous change in the numbers employed in each sector.

a proportion of the total labour force it dropped from 10.71 per cent in 1932 to 8.09 per cent in 1936. Industrial employment went up from 19.10 per cent in 1930 to 21.49 per cent in 1936,, yet handicrafts fell slightly . The number of apprentices fell by 13 thousand, and its share of total employment fell from 4.01 per cent in 1930 to 2.55 per cent in 1936. These changes were linked to Shanghai’s industrial development.

Industrial workers are the only ones on with there is any data on sector and gender. According to the Social Bureau of the Shanghai Government, textiles was the largest employer in 1934 (Table IV.7), accounting for nearly half of total industrial jobs (46.33 per cent). This was followed by the manufacturing of clothing, shoes and hats, foodstuff (especially tobacco) and the printing industry. These were all labour-intensive-industries employing rural migrants as cheap labour, which further boosted these industries’ expansion. On the other hand, heavy and extractive industries developed more slowly because of the lack of mineral deposits in Shanghai and its hinterland.

Table IV.7 Industrial employment in Shanghai in 1934

Industries	Factories	Workers									
		Men	%	Women	%	Children	%	Apprentices	%	Total	%
Wood working	107	5,733	3.81	570	0.36	156	2.89	648	3.20	7,107	2.13
Metallurgy	491	3,937	2.62	30	0.02	32	0.59	1,512	7.47	5,511	1.65
Machinery	485	6,062	4.03	85	0.05	135	2.50	3,714	18.35	9,996	2.99
Electrical machines and appliances	187	3,953	2.63	1,108	0.70	106	1.97	1,114	5.50	6,281	1.88
Metal Products	335	5,830	3.87	597	0.38	86	1.60	2,214	10.94	8,727	2.61
Construction of boats, ships and vehicles	74	9,570	6.36	--	--	--	--	499	2.47	10,069	3.01
Manufacture of bricks, earthenware, glass, etc.	105	4,629	3.07	276	0.17	124	2.30	1,139	5.63	6,168	1.84
Electricity	19	5,718	3.80	--	--	--	--	86	0.42	5,804	1.74

and water works											
Manufacture of chemicals	390	6,700	4.45	2,947	1.86	228	4.23	578	2.86	10,453	3.13
Textiles	1032	41,487	27.56	106,566	67.34	3821	70.89	3,052	15.08	154,926	46.33
Clothing, shoes and hats	1491	15,874	10.54	16,570	10.47	197	3.65	1,112	5.49	33,753	10.09
Manufacture of leather, skin and rubber	182	5,360	3.56	6,230	3.94	127	2.36	268	1.32	11,985	3.58
Manufacture of foods, drinks and tobacco	438	19,864	13.19	21,795	13.77	189	3.51	414	2.05	42,262	12.64
Paper	82	1,984	1.32	981	0.62	17	0.32	273	1.35	3,255	0.97
Printing	338	9,719	6.46	234	0.15	147	2.73	2,577	12.73	12,677	3.79
Stationery and instruments	245	2,170	1.44	209	0.13	25	0.46	777	3.84	3,181	0.95
Others	159	1,952	1.30	59	0.04	--	--	264	1.30	2,275	0.68
Total	6,160	150,542	100	158,257	100	5,390	100	20,241	100	334,430	100

Note: The percentages given are for men, women, children and apprentices. The latter two categories do not distinguish gender.

Sources: Author, based on data from the Social Bureau of the Shanghai Government, 1934.

In the textile industry, workers concentrated on cotton-spinning (64.97 per cent of the textile industry), silk-thread spinning [filature] (9.76 per cent), silk-weaving (5.99 per cent) and cotton-weaving (4.59 per cent). Cotton-spinning and silk-thread spinning, in particular, accounted for 31.5 per cent of Shanghai's factory workforce and became the largest industry in Shanghai at that time.

From the gender perspective, there were over 150 thousand women workers accounting for 47 per cent of total workers, slightly higher than that of male workers (45 per cent). However, male workers could be found everywhere in the industry, while women workers were concentrated in just a few industries: textiles, clothing, shoes and hats, and tobacco furnished 90 per cent of the total female employment.

In short, Shanghai's economic development, especially the booming industrial sector, provided massive employment opportunities for immigrants. The growing weight of industry and services in Shanghai's economy transformed the labour market's structure, which was reflected in the jobs sought by and the employment segmentation of different migration groups.

IV.3 Entering the labour market of Shanghai

Besides the 'push' and 'pull' factors, another important issue in the rural-urban migration literature is access to city labour markets. Chain and network theories have challenged the neo-classical theories, showing that migration is not an individual decision but rather a collective one, involving family, the local community, and other groups. Neo-classical approaches just traced the triggering of migrant flows but failed to explain the causes of ongoing migration (De Haas, 2003). The literature has also showed that these migrants' networks helped immigrants to choose their destination, enter the labour market and adapt to the new setting (Puschmann, 2011).

In studying Shanghai's rural immigrants, it is also important to analyse how the rural immigrants entered the city's labour market. The ways that immigrants seek jobs in Shanghai determines their place in the city's pecking order and reveals the reasons for ongoing migration to the city from rural areas. Immigrants' networks played a vital role when it came to seeking a job. The literature suggests that networks based on native-place relations were the most decisive factor accounting for the employment of Shanghai's immigrants (Honig, 1986: 79-93; Honig, 1992: 70; Song, 2011: 45-52; Goodman, 1995:8). It can decide the employment of the immigrants from different origins in certain sectors and market segments. Elite sectors, services and modern factories would only hire family relatives, friends and people from their home places. Therefore, this section will focus on the analysis of the role of immigration networks in the employment of immigrants.

To analyse the resources and networks of rural immigrants from different origins, I use the Jiangnan and Subei immigrants as case studies. As explained in previous chapters,

immigrants from these two regions made up the bulk of Shanghai's immigrants. Here, one needs to consider the three factors that resulted in the great differences in where Jiangnan and Subei immigrants ended up in Shanghai's labour market: (1) who first entered into Shanghai's labour market; (2) the connections and network of immigrants from different places in different sectors; (3) access to job information and ways to be recruited.

IV.3.1 Arrival of the immigrants

Jiangnan and Guangdong people arrived in Shanghai before Subei immigrants. They rapidly accumulated wealth, occupied important sectors and used native-place relations to pave the way for late-coming immigrants to work in the factories. In the early stages shortly after Shanghai's port opening, competition for wealth was fought between Guangzhou and Ningbo immigrants. As discussed earlier in this Chapter (IV.1), Shanghai's economy in the early stage was dominated by trade under the control of foreign capitalists and *compradores* acted as intermediaries between foreign capital and Chinese merchants. They wielded great power. With their experience of foreign trade experience, Guangdong and Hong Kong *compradores* were the earliest to enter Shanghai after its port opening, and were swiftly outnumbered by Ningbo and Suzhou *compradores*, who developed a monopoly (Li, 1999:32-33).⁶² Jiangnan natives amassed huge fortunes from their intermediation activities as *compradores* and forged extensive connections. They also started to invest in banking and industry. Jiangnan natives accounted for the majority of banking and business elites (Li, 1999:50). Over time, they monopolised major sectors, set up factories and took leading positions in foreign banks and industries. With the development of trade, banking and industries, it was increasingly difficult to compete in Shanghai's market.

The first factory workers were also from Guangzhou and Jiangnan. Shanghai's early factories were shipyards and machine-building factories established by Westerners on the north side of the Huangpu River. When Shanghai's first machine-building factory was established in 1850, skilled workers were recruited from Guangzhou because

⁶² During The Ming Dynasty (1368-1644), Guangzhou, Ningbo and Zhangzhou were the trade centres. Until 1850s, Guangzhou was China's biggest port. When Shanghai was opened in 1842, many businessmen with trade experience from these areas became the first arrivals.

foreign shipyards had been established in Guangzhou and had experienced workers. At the same time, Ningbo and Shanghai's local farmers engaged in low-skilled work (Chinese Academy of Social Sciences, 1966: 50-51, 58, 68). With the expansion of factories after 1870, Jiangnan immigrants from Ningbo and Nanjing outnumbered Guangdong workers because of the shorter migration distance (Shanghai Industry and Commerce Bureau, 1979:50-56).

However, it seems that Subei people were the late-comers to Shanghai, both in early foreign trade and in the industries. References to Subei people in Shanghai are to be found nowhere before 1920, despite extensive searching for them in the archives of native-place associations, factories' archives and even newspapers.

When Guangzhou and Jiangnan people monopolised foreign trade in the late 19th Century, Subei latecomers and even investors from the relatively prosperous regions of Subei could only enter into less competitive sectors such as rickshaws and bathhouses. As a result, Subei merchants failed to join the rank of Shanghai's industrial elites.

In the industrial sectors, Subei people were also the latecomers. There is no record of Subei workers hired by Shanghai's early factories. Honig also came to a similar conclusion: "Subei natives were quite possibly latecomers to factory work in Shanghai." (Honig, 1992: 63). This can be verified by the archives of factory workers. The earliest factory records of Subei workers appear in the early 1920s, when they were hired in the unskilled and lowest-paying sectors such as silk-reeling and cotton textiles.⁶³ Later, more and more Subei workers were employed in factories but they too were limited to certain positions in given sectors (Honig, 1986).

A description of Shanghai's earliest Subei immigrants also shows that they were latecomers. In 1907, Japanese researchers found that Subei people who fled to Shanghai due to famine turned into a social class: they became leather workers, coolies, horse cart and rickshaw pullers, fecal cart-pullers and unskilled labourers. This study did not mention Subei people working in factories (Toa Dobunkai 1920, *Shina keizai zensho*,

⁶³ From the archives in Shanghai Municipal Archives, the earliest registration of workers from Subei was in 1925, Archives of Hongzhang Textile Factory.

vol.1, 388-389).

Jiang and Guangdong migrants entered Shanghai's labour market before Subei ones. The moment they entered into Shanghai, the network of connections accessible to each group of immigrants was already very different.

IV.3.2 Job-seeking in Shanghai

In Shanghai's labour market, the key factor for immigrants seeking jobs was the network between the place of origin and destination, which included personal connections and organisational links (native-place associations). Immigrants from different native places formed and made use of their networks in the city, which was crucial for the kind of jobs that they could find.

There is already a body of research on native-place connections and networks: Goodman made an in-depth study on native place organisations and consciousness in Shanghai, and demonstrated the importance of this system in Shanghai's economy and society (Goodman, 1996). Susan Mann analysed how Ningbo natives built up their powerful community in Shanghai (Mann, 1976). Cole did similar research on Shaoxing natives (Cole, 1986). Skinner's study showed that native-place identities and 'hometown' bonds were implicit, as Shanxi bankers, Ningbo entrepreneurs (Skinner, 1976). "Native place was the principle most often invoked as grounds for affiliation and assistance by men who left their homes to work in an alien environment" (Naquin and Rawski, 1987:47). Chinese scholars also studied and demonstrated the importance of native place associations in Shanghai's labour market (Guo:2003; Chen, 2005; Li, 1999; Song, 2011).

As we learn from a survey on "how immigrants found their first job before 1949", 85 per cent of the 391 respondents found their first jobs through family relations and friends, including family relations and friends and the personal arrangements of bosses and labour contractors who hailed from the same region (Lu, 1995:139).⁶⁴ Benefiting

⁶⁴ The survey was made by Lu in 1987. It covered first-generation immigrants to Shanghai before 1949. The sample size was 438 persons. (Lu, 1995)

from native-place connections, immigrants in Shanghai found work, enabling people who shared similar native places or kinship to aggregate in similar sectors and professions. When scholars carried out interviews with a few immigrant families in the Zhabei District of Shanghai, most interviewees found jobs in Shanghai through referral and help from their family members and friends. In their daily lives, it was family relations, friends and people from their hometowns who helped them. Those who shared kinship or native place tended to congregate in similar companies or sectors (Chen and Tang, 2007:34). This is how most immigrants from Subei or Jiangnan found their jobs. As their networks were very different, the jobs they found were also different. In this section, I will analyse and compare each group's connections.

Jiangnan people possessed rich connections from their native place. Because Shanghai's business and industrial elites already occupied important positions and were willing to hire people from their hometown, Jiangnan immigrants took advantage of their family relations and friends to get in touch with those successful business owners and managers to seek jobs. Their job-seeking path was far easier than it was for Subei immigrants. According to a survey on the native place of Shanghai's business owners and leadership (including owners, directors and general managers of factories and banks), Jiangnan immigrants had many private connections and native-place relations they could call on when seeking jobs.⁶⁵ Among the 2,080 people on the list of Shanghai's business directors released in the 1940s, Jiangnan people accounted for over 90 per cent of them whereas only 175 were from Subei (8 per cent). Jiangnan people virtually had a monopoly on banking and manufacturing industries. Almost all of the owners of Chinese factories, managers of foreign factories and bank executives hailed from Jiangnan. This distribution partly explains why farmers from Jiangnan region could easily find jobs in factories on arriving in Shanghai. In the words of a female factory worker from Yuyao, "It is easy for we Zhejiang natives to find jobs in the banks because there are many Zhejiang bankers. But if you are from Subei, you'll never get hired by a bank" (Wang, 1984:466).

With the development of commerce, Jiangnan natives entered Shanghai's political arena, thus strengthening their control of Shanghai's economy. In the late 19th century,

⁶⁵ Shanghai Chamber of Commerce, *Directory of Board Members of Business Federations of each Enterprise in Shanghai*, 1948. The list is available in the Shanghai Municipal Archives.

the first group of Guangdong and Jiangnan immigrants took the key positions in the economic, industrial and commercial departments of Shanghai government, controlling political power through the ‘avoidance law’” to implement economic policies favouring merchants from their native place (Leung, 1990:25-26; Li, 1999:33-34).

Among the early Chinese factories in Shanghai, it was a common practice for owners to recruit workers from their home towns. Shanghai’s early industrialist Mu Ouchu began to recruit workers to work at Shanghai’s textile mills from his hometown in 1919. He wrote in the recruitment advertisement that

“In the hope of helping my war-ravaged hometown, I would like to give my factory positions to local women as I want to convince people that women can also make a living for themselves. When the time is ripe, I am willing to contribute to my hometown’s textile industry” (Yang and Ye, 1987: 202-209; Song, 2011:47).

Most of his factory workers came from Pudong (Jiangnan Area), his hometown. There are many more examples of the same ‘hometown’ recruiting practice, of which the following will suffice. Liu Hongsheng, one of the most famous Chinese entrepreneurs in the 20th century, recruited workers from Dinghai County of Zhejiang Province for as long as 20 years (Shanghai Academy of Social Science, 1981:316-318). Another capitalist, Wang Daban, owned five factories in Shanghai and Ningbo and the ‘Ningbo Clique’ was the backbone of his company. In 1935, he founded a dyeing workshop in Shanghai and the first group of workers were all from Ningbo too (History of Hefeng Dyeing Factory, 1966:3). In 1925, the founder of Shenxin Textile Company Rong Zongjing set up Shenxin No.5 Factory with 2,200 employees. Because Rong’s family members hailed from Wuxi, that is where he recruited most of his workers from (Shanghai Academy of Social Science, 1962:316-318).

With industrial development, Jiangnan people were often hired through their townsmen, family relations or friends with special connections with entrepreneurs. Some of them were mid-level or senior employees of Chinese and foreign companies. For instance, foreign-invested machine manufacturing and shipping industries would outsource recruitment needs to labour contractors for the latter to recruit workers. Most Chinese

and foreign power companies in Shanghai recruited workers through their in-house senior staff. French and British bus and lighting companies delegated recruitment to trusted sources, issuing them ‘recruitment tickets’ (Song, 2011: 45-48).⁶⁶ As a result, immigrants from Jiangnan region such as Ningbo and Suzhou cities held senior positions, monopolising certain sectors as a result. Referral by acquaintances was the easiest path for immigrants to work in Shanghai’s factories. Most of Shanghai’s textile workers entered factories through the referral of people from their hometown. Business owners of large textile mills such as Shenxin Textile Company hired a large number of Wuxi, Pudong and Suzhou natives.

When Shanghai’s numerous shops and businesses recruited workers and shop attendants, they also relied on the referral of acquaintances. For instance, when the famous Yong’an Company recruited shop attendants for its Traditional Chinese Medicine stores and tea houses, it took on those with recommendations from the owners’ hometown. Given the clout of Jiangnan and Guangdong people in Shanghai’s commerce, the managers and employees of these businesses were mainly from Jiangnan and Guangdong too (Li, 1999:34; Lu, 2004:40-41).

By contrast, Subei immigrants had very limited connections at their disposal. Subei people made up under 10 per cent of Shanghai’s business directors (Shanghai Chamber of Commerce, 1948). Most directors from Subei were from places close to Shanghai, such as Nantong, Haimen and Rugao and less than 4 per cent from Funing to the north of Yangzhou. If we take a further look at the name list of directors from Subei, we discover that most of them were engaged in rickshaw companies, barbers shops, bathhouses and the construction sector and very few in industry and banking.

Among the typical Subei elites mentioned in the historic records, Xu Baokun, Wang Bingyan, Yu Lianjin and Qiu Jinsheng were all natives of Funing and Yancheng in the Subei region and engaged in the city’s rickshaw business; Guan Zihe, Zhao Degao and Ju Yongshan were native of Yangzhou and ran barber shops in Shanghai; Kang Qincai, Jin Chunhua *et al.* were from Jiangdu and had bathhouses in Shanghai (Shanghai Chamber of Commerce, 1948). Gu Zhuxuan, who was known as ‘The Subei Emperor’

⁶⁶ ‘Recruitment tickets’ were the employment forms that the company gave to their staff. New workers recommended by them could directly get a job with this form.

among Subei immigrants in Shanghai, was a powerful figure in the rickshaw business and thousands of Subei rickshaw pullers had him as their master (Xue, 1986: 95-96). No wonder Subei people congregated in these professions.

Due to the lack of an elite, the very few Subei people who made their way to the top were the likes of rickshaw company owners and docker-worker foremen. For Subei people arriving in Shanghai would find that their relations and people from their home districts worked in menial jobs (pulling rickshaws or working in the docks). They were crowded in dilapidated straw huts. Subei immigrants who received little education and or special qualities had no choice but to follow suit, concentrating in sectors that required no special skills and that paid subsistence wages.

When seeking jobs in factories, Subei immigrants had to rely on labour contractors to work in factories as temporary workers (Song, 2011: 50-52). During the 1930s, factories hired a large number of temporary workers to cut costs. For instance, some cotton mills hired temporary workers when they received orders and dismissed them when a production run was complete (Zhu, 1939:51). Over 70 per cent of Shanghai's dock workers were temporary ones, known by the insulting term 'wild-chicken workers'. They were pieceworkers whose wages were based on the length or quantity of freight-hauling (Zhu, 1939: 413). Without the personal connections needed to get a job in factories, Subei workers had to seek jobs as temporary menial workers.



Workers waiting for the recruitment of temporary work, 1930s.

Photo from the Shanghai Municipal Archives.

In recruiting temporary workers, factories outsourced recruitment to labour contractors, who issued work plates to temporary workers to determine their daily work. Upon recruitment, temporary workers had to queue before factories to collect work plates in the morning. Crowded job-seekers fought hard for a limited number of jobs. In addition, they had to make gifts to the foremen to get hired. This was a common practice in the recruitment of temporary workers by Shanghai's factories, as evidenced by the description in contemporary writings:

In hunger, I found a townsman who worked at East Shanghai Glass Factory. I told him about my circumstances, asking him to help me find work. The townsman said to me gladly that "I did not expect that you are also looking for work. That's fine. A few cotton mills are hiring hands but you have to be introduced by insiders." He thought for a minute and said that "Well, let me send you to a factory canteen and if you pay them for meals, you will be recommended. If you manage to give, say, four yuan to the canteen manager for him to give gifts to the foreman or secretary, you will find an office job and earn 40 cents a day. Because you are literate, you may get hired for this kind of job even if you give just two yuan but it

will not work as well as four yuan.⁶⁷

In addition, Subei women got jobs in cotton mills as bonded labourers. According to a survey on a Japanese factory, 64.3 per cent of workers were hired as bonded workers, and temporary workers hired by foremen accounted for 32.8 per cent, most of them women immigrants from Subei (Honig, 1986:73). In the following section I will discuss bonded labour in more detail.

Aside from personal connections with townsmen, two types of native-place organisations played an important role in immigrants' job-seeking: The Green Gang and native-place associations.

The Green Gang was one of the most influential secret private society since the Qing Dynasty and had far-reaching influence in modern Shanghai.⁶⁸ Since the early 20th century, leaders of The Green Gang marked off spheres of influence in Shanghai and small gang cliques controlled various sectors. With their political influence in Shanghai, The Green Gang controlled Shanghai's main economic forces. Links to The Green Gang often overlapped with native-place connections, and offered business protection and job resources to immigrants from the same native place. According to incomplete information currently available on The Green Gang, the resources accessible to Subei immigrants were scarcer than those to Jiangnan natives. Among the three major Green Gang leaders in Shanghai, none was from Subei: Du Yuesheng was from Pudong in Shanghai's suburb, Huang Jinrong hailed from Suzhou and Zhang Xiaolin came from Hangzhou. The latter two were all from Jiangnan. They had 'pupils' in almost every sector in Shanghai, thus forming an extensive native-place network. The Green Gang's position and resources made its members privy to a lot of employment information. By comparison, the resources available to Subei immigrants through The Green Gang were limited to menial jobs such as rickshaw-pulling.

Apart from the Green Gang, Shanghai's immigrants could also take advantage of connections through native-place associations.

⁶⁷ "Recruitment", *Women's Life*, April, 1931: 114-115.

⁶⁸ For detailed studies on The Green Gang, see: Xue (1980): *Gangsters in Modern Shanghai*.

Table IV.8 shows the overlapping relationships between native-place associations (*xiang bang*) and trade associations (*ye bang*). After Shanghai's opening as a Treaty Port in 1842, a host of trade associations (*hang ye xie hui*) emerged, numbering in the hundreds by the early 20th century. Each association comprised immigrants from the same native place. As these congregated in the same trade, it was easy to recognise immigrants by their trade associations: tobacco, opium and foreign small articles of daily use were run by Guangdong people; tea and silk shops were run by merchants from Anhui Province; banking, ship transport and *comprador* businesses were run by Ningbo people; satin, gem, clock and diamond businesses were run by Nanjing people, and so on and so forth (Zhang 1990:512-513; Lu 1999:51). With the rapid development of industries in Shanghai, it was not only merchants who formed trade associations. Factory workers did so too, setting up various native-place associations (*tong xiang hui*): Ningbo people in the shipping business established The Ningbo Guild; Wuxi and Haimen people in flour milling and oil extraction founded Wuxi and Haimen associations; immigrants from Shengxian, Dongyang, Xinchang, Hangzhou, Shaoxing, Huzhou and Changzhou also set up their own native-place associations. In addition, these associations also developed vertically, giving rise to provincial associations (such as the Guangdong, Fujian and Hubei native-place associations) or even smaller county and township level native-place associations (such as the Pudong and Chuansha native-place associations, etc.). In the Republican Period (1912-1949), over 100 native-place associations sprang up.

Table IV.8 ‘Native-place associations’ and ‘trade associations’ in Shanghai during the Republican Period (1912 – 1949)

Region	Native Place (<i>Xiang bang</i>)	Trade Associations (<i>Ye bang</i>)
Jiangnan	Wuxi	silk, pork, preserved pork
	Jinhua	ham
	Qianjiang	silks and satins
	Shaoxing	wine, coal and briquettes, dyeing, traditional banking (<i>qianzhuang</i>)
	Ningbo	cotton cloth, groceries, coal and briquettes, fish, Chinese medicine
	Suzhou	fans, tea and snack bars
	Wenzhou	umbrellas
Canton	Guangdong	silk cloth, groceries, sugar, Cantonese food
Others	Fujian	timber, lacquer, tobacco
	Shandong	silk cocoons
	Huining	tea, timber, ink sticks, pawnshops
	Jiangxi	Chinese medicine, chinaware, paper, cotton cloth, Sichuan Chinese medicine, wax

Source: Shen Bojing and Chen Huaipu (1933), *Shanghaiishi zhinan*, 347.

In the previous section we stressed the importance of native-place associations for Shanghai’s immigrants. One of an association’s key tasks was to strengthen links among members and to use their personal connections and resources. Helping immigrants to find jobs was also an essential function of native-place associations. For instance, the massive Ningbo Guild helped Ningbo’s non-elites to find jobs in Shanghai since the 1860s and supported Shanghai’s foreign-funded shipyards to recruit workers and apprentices from Ningbo. The historic records of native-place associations in the Shanghai Municipal Archives show that the purpose of most native-place associations in Jiangnan was to help people from the region find jobs. For instance, the Pudong Native-Place Association collected over 100 volumes of job-seeking forms, job-seeking letters and CVs. Yet associations for places such as Jiangnan and Guangdong had few resources (Shanghai Municipal Archives). Nevertheless, they gave their members useful information, which is considered an important factor in job-seeking theories on migration.

Up until now, the literature has argued that there was no Subei native-place association in Shanghai (Negishi, 1951). During the course of my research, I did find some even though they were few and very small. The Yangzhou Native-Place Association in Shanghai was founded around 1919 and a few smaller Subei native-place associations sprang up between 1930 and 1940 but had fewer than 100 members. These were dwarfed by The Ningbo Guild, which had thousands or even tens of thousands of members. Moreover, the functions of Subei native-place associations were very limited. Historical archives on native-place associations' are very scanty. Most native-place associations were created merely to help Subei refugees to resettle and raise donations during the flood of 1931 (Archives of the Native-place Associations). In her interviews with Subei people in the late 1980s, Emily Honig also found that no Subei immigrants could recall an instance in which they had had any contact with their native-place associations (Honig, 1992: 73). This implies that the Subei native-place associations did not offer as many employment referrals as the more influential Jiangnan guilds did.

Network and Chain Theories argue that the network means migration is decided collectively, not individually. Immigrants' regional backgrounds bear this out in Shanghai's case. Given the impact of their social networks, the fate or fortune, jobs and social status of the new immigrants was sealed before they reached Shanghai.

IV.4 Shanghai's Labour Market Segmentation

In Shanghai, social and economic relations were defined largely by local origins.

--Honig 1992:11.

Segmentation is one the special features of Shanghai's labour market. These rural immigrants mainly came from the Jiangsu and Zhejiang provinces, and occupied a labour market segment corresponding to their native place: immigrants from Guangdong and Jiangnan dominated the elite class of Shanghai's labour market with well-paid, decent, stable jobs. On the other hand, Subei people became synonymous

with lowly-paid menial labourers who endured bad working conditions. The word ‘Subei’ gave rise to various derogatory references to the underclass.⁶⁹

According to Labour Market Segmentation Theory, the labour market is split into two or three levels (Doeringer and Piore, 1983; Edwards, Reich, and Gordon, 1982; Granovetter and Tilly, 1986). Given individual characteristics such as gender, ethnicity, religion and nationality, workers are treated unequally in the labour market in terms of wage, welfare, working conditions, job stability and career advancement. This gives rise to primary and secondary labour markets. However, this theory and subsequent debates focus more on international migration (foreigners and ethnic minorities), individual factors (skill, education, behaviour, attitudes of individual workers, etc), and institutional factors (laws, policy alternatives), among others. Very few studies looked at segmentation among inter-regional immigrants and they did not take regional origin differences as an important factor. (Gordon, 1995; Anderson, Butler and Sloan, 1987; Griffin, Kalleberg and Alexander, 1981; Edwards, Reich, and Gordon, 1982).

Empirical studies also investigated labour market segmentation by ethnicity or regional origins in different countries. As early as 1845, Engels saw that the large numbers of Irish immigrants in England worked in the industrial districts of big cities and formed “the lowest class of the population” (Engels, 1887:102).⁷⁰ Other scholars investigated ethnic minorities in America (such as African Americans, Puerto Ricans and Asian descendants) (Handlin, 1972; Gregory, 1989), Irish workers in London and the US (Hunt, 1981; Glynn, 1981), Asturians in Madrid in the 18th century (Sarasúa, 1994), and Andalucians in Catalonia in the 20th century (Camps, 1995). Shanghai’s labour market segmentation in the early 20th century can be compared with these cases. In particular, the sufferings of Subei people are similar to the ethnic minorities in America or the Irish who fled The Potato Famine in the early 19th century. One element in common is that they were all at the bottom of the labour market heap, taking jobs despised by the locals. However, a difference from ethnic minorities in America is that the physical characteristics of Subei people were no different from those of Shanghai

⁶⁹ In Shanghai dialect some expressions relate to Subei people: “Jiangbei zhuluo (dirty and poor people)”, “Jiangbei lao (humble people)”, “Subei qiang (vulgar language)” (Chen, 2005:38; Honig, 1992: 2).

⁷⁰ See Friedrich Engels: *Condition of the Working Class in England*. Originally written in German and first published in 1845, and the first English edition was published in 1887.

locals and immigrants from Jiangnan — people from south of the Yangtze River. Besides, they were also Chinese Han and shared similar cultural backgrounds.⁷¹ Unlike the Irish living in London, Manchester and Liverpool, Subei people were not from another country and had no different national identity. Emily Honig noted in her monograph (Honig, 1992: 18-22) that Subei is not a clearly defined place; it is not a city or province but a vague region whose boundary is controversial.⁷² Shanghai locals rarely referred to Subei people by their more specific native place, such as Yancheng people or Huai'an people. Instead, they were generally lumped together as 'Subei people'. However, Jiangnan immigrants were specifically referred to as 'Ningbo people', 'Wuxi people', and so on.

Economic theories also demonstrated that the newcomers would meet a range of barriers to entry to the labour market, such as experience required, language, recognition of credentials, cultural difficulties, racism, and so on. There are studies on immigrants in the labour markets of Toronto (Canada), Antwerp, and other European cities. (Caves and Porter, 1977; Frank and Kogan, 2003; Weiner, 2008; Buzdugan and Halli, 2009; Winter, 2015). This could also apply to Subei and Jiangnan immigrants, when they came to Shanghai to look for the 'good jobs'. However, as newcomers in Shanghai's labour market, it seems that Subei and Jiangnan people had very different employment prospects simply because the barriers facing Subei people were that much higher.

The determinants (ethnicity, religion and nationality) defined by the theory of labour market segmentation cannot fully explain the inequities in Shanghai's migrant labour market. Besides, in comparison with the internal migration of other countries, the labour market segmentation elsewhere is only embodied in the difference between locals and immigrants (such as Irish people in Great Britain), or immigrants from different native places concentrating in the same or similar trades (such as people from Asturias in Madrid in the 18th and 19th centuries). In this sense, the tremendous disparities in social status and wealth found in early 20th Century Shanghai immigrants hailing from

⁷¹ In China there are over 50 ethnic groups, of which the Hans are the largest. Hans have consistently formed over 90 per cent of China's total population.

⁷² The debate on the definition of the Subei Area can be found in Chapter II of *Subei People in Shanghai 1850-1980* (Honig, 1992).

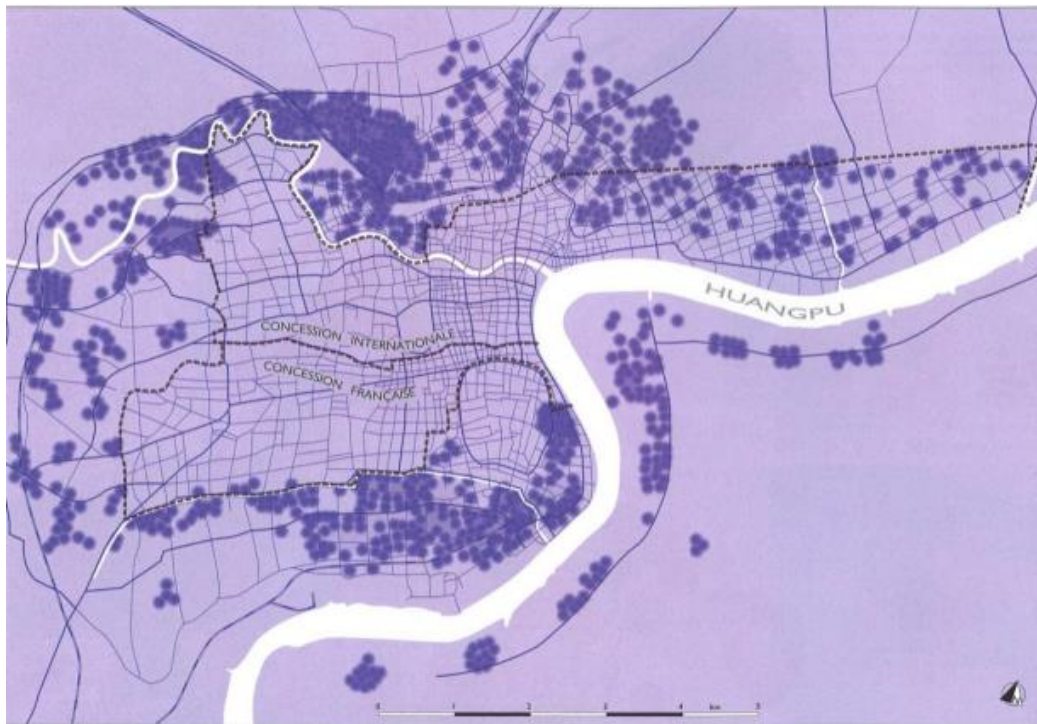
different regions is remarkable given that Subei and Jiangnan were ethnically and culturally the same. The differences that set them apart were accent, customs, and sometimes the dress.⁷³ The position of Shanghai's immigrants in the labour market was largely determined by "where they were from."

In this section, I will delve into the phenomenon of Shanghai's migrant labour market segmentation, comparing the two groups — 'Subei people' and 'Jiangnan people' — who accounted for 70 per cent of Shanghai's population and over 80 per cent of total immigrants, and take a deeper look at the causes of this strong segmentation. Given this exceptional state of affairs in Shanghai, *this section argues that regional origin is also an important determinant of labour market segmentation.*

Shanghai was split into different sections defined by the origin of immigrants. Apart from the British, French, Russian and Japanese concessions, Chinese immigrants formed ghettos whose dwellers all came from the same region. Thus those from Guangdong mainly settled in Hongkou District or along Guangdong Road; those from Jiangnan (mainly Ningbo City) congregated in the French concession and the northern area of the city's south adjacent to Huangpu River; those from Subei settled in the slums - known as 'Subei straw huts' (*Penghuqu*) - on the city fringes (Figure IV.7).

⁷³ Honig compared the Subei people with Shanghai people, and the impact of Subei culture to that of Shanghai (Honig, 1992: 53-57).

Fig. IV. 7 Distribution of straw huts in Shanghai (1930)



Notes: The dots show concentrations of straw huts.

Sources: Drawn by Henriot, 2010. The information is found in the Shanghai Municipal Archives.

Living conditions usually reflect the economic and social status of the population and Shanghai is no exception. While immigrants from Guangdong and Jiangnan congregated in nice, safe downtown areas close to the foreign concessions, Subei people were crowded in wretched straw huts.

In the north of the Yangtze River, the soil is sterile and the people are poor and dying. Hunger and starvation forced hundreds of thousands of people to seek livelihood in Shanghai. Their sprawling slums and boat homes in our city's suburbs and along Suzhou River provide them with temporary and floating shelters (Bureau of Social Affairs, 1934: 55).

Foreign travellers also described the straw huts:

On the higher reaches of the creek (Hongkew), from Scott Road northward, the visitor may see genuine beggar villages, if he wishes.

These people are from north of the Yangtse, which is a poor region. Their huts are made of anything handy — mud, reeds, brickbats, old planks, coats, sacking, and enameled iron advertisements of somebody's invaluable shop. There is a large supply of babies, dogs (much fleabitten and mangy), urchins (clothed in winter, naked in summer). (Darwent, 1905: 84-85)

Living conditions are a microcosm of the stratification of Shanghai's immigrant society.



Straw Huts in Shanghai, 1920s-1930s. Shanghai Municipal Archives.

As we already know, in Shanghai's labour market, immigrants were divided into 'Subei natives' and 'Jiangnan natives'. Subei people were the largest group among Shanghai's immigrants, followed by Jiangnan people (Honig, 1992:40; Xie, 1980: 112; Chen, 2005:105-108). However, the exact percentage of Subei and Jiangnan immigrants is unknown. Xie Junmei concluded that by 1949 Shanghai had about 1.5 million Subei immigrants, that is one fourth of the city's total population (Xie, 1980:112) but he did not offer the source of this figure. Honig wondered whether it might be a rough estimate based on the percentage of migrants from total Jiangsu Province, because these immigrants represented close to 50 per cent of the city's population through most of

Republican period (Honig 1992:141).⁷⁴ According to Lu, immigrants from Northern Jiangsu (not including all the Subei Area) made up around 13.7% of Shanghai's population (Lu, 1995: 136). Yet he too failed to say where he got the figure from. The total number of Jiangnan immigrants in Shanghai is uncertain as well and there are only some figures mentioned in the archives of trade associations or native-place associations in some regions but without exact data: for instance, there were over 50,000 Ningbo merchants in Shanghai in 1930 (The Ningbo Guild). The number of immigrants from Ningbo might have risen to over 400,000 by 1930 (Ningbo Native Association). However, as the coverage of Subei and Jiangnan Area were almost all Jiangsu and Zhejiang Province together, at least we can say that immigrants from these two areas made up over half of Shanghai's population.

In Old Chinese society, 'native place' is an important aspect of personal identity. When strangers meet for the first time, they always start their conversation by asking about each other's native place and surname (Shi, 2000: 641).” As demonstrated by the Migration Network Theory, immigrants of different native places congregate in different trades (Goodman, 1995). This is true for other countries and regions, and Shanghai is no exception.

Most Subei people did not take part in commerce or industrial professions. Rather, they were employed in the 'secondary market', working as rickshaw-pullers, dock workers, coolies and garbage collectors. A few factory workers took the most laborious jobs with the lowest pay, such as silk-reeling and cotton textiles. Their menial jobs and lowly social status were big hinderances in forming their own organisations like other groups of immigrants.

The differentiation between Subei people and other groups of immigrants reveals the other side of Shanghai's labour market: segmentation and hierarchy. This coincides with the views of theory of dual labour markets (Rawski and Li, 1992). Shanghai's labour market was split into two levels: (1) an elite (with stable, well-paid skilled jobs) represented by people from Guangdong and Jiangnan people; (2) a wretched underclass

⁷⁴ Honig pointed that Xie cites no source nor is it clear whether the number includes all people with a Subei background or only first-generation immigrants. Furthermore, Xie did not define the Subei area. (Honig 1992:141)

engaged in menial labour and living in squalor (people from Subei). Even among immigrants working in the same trade and in the same factory, Jiangnan people always got the plum jobs and the Subei the bad ones (Honig, 1992: 276).

Yet Labour Market Segmentation Theory cannot explain why Shanghai's labour market was wholly segmented by native place rather than by race, nationality, religion or any other factor. Here, one should note that such segmentation sets Shanghai apart from historical experience in America or Europe, where these factors either singly or conjointly played a key role. For most immigrants of different native places, jobs accessible to them were determined the moment they arrived in Shanghai. Native place pre-ordained their place in the labour market pecking order.

Shanghai's elite class was virtually monopolised by Jiangnan and Guangdong people. This is evidenced by the composition of the Shanghai General Chamber of Commerce, the most influential business organization in Shanghai in the early 20th century: from 1920 to 1930, over 85 per cent of its members were Jiangnan people. The 35 members of its Third Board of Directors in 1924 included 27 immigrants from Jiangnan (including 18 from Zhejiang and nine from the south of Jiangsu), two from Guangdong, five Shanghai natives and one Jiangxi immigrant. Among them, no Subei immigrant can be found. It should also be noted that in the General Chamber of Commerce, 45 per cent of its board directors and 22 per cent of its members engaged in the profession of *comprador* [buying agents] (Zhang 1990:716; Lu,1995:44).

Comprador refers to Chinese merchants acting as for foreign firms in their two-way trade with China in the history of modern China (1840-1949). Colluding with foreign capital, *compradores* held sway in Shanghai's capital and import/export affairs. They were at the top of Shanghai's labour market pyramid. In the early days after Shanghai was opened as a Treaty Port, most of the *compradores* came from Guangdong and Hong Kong. Yet in the late 19th century and early 20th century, Shanghai's *compradores* from Zhejiang Province (mainly from Ningbo and Suzhou cities) far outnumbered Guangdong natives, creating a virtual monopoly of the buying agent market. As recorded in *Dinghai County Gazetteer* (《定海县志》):

Dinghai natives are the leading group of *compradores* working for various foreign firms. A great number of them were employed by foreign

firms and Western organizations as senior secretaries, clerks, translators and running brokers.” (Dinghai County Gazetteer, 1892)

Table IV.9 Well-known Ningbo-native *compradores* [buying agents] in Shanghai (1865-1945)

Banks	Country	<i>Comprador</i>	Tenure
HSBC	Britain	Wang Huaishan	1865-1874
The British Bank	Britain	Xu Yitang	1922-1937
Deutsch-Asiatische Bank	Germany	Xu Churong	1889-1910
		Xu Xinquan	1911-1916
Russo-Chinese Bank	Russia	Yu Qiaqing	1902
Algemene Bank Nederland	Netherlands	Yu Qianqing	1903-1941
Huayi Bank	Italy	Li Shuxiong	1920
Taiwan Bank	Japan	Ye Ziheng	1911-1945
Mitsui Bank	Japan	Zhu Zikui	1917-1931
Banco Delta Asia	USA	Xu Baochu	1920-1921
American Express Bank	USA	Xu Baochu	1922-1937
CALYON	France	Wang Rongqing	1936-1945
British Jardine Matheson	Britain	Yang Fang	--
Taihe Bank	Britain	Xu Chunrong	--
Lulin Bank	Germany	Yu Qiaqing	--

Source: Historical Data Committee of CCPCC (1987): *Foreign Merchants and Compradores in Old Shanghai*, p.73-77, 258-299.

The monopolistic *comprador* class also exercised deeper influence since Jiangnan immigrants virtually controlled the connections between foreign capital and Shanghai’s business and industrial sectors. Understanding the economic clout of foreign capital in Shanghai is essential to unravelling the segmentation of Shanghai’s labour market. Back then, foreign capital held sway in the trade affairs of Shanghai and the rest of China. The country’s early-stage industrial development also started with foreign investments. Before the rise of China’s national industry in the 1920s, Shanghai’s industry was almost entirely controlled by foreign capital. Even in the heyday of China’s national

capital in the 1930s, foreign capital still played a dominant role (See Chapter III.1).⁷⁵ To some extent, China's labour market was also decided by foreign capital. It is fair to say that the professions and positions of immigrant groups in Shanghai's labour market could be determined by their relations with foreign investors.

After amassing fortunes by monopolising the *comprador* [buying agent] class, Shanghai's Jiangnan immigrants almost monopolised banking sector as well. Thanks to their rich business experience, Zhejiang merchants led by Ningbo natives created the earliest money shops (*qian zhuang*) and took part in the creation of China's earliest modern banks, playing a pivotal role in the development of Shanghai's financial industry.⁷⁶ In the early 20th century, over half of money shops in Shanghai were created by Zhejiang merchants (25 per cent by Ningbo natives) representing 80 per cent of the total capital of Shanghai's money shops.⁷⁷ After the establishment of modern banks, Jiangnan immigrants assumed almost all the key posts in public and private banks. Due to their power and economic clout in Shanghai's financial industry, Shanghai's commercial capital groups of Zhejiang native origin were generally referred to as "Zhejiang Financial Magnates" (Sencixun, 1935).⁷⁸

Apart from serving as a foreign exchange nexus for trade, the money shops run by Jiangnan people provided capital intermediation that facilitated industrial development in modern Shanghai and spurred the emergence of national industry. Money shops issued a large amount of loans to China's modern industries. They not only provided capital intermediation to government-run and government-supervised enterprises (for instance, the Jiangnan Machine Manufacturing General Bureau "took a loan from Yu's Money Shop") but also had close, frequent ties with private enterprises. During 1919-1927, for instance, the Henglong Money Shop founded by the Qin Family from Ningbo

⁷⁵ By 1933, foreign investment in Shanghai industry reached 1,110 million dollars, which represented over 60 per cent of total industrial capital. There were over 260 foreign-capital factories in Shanghai, which employed over 100,000 workers (Ding, 1997: 495-496; Xu and Huang 1988: 339-342). On foreign investment in Shanghai Chapter III.1.

⁷⁶ Ningbo is a city of Zhejiang Province. The immigrants from Ningbo reached 400,000 in 1930s, which is one of the biggest groups in Shanghai's immigrants (Xu, 1985:228; Li, 1999:21-22).

⁷⁷ More details about money shops (*Qiang Zhuang*) can be found in China's People Bank Shanghai Office, 1960: 743, and Historical Archives of Shanghai's Old Private Banks.

⁷⁸ The concept of "Zhejiang consortium (zhe jiang cai fa)" was first used by a Japanese scholar Sencixun in 1935: *General Situation of financial magnates in Shanghai*.

lent a total of 163,779 liang (263,280 ounces) of silver to Yichangshen Silk Mill and 22 other enterprises; 3,133,175 liang (5,036,695 ounces) of silver to Hengfeng Cotton Mill, Dasheng Cotton Mill and others (China's People Bank Shanghai Office, 1960: 842-845; Wang, 1957:1093).⁷⁹

Aside from their superiority in the elite circles of business and finance, Jiangnan people also dominated other professions with high social status such as attorneys, accountants and physicians. For instance, according to the records of Ningbo Native-Place Association in Shanghai, there were about 107 Ningbo-native attorneys in Shanghai in the late 1930s, including famous barristers such as Fang Jiaobo, Yu Hualong, Xia Gongkai, Xiang Longxun, Wei Bozhen *et al.*; 26 Ningbo-native accountants; 101 physicians including Yao Heqing (ophthalmology), Dong Tingyao (smallpox paediatrics) and Yan Ruiqin (surgery); 33 physicians of Western medicine including Fang Ziqin; and 10 dentists including Huang Binyu (*Collection of Historical Data of Ningbo*; Archives of Ningbo Native Association). We did not find any Subei people employed in these trades and professions according to historic records. Subei people appear mostly associated with such keywords as straw huts, rickshaw-pullers, garbage and poverty. "Most Subei people worked as street vendors, factory workers, rickshaw-pullers and all those menial jobs"; "Jiangbei people represented the vast majority of Shanghai's textile workers, manufacturing workers, heavy industry workers, cart-pullers, rickshaw-pullers, dock workers and coolies" (Wu, 1930:7; Chen 2005:161).

Compared with other professions, rickshaw-pullers and dock workers more directly reflect the position of Subei people in Shanghai's labour market. In the mid-1920s, Shanghai had a total of about 62,000 rickshaw-pullers and 35,500 dock workers; in the 1930s, there were about 50,000 dock workers and over 100,000 rickshaw-pullers (*Shanghai Port History* 1979:276; Bureau of Social Affairs, 1934: 41; Zhu, Hu and Xu, 1939: 634, 673).⁸⁰ Over 90 per cent of rickshaw-pullers were Subei people, most of whom came from Yancheng City and Funing County in northern Jiangsu Province;

⁷⁹ Liang was an old unit of measure for weight in China. Before 1935 in China it carried out Silver Standard Monetary System, and always used the weight of silver to express the value. 1 liang = 50 grams of silver. According to the calculation of weight and price of silver in Jan.1928, 1 liang was roughly 92 cents.

⁸⁰ The number of rickshaw-pullers did not include private rickshaws. In 1920 there were about 15,000 drivers for private rickshaws. Their number in later years is unknown (Li, 1920: 74).

almost all dock workers were Subei people as well. As a result of their congregation, their Subei dialect became the official language in these trades (Zhu, Hu and Xu, 1939: 645-647; Bureau of Social Affairs, 1934). In the eyes of Shanghai locals and other immigrant groups, congregation in these trades reflects the lowness of Subei people because:

“Only those Subei people who have suffered and endured natural disasters and economic destruction in the rural hometowns would ever stoop to do such inhuman work” (Shanghai’s Rickshaw-pullers Association, 1935, 7-8).



Rickshaw-pullers in Shanghai, 1930s. Shanghai Municipal Archives.

As can be seen from a sample survey of Shanghai’s 304 rickshaw-pullers conducted by Shanghai’s Social Affairs Bureau in the early 1930s, most of the rickshaw-pullers were Subei people:

Table IV.10 Native places of Shanghai's rickshaw-pullers (1934)

Native Place	Rickshaw-pullers	%
Yancheng	124	40.79
Dongtai	91	29.93
Funing	46	15.13
Taixian	14	4.62
Jiangdu	4	1.32
Gaoyou	3	0.99
Baoying	2	0.65
Suqian	1	0.33
Tongzhou	1	0.33
Siyang	1	0.33
Huaian	1	0.33
Haizhou	1	0.33
Jiangpu	2	0.65
Total Subei Area	291	95.73
Yixing	2	0.65
Shanghai	1	0.33
Shandong Province	6	1.97
Hubei Province	1	0.33
Unkown	3	0.99
Total	304	100.00

Source: Social Affairs Bureau of Shanghai Government (1934), *Investigation Report of Living Conditions of Shanghai's Rickshaw-pullers*.

As shown in the table, of the 304 rickshaw-pullers in the survey, 291 were from Subei area, accounting for 95.7 per cent of the total, while only 13 people from Jiangnan and other regions were engaged in this profession (under 5 per cent of the total). In particular, there were only three Jiangnan people, less than 1 per cent of the total.

Many of the bathhouse workers, dung cart-pullers and waste collectors were also Subei people.⁸¹ According to Li's survey, there were over 24,000 bathhouse workers in Shanghai in 1920, mostly from Yangzhou (Subei). They worked as barbers, masseurs, and tea servers, and their wages were very low. (Li, 1920: 48-49).

Worse still, many Subei people did not even make it to the formal labour market. A huge number of Subei immigrants were crowded in straw huts offering appalling living conditions. They scraped a living as garbage collectors, street hawkers and laundry workers. Many of them even became beggars and prostitutes (Honig, 1992: 66-67). Many Subei immigrants have similar recollections upon their arrival in Shanghai: a man who eventually worked as a rickshaw puller survived by picking and selling garbage when he first went to Shanghai in 1925; another eked out a living of repairing umbrellas and shoes; a garbage collector named Zhou Guozheng lived on selling vegetables; a woman supported her family by making charcoal briquettes (Honig 1992: 66)⁸². According to a report on Shanghai's labour market, "country folks from Jiangbei are the most hard-working Chinese." (Zhu, Hu and Xu, 1939: 607)

After Shanghai's rapid industrial development, huge demand for labour prompted factories to recruit immigrants, especially the cheap labour from the countryside regardless of their native places. In the 1920s-30s, a large number of Subei people entered factories. In particular, droves of Subei women were hired by Shanghai's cotton factories.⁸³ Yet this does not mean that Subei people were finally treated as well as Jiangnan people. In almost all industries, positions were classified into hierarchies: while high-level jobs were occupied by Jiangnan people, Subei people remained at the bottom. For Subei people, being able to seek a job in a factory was their ultimate dream in Shanghai. For instance, as recalled by a Yancheng people who worked as a garbage collector, "we really hope to work in a factory. I envy my relatives who work in the factory but we just cannot get in." (Honig, 1992:62).

⁸¹ On bathhouse workers, Li Cishan 1920: 79-80; on dung cart-pullers and waste collectors Zhu, Hu and Xu, 1939: 607.

⁸² Interviews with immigrants from Subei who came to Shanghai before 1949, made by Honig in 1980s. For more details, see *Creating Chinese Ethnicity—Subei people in Shanghai*, 1992.

⁸³ Honig (1986) is an excellent study about women in the textile sector of Shanghai during Republican China.

In the 1920s, Subei people began to appear in the archives of factory workers. They concentrated in sectors that required no particular skills and had the lowest wages, such as silk-reeling and cotton textiles.⁸⁴ Even within cotton textile and silk-reeling mills, Subei people engaged in the most physically demanding work. In the words of a silk-reeling mill manager, “a roving workshop is filled with dust and stale air. Only Subei people are willing to work here.” (Interview by Honig, 1992: 63) In flour mills, most milling machine operators were Ningbo people while less skilled and more physically demanding jobs were taken on by workers from places like Subei. The same is true for tobacco factories, where Subei women workers were concentrated in tobacco workshop and Jiangnan women workers were employed in packaging workshop with much better working conditions” (Zhu, Hu and Xu, 1939:125; Perry, 1980: Chapter 7, p.9).

In a book on labour protests in Shanghai, Subei workers recollected that

“Life in a tobacco workshop is like a child bride, who is rarely allowed to take a breath. To prevent damage to tobacco leaves, tobacco workshops were kept very hot and humid. Many workers suffered from chronic bronchitis in this harsh environment. When stalks were removed from tobacco leaves and the leaves were cut into small pieces, the air was filled with dust. The yellowish steam permeated the workshop, turning the sweat of workers into yellowish liquids. In processing the hot and damp tobacco leaves, a lot of workers were soaked in sweat and had blisters on their hands.” (Perry, 1980: Chapter 7, p.7)

Moreover, it was easier for Jiangnan people to get promoted in a factory. For women workers in a flour mill, for instance, a lot of Jiangnan women would become supervisors, secretaries and bookkeepers, something unimaginable for their Subei peers (Honig, 1986:73). In foreign-funded shipyards, almost all foremen were Jiangnan people (Ningbo people) and most workers were the relatives and townsmen of the foreman (Shanghai Federation of Trade Unions, 1991:37).

Not only were there tremendous gaps of profession, working conditions and income, but

⁸⁴ In the Shanghai Municipal Archives, I found the historical archives of Hongzhang Textile Factory (1918-1950), which includes a part of its worker registration cards. The earliest registration of workers from Subei is found in 1925. However, this archive is not complete and I only had access to fewer than 20 examples during my visit in 2012 and 2013. For this reason, I did not include this important material in the discussion of sources.

Jiangnan people had much more permanent jobs than their Subei peers. Most Jiangnan people had stable, long-term jobs in factories and chances for promotion. By contrast, Subei people were hired for temporary jobs and could be fired at the drop of a hat. For instance, in a cotton mill, most Subei people were hired by the foremen as temporary pieceworkers whose wages were based on the quantity of silk threads they turned out. Amounts were docked from their wages for any number of reasons.⁸⁵ Over two thirds of Subei dock workers were also temporary workers, who were paid according to the quantity of freight hauled. They were often ridiculed by long-term workers as ‘wild-chicken workers’ (*ye ji gong*)”, a curse in Chinese. Flour mills would only hire Subei workers during the peak season four or five months after new wheat was ripe and dismiss them in slack seasons.

For temporary workers, their term of employment was usually under three months and their wages were paid on a daily or piecework basis. They had no holidays and were not entitled to promotion or annual bonuses. They were thus not only underpaid but their jobs were also far less secure and stable than those of long-term workers (Song, 2011:50-51).

For the two groups at opposite ends of the Shanghai Labour Market spectrum, one need not continue listing the differences between the Jiangnan elites at the top and the Subei ‘riff-raff’ struggling to make ends meet at the bottom. What we intend to compare is the hierarchical differences that still persist in modern industry despite what the seeming appearance of equality. The next section will focus on the comparison of the wage gap between Subei people and Jiangnan people. In-depth analysis of wages reveals the stark realities of Shanghai’s labour market segmentation.

⁸⁵ More details of bonus-penalty wage in cotton factories will be given in the next section. In the *Shanghai Industries and Workers* survey, there is detailed information on the punishment meted out in textile factories (Zhu, Hu and Xu, 1939).

IV.5 Wage analysis of immigrants in Shanghai's labour market

The wage gap is usually used to measure the inequality of different groups in the labour market. The literature has analysed the income differences among men and women, genders, races, ethnic groups, immigrants, and so on. These studies mainly used important determinants such as education, occupation, labour market experience, skills, or even employer discrimination (Featherman and Hauser 1978; Goldin and Rouse, 2000; Neal and Johnson, 1996; Topel, 1997; Baker and Fortin, 2001; Grodsky and Pager, 2001; Betrán, 2004; Chevalier, 2007; Silvestre, Ayuda and Pinilla, 2015).

However, scholars who studied immigrant wage gaps thought that the conventional human capital indicators such as education, experiences and age could not explain the earning differentials between immigrants and native workers. Some studies focused on wage assimilations: The newly arriving immigrants obviously at a wage disadvantage but this wage gap narrowed with the length of stay as immigrants acquired specific skills, such as language, local labour market experience, adaptation to the new social setting and so on. (Borjas 1985; 1995, Chiswick 1978, Fridberg 2000, LaLonde and Topel 1993; Hum and Simpson, 2001). According to these studies, both productivity-related skills and the accumulation of human capital in local labour market are determinants of the wage gap between immigrants and native workers. Others discuss the impact of discrimination against immigrants on the wage gap (Becker, 1957; Bergmann, 1974; Altonji and Blank, 1999; Grand and Szulkin, 2002). Some scholars have studied wage inequality during the past globalisation period (1880-1913) and proved that the trade and skilled-biased technology shock widened wage inequality. However, education, emigration and capital accumulation had a greater impact and led to a narrowing of the wage gap (Betrán, Ferri and Pons, 2007).⁸⁶

It should be ideal to analyse the wage gap between different immigrant groups (mainly between the Subei and Jiangnan ones) in Shanghai's labour market during the 1920s and the 1930s and its determinants following the above studies. Yet this is no easy task for:

⁸⁶ Income differentials between migrants and local residents in Shanghai have been studied using a representative sample survey conducted in 1995. Five categories of variables were used: basic factors (seniority, gender, and hours worked per week), education, occupation, prior experience, and migrant's social resources (Wang, Zuo and Ran, 2002). Although the case studied is a recent one, its methodology could prove useful in this research.

“An analysis of labour market segmentation in Shanghai would ideally include wage data, comparing the earnings of workers in different occupations. Unfortunately, such data are largely unavailable” (Honig, 1992b: 276).

Although there is a lack of wage data on the various immigrant groups, some official wage statistics of Shanghai’s industries were published by the Shanghai Government, such as the Wage Index of Shanghai City (1929), Wage and Working Time in Shanghai (1931), Living Expense Index of Labourers in Shanghai (1932), Wage Rates in Shanghai (1935), and also in Labour Statistics in Shanghai (1930–1937), published by the International Labour Office in China, which allows some quantitative analysis. These sources are mentioned in studies on Shanghai’s economy, or have been used as descriptive analysis (Huang, 1987; Zhang, 1997; Honig, 1986; Du, 2005; Song *et al.*, 2011, etc.), but none of the previous studies made specific wage comparisons using econometric methods. This research is one of the first to conduct a quantitative analysis of the wage gap in Shanghai.

Although a full quantitative analysis on the wage gap in Shanghai’s labour market is not possible, the regression analysis of income using the industrial wage data is still highly significant. The sources statistics include the wages of all workers in industries in Shanghai from 1930-1936, split by occupations, gender and type of employment. Although it does not provide information on the origins of workers, one can estimate the proximate wage gap for immigrants from different regions. This estimate is based on analysis of the occupation wage gap, since immigrant groups from given regions were highly concentrated in certain industrial occupations.

Despite the lack of data on some wage gap determinants, such as education, age, experience, skills, there is data on some other major determinants, namely: gender, occupation, employment category. Regression analysis of the impact of the latter determinants will be performed in this chapter.

The objectives of this analysis are: (1) To demonstrate the general situation of industrial wages: the differences by genders, sectors, occupations and types of workers; (2) To

examine the effect of different variables on wage differences; (3) To chart income changes during the period studied (1930-1936), which can also be used to explain the impact of The Great Depression; (4) To analyse the proximate wage gap of immigrants from different places of origin.

The section is divided into two parts:

The first part is the regression analysis of income in Shanghai's industries. First, the models and the variables used for the regression analysis will be explained. Then the basic wage differences in Shanghai's industries will be analysed. Second, all occupations are divided into three groups: Subei, Jiangnan and Others to explain the wage gap between immigrant groups (specifically the Subei and Jiangnan ones), depending on the concentration of the immigrants. The regression results will show the wage differences of these groups. Third, relations among gender, origin regions, types of workers and the base wage and incentives are measured in order to analyse the various impacts of the wage gap determinants, using the semi-partial correlation. Then the relationships among gender, origin regions, types of workers and the base wage and incentives are measured. Last, a check is made on wage changes in the years from 1930 to 1936. The changes from year to year will chart the impact of The Great Depression on nominal wages in Shanghai.⁸⁷

The second part adds discussion of wage differences that cannot be explained by the aforesaid regression analysis. I will first analyse two major service sectors in which Subei immigrants concentrated: dock work and rickshaw-pulling. The differences among female textile workers will then be examined to complement part of the regression analysis. These descriptive analyses help in understanding labour market segmentation among Shanghai's immigrants.

⁸⁷ I am grateful to Nuria Mallorqui for her assistance with this econometric section.

IV.5.1 A regression analysis of the wage gap in industrial sectors

The source for the regression analysis was published by the International Labour Office in China and the Shanghai Government in 1937 under the title *Labour Statistics in Shanghai (1930-1937)*. It is the most complete and detailed set of wage statistics on Shanghai during this period. The data records monthly total income of 16 industries and 157 occupations in Shanghai from 1930 to 1936.⁸⁸ The data also covers worker incentives and penalties for the 16 industries (Base wage and total income). The statistics are broken down by gender (men and women) and by type of workers (time worker and piece worker). Other important sources are those covering the concentration of immigrants by place of origin. Of all the accessible materials and archives, only the following three sources touch upon immigrants' origin:

a) The special edition of *New Youth* published in 1920--*Situation of The Labour Market in Shanghai*, which sets out the situations of immigrants in various industries, particularly in connection with immigrants from Subei (Li, 1920);

b) *Shanghai's Industries and Workers*, published in 1939, summarised the distribution of native places of workers in industrial sectors (Zhu, Hu and Xu, 1939);

Using these materials, I identified the sectors dominated by each immigrant groups, and then split the occupations into three groups — Subei, Jiangnan and Other — for the regression analysis. In Table IV.11, the major industries and occupations in which Subei and Jiangnan immigrants were employed in the 1920s and 30s are listed, according to the summary of above historic information (Li, 1920; Zhu, Hu and Xu, 1939). In each industry, immigrants from the same origin accounted for at least 70 per cent of the total workers, and in some industries over 90 percent: Most workers in silk-reeling and cotton textiles industries were women workers from Subei, while Jiangnan immigrants dominated in the machine manufacturing, shipbuilding and knitting and silk weaving sectors of the textile industry (Li, 1920; Zhu, Hu and Xu, 1939; Honig, 1992).⁸⁹ For this reason, the wage gap between various industries and occupations gave an approximate

⁸⁸ The classification of the industries and occupations is shown in Appendix IV.1.

⁸⁹ There was also a concentration of immigrants in service sectors, such as rickshaw-pulling, dock work, and coolie work. For the data source reasons, here I analyse the industries using the linear regression method.

indication of the wage differentials between the aforementioned immigrant groups.

Table IV.11 Concentration of each immigrant group in Shanghai's industries (1930s)

Native place	Industries	Occupations
Subei	Silk-reeling	5
	Cotton spinning	21
	Cotton weaving	10
Jiangnan	Underwear knitting	7
	Hosiery knitting	7
	Silk weaving	13
	Machinery	6
	Oil pressing	4
	Tobacco	8
	Enamelling	16
	Shipbuilding	7
Other regions	Match making	17
	Wool weaving	7
	Flour*	4
	Paper making	10
	Printing	15

Note: * There is no such concentration in other sectors and only in flour milling industry did people from Hubei Province account for over 50 per cent of the total industry's workforce.

Source: Employment information is a summary of *Situation of the Labour Market in Shanghai* (Li 1920), *Shanghai's Industries and Workers* (Zhu, Hu and Xu, 1939).

The method that I use is the classical linear regression method. Following Green (1999), a regression equation is expressed by the following form:

$$y_t = x_{t1}\beta_1 + x_{t2}\beta_2 + \dots + x_{tk}\beta_k + \varepsilon_t$$

$$= x_t \cdot \beta + \varepsilon_t$$

shows the value of a dependent variable y_t in terms of a set of k observable variables in $x_t = [x_{t1}, x_{t2}, \dots, x_{tk}]$ and an unobservable random variable ε_t . The vector $\beta = [\beta_1, \beta_2, \dots, \beta_k]$ contains the parameters of a linear combination of the variables in x_t . A set of T

successive realisations of the regression relationship, indexed by $t = 1, 2, \dots, T$, can be compiled into a system

$$y = X\beta + \varepsilon,$$

wherein $y = [y_1, y_2, \dots, y_T]'$ and $\varepsilon = [\varepsilon_1, \varepsilon_2, \dots, \varepsilon_T]'$ are vectors of order T and $X = [x_{tk}]$ is a matrix of order $T \times k$. We shall assume that X is a non-stochastic matrix with $\text{Rank}(X) = k$ which requires that $T \geq k$.

According to the classical assumptions, the elements of the disturbance vector ε are distributed independently and identically with expected values of zero and a common variance of σ^2 . Thus,

$$E(\varepsilon) = 0 \quad \text{and} \quad D(\varepsilon) = E(\varepsilon\varepsilon') = \sigma^2 I_T$$

The matrix $D(\varepsilon)$, which is shown as the variance–covariance matrix or the dispersion matrix of ε , contains the common variance $\sigma^2 = E[\{\varepsilon_t - E(\varepsilon_t)\}^2]$ in each of its diagonal locations. Its other locations contain zero-valued elements, each of which corresponds to the covariance $E[\{\varepsilon_t - E(\varepsilon_t)\} \{\varepsilon_s - E(\varepsilon_s)\}] = 0$ of two distinct elements of ε .

The value of β may be estimated according to the principle of ordinary least squares regression by minimising the quadratic function

$$S = \varepsilon'\varepsilon = (y - X\beta)'(y - X\beta)$$

The minimising value of β is found by differentiating the function $S(\beta)$ with respect to β and setting the result to zero. This gives the condition:

$$\partial S / \partial \beta = 2\beta' X' X - 2y' X = 0$$

By rearranging the condition, the so-called normal equations are obtained

$$X'X\beta = X'y,$$

whose solution is the ordinary least-squares estimate of the regression parameters:

$$\hat{\beta} = (X'X)^{-1}X'y$$

The estimate of the systematic component of the regression equations is:

$$\begin{aligned} X\hat{\beta} &= X(X'X)^{-1}X'y \\ &= Py \end{aligned}$$

Where $P = X(X'X)^{-1}X'$, which is called the orthogonal or perpendicular projector on the manifold of X , is a symmetric idempotent matrix with the properties that $P = P' = P^2$.

The model presented above is used in order to measure the different variables and their effect degrees to the income, in this sense, several models are estimated:

Model A: (Model 1-6 in Table IV.12)

$$\text{LOG}(\text{Monthly Total Income}) = \beta_0 + \beta_1 \text{GENDER} + \beta_2 \text{YEAR} + \beta_3 \text{ORIGIN} + \beta_4 \text{TYPE} + \beta_5 \text{HOURS} + \beta_6 \text{SECTOR} + \beta_7 \text{OCCUPATION} + \varepsilon$$

In this model, I use the log form of Monthly Total Income as the dependent variable.⁹⁰ Seven categories of variables are used as independent variables (explanatory variables):

GENDER: is the dummy variable, comparing male and women workers (using male as the reference category (0)).

YEAR: from 1930 to 1936. In the model 1, 3, 5 of Table IV.12, year is converted into dummies using 1930 as reference category. And in the model 2, 4, 6 of Table IV.12, the year is used as a continuous variable.

ORIGIN: I divide all the occupations into 3 groups: SUBEI, JIANGNAN and OTHER REGIONS, according to the concentration of immigrants from different origins. The division of groups has been explained above. Origin is also converted into dummies using Jiangnan is used as the reference category.

⁹⁰ Using log form as the dependent variable means that each change of 1 unit on the log scale has the same effect on the Dependent Variable, rather than each change of 1 unit on the raw scale.

TYPE: The workers were classified by Time Worker and Piece Worker and converted into a dummy, using time worker is the reference category.

HOURS: Working hours of different occupations and different type of workers, which is a continuous variable.

SECTOR: Each industry is divided into several sectors; in total, there are 28 sectors in 16 industries. This variable is used as dummy variable.

OCCUPATION: is also a dummy variable. Each sector includes several occupations. Totally 105 occupations are selected.

The model is to compare the total monthly income in different occupations. The result of these regression analyses is shown in Table IV.12.

Table IV.12 Factors Influencing Income of Industries in Shanghai (1930-1936)
(Regression of LOG Monthly Income)

VARIABLE	Variable	Model 1 TOTAL SAMPLE	Model 2 TOTAL SAMPLE	Model 3 TIME WORKER	Model 4 TIME WORKER	Model 5 PIECE WORKER	Model 6 PIECE WORKER
GENDER (Ref.=male)	Female	-0.3434*** (0.0227)	-0.3430*** (0.0229)	-0.2934*** (0.0279)	-0.2933*** (0.0280)	-0.3160*** (0.0413)	-0.3123*** (0.0421)
	1931	-0.0511 (0.0293)		-0.0453 (0.0299)		-0.0524 (0.0446)	
	1932	0.0129 (0.0313)		-0.0491 (0.0326)		0.0780 (0.0500)	
	1933	-0.0578* (0.0282)		-0.0513 (0.0303)		-0.1259** (0.0464)	
	1934	-0.0450 (0.0267)		-0.0235 (0.0296)		-0.0989* (0.0417)	
	1935	-0.1463*** (0.0289)		-0.1083*** (0.0317)		-0.2410*** (0.0476)	
	1936	-0.0988*** (0.0273)		-0.0931** (0.0317)		-0.1526*** (0.0430)	
1930-1936			-0.0196*** (0.0037)		-0.0137** (0.0043)		-0.0358*** (0.0063)
ORIGIN REGION (Ref.=Jiangnan)	Subei	-0.3440*** (0.0640)	-0.3462*** (0.0656)	0.1913* (0.0908)	0.1883 (0.0960)	-0.5176*** (0.0685)	-0.5308*** (0.0712)
	Other regions	-0.0979 (0.0905)	-0.0968 (0.0902)	-0.0059 (0.0690)	-0.0071 (0.0711)	-0.5131*** (0.0937)	-0.5137*** (0.0934)
TYPE OF WORKERS (Ref. = time worker)	Piece worker	0.1148*** (0.0219)	0.1154*** (0.0219)				
WORKING HOURS		0.0451*** (0.0119)	0.0471*** (0.0122)	-0.0020 (0.0316)	0.0006 (0.0314)	0.0602*** (0.0136)	0.0704*** (0.0135)
Constant		2.2952*** (0.1531)	40.1485*** (7.2441)	2.6720*** (0.3224)	29.1678*** (8.2918)	3.2888*** (0.1285)	72.2810*** (12.1516)
N		1329	1329	836	836	493	493
r2_a		0.7015	0.6980	0.7013	0.7002	0.8145	0.8056

Legend: Standard errors in parenthesis. * p<.05; ** p<.01; *** p<.001

Note: The full table is shown in Appendix IV.2.

Source: Calculation based on data from *Labour Statistics in Shanghai (1930-1937)*.

Model B (Model 7-10 in Table IV.13)

B1:

$$LOG(Wage\ base) = \beta_0 + \beta_1 GENDER + \beta_2 YEAR + \beta_3 ORIGIN + \beta_4 TYPE + \beta_5 DAYS + \varepsilon$$

B2:

$$LOG(Incentives) = \beta_0 + \beta_1 GENDER + \beta_2 YEAR + \beta_3 ORIGIN + \beta_4 TYPE + \beta_5 DAYS + \varepsilon$$

In these models, I use the log of Wage Base for model B1 and log Incentives for model B2 as the dependent variables, and five control variables.⁹¹

GENDER: is a dummy variable, comparing male and women workers. Male is as the reference category.

YEAR: As in the model above, the years are used as dummy and continuous variables separately. In Model 7 and Model 9 are the dummy variable, and use 1930 as the reference category. In Model 8 and 10, the year is used as a continuous variable.

ORIGIN REGION: It is also divided into three regions Subei, Jiangnan and Other regions, and converted into dummies, using Jiangnan as the reference category.

TYPE OF WORKERS: Time worker and Piece worker as dummy variables using time worker as the reference category

WORKING DAYS: The average working days of each group is a continuous variable. The results of these regressions are shown in Table IV.13.

⁹¹ Incentives included overtime work, promotion, bonus, lodging, allowance, reward and premium, penalty.

Table IV.13 Factors Influencing Wage base and Incentives (1930-1936)

VARIABLE	Variable	Model 7 Incentives1	Model 8 Incentives2	Model 9 Wagebase1	Model 10 Wagebase2	
GENDER (Ref.=Male)	FEMALE	-1.0515*** (0.1638)	-1.0745*** (0.1693)	-0.3444*** (0.0395)	-0.3395*** (0.0393)	
	1931	0.2129 (0.1983)		-0.0185 (0.0833)		
	1932	0.0911 (0.2324)		0.0508 (0.0840)		
	1933	0.0592 (0.2190)		0.0287 (0.0787)		
	1934	-0.4068 (0.2637)		0.0312 (0.0788)		
	1935	-0.4227 (0.3073)		-0.0505 (0.0772)		
	1936	-0.6635 (0.3431)		-0.0263 (0.0781)		
	1930-1936		-0.1260** (0.0440)		-0.0064 (0.0102)	
	ORIGIN REGION (Ref.=Jiangnan)	Subei	-0.8045*** (0.1776)	-0.7921*** (0.1820)	-0.1486*** (0.0366)	-0.1481*** (0.0364)
	TYPE OF WORKERS (Ref.=Time worker)	Piece worker	-0.7699*** (0.1639)	-0.7560*** (0.1662)	0.3333*** (0.0391)	0.3371*** (0.0390)
WORKING DAYS		0.1102** (0.0397)	0.1022** (0.0376)	0.0428*** (0.0090)	0.0460*** (0.0087)	
constant		-1.2980 (1.0269)	242.3453** (84.6133)	1.6970*** (0.2360)	13.9185 (19.6457)	
N		166	166	213	213	
r2_a		0.4795	0.4815	0.4820	0.4883	

Legend: Standard errors in parenthesis. * p<.05; ** p<.01; *** p<.001

Source: Calculation with data of Labour Statistics in Shanghai (1930-1937).

Models B is different from Model A. It mainly measured basic wage and the incentive differences, and their influencing variables. The sources are also different. Although they are taken from the same statistic, the source of Model A is the total income of 157 occupations in Shanghai's industry during 1930-1936; and the source of Models B is the base wage and incentives of 16 industries, which only records the industry average wage without giving occupation information.

My main limitations are the lack of sufficiently specific information on individual

characteristics bearing on ‘human capital’ among others. A further limitation in this chapter is the fact that I do not have panel data to analyse the temporal dimension of each individual.

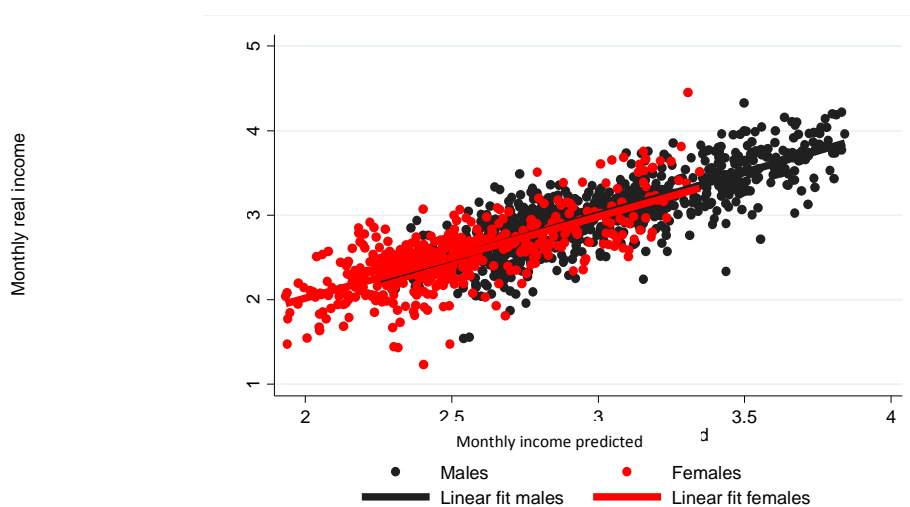
1) Basic wage differences

The results demonstrated that there are wage differences among men and women, different industries (occupations) and types of workers.

The wage gap between men and women is clear. Some scholars have found empirical evidence of this difference: Zhu proved the gender gap-based differences in wages in some industries’ factories (Zhu, 1939); Honig analysed the wage gap between male and female workers in textile factories (Honig, 1986); Xin also explained the gender wage gap from general aspects (Xin, 1996).

Fig IV.8 also shows that there is a gender difference in the monthly income. Generally women got lower wages than men. Table IV.12 shows that in terms of total monthly income, women’s wages were 34 per cent lower than men’s wages. Gender difference among piece workers (31 percent) is slightly larger than for time workers (29 percent).

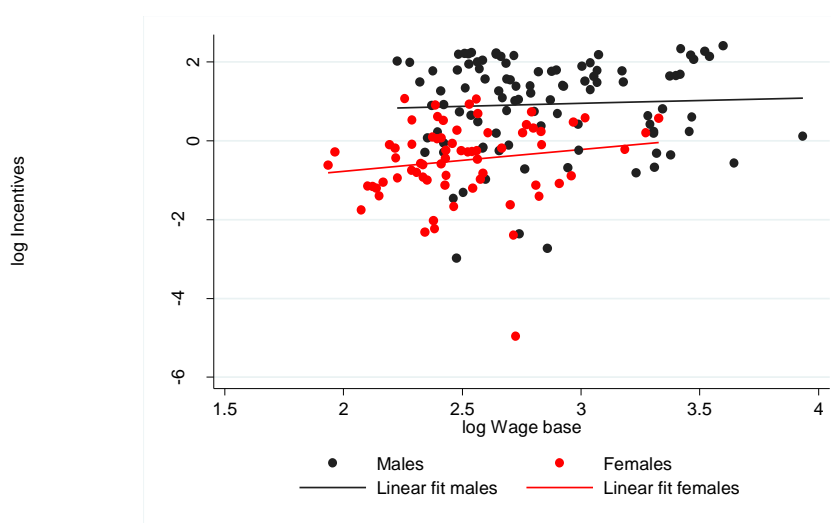
Fig. IV.8 Linear regression result of wage gap, by monthly income (1930-1936)



Source: Calculation with data of *Labour Statistics in Shanghai (1930-1937)*.

With regard to incentives, Table IV.13 shows that men got more incentives than women — the difference being over 100 percent, whereas the wage base difference was just 34 percent. Taking incentives into account widens the wage gap between men and women. The trend line in Fig. IV.9 shows that the incentives were independently stable, regardless of the wage base and gender. It is clear that women had fewer incentives than men, regardless of their wage base.

Fig. IV.9 Linear regression result of wage gap, by wage base and incentives (1930-1936)



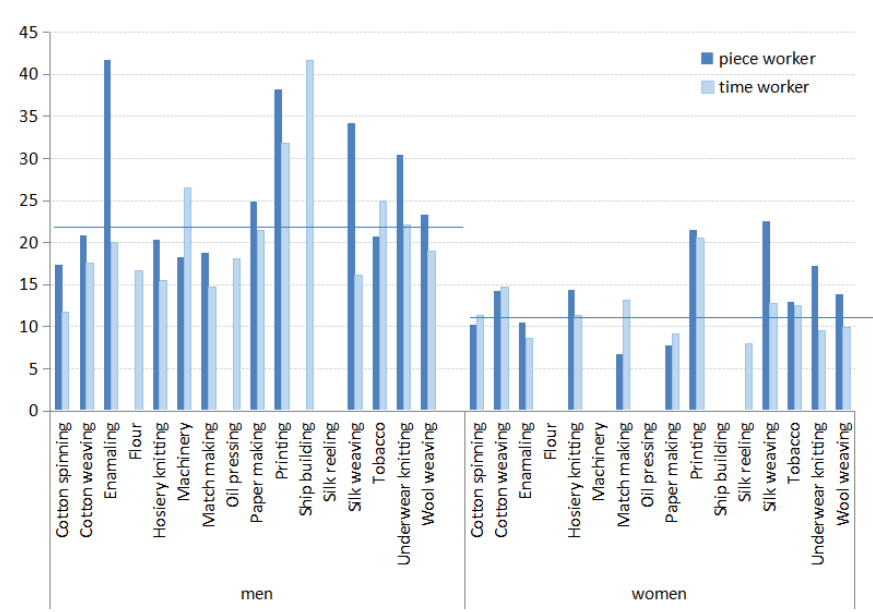
Source: Calculation with data of *Labour Statistics in Shanghai (1930-1937)*.

There is also a big gap among different industries and occupations. Some scholars found the same results in their studies (Xin, 1996; Cai, 2006; Kuang, 2008). The raw Labour Statistics data shows that the industries with highest wages were shipbuilding, printing, enamelling, and the lowest-paid sectors were silk-reeling and cotton-spinning (Fig. IV.10). In the 1930s, the average wage in the highest paying industry — shipbuilding — was over 5 times the wage of the lowest-paying one (the silk-reeling industry) (*Labour Statistics in Shanghai*).

The result of regression analysis (Table IV.12) shows that the two highest-paid occupations (off-set printing and book-binding) had over 100 per cent higher wages than the reference sector (splint ordering in the match-making industry). The wage gap in the occupations of piece workers was bigger than that of time workers, although the

majority of the occupations' results were not statistically significant given the paucity of data.

Fig. IV.10 Average Monthly Income of Industries in Shanghai by gender and type of worker (1930-1936)



Source: Calculation based on *Labour Statistics in Shanghai (1930-1937)*.

Different types of workers also showed wage differences. The total monthly income difference was 11.5 per cent, with piece workers earning more than time workers, as shown in Table IV.12. However, time workers had a 33 per cent higher wage base than piece workers but the incentives were 75 per cent lower than the latter. This means that the wage gap between time workers and piece workers arose from the incentive gap (Table IV.13).

Finally, the wage changes from 1930 to 1936 can be used to analyse the impact of The Great Depression on Shanghai's Labour Market. As shown in Table IV.12, the wage of total workers, time workers and piece workers fell over the period. Until 1935, the piece workers' wage dropped faster than that of time workers, which plummeted by 24 per cent, while time workers' wages shrank by just 10 per cent. This means that the economic crisis had a bigger impact on those earning higher wages.

In the results shown in Table IV.13, most of the coefficients are not statistically significant. Taking just the year as the continuous variable shows that between 1930 and

1936, incentives fell by 12.6 percent. The nominal wage represented just one aspect of the impact of the economic crisis. This part will be analysed in Chapter V, to show the changes in real wage during the crisis period.

2) The wage gap between Subei and Jiangnan immigrants

As there are no data on the different origins of immigrants, I group the various occupations in which immigrants from a given region were concentrated. The wage gaps among different groups of occupations and industries can be explained by differences arising from place of origin. It is an indirect way to prove the wage gaps between immigrants from different places. The wage gaps were very wide (see Chapter IV.3).

Almost all the regression results show that Jiangnan earned more than Subei ones. As Table IV.14 shows, for the average wage of all occupations, Jiangnan immigrants had an income 34 per cent higher than Subei people. If we analyse the wages of different kinds of workers, there are larger differences between the piece workers from these two origins, which reached over 50 per cent.

The result of the income gap among these two regions and other regions is not statistically significant except for piece workers. Such workers from other regions had an income that was 51 per cent lower than that of Jiangnan immigrants, and similar to that for Subei people. Model 5 shows that the income of piece workers from other regions was slightly higher than that for Subei people.

Table IV.14 Origin region wage gap in Shanghai's labour market

VARIABLE	Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
		TOTAL SAMPLE	TOTAL SAMPLE	TIME WORKER	TIME WORKER	PIECE WORKER	PIECE WORKER
ORIGIN REGION (Ref.=Jiangnan)	Subei	-0.3440*** (0.0640)	-0.3462*** (0.0656)	0.1913* (0.0908)	0.1883 (0.0960)	-0.5176*** (0.0685)	-0.5308*** (0.0712)
	Other regions	-0.0979 (0.0905)	-0.0968 (0.0902)	-0.0059 (0.0690)	-0.0071 (0.0711)	-0.5131*** (0.0937)	-0.5137*** (0.0934)
	constant	2.2952*** (0.1531)	40.1485*** (7.2441)	2.6720*** (0.3224)	29.1678*** (8.2918)	3.2888*** (0.1285)	72.2810*** (12.1516)
N		1329	1329	836	836	493	493
r2_a		0.5482	0.544	0.7013	0.7002	0.5135	0.5061

Legend: Standard errors in parenthesis. * p<.05; ** p<.01; *** p<.001

Source: Calculation based on *Labour Statistics in Shanghai (1930-1937)*.

The models decomposing the total income into wage base and incentives show that the differences are mainly caused by incentives. The gap in the wage base is just 15 per cent but the incentive differences are much larger — around 80 per cent.

Table IV.15 Origin Region wage and incentives differences in Shanghai's labour market

		Model 7	Model 8	Model 9	Model 10
VARIABLE	Variable	Incentives1	Incentives2	Wagebase1	Wagebase2
ORIGIN REGION (Ref.=Jiangnan)	Subei	-0.8045***	-0.7921***	-0.1486***	-0.1481***
		(0.1776)	(0.1820)	(0.0366)	(0.0364)
	constant	-1.2980	242.3453**	1.6970***	13.9185
		(1.0269)	(84.6133)	(0.2360)	(19.6457)
	N	166	166	213	213
	r2_a	0.4795	0.4815	0.4820	0.4883

Legend: Standard errors in parenthesis.* p<.05; ** p<.01; *** p<.001

Source: Calculation with data of *Labour statistics in Shanghai (1930-1937)*.

As a result, different models of the regression analysis clearly revealed the wage gap between Subei and Jiangnan immigrants. This is explained by the segmentation of Shanghai's labour market, which has already been discussed at length.

3) Effect of different determinants

I adopt Semi-partial Correlation to explain the extent to which certain factors influence wages. To compare the contribution rate of each variable, we can see which factor was most important in relation to the wage gap in Shanghai's labour market.

Table IV.16 Semi-partial Correlation of factors affecting monthly income

VARIABLE		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
		TOTAL SAMPLE	TOTAL SAMPLE	TIME WORKER	TIME WORKER	PIECE WORKER	PIECE WORKER
GENDER							
(Ref.=Male)	FEMALE	0.2559***	0.2560***	0.2438***	0.2438***	-0.1785***	-0.1771***
ORIGIN REGION							
(Ref.=Jiangnan)	SUBEI	0.0943***	0.0950***	0.0423*	0.0417*	-0.1437***	-0.1479***
ORIGIN REGION							
(Ref.=Jiangnan)	OTHER REGIONS	-0.0113	-0.0112	-0.0012	-0.0014	-0.0400*	-0.0401*

legend: * p<.05; ** p<.01; *** p<.001

Source: Calculation based on *Labour Statistics in Shanghai (1930-1937)*.

For the total monthly income, the most important affecting factor is gender, which explains 25 per cent of the wage gap, while native origin explains around 9 per cent. For piece workers, gender's impact fell to 18 per cent, and the origin factor rose to 15 per cent. For time workers, the gender impact stayed the same, and other results are not statistically significant.

Table IV.17 Semi-partial Correlation of factors affecting incentives and wage base

VARIABLE		Model	Model	Model	Model
		Incentives 1	Incentives 2	Wage base1	Wage base2
GENDER (Ref.=Male)	FEMALE:	-0.3624***	-0.3722***	-0.3885***	-0.385***
ORIGIN REGION (Ref.=Jiangnan)	SUBEI:	-0.2699***	-0.2673***	-0.169***	-0.1685***
TYPE OF WORKERS (Ref.=Time worker)	Piece worker:	-0.2793***	-0.2759***	0.4053***	0.4108***

legend: *p<.05; ** p<.01; *** p<.001

Source: Calculation based on *Labour Statistics in Shanghai (1930-1937)*.

For the wage base, type of worker is the most influencing factor, which explains 40 per cent of the wage base differences. Then comes gender, and origin is the least influential. For incentives, the influence of origin rose to 27 per cent, and the type of worker fell to

27 percent.

As a result, *gender differences are always the most important factor affecting wage gap*. Origin and type of worker are also important affecting variables.

From this section, the regression analysis proved that there was a wage gap between men and women, occupations, and type of workers. Men had higher wages than women, and the incentives for men were higher. There was a big gap among the various occupations and industries, which can show the approximate wage gap among immigrants from different places of origin. Immigrants from Jiangnan had higher wages than those from Subei, and the gap between the incentives was wider than that for wage base. Piece workers had higher wages than time workers, which was mainly caused by incentives. Among these three determinants, gender difference is the factor that most affected wage gap in Shanghai. Finally, the figures show that The Great Depression influenced Shanghai workers' wages, depressing those of higher-paid workers more than those of lower-paid ones.

IV.5.2 Other wage analysis

From the above analysis, the clear wage gap in industries could be seen in the gender and origin difference. However, due to the lack of sources on service sectors wages, the wage differences of Subei and Jiangnan immigrants in service sectors could not be compared. Here, the fact that many Subei immigrants worked in unskilled or 'informal' jobs (such as rickshaw-pulling, dock work, hauling freight, cutting hair) means that there are no statistics on their wages either in the official statistics or in the surveys conducted during the Republican period (Social Affairs Bureau, 1934; Li, 1920; Zhu, Hu and Xu, 1939). So in the first part of this section, two representative 'Subei' occupations will be examined — dock work and rickshaw-pulling — will be analysed in income terms. The meagre earnings of immigrants doing these jobs will further demonstrate the stark segmentation between Subei and Jiangnan people in the labour market.

As gender segmentation was another aspect demonstrated in the econometric analysis (and was perhaps even the biggest affecting factor), the second part of this chapter will

focus on one sector — women textile workers. It was the biggest worker group in Shanghai and the inequality within it could not be explained by average wages in the industry.

IV.5.2.1 Dock workers

In the 1930s, there were over 50,000 dock workers in Shanghai (*History of Shanghai Port*, 1979:292). Dock workers undertook the hardest, lowest-paying jobs and their deductions were made from their pay by various middlemen. When dock workers were needed, dock capitalists would ask *compradores* [buying agents] to hire dock workers, who would then appoint a labour contractor to recruit dock workers on their behalf. In this manner, various middlemen took their cut out of dockers' pay. Normally, dock capitalists would deduct 75 per cent of the freight hauling fees paid by freight transport or trade companies, *compradores* would then deduct an additional 15 per cent and the labour contractor would take a 5 per cent from the remainder, leaving freight haulers with a measly 5 per cent of the original freight hauling fees (*History of Shanghai Port*, 1979:276-286). Take pig iron for instance, the freight hauling fee for each ton of pig iron was 2.02 yuan, of which 1.52 yuan went to dock capitalists, 0.30 yuan was deducted by *compradores*, and 70 per cent of the remaining 0.20 yuan was taken away by the labour contractor, leaving a mere 0.06 yuan for workers (Zhu, 1939:573). Steel is another example of the same process. In July 1937, it took 12 days for Huangpu Dock to unload 10,090 tons of steel and the total dock freight hauling cost was 22,726.56 yuan. After deduction of 16,693.81 yuan by dock capitalists, 2,712.75 yuan by *compradores* and deductions by the labour contractor, each worker only received 0.58 yuan (Chen, 1966:351).

The deductions made by dock capitalists and *compradores* meant that labour contractors were left with a much smaller 'cake' from which to take their slice, thus limiting their income. To supplement this income, labour contractors asked for 'gift money' from workers under various pretexts, covering festivals, weddings, funerals and celebrations. For instance, labour contractors who hired workers would hold three birthday celebrations, including the so-called 'pre-celebration', 'formal celebration' and 'birthday according to the lunar calendar'. For deceased labour contractors, their families would hold birthdays for them to keep the money flowing in. Yet when dock

workers were injured or killed at work, their employers never cared (Chen, 1966: 351; *History of Shanghai Port*, 1979:287).

With a string of deductions and these blood-sucking practices, it is hardly surprising that dock workers' wages and benefits were extremely low. For instance, the daily wage for freight haulers was 0.35 to 0.40 yuan. For coal and timber haulers, they would earn over 200 copper coins (about 0.60-0.70 yuan/day) working flat out and were usually only paid a little over 100 copper coins (about 0.40-0.50 yuan/day). When they were in poor shape, they took odd jobs and earned over a dozen or so copper coins a day (less than 0.3 yuan). (Zhu, 1939: 573-576; *History of Shanghai Port*, 1979:292)

Therefore, dock workers — most of them Subei people — were the most impoverished group in Shanghai's labour market. They congregated near shipyards or shack settlements and their wives and children lived on gathering vegetable leaves and wastes. *Transformation of the Docks in Shanghai* contains the following description of the life of dock workers:

They could not afford to rent houses and had nowhere to live but in the streets or crowd into dark, filthy and smelly straw huts. There were often starved and fed on soya bean dregs and vegetable skins. They wore sun hats, Taoist robes and straw sandals. They could barely eke out a living for themselves, not to mention their families, so their wives and children had to fend for themselves by collecting left-over vegetables and firewood. (Chen, 1966:2)

IV.5.2.2 Rickshaw-pullers

Before the 1920s, Shanghai's market of rickshaw-pullers was almost monopolised by foreign merchants and most rickshaws operated within the foreign concessions in Shanghai. Since the 1920s, Chinese contractors began to purchase rickshaws from foreign owners and organised their own rickshaw companies (Zhu, 1939:595-596; Lu, 2004:66). In the late 1930s, Shanghai's rickshaw industry reached its peak and was no longer a monopoly of foreign merchants. At its peak, there were a total of 80,000 to 100,000 rickshaw-pullers in Shanghai (see the following table), of whom 95 per cent

were from Subei. Rickshaw-pullers in Shanghai were known as the “most oppressed social class with the lowest living standards and the worst modern skills.” (Chen, 2005:151). “Rickshaw pulling, more than any other occupation, was associated with and symbolised the status of Subei people in the Shanghai labour market.” (Honig, 1992: 59-60). Without a doubt, they were at the bottom of the social hierarchy.

Table IV.18 Statistics of rickshaw-pullers: 1934

Districts	Registration of rickshaws		Estimate of rickshaw-pullers	
	Total number	%	Total number	%
International Settlement	9,990	41.90	39,960	49.55
Nanshi	6,014	24.74	18,042	22.37
Zhabei	2,902	11.94	8,706	10.79
Huxi	3,135	12.90	9,405	11.66
Pudong	984	4.05	1,968	2.44
Wusong	200	0.82	400	0.50
Yangtang	1,011	4.16	2,022	2.51
Gaolu	73	0.30	146	0.18
Total	24,309	100.00	80,649	100.00

Source: Social Affairs Bureau of Shanghai Government (1934), Investigation Report of Living Conditions of Shanghai’s Rickshaw-Pullers.

Like dock workers, the income of rickshaw-pullers was also docked [subject to deductions] by various middlemen. They had to pay two additional costs: the rickshaw rental fee and the license leasing fee.

Rickshaw-pullers were too poor to be able to buy rickshaws and had to pay a rental fee to rickshaw companies. When rickshaws appeared in Shanghai’s streets, they were all imported from Japan. At that time, each rickshaw costed 15 yuan and the daily rental fee for each rickshaw was about 1.2 to 1.5 yuan (Lu, 2004: 64-67). Later, the manufacturing of rickshaws was nationalised, bringing their price down. As capital poured into the rickshaw market, the number of rickshaws surged. In 1924, the number of pulled rickshaws in the concession areas of Shanghai reached 19,882 (including 9,882 private rickshaws). For fear of traffic congestion, Shanghai’s Municipal Council began to offer

public rickshaw licenses, limiting the number of licenses to 10,000 (Shanghai Municipal Archives).⁹² This license policy created a web of interests, placing an even heavier on rickshaw-pullers.

At that time, Shanghai was controlled by various political forces and was split into three districts: Chinese Districts, The French Concession and The International Settlement. Accordingly, the rickshaw licenses were also classified into three types, including the Class 1 License for a specific region, the Class 2 License for the south city and The French Concession, and the Class 3 License for unrestricted traffic.⁹³ Obviously, the Class 3 License was much more favourable. To prevent counterfeiting, each rickshaw puller had to wear an oval-shaped small plate on his wrist that matched the rickshaw license. After Shanghai's Municipal Council imposed restrictions on the issue of license, the rickshaw industry formed a highly complex "hierarchical system of license transactions" (Lu, 2004: 66-67). Many license holders retained official registrations and rented their licenses to others.

The process of license leasing involved license holders, rickshaw owners, contractors and sub-contractors. Shanghai's Municipal Council collected a tax of two yuan for each license, which rose to 2.2 yuan by the end of 1930. Due to the huge profits to be made, a license at that time was priced at 750 yuan. At various levels of leasing, the rental fee of the Class 3 License was as much as one yuan per day and 0.7 yuan at least. The rental fee of the Class 2 License was 0.18 yuan for the morning shift and 0.26 yuan for the night shift. The rental fee of the Class 1 License was 0.15 yuan for the morning shift, 0.19 yuan for the night shift and 0.21 yuan in West Shanghai (Zhu, 1939:596; Li, 2005:1214).

The rickshaw fare was actually rather high. In the late 1920s and early 1930s, the rickshaw fare for about one mile (the most common length for rickshaw riders) was 20 cents. The following table shows that if there were sufficient passengers, a rickshaw could bring in over five yuan per day. Deducting the rickshaw rental cost and license

⁹² It is recorded in the Transport of Old Shanghai archives, Number: Q5-2-1019.

⁹³ Classes 1 and 2 were called "Small License" because of its limited scope, and Class 3 was called "Big License". Details on the licenses can be found in the study by the Social Affairs Bureau of Shanghai Government (1934).

fee, the monthly income for each rickshaw was well above 50 yuan (Li, 1920:72; Zhu, 1939:674; Social Affairs Bureau, 1934:39-41). However, due to license restrictions, there were far more rickshaw-pullers than there were rickshaws. When a rickshaw was shared among many pullers, this depressed the income of each rickshaw-puller.

Table IV.19 Rickshaw fares: 1927-1937

Distance	
Less than 1 Mile (Starting fare)	0.1 yuan
Each half mile after the first mile	0.1 yuan
Time	
Less than 1 hour	0.5 yuan
Each hour after the first	0.4- 0.5 yuan

Note: It is the official fare set by Shanghai's Municipal Council but it was not rigidly enforced. Usually the rickshaw-puller and the clients haggled over the price, which was higher than the official fare.

Source: Fang, 1930:800; Darwent, Shanghai, xiv, 1920:168-170.

In 1934 there were a total of 1,009 rickshaw companies in Shanghai's International Settlement, with 9,990 rickshaws. Yet there were 40,000 rickshaw-pullers in the public concession in the same year, which means that each rickshaw was shared among four pullers. Rickshaw-pullers worked in shifts. The first shift lasted from 3 p.m. to 5 a.m. (14 hours) and the second shift lasted from 5 a.m. to 3 p.m. (10 hours). Following this calculation, each rickshaw-puller only had 15 days of work each month, and license restrictions meant they could not work two or more rickshaws. This situation deteriorated in the 1930s. In 1939, there were 100,000 people in Shanghai who made a living as rickshaw-pullers, while the number of rickshaws was under 20,000, which meant that one rickshaw had to be shared among five pullers. As a result of restricted working hours, the income of rickshaw-pullers fell markedly. According to a study by the Rickshaw Committee of Shanghai Municipal Council, in 1934, the monthly average income of rickshaw-pullers was under nine yuan (8.88 yuan for holders of Class 1 and 2 Licenses and 8.84 yuan for holders of a Class 3 License), far below the monthly average income of 20 yuan for male workers in Shanghai (Rickshaw Committee of Shanghai

Municipal Council, 1934).⁹⁴

Those struggling at the bottom of society were unable to raise a family with their meagre income. As a result, most rickshaw-pullers in Shanghai were single. Among the 100,000 rickshaw-pullers in Shanghai's concessions in 1938, over 60,000 were unmarried or had left their spouses in their rural home towns (Shanghai Social Affairs Bureau, 1935). This coincides with a survey on rickshaw-pullers: "less than one third of the rickshaw-pullers are living with their spouses." (Zhu, 1939:697). For those living with their spouses, they were unable to lead a normal life with meagre income and had to share narrow living spaces in attics or straw huts with others. For these reasons, rickshaw-pullers in Shanghai were as good as destitute.

An interesting phenomenon about rickshaw-pullers is that despite the common knowledge that factory work was much better than pulling rickshaws, many rickshaw-pullers were unwilling to work in them. One of the reasons was the long, inflexible factory hours (normally over 12 hours a day), whereas working rickshaw-pullers had shorter, more flexible schedules. Another reason is that wages for unskilled workers in factories were roughly what a rickshaw-puller might earn — 40 cents a day (1930). Furthermore, rickshaw-pullers might receive tips from passengers or use their spare time to take on other menial jobs to support their families (Lu, 2004: 70-71).

In 1930, a rickshaw-puller aged 44 said in an interview that

"I don't want to work in a factory because there, I could only earn 40 cents a day, while rickshaw pulling earns more and is more flexible - if I'm lucky, I could make more money. But in a factory, never think about making more than 40 cents a day." (Lei, 1930: 21-22, 62)

This may partially explain the reason why there were more women Subei workers than men workers in Shanghai's textile mills. For Shanghai's poor families, the most common job combination was rickshaw-puller for the husband and textile work for the wife (Lu, 2004:72). In the following section I will present a detailed comparison of the wage of textile workers, particularly the wage difference between Subei and Jiangnan women workers.

⁹⁴ The average wage of male workers is calculated using the Shanghai Government's wage statistics. The average in 1930 was 20.65 yuan/month.

IV.5.2.3 Women textile workers

As showed in the regression analysis, the gender factor was the most important for the wage gap in Shanghai's industries. And in the industries, the textile was the most important one, which occupied almost the half of the output value of total industrial sectors (Statistics of Shanghai, 1933). Furthermore, the textile industry employed over half of Shanghai's factory workers, many of whom were immigrants who came from different social classes.⁹⁵ For women workers, in particular, in such sectors as cotton weaving and silk-reeling, women accounted for over 70 per cent of the total workforce (Honig, 1986:1).

Hence the need to carry out in-depth analysis of this sector to examine the wage situation of women workers. The textile industry provides us with a good sample for delving into regional differences in Shanghai's labour market. These women workers from different places had completely different circumstances:

In the first half of the 20th century, there were no typical women workers at cotton and silk mills. There were destitute women who lived in sheds, ate leftover vegetables dumped in the street and wore ragged cotton-padded clothes, while there were also fashionable ladies who wore high-heeled shoes, spent part of their salary on waving hair and bought cosmetics and jewelry. Economically, some women workers were better-off than others. Such economic difference reflects the difference of geographical origin: their native place had a decisive impact on their experiences in Shanghai (Honig, 1986: 49).

According to industry statistics and factory records, within the feminised textile industry, most Subei women worked at silk-reeling and in cotton textile mills, while Jiangnan women were concentrated in knitting and silk weaving mills (Zhu, 1939: 14, 132, 186, 194; Honig, 1986:64-65; Honig, 1992: 63-66). Wages varied greatly among different types of mills: the average wage in the cotton-weaving and silk-reeling industries (where most workers were Subei folk) was 0.47 yuan/day and 0.31 yuan/day.

⁹⁵ In 1928, the workers in textile industry of Shanghai reached 173,000, which occupied around 60% of total Shanghai industrial workers (Shanghai Social Affairs Bureau, 1935).

It was a different story at knitting, silk-weaving and cotton textile mills. Here, Jiangnan workers had the jobs and their average daily wage was 0.79 yuan, 0.90 yuan and 0.61 yuan in 1934, respectively (*Shanghai Wage Statistics*, 1935). Obviously, Jiangnan workers were employed in sectors that paid much better than in the sectors where Subei people worked.

Even within the same textile mill and silk thread-spinning mill, well-paid positions were given to Jiangnan people, while Subei women were left with the most physically demanding, dirtiest and lowest-paying jobs.

I have summarised the jobs and wages of Subei and Jiangnan women in cotton and silk mills in Table IV.20). As can be seen from the wage information of Shenxin No.9 Factory in the left column, the average wage of spinning and weaving workshops dominated by Jiangnan people was higher than the average wage of reeling and roving workshops by an average of 20 per cent to 50 per cent (excluding such positions as foreman). In 1934, the daily wage was 0.60 yuan for women textile workers, 0.55 yuan for spinning workshops, 0.46 yuan for roving workshops and 0.33 yuan for rough yarn workshop.

Table IV.20 Comparison of daily wage at cotton and silk mills

Region	Type of work	Chinese mill (Shenxin No.9 Mill)			British mill			Japanese mill		
		Max.	Min.	Average	Max.	Min.	Average	Max.	Min.	Average
Subei	Reeling	0.747	0.184	0.473	0.60	0.40	--	0.65	0.48	
	Roving	0.950	0.300	0.456				0.70	0.50	
	Rough yarn	0.43	0.22	0.325	0.73	0.35	--	--	--	--
	Silk-reeling	--	--	0.43	--	--	--	--	--	--
Jiangnan	Female foreman	1.00	0.55	0.71	--	--	--	1.10	0.81	--
	Spinning	0.851	0.267	0.545	--	--	--	0.80	0.75	--
	Cotton weaving	--	--	0.603	0.8	0.5	--	0.92	0.45	--
	Spun yarn	--	--	0.43	0.63	0.48	--	--	--	--

Source: Summarised from *Shanghai Industries and Workers*, by Zhu, Hu and Xu, 1939, pp. 54-78, 201.

In this period, a large number of women were hired by Japanese and British factories.⁹⁶ Although foreign-funded factories did not offer a higher salary than Chinese factories, they offered a minimum wage. Like in Chinese factories, even in Japanese factories where Subei people accounted for the majority of the workforce, Subei women were still assigned to the lowest-paying jobs with the worst working conditions. The labour market remained divided by the geographical source of immigrants.

In a cotton mill, women usually worked 12 hours a day, much longer than in other sectors. Cotton mills and especially Japanese cotton mills had a strict system of pay grades (three categories, 22 grades), rewards and penalties. Rewards included annual bonuses, promotion and a rice allowance but the conditions were rather strict. A worker could be entitled to an annual bonus if he or she did not take any leave during the year. Promotion was mainly offered to women Jiangnan workers. The rice allowance was cancelled in most factories. By contrast, penalties covering work results were strictly enforced (Zhu, 1939:65-78).⁹⁷ For instance, the Japanese-owned Tongxing Cotton Mill had the following punitive regulations (Zhu, 1939: 72-73):

- Penalty of 50 cents to one yuan for damaged cloth;
- Penalty of one yuan if daily cotton weaving for each loom is less than 40 yards;
- Penalty of 50 cents to one yuan for bad knotting, mistake in colour decorating, oil-tainted cloth or incomplete loom cleaning;
- Penalty of 50 cents to one yuan for single-head yarn or parallel-head yard;
- Penalty of one cent for broken yarn;
- Penalty of 10 cents for broken cone;
-

The result was that penalties normally more than offset the rewards, leading to a net deduction from an already meagre wage. In this sector on wages (see Table IV.6), textile

⁹⁶ In Shanghai 1929, 58,000 women worked in Japanese cotton mills, 13,000 in British factories, and 56,000 in Chinese cotton mills (Honig 1986: 22-23).

⁹⁷ Honig (1992) and Song (2011) also conducted in-depth studies on the system of rewards and penalties in Shanghai textile factories.

workers received virtually no bonuses. Moreover, Subei workers in reeling workshops were far more likely to be penalised than were Jiangnan workers in weaving workshops. Even in the same factory, working conditions for different positions varied greatly. In the 1920s, when women were initially hired in reeling workshops, spun yarn workshops and weaving workshops, Subei workers were mostly given the job of reeling. The reason was that reeling was not only the lowest-paid job but also involved slaving away in filthy workshops. As Li Cishan noted in *A Survey of Shanghai's Industries*, "Because women from Jiangbei were physically stronger, most of them were assigned to reeling workshops." (Li, 1920:9) This impression was borne out by a sample survey of women cotton mill workers. In the sample survey, among 59 women from rural Subei who were hired by the cotton mill in the 1920s to 1930s, 34 started working in the reeling workshop (Honig, 1986:65).⁹⁸ Another sector where Subei women concentrated was roving. In the early 1920s, male workers were hired to perform the first two stages of roving, leaving the third stage to women. As the economic depression bit harder in the early 1930s, women replaced men to engage in the first two stages of roving (Honig, 1986: 42-43). Most of them were Subei women.

The wage here may not be the lowest but the job is the toughest. The roving workshop is filled with dust and stale air. Other than Subei people, not many would work in such a place. (Interview to He Zhiguang, by Honig, 1986: 65)

On the other hand, Jiangnan women were concentrated in cotton weaving workshops. In 1946, over two thirds of Jiangnan and Shanghai women of Shanghai No.14 Cotton Mill started in the weaving workshop. The working environment in the weaving workshop was fairly good. Besides, weaving was not purely physical work but required certain skills and paid relatively well (China Textile and Construction Company, 1946: 63-65). Last, the career paths were fairly different too. From the archives of textile mills, we found that most of the foremen were Jiangnan people⁹⁹. Many Jiangnan immigrants started in the weaving workshop and finally became foremen, whose average wage was

⁹⁸ This information was gathered from retirement registration of workers in some textile factories, which was filed after 1949 (Honig, 1986: 65).

⁹⁹ Archives of Hongzhang Textile Factory (1918-1950), Shanghai Municipal Archives.

over twice that of an ordinary textile worker (Zhu, 1939: 76). Some educated Jiangnan women became accountants, secretaries and translators. Such promotion was unimaginable for Subei women (Honig, 1992: 64). As a result, the gaps in wage and status between Jiangnan and Subei immigrants widened.

In addition, the inequality between Subei and Jiangnan was more severe because of different forms of recruitment. Due to difference in networks, Jiangnan women could easily find work with the help of their relatives or fellows from the same region. They always had a stable contract and got good pay. However, without these connections, many Subei women were hired as bonded labourers in the cotton mills.

Bonded workers mainly existed in foreign factories, which outsourced labour recruitment to *compradores* and labour contractors because they could not directly manage Chinese workers. Labour contractors then signed contracts with bonded workers. During the contract period, labour contractors took possession of all the wages of bonded labourers and gave them with an extremely low living allowance. In Shanghai around 1930, the number of bonded workers reached 70,000 to 80,000, accounting for one third of women textile workers (Song, 2011:52). Most of them were girls aged between 12 and 16 from poor families in Subei. A large number of female Subei immigrants were recruited by Subei foremen from Shanghai's cotton mills (Honig, 1986: 85-87). As Mr. Xia Yan mentions the hardships of women workers in Shanghai in his documentary literature *Bonded Labour*:

“Each year and particularly during flood or drought, those glib-tongued agents of foreign factories went to or sent people to their hometowns or disaster-affected regions to lobby their townsmen who were unable to feed their sons and daughters but who were desperate to keep them from starving to death (...). A three-inch wooden plate was nailed to the door head of each textile mill's workshop, which bore the native place and name of the foreman in Japanese calligraphy.” (Xia, 1935: 185-186)

These Subei women hired as bonded workers had meagre wages and led humble lives. Generally, the bonded contracts were signed between the labour contractors and the families of the girls, at least for 3 years. The wage was mostly below 30 yuan per

month, partly given to the contractors and partly to the workers' family. For these bonded labourers, they mostly did not have income for themselves. They spent most of their time in the factories, made a poor living, and could not leave the factories freely (Song, 2011: 166-168).

In the late 1920s, the director of the Labour Affairs Bureau of The Young Women's Christian Association visited a reeling mill in Shanghai. She was struck by the contrast between the workshops: Jiangnan women in cleaning uniforms wove cloth in a clean and spacious setting; behind the steel door, however, there was a dark and noisy workshop filled with dust, where unkempt Subei women in rags were screening rough yarn (Deng, 1928: 9-10).¹⁰⁰ This is a real reflection of the different fates facing Subei and Jiangnan girls and women in Shanghai.

In this Chapter we have seen how the opening up of China after The Opium War (1840-1842) made Shanghai's economy take off. The growth of commerce, industries and services created huge labour demand. Attracted by it, large rural immigrants flocked into Shanghai. They mainly sought jobs through their social networks. These networks were based on personal connections and native place associations and were the main way rural immigrants gleaned information on job opportunities. This caused immigrants from the same regions to make collective decisions, not individual ones. This also decided their segmentation in Shanghai's labour market. The fact that Jiangnan immigrants had better networks meant that they were the ones who became the elite class and got well-paid, decent, stable jobs. Subei people, who had inferior networks, ended up in the worst jobs and the worst-paid sectors. This segmentation can also be demonstrated using income regression analysis and industry crowding as a proxy. Other important segmentation factors have also been proved: gender, occupations, and types of workers. The most important factor causing labour market segmentation in Shanghai was gender, followed by the inequality between Subei and Jiangnan immigrants.

¹⁰⁰ Deng (1928): "A Visit to a Silk Filature in Shanghai", The Green Year Supplement. Also cited in Honig, 1992: 64.

V. China during The Great Depression: The crisis and internal migration in Shanghai

Sun: “The cost of our factory is so high that it is impossible to compete with Japanese silk mills. Our silk industry is on the verge of bankruptcy. If we are to cut costs, we have to cut wages.”

Workers: “The cost of living is so high that we cannot fill our bellies. If wages are cut, it will kill us.”

Sun: “... The slump is a much bigger problem for the world’s industries as prices keep falling!”

--- Mao Dun, 1932: 8, *Midnight*

This is how Mao Dun’s famous novel *Zi ye (Midnight)* speaks of The Great Depression of 1929-1933 and its impact on China’s exports and industries. Yet, while there are any number of studies and novels on the slump’s impact on western countries, we know little about its impact on China and few great literary works touch upon it.

As the only country on a silver-based currency, the economic crisis unfolded differently in China during the 1930s. First, one should note that it came later and was more complex than elsewhere. Almost all countries began to suffer the worst of the crisis from 1929 onwards. Yet China enjoyed a brief reprieve and even a short-lived boom as silver fell in price relative to gold, depreciating the country’s silver-based currency in the process. This depreciation made Chinese exports cheaper, boosting foreign trade. It was only in late 1931 that the economic crisis reached China too as silver prices began to fluctuate wildly. Industry — especially export-oriented sectors such as the textile one— was deeply affected and unemployment bit hard in China’s big cities.

Moreover, not all economic sectors were equally affected by the crisis. Agriculture was immediately hard hit by a combination of a drop in the prices of farm products and the rise in production costs. There was a frantic flight of capital from the countryside into large cities and hordes of impoverished peasants had to move to big cities such as

Shanghai to earn a living. This was one of the main drivers of the massive rural-to-urban migration seen in this period. The impact of the slump on industry varied from sector to sector. Silk factories were hard hit right from the beginning as the export market for silk collapsed overnight. Many silk factories — especially Chinese-owned ones — went bankrupt and mass layoffs followed. However, some sectors (of which the cotton industry was one) enjoyed a brief boom driven by the fall in silver prices (which made Chinese products cheaper abroad). These industries offered most job openings for rural workers. Yet even they could not long escape the recession that had hit other industries. From 1932, the deepening slump plunged China into a full-blown economic crisis.

This chapter aims to answer three questions: (1) How did The Great Depression affect China's economy?; (2) What was the impact of this worldwide economic crisis on Shanghai's labour market (for instance, in terms of layoffs and wages)?; (3) Why did rural people keep migrating to Shanghai and how did they manage to survive in such bleak economic circumstances?

To answer these questions, I will analyse The Great Depression's influence on macro-economic aspects of China with the aim of contributing to the famous debate on the "growth or depression of the Economy of China" in this period. I then discuss three particularly significant examples: agriculture, silk-reeling and cotton-spinning industries, to analyse the various impacts and processes of China's economic crisis.

The second part analyses the impacts on Shanghai's labour market. The crisis brought mass unemployment and affected wages. However, the subject of wage changes is still a hotly debated subject. The situation regarding nominal wages and real wages, and the items and weightings chosen for analysing changes in prices and living standards are particularly thorny issues. On the basis of the analysis, the conclusion discusses the situation of rural immigrants in Shanghai's labour market and why they continued to flood into the city.

V.1 The Great Depression in China and its impact on Shanghai's economy

V.1.1 China's Silver Standard and the late-coming crisis

During The Great Depression, when major Western countries were still on The Gold Standard, China was the only major Power that adopted The Silver Standard. At the same time, China's economy was very open in this period give its gradual integration into the world economic system after The Opium War. It is therefore worth studying how China survived The Great Depression in the 1930s with such an open economy. As summarised in Chapter I, various leading economists hotly debated whether China's economy grew or stagnated during The Great Depression (Friedman and Schwartz,1963; Friedman 1986, 1992; Rawski 1989; Brandt and Sargent 1989, etc.). Represented by Friedman, one group of economists insisted that the U.S. silver purchase programme caused high inflation, production stagnation and bank failures in 1930s China, dragging the country into a long-term slump:

Because silver served as the monetary base of China, however, the boon was more than offset by the economic effects of the drastic deflationary pressure imposed on China and the resulting economic disturbances (Friedman and Schwartz,1963: 490).

However, Rawski, Brandt and Sargent argued that China's economy kept growing during this period, especially its industrial production. They also proved that China's money supply did not shrink in response to America's silver policy.

The U.S. silver purchase program did not set off a chain of bad economic events which eventually forced China off silver and onto a fiat standard (Brandt and Sargent 1989: 31).

This chapter contributes to this debate by exploring the impact of The Great Depression to the macro economy of China.

In 1929, The Great Depression, which began in the U.S., spread to other major Western countries via The Gold Standard and became a worldwide economic crisis. However,

China at the time had a short boom. According to various scholars' calculations and the available data (Table V.1), China's average GDP growth rate varied from 1.59 per cent to 2.0 per cent during the slump. According to Maddison, it was 1.59 per cent from 1930 to 1936. Rawski argued that China's GDP growth in the period 1931-1936 was 1.8 - 2.0 per cent.¹⁰¹ This is higher in general than growth rates in France and the U.S. during The Great Depression (-1.14 per cent and -0.33 per cent, respectively), around the same as Germany and Britain's (2.17 and 1.83 per cent, respectively), and only lower than Japan's (3.14 per cent).

Table V.1 GDP growth of various countries, 1930-1936 (%)

Country	1930	1931	1932	1933	1934	1935	1936	Average during econ. crisis
France	-2.90	-5.98	-6.52	7.15	-0.98	-2.55	3.79	-1.14
US	-8.90	-7.68	-13.20	-2.10	7.73	7.65	14.21	-0.33
Germany	-1.40	-7.62	-7.53	6.27	9.13	7.52	8.80	2.17
UK	-0.71	-5.13	0.76	2.92	6.59	3.86	4.55	1.83
Japan	-7.27	0.84	8.37	9.82	0.20	2.76	7.27	3.14
China (Maddison)	1.27	1.02	3.18	0.00	-8.72	8.07	6.32	1.59
China (Yeh)	--	--	3.68	-0.72	-8.64	8.3	5.87	1.7
China (Rawski)	--	--	--	--	--	--	--	1.8- 2.0

Source: Prepared by the author on the basis of the following data. Data for China from Yeh (1977), Rawski (1989) and Maddison (1997); Data for other countries from Maddison (1997): *Historical Statistics of the World Economy: 1-2008 AD*.

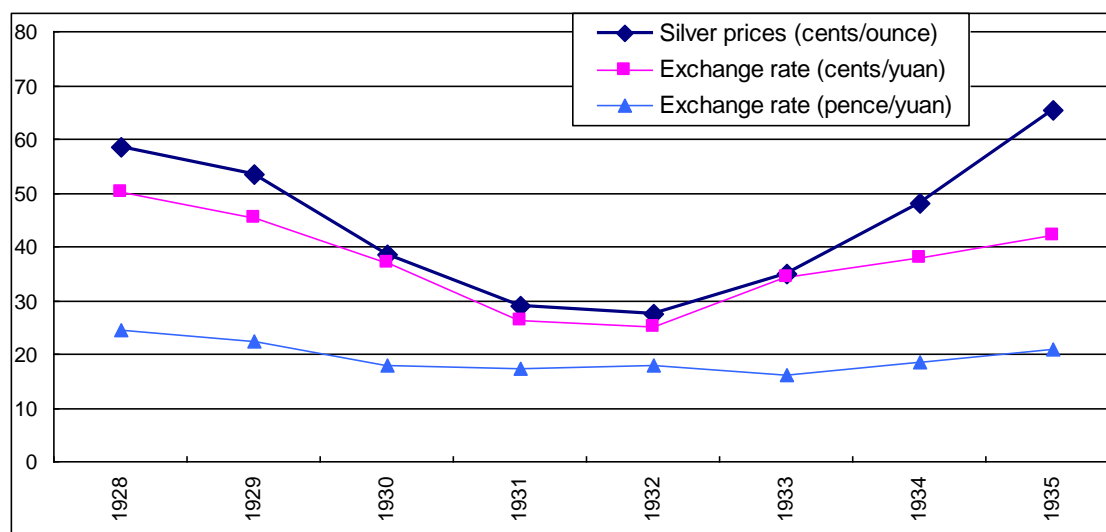
The root cause of the big difference between China and Western countries at the beginning of The Great Depression was The Silver Standard, which isolated China from the worldwide depression, and to some extent briefly boosted the economy. Since silver was just another commodity in Gold Standard countries, the silver price fell along with that of other goods. As Figure V.1 shows, the silver price fell steadily for four years starting in 1929, losing over half of its value (from 58.5 to 27.5).

This had two effects on the Chinese economy: (1) it improved China's terms of trade;

¹⁰¹ For the debate on changes in China's economic growth, see Rawski 1989: 323-329.

(2) it helped expand credit.

Fig. V.1 Silver Prices and exchange rate of Yuan (1928–1935)



Source: Author, based on data from Young, 1971: 516; National Tariff Commission, 1935: Appendix 8; Shiroyama, 2008: 142-143.

China's terms of trade improved because the drop in silver price against gold meant a depreciation in Chinese currency *vis-à-vis* the currencies of Gold Standard countries. In other words, Chinese merchandise became cheaper measured in gold. However, the drop in silver price was relative to gold, not to general goods. Therefore falling silver prices were in line with the price falls of other goods measured by gold. The depreciation of China's currency boosted the country's exports, reduced imports and fostered domestic production.

In theory, there were two mutually opposing forces influencing China's export trade. One was drop in silver prices relative to gold, which made Chinese products more competitive in global markets. The other was the fall in the purchasing power of Gold Standard countries as the crisis deepened, leading to shrinking demand for Chinese goods. In terms of China's imports, the depreciation of the yuan worked like a customs duty, making foreign goods more expensive. Indeed, while China's export price index rose from 105 in 1929 to 107 in 1931, the import price index soared from 107 to 150. Despite a drop in the absolute value of exports (Table V.2), the impact of the crisis was milder than in the rest of the world. China had a balance of payments surplus in both gold and silver terms from 1929 to 1931.

Table V.2. Value of China's International Trade (1929-1936)

Year	Price Index 1926=100		Exchange Rate Index *	Silver Price Index	Net Silver Flows	value of International Trade (millions of Yuan)	
	Exports	Imports	1926=100	1926=100	Thousand, Liang **	Imports	Exports
1929	105.2	107.7	85.9	85.4	+ 105,826	1620	1070
1930	108.3	126.7	59.5	61.7	+67,006	1723	944
1931	107.5	150.2	45	46.5	+ 45,445	2002	915
1932	90.4	140.2	55.8	45.2	- 6,672	1524	569
1933	82.0	132.3	62.7	56.1	- 9,257	1345	612
1934	71.7	132.1	73.5	77.4	- 164,780	1030	535
1935	77.6	128.4	82	103.5	- 38,124	919	576
1936	96.1	141.7	65	72.8	- 160,220	941	706

* The Exchange Rate Index is based on exchange rates with China's four main trading partners (Japan, U.S, UK and Germany), and China's trade volumes with them.

** Liang is a unit of weight and monetary in Old China. 1 liang = 50 grams of silver.

(+) means net import, and (-) means net export.

Sources: Author, based on data from Young, 1981:15-20;, Zheng,1984: 35-60; and Guan,2008:17-25.

The drop in silver price led to import of the metal, increasing banks' reserves and the money supply, as well as pushing up general price levels. The inflow of silver also made more credit available and the increase in the money supply stimulated business. The appreciation of foreign currencies encouraged those who had been interested in overseas investment to focus on the domestic market instead. With enough money and credit, real estate and construction industries began to pick up in big cities such as Shanghai. In these years, the falling silver price stimulated domestic production in China. During 1929-1931, there was a huge build-up of silver stock in China. Especially in 1930 and 1931, China imported silver worth 520 million Yuan. Over these three years, Shanghai's silver stock rose by over 50 per cent. Of the 520 million Yuan, 4/5 was distributed to other ports and inland from Shanghai (Guan, 2007:18). The abundant money supply stimulated industrial development. Gross national industrial production rose from over 770 billion Yuan in 1929 to 920 billion Yuan in 1932 (Table V.3).

Table V.3 Industrial Production of China 1929-1936
(Based on 1933 currency, in billions of YUAN)

Year	Total Industrial production value	Industrial added value	Construction Industry	Domestic Capital Formation
1929	773.8	278.2	--	--
1930	821.1	296.4	--	--
1931	886.9	320.0	0.4	1.27
1932	921.5	334.1	0.41	1.49
1933	1006.3	369.7	0.44	1.50
1934	1042.6	395.0	0.44	1.12
1935	1104.1	441.8	0.46	1.60
1936	1227.4	499.1	0.49	1.95

Source: Yeh, 1977; Guan, 2007: 20.

All the above data showed that China actually benefited from the decline of the world silver price between 1929 and 1931. Yet this very short-lived boom died in September 1931 when the Pound Sterling came off The Gold Standard. Japan followed suit in 1932, after which the Japanese Yen and other currencies depreciated in short order. The Japanese Yen in particular depreciated by 40 per cent. Among China's trading partners in 1932, Great Britain made up 26.2 per cent of the total trade volume, U.S 18.7 per cent, and Japan 17.9 per cent (Guan, 2007:18). These three countries together made up over half of China's foreign trade. The dramatic depreciation of the currencies of China's major trading partners as they came off The Gold Standard made Chinese exports much more expensive almost overnight.

Table V.2 shows the big jump in the foreign exchange rate index after 1931. The silver price stopped falling and took a rising path after 1932. The result was a slump in China's exports after 1931, from over 900 million Yuan to 569 million (last column in Table V.2).

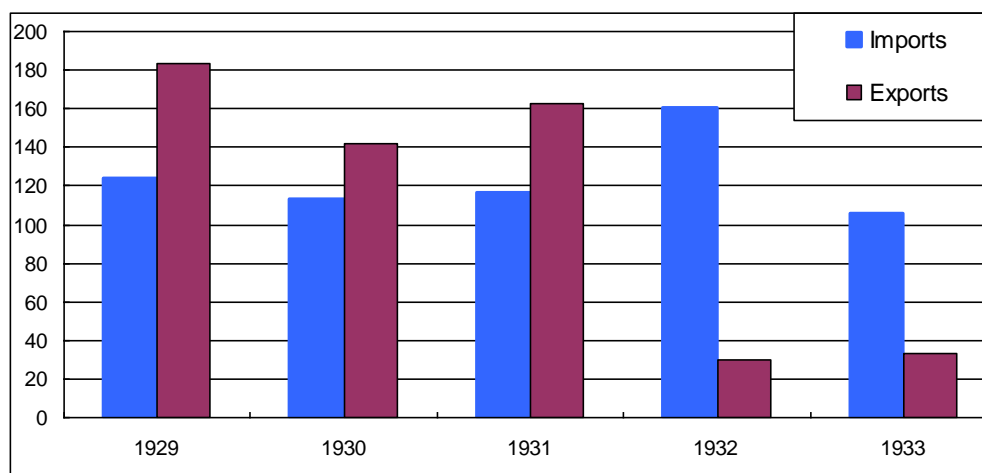
Things took a turn for the worse in 1933 when The United States came off The Gold Standard. The Fed's new rule for reserves required a ratio of 3:1 between gold and silver. To reach this goal, the U.S. began to buy silver in the international market, which pushed the silver price up and caused the outflow of silver from China. This measure significantly affected the Chinese economy during The Great Depression. The abandonment of The Gold Standard by Britain, Japan and the U.S. dragged China into the Depression. The U.S. policy of purchasing silver came as a devastating second blow. With it, China changed from being a net importer of silver to a net exporter of the metal from 1932 on, implying a foreign trade deficit. Furthermore, the U.S. policy of snapping

up silver greatly pushed up the silver price, which started from a low point in 1932-1933 to soar to peak 2.5 times higher in mid-1935 (Column 4, Table V.2).

The result was marked deterioration in China's terms of trade, sparking an agricultural crisis in the country. When the U.S. withdrew from The Gold Standard in 1933, China's currency kept appreciating, rising from 19 U.S. cents to the Yuan at the end of 1932 to 33 cents at the end of 1933 — almost back to the exchange rate in 1929 (Friedman, 1992: 63-64). The U.S. policy of buying silver made the Yuan appreciate even more, sharply reducing China's exports. In 1933, the country's exports were over 30 per cent down on 1930. The declining value of remittances from abroad worsened China's balance of payments even further. Deflation (caused by the outflow of silver) proved even more destructive, leading to an agricultural recession. Silver was gathered from all around the country, sent to Shanghai, and then flowed overseas. Capital was attracted to Shanghai to invest in government debt. Meanwhile, the rise in the silver price made businessmen keen to sell the metal abroad. Domestic creditors and silver-money exchange institutions called in debts and sent the silver to trade ports (Shiroyama, 2008:101). Fig. V.2 shows silver flows in Shanghai during this period.

Fig. V.2 Silver Flows of Shanghai 1929-1933

Millions of YUAN



Source: Author, based on data from *Compilation of Chinese and Foreign Commercial and Financial Data*, 1935: 57-59.

The rising silver price and the appreciating Yuan made the recession worse in China. The nadir in Shanghai and Guangzhou's retail price indices came in the summer of 1935. Tianjin's wholesale price index reached its lowest point in 1934 (Table V.4). Matters in agricultural regions were even worse. The injection of silver in Shanghai left agricultural regions in economic recession. Farmers saw the prices of their products steadily drop while the prices they paid for goods rose. The result was that trade between cities and rural areas began to dry up. Farmers found themselves parting with more silver (which, as already mentioned, made its way to the cities) to buy goods. Farmers' incomes dropped in general and in some regions by over a third. As prices dropped, so did output. The national production value of agriculture fell from 24.4 billion Yuan in 1931 to 13.1 billion in 1934 (Young, 1981:25).

Table V.4 International Comparisons of Wholesale Price Indices 1929-1937

Year	Shanghai	Tianjin	Guangzhou	U.S.	UK
1929	104.5	111.1	96.7	137	135.3
1930	114.8	115.9	101.4	124	114.1
1931	126.7	122.6	112.6	105	97.6
1932	112.4	112.9	113.8	93	94.1
1933	103.8	101.0	104.5	95	93.7
1934	97.1	92.3	94.3	107	96.4
1935	96.4	95.5	84.6	114	99.5
1936	108.5	110.6	105.4	115	106
1937	123.8	130.0	118.6	--	--

Note: The base year for the Chinese cities is 1926; The base year for U.S. and British data is 1913.

Source: The data for Chinese cities is from Young, 1981: 19; U.S. and British data is from Liu and Wang, 1996; Guan, 2007:17.

In the face of continuous silver outflows and the appreciating Yuan, in October 1934, the Chinese government announced that they would collect 10 per cent of silver export duty, followed by a series of monetary reforms. These measures ultimately got China out of deflation and The Great Depression.¹⁰²

Yet one thing needs to be noted at this juncture. As shown in Table V.3, no matter whether the Yuan was depreciating or appreciating, or however good or bad foreign trade was, China's industrial production generally kept rising during The Great Depression. In other words, it was never seriously checked by the slump. This sets China apart from what happened in Western countries.¹⁰³ Moreover, China's construction industry also bucked world trends, furnishing an interesting case given the sensitivity of this sector to economic cycles. Except for a short-lived fall in 1934, domestic capital was also rising.

How come China's industry avoided recession? The main reason is the money supply in China during The Great Depression. Table V.5 shows the money supply and its components in China during 1930-1936.

¹⁰² In 1935 China abandoned The Silver Standard.

¹⁰³ The recession of industries in Western countries during The Great Depression is described in Temin, 1993 and Romer, 1993.

Table V.5 Money Supply of China 1930-1936
(Millions of YUAN)

Year	Silver	Copper	Paper money	Bank deposit	Total Money supply
1930	2200	287.7	956.3	3392.1	6836.1
1931	2271	281.4	896.9	3591.5	7040.8
1932	2289	275.1	924.4	3880.8	7369.3
1933	2275	268.8	978.8	4290.6	7813.2
1934	1995	262.5	1108.9	4620.9	7987.3
1935	1703	256.2	1413.5	5460.1	8832.8
1936	1391	250	2438.6	6394.2	10473.8

Source: Rawski 1989:382-385; and Guan, 2007: 21.

Between 1930 and 1932, silver coin rose because of the silver in-flow after the metal's depreciation against gold. However, after 1932, silver coin fell because of the outflow of silver from China. The causes were: (1) The ditching of The Gold Standard by China's biggest trading partners; (2) depreciation of those partners' currencies against the Chinese Yuan; (3) the U.S. Policy of buying silver. The component of copper coinage also fell but showed little overall change during The Great Depression. Unlike metal coinage, paper money and bank deposits steadily rose during the period. As a result, total money supply kept growing, underpinning industrial production. This support was all the more important given Chinese Central Government's inability to stimulate demand through fiscal policy.

The growth in money supply was the result of a competitive banking system, similar to the Free Banking System in the history of the U.S (Rolnick and Weber, 1983; Brandt and Sargent, 1989). "In this period, China was without an effective Central Bank and had operated more or less under free banking" (Brandt and Sargent, 1989:35). Many kinds of banks competed freely in the market. They included governmental banks, private banks, Qian Zhuang (traditional Chinese banks), and foreign banks. This banking system guaranteed bank deposits and note issues, and thus the money supply. Unlike in other countries, there were no runs on banks and waves of bank failures. Monetary expansion facilitated the development of transport and construction sectors, and also capital accumulation, spurring industrial growth. This is one main reason why China weathered The Great Depression much better than other countries.

China's case has also contributed to the debate on the effect of monetary shocks during The Great Depression. One of the lessons from the slump is that governments failed to

take measures to control the reduction in money supply and to avoid widespread bank failure. Unlike in Western countries, there was no banking crisis in China, thanks to the country's competitive banking system, and a money supply that was always sufficient to meet economic needs. Here, one should note Rawski's response to Friedman on the impact of America's policy of purchasing silver on China's economy:

“The realities of Chinese economic life during the 1930s demonstrate the resilience of an unregulated market system in which households and businesses were genuinely “free to choose.”(Rawski, 1993: 757) ¹⁰⁴

However, this freedom to choose was not enshrined in Chinese government policy but rather in market reaction. During the Republican period (1911-1949), the ‘semi-colonial nature of the country’ meant that Central Government neither had any no real control over its economy nor the power to take effective fiscal policies.¹⁰⁵ Banking was controlled by foreign entities and in recessions, foreign companies did not have to abide by local laws and policies. It was only in 1933 that the Chinese government gained the power to levy local customs duties (Guan, 2007: 25). In this respect, the Chinese market system was unregulated and any responses to economic conditions were directly made by the free market. The Great Depression deeply influenced China's economy but its impacts varied between sectors. It had an immediate, grave impact on agriculture. Various sectors of industry experienced the same impacts. Having analysed the macro-economic impact of The Great Depression on China, the next section examines three major, representative sectors — agriculture, and the silk-reeling and cotton-spinning industries — as examples in analysing the various processes and impacts of the economic crisis.

¹⁰⁴ For the arguments of the debate, see Friedman, 1992: 62-83, and Rawski, 1993: 755-758.

¹⁰⁵ In Chinese history, the period from The Opium War (1840-1842) to the foundation of The Popular Republic of China in 1949 is called ‘semi-colonial and semi-feudal society’ by Marxism scholars. The country was split into several regions controlled by Western countries, and the Republican Government lost real control of the country (Mao, 1932: 171).

V.1.2 The Agrarian Depression

The Great Depression almost ruined China's agriculture and peasantry through: (a) a drop in the prices of agricultural products; (b) the decline in the purchase of raw materials caused by the recession in industrial sectors; (c) the outflow of silver from rural areas; (d) the shortage of capital. Natural disasters and wars in this period added to these woes. As a result, China's rural areas experienced an unprecedented crisis and rural families had to struggle to survive.

1) Drop in the prices of agricultural products

The worldwide slump hit agriculture hard. The prices of agricultural products such as rice, wheat, tea and silk fell sharply, dealing a heavy blow to peasants in developing countries. The Index of Farm Prices shows the large, sustained fall in agricultural prices. On average, world agricultural prices slumped by over 75 per cent. The figure was 50 per cent in The United States and over 40 per cent in China (Table V.6).

Table V.6. Farm Prices in China and the U.S. (1929-1936)

Year	U.S.	China	World Average
	1929=100	1931=100	1923-1925=100
1929	100	--	70
1930	85	--	58
1931	62	100	38.9
1932	46	72	24.4
1933	49	61	--
1934	63	56	--
1935	75	57	--
1936	77	60	--

Note: The base years are different for each source.

Source: Data on China is from Guan, 2007: 19. Data on the U.S. is from the Database of the Bureau of Labor Statistics, U.S. World average from Kindleberger, 2000:73-74.

During the 1920s and 1930s, raw materials and semi-manufactured products made up 70-75 per cent of China's total exports.¹⁰⁶ Therefore, the fall in the prices of these in international markets inevitably affected China's agricultural prices. Due to the rise in silver price, Chinese products became more expensive abroad and thus uncompetitive. The impact of the shrinking international market and fierce competition were even worse and the Chinese had to slash the prices of their agricultural exports. If we take the export price index in 1930 as our benchmark, the index fell 7.6, 10.5, 10.3, and 14.1 per cent, respectively, for each of the years spanning the period 1931-1934. In 1935, there was an even bigger drop of 35.7 per cent. In the domestic market, Chinese products faced stiffer competition from imported products because of lower import prices. This was especially true for products from South-Eastern Asia and India. As a result, the prices of agricultural products in China's domestic market also dropped. In October 1933, the price of wheat was one third less than that in January 1931, the price of rice plummeted 41 per cent, and there was a slight decline in the price of cotton (Shiroyama 2008: 95-96).

The fall of agricultural prices cut farmers' income. However, the deterioration of trade terms almost dealt a fatal blow to rural areas.

2) The deterioration of trade terms in rural areas

With the development of the textile industry in the Lower Yangtze Delta, the rural area became tightly linked with industrial sectors, supplying raw materials for city factories. The rural areas in Shanghai, Baoshan, Chuansha, Nanhui, Songjiang, Jinshan, Qingpu, Taicang, Jiading, Nantong, Haimen, Qidong and Chongming were the main areas growing cotton for the spinning mills in Shanghai and Wuxi. Meanwhile, the rural areas of northern Lake Tai and Shaoxing of Zhejiang Province supplied silkworm cocoons to silk factories in Shanghai (Map Fig. III.1 and Map Fig. III.2). During the 1920s, over half of the cocoons used in Shanghai's factories came from these areas (Shiroyama, 2008: 94-95).

¹⁰⁶ The principal export products of China were silk, tea, soybeans, eggs, hides, leather, coal, ores, metals, etc. (Cheng, 1937: 28-37).

Many factories in Shanghai were forced to close or went bankrupt because of the economic crisis. This was especially so in the textile industry represented by the silk-reeling sectors.¹⁰⁷ Up until 1934, there less than a third of the silk factories were operating. This depression seriously affected the procurement of raw materials in rural areas. Competition from low-priced imports meant it was hard to sell Chinese raw cotton and cocoons. In 1932, the cocoon price in Wuxi (an area supplying most of Shanghai's silk factories) plunged to 10-20 Yuan. This was under half of what it had been in 1931 (Bureau of Industrial and Commerce, 1932: 5-7). From 1932, the price of cocoons dropped even further, making cocoon breeding unprofitable for farmers. This had a knock-on effect on mulberry plantations. With a depressed cocoon market, there was no reason to feed silkworms. A glut of mulberry leaves quickly ensued and the price dropped to a tenth of what it had been. As a result, farmers had no option but to convert their mulberry tree plantations to rice fields. It estimated that in 1932, 30 per cent of the mulberry fields were turned into rice fields (Bureau of Industrial and Commerce, 1932: 4).

From literary works of this period we can see what peasants' worries were and how peasants' were changing for the worse:

“Lao Tongbao raises his dry, sallow and deeply-wrinkled face and worriedly gazes at the river before him, the boat on the water, the mulberry fields lining the river banks. Everything seems the same as when he was twenty years old. Yet ‘the world’ has changed. His family must eat coarse cereals every day and they are 300 yuan deeper in debt. The mood in the village changes with each passing day. People who were laughing now have long faces. The news is that the silk factories in the cities are still closed. The word from the town and the ways spreads through the crowd like wildfire. This was the season when silkworm cocoon buyers would come and wander round the village like visitors at lantern fairs. This year, there were under half the number of outsiders and they were all debt-collectors or tax-collectors. ‘Please accept silkworm cocoons to pay off what we owe!’, begged the villagers but the outsiders

¹⁰⁷ More detailed explains could be seen in the next section about silk industry.

coldly ignored their pleas.”

--- Mao Dun, 1932: 22.¹⁰⁸,

3) The decline of purchasing power and the increase of debts in rural areas

Since the production of the rural areas was closely linked with industrial production in the cities, farmers needed cash to buy food and meet their daily wants. Indeed, the lion's share of peasants' income was spent on buying food. In Wuxi and Nantong, 78.2 per cent and 70.86 per cent (respectively) of farmers' cash income on living expenses. Spending on food alone made up over 50 per cent (Shiroyama, 2008: 97). Here, the relationship between the prices peasants got for their produce and the ones they paid for agricultural and industrial goods was critical. If this shifted the wrong way, farmers faced ruin.

When The Great Depression hit China, farm prices nose-dived and the prices of industrial and other goods rose. This spelt misery for the peasantry, The prices that they could obtain from raw cotton and cocoons, the two major products they sold, fell greatly compared with the prices of rice, oil and salt — the main commodities they bought. Industrial prices rose in 1930 and 1931 and those of farm produce continued to fall. According to data on prices in Shanghai, a rice producer in 1929 could exchange 17.4 *dan* of rice for a bag of cotton yarn, 0.78 *dan* rice for one piece of cloth material, and 0.35 *dan* rice for one pot of kerosene. Yet in 1933, to get these same products, the rice producer needed to pay 23.8 *dan*, 1.11 *dan* and 1.19 *dan*, respectively.¹⁰⁹ That means that prices in rice terms rose 37 per cent, 43 per cent and 240 per cent respectively. As these figures show, the purchasing power in rural areas dropped by 30 per cent because of the price fall of agricultural products.

The steady decline in agricultural prices and purchasing power placed a heavy burden on farmers. The debt problem in rural areas was analysed in Chapter III. Table V.7 shows that the main loans in this period were used for special occasions, agricultural production, meeting daily needs, paying taxes and debts. In the 1930s, 60 per cent of the

¹⁰⁸ From the famous novel *Spring Silkworms (Chun Can)*. Mao Dun wrote a series of novels about the situation of rural China in the 1930s.

¹⁰⁹ *Dan* is the old unit of measure for grain, 1 *dan* = 100 liters, according to the *Republic of China Units of Measurement Act*, 1930.

rural households in Jiangsu Province were in debt (Pu, 1937:405). What made things worse were the silver flooding into big cities and a dearth of loans in rural areas. There was a big gap between the interest rates paid on loans in Shanghai and those in rural areas. Whereas zero-interest loans could be obtained in Shanghai, in rural areas the rate was a crippling 2 - 3 per cent per month. Even so, farmers found it very hard to get loans. As a result, it got harder for peasants to make ends meet and many were on the verge of bankruptcy.

Table V.7 Causes of indebtedness in rural households (Jiangsu Province, 1935)

Cause	Number	%
Unforeseen circumstances		
Natural disasters	32,285	25.1
Wars	2,035	1.6
Weddings	10,351	8.0
Illnesses and funerals	23,199	18.0
Agricultural production		
Machines and tools	763	0.6
Seeds and fertiliser	215	0.2
Farmland	7,027	5.4
Necessary payments		
Living expenses	29,601	23.0
Taxes and debts	223	0.2
Payment of loans	16,238	12.6
Compensation for agricultural losses	1,186	0.9
Compensation for commercial losses	3,557	2.8
Savings	402	0.3
Other	1,184	0.9
Unknown	557	0.4
Total number of households	128,823	100

Sources: Author, from the data of the Land Committee, 1935.

Trapped in this vicious circle of lower prices of agricultural products, subsistence farming, and lack of credit, many bankrupt farmers left the countryside and migrated to

big cities such as Shanghai to make a living. Although they did not know it, another industrial crisis was waiting for them there.

V.1.3 A big slump in industry: Silk-reeling Industry and Cotton-Spinning Industry

As China's industrial heart, Shanghai was the area that was most sensitive to economic fluctuations. Many industries, especially the export-oriented ones were affected by the worldwide slump. Most of the industries in 1933 made less money than in 1930, and some sectors of the textile and flour industries lost over half of their sales revenue. However, as noted earlier, industry in general kept growing during the crisis, the revenue indices of other industries were all above 80, and those for match-making, enamelling and printing reached 140, 150 and 185 respectively (Shanghai Statistics, 1933).

I have chosen the cotton and silk industries as the focus for investigation mainly because:

a) The textile industry was the leading industry in the region. In 1933, cotton-spinning and silk-reeling were the biggest and the third largest industries in Shanghai, and they occupied 43.87 per cent and 9.37 per cent of its total output, respectively (Lin and Tang, 1987: 595-596). Moreover, the textile industry also offered most of the employment. In the 1920s, almost half the industrial jobs were in Shanghai's cotton mills, and 25 per cent in silk factories (SASS, 1980: 8-11).

b) These two sectors were closely linked with the rural economy because textile factories got their raw materials from the countryside. Surrounding rural areas supplied raw cotton and silkworm cocoons to factories in the big cities, so any changes in these industries could directly affect the rural economy and even the economy as a whole.

c) These two industries had integrated into the international market early on as China opened up to foreign trade. As a result, they faced world economic changes, competition and challenges. In the international market, Chinese cotton and silk products had to compete with Japanese products. Even on their home turf, China's firms had to battle against Indian and Japanese products. As a result, changes in product prices caused by

fluctuations in the silver price had a huge impact on both the cotton and silk industries, despite the fact that they catered to different target markets.

However, the impacts of the economic crisis on industrial sectors varied. This was true even in the same textile sectors, where the impact on the silk-reeling industry and the cotton-spinning industry was different. As an export-oriented sector, the silk-reeling industry was immediately hit by the slump and many silk factories closed. By contrast, the cotton industries, which catered to the domestic market, experienced a short boom at the beginning of the crisis before The Great Depression finally caught up with them.

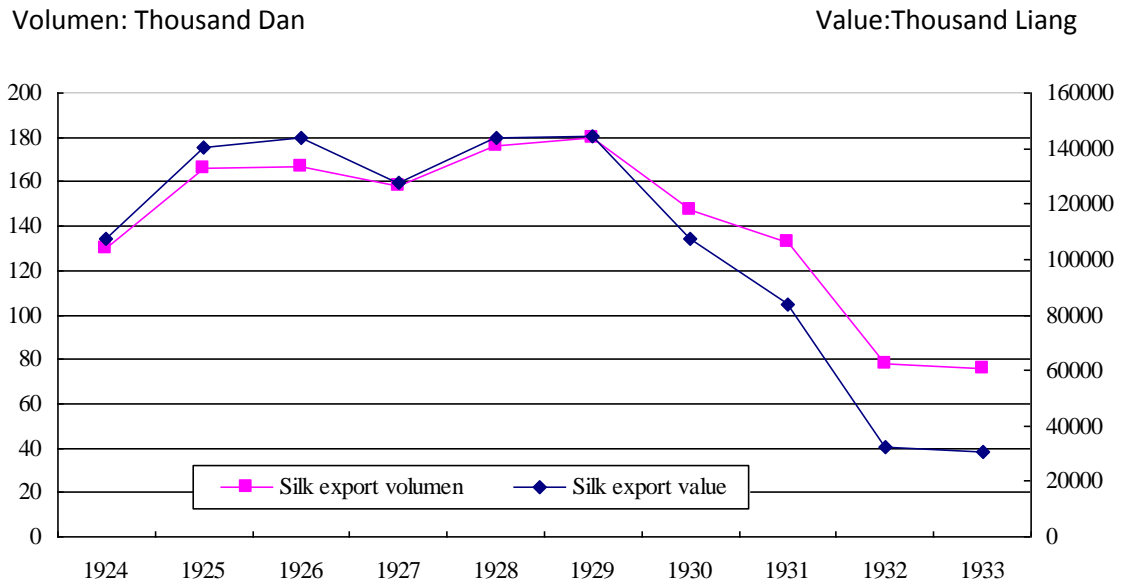
1) Silk-reeling Industry in China

The worldwide economic crisis had a direct impact on this export-oriented industry. The influence is reflected in two aspects: one is a sudden drop in international market demand; the other is the fall in price for silk products.

When The Great Depression began, international market demand for silk plummeted, hitting yarn-spinning [filature] hard. In the main Western countries, living standards fell as the recession wore on and people spent less — especially on luxury goods such as silk. In the U.S., the largest custom for silk, consumption of raw silk dropped by 25 per cent compared to 1929 (Li, 1989: 128).

This market shrinkage directly affected Chinese silk. China's export-oriented silk yarn-spinning industry was heavily hit during The Great Depression. After 1929, both export volume and value suffered a large, sustained decline (Fig. V.3). In 1933, the export volume of silk dropped to 76,654 *Dan* (about 4 million kilograms), which was just 42 per cent of the volume in 1929. The value of exports slumped even more — from over 144 million *Liang* in 1929 to 30 million *Liang* in 1933 (a fall of almost 80 per cent).

Fig. V.3 Exports of silk (1925–1935)



Notes: The volume unit is thousand dan. In Republican China, 1 dan= 50kg.

2. The price was measured by thousand liang. 1 liang= 50g silver.

Sources: Author, based on data from the Historical Archives of China’s Customs, archives in China’s National Library.

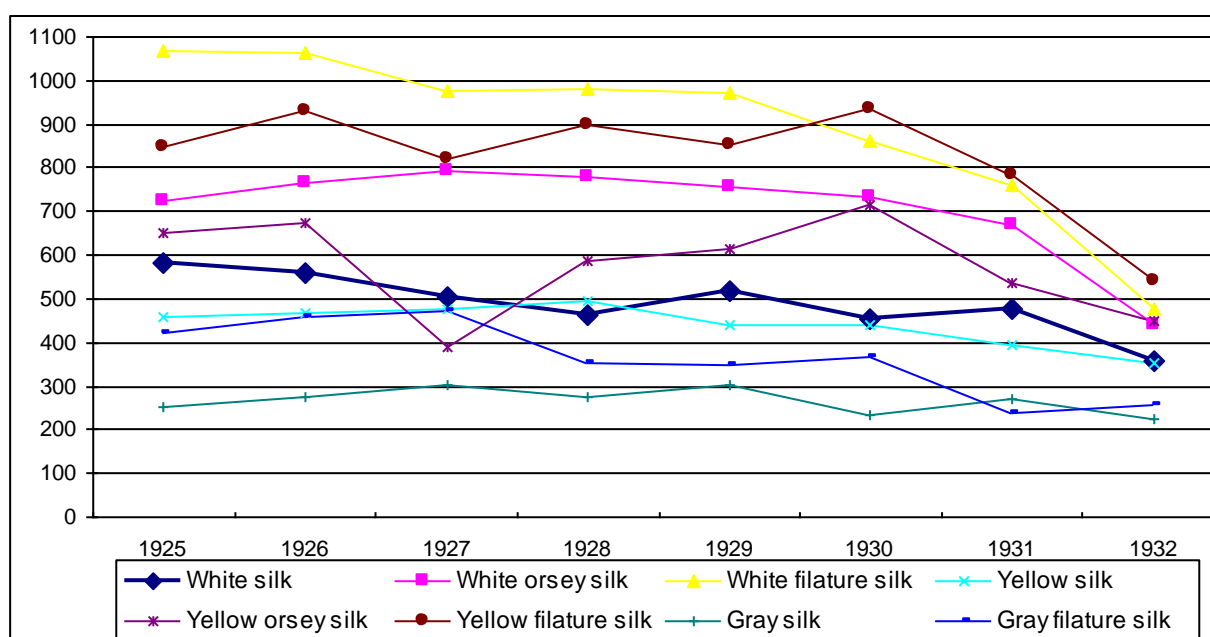
The fall in demand in the main overseas markets for Chinese silk hit the country’s exports. China’s yarn sales abroad suffered during 1930-1932. The import of silk by the U.S. from China dropped from 50,900 quintal in 1929 to 45,100 quintal in 1930, 38,100 quintal in 1931, only 12,800 quintal in 1932, shrinking 75 per cent compared with 1929. France, as the major international market for Chinese silk, also decreased from 37,500 quintal in 1929 to 23,200 quintal in 1930, 19,900 in 1931, and down to 8,100 in 1932, only 22 per cent of that of 1929 (Xu, 1990:302).¹¹⁰

Demand fell for raw silk, which then dragged down the silk price, worsening the crisis. The New York market average silk price dived from 5.03 USD per pound in 1928 to 2.8 USD in 1930, down by almost 50 per cent. It dropped further to 1.57 USD in 1932 and to 1.40 USD in 1934 (Qian, 1940:29). From Graph V.4, we can see the change of the price of silk for export. The prices of almost all kinds of silk dropped sharply during The Great Depression. The Chinese silk price in the international market mainly depended on the demand for raw silk. As the crisis wore on, lower demand depressed

¹¹⁰ Quintal, in Chinese “Gongdan” is a measure of weight. 1 Quintal = 100 kilograms.

prices further, adding to the woes of the Chinese silk industry.

Fig. V.4 Price of Silk for export (Liang/50kg), 1925-1932.



Source: Author, based on data from Zeng, 1929: 46.

However, the falling silver price and the passive depreciation of the Yuan did not help the silk yarn-spinning industry to recover. Theoretically, silk exports should have benefited from Yuan depreciation but in practice other price effects offset this gain. In any case, the collapse in overseas demand for silk (and other ‘luxury products’) as the slump deepened, together with the erection of protectionist trade barriers in Europe and The United States greatly outweighed any positive effects.

Another problem was getting loans. Falling international demand for raw silk made it very hard for factories to sell their inventories and to pay bank loans. Banks refused to issue further loans to silk companies, starving them of the working capital they needed to keep running.

The upshot of all of the foregoing impacts was the collapse of the sector and the closure of many silk factories. In 1934, only 35 silk factories in Shanghai were still in business — just 30 per cent of those operating in 1930 (Table V.8). “Of Shanghai’s silk factories, almost 80 per cent closed, causing thousands of lay-offs”, stated *Shen Bao* [Shanghai News] (1935, vol. 4: 5).

Table V.8 Silk factories and spindles in operation in Shanghai, Wuxi and Guangdong, 1929-1936

Year	Shanghai		Wuxi		Guangdong	
	Factories in operation	Spindles in operation	Factories in operation	Spindles in operation	Factories in operation	Spindles in operation
1929	104	23,582	46	12,862	146	72,455
1930	111	26,175	49	15,108	121	62,292
1931	70	18,326	50	15,478	111	57,255
1932	53	13,476	27	8,194	58	30,243
1933	44	10,730	43	12,618	68	36,288
1934	35	8,270	38	10,348	37	19,505
1935	39	9,060	42	11,952	--	22,456
1936	49	11,116	41	13,090	57	30,243

Source: Xu and Wu, 1993: 121-149.

2) Cotton-Spinning Industry in China

Unlike in the silk industry, the early stages of The Great Depression between 1929 and 1931 gave China's cotton industry a tremendous boost. There was a brief boom between those years. The main reasons are: (a) As explained at length in the previous chapter, the slump in the international silver price produced a big *de facto* depreciation in the Yuan *vis-à-vis* overseas trading partners on The Gold Standard. Given that China's cotton industry catered to the domestic market, the effect of the Yuan's depreciation was to make foreign imports more expensive and thus less competitive with local products. (b) Another factor was the boycott of Japanese goods as a result of Japan's invasion of Manchuria. Until the end of 1931, *Shen Bao* [Shanghai News] published over 500 anti-Japanese statements. The boycott was remarkably effective, with the share of Japanese goods as a share of China total imports falling sharply from 19 per cent in 1930 to 8 per cent in 1933, and that then languished at 11% (Zhou, 2009: 112-113).

As the Japanese exports to China were mainly of cotton products, the boycott stimulated domestic demand for Chinese cotton clothes. The domestic cotton industries used this opportunity to improve their technology and productivity. Thus domestic products took market share from Japanese goods and boosted the development of China's cotton factories. (c) Depression in competitor countries. Besides Japan, China had two other main competitors for cotton products in the international market — the U.S and India. These countries were also affected by the crisis and as their production and exports fell, Chinese cotton products had the chance to compete with their products in both domestic

and international markets.

All these factors combined to give the Chinese cotton industry a shot in the arm. The production of cotton yarn climbed by 16.6 per cent from 1929 to the beginning of 1931. The export of cotton products also rose. Exports of cotton cloth grew from 39,968 *dan* in 1929 to 45,378 *dan* in 1931 (13.5 per cent) (Yan, 1955: 130). More cotton factories sprang up and existing ones were expanded. Table V.6 shows that both the numbers of cotton factories and cotton spindles rose in Shanghai during The Great Depression and that this growth outstripped that of Japanese factories. From 1929 to 1931, Chinese cotton factories, spindles and workers rose by 16.7 per cent, 30.6 per cent and 15.6 per cent, respectively. By contrast, there was a reduction in Japanese cotton factories and workers, and only a slight increase in the number of spindles (Honig, 1986: 30-31).

Table V.9 Size and workers in the cotton industry in Shanghai, Changes during the Depression 1928-1936

Year	Chinese-owned			Japanese-owned			British-owned		
	Cotton mills	No. of spindles	No. of workers	Cotton mills	No. of spindles	No. of workers	Cotton mills	No. of spindles	No. of workers
1928	24	776,388	50,555	32	1,010,000	53,123	4	153,320	13,000
1929	28	818,088	56,376	30	1,054,344	58,029	3	153,320	13,000
1930	28	953,646	63,243	30	1,148,184	54,606	3	177,228	13,189
1931	28	1,068,920	65,146	30	1,253,100	51,103	3	170,610	13,000
1932	28	1,082,148	65,638	30	1,284,872	42,435	3	183,196	13,000
1933	31	1,126,204	55,826	30	1,287,608	44,940	3	184,908	13,000
1934	31	1,131,444	52,407	30	1,324,872	47,502	4	184,908	13,000
1935	31	1,118,218	45,159	30	1,314,388	44,863	4	227,148	10,000
1936	31	1,114,408	54,818	30	1,331,412	49,842	4	221,336	12,221

Source: Historical archives of Shanghai Textile Industry Association, 1950. Also cited by Honig, 1986: 29-31.

But this boom proved short-lived. The crisis finally hit in 1932, when the rising silver

price wiped out the competitive edge that Chinese products had gained earlier through the Yuan's depreciation. Worse still, Japan invaded Manchuria, one of the most important markets for Chinese cotton cloth. Chinese factories lost a big slice of demand for their products overnight.

Table V.10 shows the changes in the exports of cotton clothes and the imports of raw cotton. Exports grew until 1933, then suddenly dropped by 50 per cent in 1934. The trend changed in 1935 and the sector began to recover from 1936. The dent in export earnings hurt company profits, reducing firms' ability to expand production. The net cotton import reflected the production capacity of cotton factories and it continued to fall after 1932. The raw cotton that China imported in 1935 was just 24 per cent of the net import of 1932 (Textile Times, 1936: 1345-1350).

Table V.10 Export of Cotton Cloth and Import of raw cotton in China (1932-1936)

Year	Export (yards)	Import (yards)
1932	73,248,383	356,196,000
1933	104,739,411	186,489,000
1934	50,113,493	90,855,000
1935	22,514,326	85,590,000
1936	50,480,929	--

Source: Textile Times, 1936: 1345-1350

Another impact on the cotton industry arose from the silver outflow. With the promulgation of the U.S. Silver Purchase Act in 1932, the silver price spiked, leading to an outflow of silver from China. There was a net outflow of 164,780,000 *liang* of silver from China in 1934. Knock-on effects following the outflow of silver included: the sluggish activity performance of cotton textile plants; a rise in unemployment; the closing of factories. For example, 490,155 spindles were idle (92.5 per cent working) in the first half of 1931. Then in the second half of 1931, 572,021 spindles were idle (91.8 per cent working). In the first half of 1932, 2,385,360 spindles were idle (76.8 per cent working). In the second half of 1932, the number of idle spindles was 657,790 (90.9 working). In the first half of 1935, the number of idle spindles was 1,344,986 (85.1 per cent working). In the second half of 1935, the number of idle spindles was 1,360,273 (79.7 working) (Yan, 2011: 266)

In addition, the Chinese cotton industry had to face fierce competition from Japanese, Indian and South-East Asian products. After the crisis in the cotton sector, Chinese factories lost about 5 per cent of their market share to Japanese factories in Shanghai (Table V.9), which had more capital, newer technology and was more efficient.

To sum up, The Great Depression had a different impact on China than on Western countries. The Silver Standard backing the Yuan, sufficient money supply, remarkably resilient Chinese banks, industrial expansion and slow GDP growth set China's economy apart. The various economic sectors performed differently during the crisis. The agrarian depression made life hell for the country's peasants, who had to migrate to the cities to make a living. Industry generally grew but labour-intensive industries were affected by the crisis. The Great Depression hit the export-oriented silk industry straight away with the collapse in foreign demand. However, the cotton industry experienced a brief boom from 1929 to 1931 and then also ran into difficulties.

V.2 Impact of The Great Depression on the labour market

V.2.1 Unemployment and worsening working conditions

Unemployment was one of the biggest consequences of The Great Depression in Western countries, which saw unemployment soar to over 20 or even 30 per cent. For this reason, it was also a key object of the studies on the crisis. Keynes, one of the most famous economists writing on The Great Depression, discussed the relations between employment with deficits, wages, and demand:

The evidence indicates that full, or even approximately full, employment is of rare and short lived occurrence (Keynes, 1936: 249-250).

Lower wages will not achieve full employment either because, it leads to too much savings, less demand (in particular, not enough consumption), and thus, ultimately, no increase in employment. (Keynes, 1936: 257-267).

His thoughts also sparked discussion and debate among various economic schools regarding The Great Depression.¹¹¹

Unemployment was also one of The Great Depression's major impacts on China.

As argued in the previous chapter, Chinese industry in general was not seriously affected by the slump and kept growing — something that set the country apart during the crisis. Indeed, Shanghai underwent huge industrial development in the 1920s and 1930s, becoming the country's economic power-house. However, the Depression's impact was patchy, with some industries being worse affected than others. Labour-intensive ones such as the textile sector were hard-hit and had to lay off large numbers of workers.

An idea of the scale of the lay-offs can be got from the following newspaper snippets at the time:

“Closure of silk factories in Shanghai throws 60,000 people out of work.” (*Mingsheng Weekly*, 1933, 1:5)

“Over 100,000 workers wandering on the street after almost all the silk plants stopped production in November 1930.” (*Shen Bao*, Nov. 15, 1930:1)

“Since the Shanghai Incident¹¹², 160,000 workers are out of a job, most of whom were from North Jiangsu.” (*Government Report of Jiangsu Province*, 1932: 947)

“So far there are 125,000 unemployed workers in Shanghai. Each

¹¹¹ For some examples of analyses and debates on Keynes's ideas, see A.C. Pigou (1936), Étienne Mantoux (1946), Alvin H. Hansen (1953), Henry Hazlitt (1959), Mark Skousen (1992), and Robert G. King (1993).

¹¹² The Shanghai Incident, or the 28th of January 1932, was begun by Japanese planes terror-bombing the city. It was one of series of conflicts between China and Japan before the official outbreak of the Second Sino-Japanese War in 1937.

of them has at least two other family members to support. All told, over 375,000 citizens are affected.” (*Bank Weekly*, 1937, no. 21: 46)

However, what was the real situation regarding unemployment in Shanghai?

No official statistics or complete sources are available that would allow one to calculate the unemployment rate in Shanghai (or even in China). As a result, very few previous studies on this topic have been carried out and those that have merely concentrated on how many people were employed and explained the situation:

Almost all reports, articles, and studies conducted during the Republican period (1911-1949) stated that the unemployment situation was serious. However, when calculating the unemployment rate, some organisations or scholars based their estimates on the total population, not the labour force (International Labor Office in China, 1935; Cheng, 1936). Some just gave rough estimates without any indication of the data sources (*Shen Bao*, 1935; Cheng, 1936; Pan, 1935). For instance, “The total number of unemployed people was 500,000 in Shanghai in 1935. For each six people, there is one that is unemployed”, commented a report by the International Labor Office in an evaluation report (International Labor Office, 1935: 156). Cheng explained that in the early 1930s, the jobless rose to 318,117 out of the total population of 1,669,575 (19.5 per cent) in July 1931 (Cheng, 1936:55). The then Major of Shanghai Mr. Pan Gongzhan said: “The actual population, including those living in the Concession Areas, was 2.7 million. The total number of people without an occupation was 450,000, so the unemployment rate in Shanghai was close on 20 per cent ” (Pan, 1936: 156).

In recent studies on the history of The Republic of China, Chen summarised the historical literature (Chen, 2004:59-62); Tan and Fan explained the aid that organisations gave those who had been laid off (Tan and Fan, 2005: 54-61); Tan also made a general analysis of unemployment in China during the Republican period (1912-1949) (Tan, 2014). However, none of them calculated the unemployment rate based on the active population.

In this section, I try to estimate the unemployment rate in Shanghai and analyse the characteristics of the jobless population, based on the following sources:

1) The only official direct source on unemployment and also the main data source for this analysis is the 1930 Unemployment Survey Report by the Shanghai Government's Bureau of Social Affairs, which comprehensively analysed the unemployment situation among workers' association members in the city. No fewer than 187 associations were surveyed, whose total membership numbered 155,069. The industries, numbers, age, gender and family situation were all studied.

2) Official statistics on employment in Shanghai, which was used in Chapter IV.¹¹³ From this data, we can review the employment changes in each occupation, which can then be used to indirectly explain the situation regarding Shanghai's unemployment.

3) Newspaper and magazine coverage of unemployment during 1927-1937, especially the *Shen Bao* [Shanghai News], which opened special columns such as "Self-Introduction for Jobs" (for job-seekers), "Self-Introduction for Special Jobs" (for those seeking special professions), and "Helping Unemployed Friends" (for those offering jobs), and so on. In total, some 103 announcements and articles between December 1932 and July 1935 were found.

4). Files forming the Archives of the Native-place Associations. In particular, some 90 job-seeking registration forms, letters and CVs during the period 1932-1936, drawn from the Pudong Native-Place Association.

Although we could not calculate the general unemployment rate in Shanghai from the data, from the two official sources, we can discover the situation of Shanghai. Both data proved that unemployment was not as serious as other studies have suggested.

According to the statistics of employed people in each occupation during 1930-1936, we find that almost all the main sectors grew, especially industry, coolies, and domestic servants. That means that although there were workers who had been laid off from some

¹¹³ Shanghai Yearbook (1930-1937).

sectors or industries, Shanghai's demand for labour kept growing during the crisis. That is to say, there was no sudden contraction or recession in the labour market.

Table V.11 Occupational changes in The Chinese District of Shanghai, 1930-1936

Sectors	1930	1931	1932	1933	1934	1935	1936
Agriculture	164,421	169,266	168,240	181,454	188,170	195,258	173648
Industry	323,273	356,902	325,615	384,135	417,255	448,880	460906
Handicrafts (apprenticeship)	67,814	70,207	42,237	44,675	48,767	49,924	54752
Business	174,809	184,381	149,222	170,236	175,176	185,912	189932
Transport	21,560	23,639	18,842	20,977	21,420	23,535	30766
Coolies	93,671	108,224	110,382	135,013	148,019	149,666	157539
Domestic servants	50,856	57,489	50,249	58,959	66,441	69,840	76502
Other service sectors	59,054	70,116	62,100	70,286	70,825	71,930	74894

Sources: Author, based on data from the Shanghai Yearbook, 1936.

Another source also demonstrated the unemployment situation in Shanghai. According to the 1930 Unemployment Survey Report conducted by the Shanghai Government's Bureau of Social Affairs, 10,009 worker association members reported being unemployed out of a total membership of 150,000 — just 6.45 per cent (Shanghai Municipal Social Affairs Bureau, 1930. Table V.12). Although this was not the general unemployment rate in Shanghai, it did reflect the overall situation.

Compared with other countries or cities during The Great Depression, the rate shown in the survey was fairly low. By contrast, the unemployment rate in The United States, Germany, Australia and other countries at the time was over 25 per cent (Xie, 2017:33).

Moreover, the unemployment was concentrated in certain industries and sectors.

As pointed out earlier, the impact of the economic crisis on China's economy was concentrated in sectors such as silk yarn spinning [filature]. Many factories closed down or suspended their production, laying off many workers.

“The industry and commerce were in such dire straits that many factories suspended operations to avoid bigger losses. Hence the rising number of

workers without a job.” (*Republican Daily*, March 24, 1930:1)

Table V.12 Unemployment among members of industrial associations in Shanghai, September - October 1930

Sector	No. of Associations	Total members				Unemployed members							
		Men	Women	Children	Total	Men	%	Women	%	Children	%	Total	%
Textile	51	18,820	20,122	4,897	43,839	901	4.78	993	4.93	227	4.64	2,121	4.83
Food	15	11,450	91	1,420	12,919	1,277	11.19	--	--	4	0.28	1,281	9.91
Construction	6	4,076	22	200	4,298	22	0.54	--	--	--	--	22	0.51
Machine	12	7,240	--	71	7,311	901	12.44	--	--	1	1.41	902	12.34
Transport	28	19,532	4	5	19,541	2,181	11.17	--	--	--	--	2,181	11.16
Printing	12	9,993	798	557	11,348	321	3.21	33	4.14	19	3.41	373	3.29
Chemistry	17	8,161	6,624	965	15,750	86	1.05	33	0.50	2	0.02	121	0.76
Daily necessities	9	4,078	--	153	4,231	627	15.37	--	--	--	--	627	14.81
Business	21	27,532	--	970	28,522	1,757	6.37	--	--	--	--	1,757	6.15
Factotum	16	6,730	215	365	7,310	579	8.60	25	12.82	20	5.48	624	8.56
Total	197	117,587	27,879	9,603	155,069	8,652	7.35	1,084	3.88	273	2.84	10,009	6.45

Source: Shanghai Municipal Bureau of Social Affairs: “Trial Statistics Report of Unemployment of Shanghai”, *Social Affairs Monthly* Vol.1, No. 8, 1930:7.

According to this survey, the textile and transport industries laid off the most workers, followed by the business sector. These were also the three sectors that attracted the most rural migrants, especially the textile and transport industries which saw a concentration of farmers from Subei. However, the textile sectors did not have the highest unemployment rate but it did account for many jobless simply because it had such a large workforce.

As explained in Chapter IV, the textile industry (which mainly comprised the cotton and silk yarn sectors) employed 62.2 per cent of Shanghai’s total work force in 1934 (Statistics of Shanghai, 1934). Over 90 per cent of its workers were rural migrants. These two industries were worst-hit by the crisis and accounted for the most jobless, who were mostly rural migrants.

“In early September of 1930, over 70 silk yarn-spinning factories closed down and 28,000 workers lost their jobs. (*Republic Daily*, 28th September 1930:5)”.

“Almost all silk factories were shut down in November 1930, putting over 100,000 workers out on the street (*Shen Bao*, 15th November, 1930:2)”.

At its peak, there were 107 Chinese-owned silk filature factories in Shanghai in 1930. This shrank to only 30 in 1935. The Rong family and its factories hired as many as over 100,000 workers during the good times but there were fewer than 80,000 left in early 1935 (SSCA, 1962:558).¹¹⁴ The degree of unemployment can be glimpsed through the table below which depicts the cutbacks in the labour force at Yong’an Printing and Dyeing Company.

Table V.13 Workers laid-off at the Yong’an Textile Company 1932-1935

Year	No. of workers in each factory				No. of laid off 1932 as the base	Per cent age of laid-off workers (%) 1932 as the base
	Factory I	Factory II and IV	Factory III	Total		
1932	3,064	6,200	3,500	12,764	--	--
1933	2,500	4,700	2,800	10,000	2,764	21.65
1934	2,331	3,984	2,800	9,115	3,649	28.59
1935	1,200	3,348	2,858	7,406	5,358	41.98

Source: Yong’an Textile Company historical archives, 1964: 228.

It is worth noting the closure of Japanese-owned factories and the unemployment of female workers from Subei. After the Japanese occupied Manchuria in 1931, there was a nationwide boycott of Japanese goods throughout China. As a result, most Japanese

¹¹⁴ The Rong Family established one of the most famous Chinese capital companies before 1949, which owned 14 flour mills and 9 textile factories in the 1930s. Among which, Shenxin No.9 Factory was the biggest textile factory before 1949.

factories had to stop production, again leading to a significant jump in unemployment. The total number of laid-off workers who had been working at Japanese factories in Shanghai was 63,392, of whom 54,606 were in the cotton textile industry, accounting for nearly 86 per cent of the total (Xin, 2012:18). The low wages and hostile atmosphere found in Japanese-owned cotton textile factories meant that they were not workers' first choice. This is why most of the Chinese employed in them were women from Subei, reflecting the particularly sad life of migrant women workers during The Great Depression.

On the other hand, blue-collar workers and those in the business and culture sectors were also having a hard time finding jobs toward the end of the 1920s. According to newspaper job-seeking ads and registration at the Native Place Associations, four sectors stand out: education, commerce, typing and trainees, of which education and commerce accounted for 19.2 per cent and 25 per cent of the total, respectively, of those who had been registered as job-seekers. The reason is that many firms and businesses closed because of the economic crisis, leading to these big unemployment figures. An average of 18 businesses closed down or went bankrupt every month in Shanghai in 1933. This number rose to 30 in 1934 and 41 in 1935 (Xin, 2012: 19). New graduates faced difficulties in the job market, leading to oversupply in the education sector.

The unemployed population had the following characteristics:

1) Age and gender

According to the survey by the Shanghai Government's Bureau of Social Affairs in 1930, most of the unemployed were young people (74 per cent of the jobless were young adults under 35). (Shanghai Municipal Social Affairs Bureau, 1930: 14) Based on registration at the Shanghai Pudong Native Place Association, out of the 92 registered unemployed from 1932-1934, everyone, bar one 47-year old, were under 45, and 86 per cent were under 35 (Archives of Pudong immigrant associations) .

Table V.14 Age breakdown of the unemployed, 1930

Age	Number	Percentage
16-25	388	31.93
26-35	511	42.06
36-45	222	18.27
>46	89	7.33
Unknown	5	0.41
Total	1,215	100

Source: Shanghai Municipal Social Affairs Bureau, 1930:14.

Such a result agrees with the age structure of the population of poor rural migrants attracted by Shanghai's industrial development. Many young people migrated to urban Shanghai, making the city's population soar and transforming its demographic structure, leaving 25-35 year-olds in the majority.

Chapter II and Chapter IV explained the gender balance in Shanghai's population and industries. Generally, there were more men than women during this period in Shanghai, and that was also true among the working population. Yet in industries, there were slightly more women than men. In addition, women were concentrated in some sectors and industries. In terms of the jobless, most of these were men. That said, the situation varied from sector to sector. According to the Shanghai Social Affairs Bureau (Table V.12), the average unemployment rate for men was 7.35 per cent and that for women was 3.88 per cent. There was no recorded unemployment for women in the food and beverage, construction, machinery, transport, household chemicals, and commerce sectors because they hired very few females. In the textile, printing, and miscellaneous work sectors, the unemployment rate was significantly higher for women than for men. Taking the textile industry as an example, the unemployment rates were 4.78 per cent for men and 4.93 per cent for women. The numbers for miscellaneous work were 8.60 per cent for men and 12.82 per cent for women. Gender disparities in unemployment rates can also be seen in registration at Native Place Associations. Only 3.4 per cent of members were women. This, on the one hand, shows that women were the minority of middle and upper-level migrants, on the other hand it proves that men made up most of unemployed (Archives of associations of Pudong Immigrant).

2) Education

Among 1215 people surveyed by the Shanghai Social Affairs Bureau, the biggest group (383 people or 31.52 per cent) only had primary school education. Illiterates were the second-largest group (293) who made up 24.12 per cent. There were 196 people who had received private school education (16.13 per cent). Only 40 people had been given a secondary education (3.29%). There were 303 members (24.94%) whose educational backgrounds were not specified (Republic Daily, 31 October 1929: 3). A generally low level of education among the unemployed can be observed. The illiterates, primary school graduates and those who received private school education make up 70 per cent of the total. This also reflects the fact that most jobless people were those who worked in the less skill-intensive and the more labour-intensive industries and the low and middle-ranking staff in the business sector. Most of them had low levels of education. The data from the Pudong Native Place Association registered higher education among the unemployed. Except the 32.8 per cent of the registered jobless who did not report their education backgrounds, only 1.7 per cent of them were illiterates. Those who had received primary education made up 22.4 per cent, and 20.7 per cent had received secondary education. The rest had received either secondary or junior secondary education. Some had even received college or university education. No less than 30 per cent of them spoke English. The third source of data, the *Shen Bao* job-seeking ads, showed most advertisers had higher than secondary level education, accounting for 60 per cent of the total. These statistics show how hard it was for graduates to get a job, especially secondary school ones, who could not afford university fees and could not do specialised jobs because they had no special skills. That also explains why there are so many ads from secondary school graduates seeking educational or text-related jobs (*Shen Bao*, 1932-1935).¹¹⁵

¹¹⁵ The ads for seeking jobs in *Shen Bao* could be seen in sections such as “Self-Introduction for Jobs” (for those seeking jobs), “Self-Introduction for Special Jobs” (for those seeking special professions), and “Helping Unemployed Friends” (for those offering jobs).

3) Marital status and family composition of unemployed workers

Married people made up the majority of the unemployed. According to the survey in 1930, 865 jobless people were married, accounting for 71.19 per cent of the total unemployed people and 350 people were unmarried, 28.81 per cent of the total samples. There were 658 people with children, accounting for 45.84 per cent. These proportions are borne out by the records of the Pudong Native Place Association. Nearly 70 per cent of the registered unemployed members of the Association were already married. Most of them were aged between 16 and 45, who were their families main breadwinners. On average, each of them supported 4 family members (one individual supported 11). They were therefore under enormous pressure and were particularly eager to find a job. This anxiety can be detected in the begging tone in the job-seekers letters in the registration records of the Pudong Native Place Association (*Republic Daily*, 31 October 1929: 3)

“Ever since I was laid off, I have been helplessly housebound and suffering a lot. I have a very old mother and three of us to feed. If this situation stays the same for much longer, I dare not imagine how bitter a life I and my family will lead.”
(Letter by Ding Boquan, man, Pudong Origin Association archive, 1932-1936)

“Please pity me, a rural woman. All I can see before me is darkness. I could not afford school so I have to work. But again I can't find a job because I don't have enough education. I lead such a meaningless life but I shall not die because I have a grandma to take care of.” (Letter from Ci Yu, woman, Pudong Origin Association archive, 1932-1936)

可憐我眼前滿是黑暗讀書吧、經濟困難、做事
 吧、可想而不能做、因為我實在學業淺薄、
 雖然這樣、嘆我既着亮無意思、但我又不能死、因
 為還有年老的祖母、我也死了、叫她老人家怎樣呢、
 但我已是十八歲的青年了、活下去是年紀越老
 了、再不努力、等待何時、
 因此、我時時刻刻為我的生活前途而設法、但
 終無一好法子想出、
 最後我想出一個唯一的法子、
 要求貴會、給我一個相當於用的工作、那麼就可以增進
 我的智識、還可以補救我所缺乏的地方、那兒也可以盡我的心、
 有益於國了、再會 敬祝、同情
 有許差不到之處、請原諒、寬恕一切
 因為我寒酸、無房、環境、困難
 請先生給我一手回信
 求者 慈直敬上
 通信處 浦東高橋鎮
 新家街 陸祥泰布號 4-2、曾於燈下
 轉交北法家宅 凌萬育
 望乞恕罪、無理、冒犯、要求

Job-seeking letter from Ci Yu, 1930s. Pudong Origin Association archive, Shanghai Municipal Archives.

Long-term unemployment was an important feature of the crisis. Among the 1,215 reported unemployed workers, other than 15 who did not say how long they had been unemployed, 25.5 per cent had been jobless for over a year and 26.4 per cent had been jobless for over 6 months. Despite the efforts made by industry, native place, and other associations, and the setting up of Shanghai Recruitment Agencies, the unemployment situation stayed pretty much the same. By 1935, there were 610,000 unemployed people. (Social Affairs Bureau, 1929: 13-14; Republican Daily, 31st October 1929: 3).

4) Unemployment and Immigrants

Most of Shanghai's unemployed were immigrants, as one would expect of a city that was a magnet for people seeking a better life. Some of those who had come from rural areas went back home and became peasants again after losing their urban jobs. One of the purposes of the Native Place Association in this period was to help and fund jobless

immigrants go back to whence they came. (Announcements and statute of Guangdong Original Association). However, during the economic recession, most rural areas were struggling. After all, Shanghai still provided more job opportunities than other cities — especially those in the interior. Therefore, many chose to stay in Shanghai, trying to get some work again. This partly explains why the outflows of immigrants during the crisis stayed low notwithstanding persistently high unemployment rates.

Another special feature of unemployment in Shanghai can be observed. As the then industrial centre for the whole country, industries offered most job openings. However, almost no job advertisements for industrial workers could be found in the newspapers (*Shen Bao*, 1932-1936). The most common ads were for jobs requiring special skills, such as foreign languages, and for art teachers, accountants, Chinese and English secretaries, editors, salesmen, *compradors* or other types of business jobs. This can be explained by the ways in which migrants looked for jobs in Shanghai (covered in previous chapters). Most factories found their employees through reference or recommendation from relatives or friends from the same places. Foremen ‘from back home’ played a decisive role. That caused the crowding of workers from the same origins in the same sectors. Taking this approach, most jobless people would have to rely on their friends and/or relatives to help them get back into a job, especially in the case of unskilled workers. As one Pudong immigrants wrote in his job-seeking letter:

“I am one of the workers sacked in this round of Shanghai factory and business closures. I couldn’t find a job because I have no references. I really regret that I wasn’t able to make lots of friends who could otherwise help me now.” (Letter by Zhao Fukui, man, Pudong Origin Association archive, 1932-1936)

V.2.2 Nominal wages and real wages

The wage is an important factor in analysing the impact of the crisis on the labour market and living standards. Here, one should not only analyse changes in nominal wages but also in real wages. The latter give a better idea of the crisis’ impacts on both the labour market and on standards of living. However, most previous studies only

analysed changes in nominal wages (Chen, 1957; Huang, 1987; Song, 2011). Rawski was one of the few to calculate real wages in Shanghai (Rawski, 1989: 297-305). He chose the price of rice as the benchmark for real wages. Yet using one product as the price index will aggravate the influence of the price fluctuation of this single product. Furthermore, the historical data reveals that rice did not make up most of working families' consumption in Shanghai.

So in this section, I will use another method to calculate real wages in Shanghai. In Chapter IV, I used official statistics in analysing the wage gap and its affecting factors in Shanghai's industries. Here, I still use the same source — *Labour Statistics in Shanghai (1930-1937)* — to analyse nominal wages during 1930-1936 (the data period). As these statistics included the wage base and incentives, one can arrive at a figure for total monthly income.

For the cost-of-living index, another survey conducted by the Shanghai Social Affairs Bureau in the same period will be used.¹¹⁶ The Bureau made a continuous survey in 305 workers' households to study their consumption patterns and living standards. To this end, 5 categories and 60 main products were selected. Following the consumption weightings, and the prices of these products, one can draw up a soundly-based cost-of-living index.¹¹⁷ These surveys, including the previous wage statistics compiled by the Shanghai Social Affairs Bureau are outstanding in terms of their scope, design, preparation and length of implementation. The academic community also has a high opinion of these surveys (Huang, 1987; Zhang, 1997; Honig, 1986; Du, 2005; Song *et al.*, 2011, etc.).

Therefore, this chapter mainly makes use of these sources to analyse the changes in workers' wage levels (especially those of migrant workers) and living standards in Shanghai before and after the crisis and to understand how the crisis affected these people.

¹¹⁶ The living cost index source is available for the period 1926-1936. However, the real wage could only be calculated for 1930-1936 because of the nature of the wage data.

¹¹⁷ The results of the living cost surveys were published in: *The Cost of Living of Shanghai Labourers* (Shanghai Social Affairs Bureau, 1932) and *Labour statistics in Shanghai (1930-1937)* (International Labor Office, 1937).

1) Hourly Wage Rate

According to the survey reports, wage rate is defined as “the wage per month, week or day agreed on by the employer and employee, that is to say, the standard by which wage is calculated”. The key to the survey is “average hourly wage rate”, which was the working wage per hour (Social Affair Bureau, 1929:1). This is the best indicator for wage rate because using it, the length of working hours will directly affect the daily wage. Those who work for a dozen hours would earn more than those working ‘only’ 8 or 9 hours. According to the 1929 survey, the average hourly wage rate for the 31,053 male workers from 21 industries was 0.073 Yuan; for the 58,473 women workers, 0.044 Yuan; and for the 7,516 child workers, 0.034 Yuan. The changes and index of hourly wage rate for Shanghai workers in 1930-1936 are calculated by consolidating the data collected from the surveys.¹¹⁸

Table V.15 Average hourly wage rates for workers in Shanghai 1930-1936

Year	Male	Female	Time worker	Piece worker	1930=100
					Average
1930	100.00	100.00	100.00	100.00	100.00
1931	101.18	97.96	100.00	96.67	96.61
1932	101.18	95.92	89.47	101.67	96.61
1933	102.35	97.96	92.98	100.00	98.31
1934	97.65	93.88	87.72	98.33	94.92
1935	100.00	85.71	84.21	95.00	89.93
1936	97.65	91.84	92.98	95.00	93.22

Sources: Calculations based on *Wage Rates in Shanghai* (1935) and *Statistics of Labours in Shanghai (1930-1937)*.

The changes to the wage rate index in the table are quite revealing. Taking 1930 as 100, despite rises in several years, the overall trend is a slow downward one over the 7 years from 1930 to 1936. The biggest drops were in 1934 and 1936. This shows that in the early 1930s, the wage rate for workers in Shanghai was gradually falling.

The above table also shows that male workers had much higher wage rates than female workers. Women accounted for over 70% of the total number of workers surveyed,

¹¹⁸ The 1929 statistics were removed from the calculation due to sampling reasons. The hourly wage rate of 1929, which includes the wage of low-income, non-industry workers, is 15% lower than that after 1930.

therefore the average overall wage rate calculated after weighting is much lower than the average for men workers. In addition, although this calculation showed the average wage rate for workers in Shanghai, it failed to identify the underlying differences in wages among various industries, types of work and posts, which were very significant at the time.

The hourly wage rates for the 16 industries surveyed in Shanghai for 5 years from 1930-1934 can be classified into three tiers: Ship building was in the top tier for all years at the level above 0.13 Yuan. The top three were always any three of the ship building, printing, machinery and silk weaving industries, with an hourly wage of over 0.1 Yuan. Then 7-8 industries took turns to make it to the second tier, covering tobacco, hosiery, underwear and match-making, with hourly wage rates of about 0.09-0.05 Yuan. 4-5 industries, including cotton spinning, silk filature, cotton weaving etc, fell in the third tier, with the rates below 0.05 Yuan. And these 4 industries remained at the bottom of the ranking of these 16 industries. Due to the large number of employees in these sectors, they also dragged down the overall wage rate levels.

In addition, there were also very large differences between types of work in the same industries. For example, 0.025-0.0349 Yuan for box-packing but 0.115-0.125 Yuan for a mechanic and painting in the match industry. Silk-refining workers earned 0.035-0.0449 Yuan whereas card-punching and model making workers earn 0.115 Yuan in the silk-weaving industry. The difference could be as high as 5-6 times.

2) Average Nominal Monthly Wage

Wage rates are defined as the amount of wage earned per hour or per day, which is still not the same as the real income that the workers earned per month. The nominal monthly wage is not only affected by how long they worked per month but also by bonuses and various types of penalties.

Table V.16 Average nominal monthly wage for workers in Shanghai 1930-1936

Year	Average work days per month	Average work hours per day	Nominal wage per month (yuan)							Gross pay per day (yuan)	Nominal wage per day (yuan)
			Gross pay	Overtime wage	Promotion bonus	Housing subsidies	Bonus	Fine	Total nominal wage		
1930	22.93	10.61	13.424	0.620	0.362	0.634	0.408	0.097	15.351	0.585	0.669
1931	22.71	10.31	13.337	0.386	0.463	0.472	0.845	0.097	15.406	0.587	0.678
1932	24.27	10.53	14.114	0.430	0.322	0.103	0.499	0.242	15.226	0.582	0.627
1933	23.19	10.48	13.543	0.476	0.338	0.072	0.497	0.112	14.814	0.584	0.639
1934	23.46	10.46	13.127	0.383	0.271	0.109	0.251	0.061	14.080	0.560	0.600
1935	22.69	10.50	12.184	0.315	0.268	0.139	0.138	0.056	12.988	0.537	0.572
1936	23.66	10.57	13.213	0.540	0.142	0.377	0.121	0.40	14.353	0.558	0.607

Sources: Calculated using *Shanghai Wage Statistics* (1936) pp.67-128, and *Labour Statistics in Shanghai (1930-1937)*.

The average nominal monthly wage of workers in Shanghai should certainly be higher than the ‘gross pay’, given that one must take supplements into account (such as: overtime payments, promotion, rewards, accommodation subsidies, allowances and bonuses). The simplest way to make the necessary adjustment is by using an arithmetic mean value. Using this approach in this case means that workers’ average nominal monthly wage was 109.98% of their gross pay for the seven years from 1930 to 1936. That is to say, the nominal daily income was 10% higher than the daily wage rate, and came from other sources.

The nominal wage for the seven years from 1930 to 1936 also gradually trended down, as did wage rates. Taking the number in 1930 as 100, the nominal monthly wage and the daily wage for 1936 only scored 93.49 and 95.28 on our index. The steepest drop came in 1935, with index figures of 84.67 and 85.50, respectively — a fall of 15%. This was also in line with the trend in wage rates in 1935, only the decrease was even more marked than that of wage rates. This means the other sources of income other than wage rates were more affected during the economic crisis.

Even the above is only a general picture of the average nominal monthly wage but does

not yet reveal big gaps between men and women, types of work and posts, work by hour and work by product unit.

Table V.17 Average nominal wage per month in Shanghai 1930-1936

YUAN

Year	Male time worker	Male piece worker	Female time worker	Female piece worker	Average
1930	23.325	34.867	9.454	12.856	15.351
1931	22.743	32.934	10.275	14.276	15.406
1932	21.205	36.722	9.079	13.045	15.226
1933	21.704	31.343	9.373	12.214	14.814
1934	22.353	27.317	7.672	12.322	14.080
1935	21.595	23.246	7.552	10.659	12.988
1936	23.316	27.187	8.715	12.135	14.353

Sources: Calculated using the *Shanghai Wage Statistics* (1936) and *Shanghai Labour Statistics* (1930-1937).

From the table above, one can see that the nominal wage of male workers, paid by working hours or on a piecework basis, was about twice as high as that for female workers. The nominal wage of workers paid by units of product was 30-40% higher than those paid by working hours. Yet given the large number of female workers and their generally low earnings, the overall nominal monthly wage of all workers stayed hovered around a measly 15 Yuan. Actually, very few female workers earned more than 20 Yuan per month, just as very few female workers earned less than 15 Yuan. The difference in nominal wages among workers in different industries could run into several multiples. In 1929, the industries with nominal monthly wage ranging from 10-15 Yuan included silk yarn spinning [filature], cotton-weaving and tobacco. Industries in the 15-25 Yuan range were sawn timber, sand casting, electrical goods, machinery, glass, cement and bricks, soap and candle-making, oil painting, match-making, enamelling, cosmetics, cotton-weaving, knitting, wool-weaving, bleaching and dyeing, tannery, flour, oil extraction, cold drinks and food, and paper making. Industries in the 25-40 Yuan range were: machinery and equipment, ship-building, electric, tap water, silk-weaving, flavoured canned foods and printing. From 1930 to 1936, printing, ship-building, silk-weaving and machinery and equipment took turns to be the top three industries in terms of nominal monthly wage among the 16 industries. The highest could be over 40 Yuan per month, and the lowest was still over 25 Yuan. The bottom three sectors were always cotton-weaving, match-making and silk yarn spinning. The lowest nominal monthly income was always below 10 Yuan. The gap between different

industries was astonishingly wide.

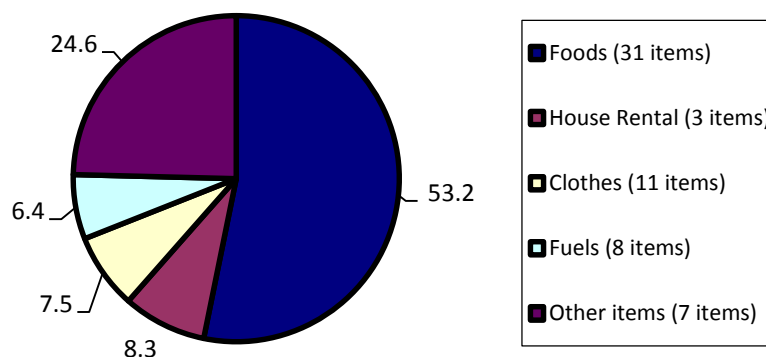
This gap was not only due to the differences in labour quality and skills but also related to market activity and competition. The bottom three industries had the fiercest competition among Chinese and foreign companies. The silk yarn spinning [filature] industry was the most depressed sector but with most competition in all sectors. Such difference led to difference in workers' living standards.

3) Index of living cost

However, the nominal wage is not enough to reflect the changes in workers' real wage in Shanghai. The price index relevant to worker families' consumption shall be taken into account to reflect real wages and real living standards.

The living cost index can be calculated based on the Workers' Living Standards Survey in Shanghai, another survey conducted by the Shanghai Social Affairs Bureau in the same period, which started from the 1st of January 1929 and sampled 500 workers' households which filled out a daily journal for a whole year. The results of this survey was later published in *Workers' Living Standards in Shanghai*, which first came out in 1934 and was then supplemented in the following years until 1937. The survey shows that from April 1929 to March 1930, in order to maintain the previous living standard, 305 worker families spent an average of 454.38 Yuan per year, of which 241.54 Yuan was on food (53.2% of the total spending); 37.83 Yuan on house rental (8.3%); 34.01 Yuan on clothes (7.5%); 29.00 Yuan on fuels (6.4%); 112.00 Yuan on other items (24.6%). The average monthly living cost per family was 37.86 Yuan. On average, each adult man spent 11.26 Yuan a month, three quarters of which was for bare necessities such as clothes, food, accommodation and fuel (Social Affairs Bureau, 1932: 5-17; International Labor Office, 1937). This data was used in some studies of workers' living standard or consumption, because it was the only continuous survey, and the basket of products was based on everyday consumption. It is more reasonable than choosing one or two products, or just using the general price index (Kuang, 2008; Xin, 1996; Zhang, 2011). However this data had never been used before to calculate real wages.

Fig.V.5 Breakdown of Shanghai workers' consumption (1926-1936)



Note: The detail of the items, the consumption and prices could be seen in Appendix V.1.

Sources: Social Affairs Bureau 1932; International Labor Office, 1937.

Sixty representative items were selected from several hundred consumed by these 305 families, as recorded in subjects' daily journals kept for the survey. These 60 items are split into 5 categories as food, house rent, clothes, fuel and other items. There are 31 items in the food category; 3 items in the house rent category; 11 items in the clothes category; 8 items in the fuel category and 7 items in the other items category (Appendix V.1). In the light of the corresponding retail prices of these items during the survey, public statistics on retail prices, and after weighting items to reflect the consumption of each item, we can calculate the breakdown index by each category and the general living cost index as follows:¹¹⁹

¹¹⁹ The price data is from the statistics of the Shanghai Government's Social Affairs Bureau 1932 : 6-22; Social Science Academy of Shanghai, 1958: 338-342.

Table V.18 Living cost index in Shanghai 1926-1936

1926 = 100

Year	Classification					Total Index
	Food	House rental	Clothes	Fuels	Other items	
1926	100.00	100.00	100.00	100.00	100.00	100.00
1927	100.71	97.98	98.82	109.96	102.23	101.09
1928	87.32	100.11	99.64	110.23	114.00	93.21
1929	97.56	103.80	106.04	117.61	117.78	101.98
1930	114.99	106.96	108.18	140.47	126.84	116.79
1931	104.10	114.46	123.58	164.62	138.37	113.82
1932	96.89	117.18	124.17	160.93	127.86	108.05
1933	83.47	123.53	102.84	142.43	123.59	97.17
1934	85.17	123.88	92.77	133.43	124.13	97.35
1935	88.77	120.55	89.34	130.80	120.49	98.72
1936	96.65	116.78	92.42	142.43	125.39	105.04

Sources: Calculations based on the *Index of living cost of workers in Shanghai* (1926-1931), 1932: 31-32; *Retail Prices in Shanghai 1926-1931*, 1958: 21-22; and *Shanghai Labour Statistics (1930-1937)*.

First of all, it can be seen that there are 4 years out of the 10 years following 1926 with an index lower than that of 1926. The lowest year was 1928, which was only 93.21% of 1926. Six years had an index higher than that for 1926. The highest year was 1930, which was 116.79% that of 1926. In general, there are more years with higher index figures than lower ones. The living cost index rose by 5.04% overall. Therefore, in the first half of the 1930s, the worker's living cost index was on an upward path, albeit with ups and downs, exhibiting very slow growth. This is consistent with the fact that prices rose and workers' living standards dropped because of the crisis.

Second, the index of different categories fluctuated more than the overall index, and in different directions. Although the food category had the biggest weight, the food price index was decreasing. The clothes price index underwent both upward and downward swings, it ended up by changing little. The index for house rent, fuel and other items for any year except 1927 were higher than those of 1926. The fuel index rose the most, which was over 160 per cent in 1931 compared with 1926. The big weight of the food index leads to an overall mild change in the general index.

4) Real wages in Shanghai

If we link the living cost index with the workers' nominal wage, one can analyse the changes in Shanghai workers' real wages.

Table V.19 Real Wage Index in Shanghai 1930-1936

Year	Nominal wage (Yuan per month)	Wage rate (Yuan per hour)	Nominal wages index (%)	Cost of Living Index (%)	Real wage Index (%)
1930	15.351	0.059	100.00	100.00	100.00
1931	15.406	0.057	100.36	97.46	102.98
1932	15.226	0.057	99.19	92.52	107.21
1933	14.814	0.058	96.50	83.20	115.99
1934	14.080	0.056	91.72	83.35	110.04
1935	12.988	0.053	84.61	84.53	100.09
1936	14.353	0.055	93.50	89.94	103.96

Sources: Calculations based on *Shanghai Wage Statistics* (1936) and *Shanghai Labour Statistics(1930-1937)*.

From the table above, it can be seen that for the period from 1930 to 1936, although nominal wages were dropping, prices fell even more. Therefore, the real wage index was on a smoothly rising curve.

If we compare this with other countries, we find that real wages largely rose during 1930 and 1931 (Table V.20). After that, real wages in countries leaving The Gold Standard declined slightly, while those staying on The Gold Standard saw a slight increase in real wages (Eichengreen and Sachs, 1985; Bernanke and James, 1990).¹²⁰ Some countries had severe unemployment, such as Germany, which saw almost no increase in real wages.

¹²⁰ By 1931, Canada, Germany, Japan and UK had already fully abandoned The Gold Standard; US and Italy abandoned it during 1932 and 1935; In 1936, France and Netherlands still maintained The Gold Standard (Bernanke and James, 1990: 47).

Table V.20 Log-differences of the Real Wage (1930-1936)

Countries	1930	1931	1932	1933	1934	1935	1936
Canada	0.11	0.15	0.00	-0.06	-0.05	0.02	-0.01
Germany	0.12	0.06	-0.03	-0.00	-0.07	-0.03	-0.02
Japan	0.05	0.21	-0.04	-0.12	0.02	-0.05	-0.05
UK	0.17	0.16	0.02	-0.02	-0.03	-0.03	-0.03
US	0.10	0.13	-0.01	-0.05	-0.02	-0.15	-0.12
Italy	0.10	0.07	0.05	0.07	-0.01	-0.11	-0.06
France	0.21	0.09	0.12	0.07	0.06	0.09	-0.06
Netherlands	0.12	0.14	0.09	-0.02	-0.04	-0.01	-0.06

Note: Bernanke and James calculated the real wage by taking men's nominal hourly wage and dividing it by the wholesale price index.

Source: Bernanke and James, 1990: 47.

Some scholars explained that falls in prices will raise real wages and lower labour demand, due to the nominal rigidity of wages. Downward stickiness in wages will lower profitability and potentially reduce investment (Eichengreen and Sachs, 1986; Newell and Symons, 1988). However, the situation in Shanghai was that the real wage kept rising during the crisis period, and that demand for labour market also rose. It was a different and much bleaker story in Western countries.

There is no data on the wages of immigrants in Shanghai, and the Shanghai Social Affairs Bureau surveys did not distinguish between local workers and immigrants. However, as most industrial workers in Shanghai were immigrants, this change in workers' real wage generally reflects the changes to migrant worker' wages and living standard in Shanghai during the economic crisis.

Despite turbulences such as the economic crisis and the smouldering war with Japan in the first half of the 1930s, workers in Shanghai were able to maintain a relatively settled life. This stability included: (1) Fairly steady wages with few fluctuations in the wage rate; (2) Workers living standards were also quite steady, mirroring the limited volatility of the living cost index. Assuming that the statistics from the Social Affairs Bureau are accurate, at least Shanghai workers' living standards were not worsening. On the other hand, as pointed out in the report by the Social Affairs Bureau, the nominal wages of workers might fall due to a reduction of working hours, rewards, bonuses and in the number of family members who were working (Social Affairs Bureau, 1935:29). This needs to be further studied, based on more detailed, specific and comprehensive data.

In fact, there is a big contrast between workers' living standards in the first half of the 1930s and after 1937.¹²¹ According to the International Labor Office in Shanghai, taking Shanghai workers' cost-of-living cost in 1936 as 100, the index in 1939 rose to 203.25. The purchasing power of one Yuan Fiat Money fell to 0.492 Yuan. The nominal wage index for workers was 119.09 but the real wage index fell to 58.59. The size and speed of the fluctuation was unprecedented (Zhang, 2011:15). This also proves that workers' living standards and income in Shanghai during the first half of the 1930s were still basically stable despite the impact of The Great Depression and unemployment.

V.3 Migrant flows during the crisis

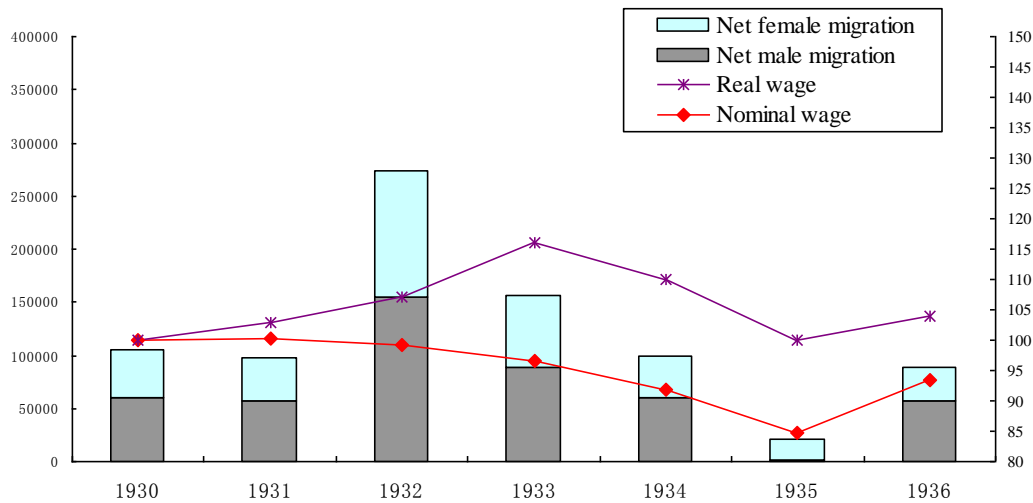
Some new findings can be made by comparing the migrant inflow into Shanghai and wage changes during The Great Depression.

1) Migrant inflows continued during the economic recession. Despite flagging economic growth after 1932, there was no large-scale outflow or a slackening of the inflow of migrants in Shanghai for this period, mainly due to the following reasons:

a) Overall living conditions were stable for workers in Shanghai. Industry kept developing and income and living cost index did not undergo big swings, and thus had minor impacts on migrants. Fig. V.6 shows that the changes in migrant flows were consistent with changes in real wages rather than in nominal wages. This means that the real living conditions of Shanghai workers had certain impacts on migrant inflows and outflows.

¹²¹ The real wage index has not been extended after 1937 because of the lack of suitable data.

**Fig. V.6 Salary and migration in Shanghai
(1930- 1936)**



Sources: Author, based on the sources in Fig. II.2 and Table V.19.

b) The income level in Shanghai was the highest in China in the 1930s. Although the income of migrant workers was relatively low, it was still high compared with that in other cities (especially those in rural areas). The economic crisis led to major dysfunctions in the rural economy and the bankruptcy of farmers. Many farmers migrated to cities in search of an income and job opportunities. Though many industries were badly hit by the crisis and lots of factories closed, unemployment was concentrated in some certain labour-intensive industries. Yet in general, Shanghai's demand for labour kept rising, making the city a very attractive destination for rural migrants. That is why the number of immigrants in Shanghai continued to swell. As long as they could find a job in Shanghai's factories, they would have a good chance of surviving, leading stable lives in Shanghai, and of becoming part of the city's skilled industrial workforce. Other migrants who failed to find a job in factories could also make ends meet by working in service sectors, such as rickshaw-pulling or by running their own small businesses.

c) The economic crisis meant many lost their jobs. However, if one takes a much longer view of Shanghai's economic development, one reaches the conclusion that unemployment was an abiding feature of the city. In fact, only a few industries were affected directly by The Great Depression (such as the silk yarn-spinning industry, and the cotton textile industry after 1932). Shanghai provided job opportunities for vast

numbers of rural migrant workers. The migrants would make the most of the opportunities arising from Shanghai's economic development to quickly blend in and find jobs. The fleeting prosperity in Shanghai's cotton textile industry at the beginning of the crisis from 1930 to 1931 sucked in many migrants, hence the exceptionally large migrant inflows in 1932.

2) After The Great Depression, women workers began to replace their male counterparts to work in factories. In particular, many female workers from Subei found jobs at cotton yarn factories.

The gender structure shifted in the late 1920s, especially at foreign-owned cotton yarn factories. To cut labour costs, manufacturers started to lay off male workers and hired women to replace them, given that they were much cheaper. Chapter IV proved the existence of a gender-based wage gap, which in some instances was the most important factor explaining wage differences. Thus textile factories recruited more women, especially from rural areas.

A man who used to work at the Naigai Cotton Factory No. 5 recalled the conversation between a manager and the male workers: "Our factory is about to close down and will go out of business. It is our plan to give you some money so that you can look for new jobs." (China Form 1933:15) The men were laid off one after another and then recruited women to fill their places. Most of the positions were taken by women in textile factories in the early 1930s, even for some of the heavy work. This trend strengthened after 1932 as the economic crisis became full-blown. For example, the proportion of female workers rose from 76.2 per cent to 82.2 per cent in Shenxin Textile No. 9 Factory (Table V.21)

Table V.21. Gender breakdown of the labour force at Shenxin Textile No.9 Factory during the Depression

Year	Male workers	Female workers	Total workers	Female per cent (%)
1932	1,263	4,039	5,302	76.2
1933	1,187	3,629	4,816	75.4
1934	877	3,944	4,821	81.8
1935	782	3,652	4,434	82.4
1936	851	3,928	4,779	82.2

Source: Shanghai Social Science Academy, 1980: 557; Honig, 1986: 55.

During this period, there was a marked drop in women's wages. Women's average daily wage rate in the silk filature industry fell from 0.487 in 1930 to 0.312 in 1934, and in the tobacco factories from 0.694 to 0.540. The average wage rate for all industries fell from 0.512 to 0.471. This saved huge labour cost for factories. Meanwhile, men's wages did not fall so it was also easier to fire female workers when the factory closed or went bankrupt. A textile factory manager at the time recalled: "If production becomes unstable and we have to sack people, it is much easier to sack women, who are not the breadwinners of their families." (Honig, 1986: 47)

This explains why migrant women outnumbered their male peers for the first time in 1935 when the economy was going through the worst of the crisis. This was especially true for female migrants from Subei. Unlike female migrants from other regions, Subei women would migrate to any places where there were jobs to be had and when they could not find a job in the handicraft industry in their hometowns. Some Subei women recalled: "They have seen so many friends and neighbours move to Shanghai, one after another, and who found jobs in the cotton factories, that they followed them". (*Shen Bao*, 4 Jan. 1930) Women from Subei were hardworking and had lower wage expectations. This helped them find jobs in Shanghai's textile factories during the crisis, especially in foreign (Japanese) factories. This changed the job prospects for migrant workers from Subei, who had previously found it very hard to get jobs in factories, and had either worked in low-level service jobs or simply could not get work.

In short, The Great Depression affected China's and Shanghai's economies and labour markets in ways that greatly differed from its impact on Western countries. China's Silver Standard and a sufficient money supply meant that China had no banking crisis. This in turn ensured the wheels of industry kept turning and that investment was forthcoming for industrial growth. Different sectors were affected by the crisis in different ways. Agriculture and the silk industry were hit by the slump earlier than the cotton industry. The impact of the crisis on labour-intensive industries led to many being laid off. However, unemployment was concentrated in several sectors, and Shanghai's total labour demand kept rising. Hence ongoing immigration during this period. The analysis of nominal wages and real wages shows that real wages grew slowly. Examination of the cost of living reveals that Shanghai workers' lives kept

stable. For all of the above reasons, peasants suffering the impact of the agrarian depression were quick to move to Shanghai to build a new life.

VI. Conclusion

This dissertation covered research on the migration, economy and society of China during the first few decades of the 20th century. By analysing the scale, features, and causes of massive rural-urban migration to Shanghai, it shed light on several important topics on China: population growth in big cities; rural development and the dilemma faced by peasants; industrialisation and globalisation. Under the last head, issues covered included: how China became part of the global economy for the first time; labour market segmentation; the wage gap; workers' living standards; the impact of The Great Depression).

The case of China has aroused growing scholarly interest in all these fields. The history of a country with a quarter of the world's population and that now has the world's second-biggest economy is seldom known abroad. Some exploratory studies have been carried out but they have concluded that classical Western theory and experience cannot explain China's case. The Asian colossus is labelled time and time again as an irksome 'exception to the rule'.

However, the historical exploration that forms the subject of this dissertation encountered several hurdles. The biggest one was lack of data. The basic statistic data does not exist and even China's exact population at the time is unknown. Other circumstances made it harder to collect the required data: most historical archives are tightly-controlled and the public, even academics, have very limited access to them. For non-Chinese scholars, the language is another obstacle. For these reasons, very few earlier studies were carried out. Searching for and compiling data in the first years of the research for this dissertation was a Herculean task.

Some detailed demographic and economic sources on Shanghai for this period made this research possible, including the official statistics of Shanghai's Government from 1926 to 1937, the archives of the native-place associations (*tong xiang hui*) in the Municipal Archives of Shanghai, newspapers and magazine articles, and some scholars' surveys during the Republican period. This study is one of the first to fully exploit these sources to perform quantitative and qualitative analysis.

Some main questions for this study were raised at the beginning of this research. Using the above sources and methods, the research findings yielded answers to these questions, which not only change our understanding of Chinese Economic History in the first decades of the 20th Century, but also contribute to some existing theories and debates, to wit:

(1) How many people emigrated to Shanghai during The Republic of China?

There were only incomplete, discontinuous data series and we did not even know the exact population of Shanghai. This research is one of the first attempts to quantify and reconstruct the cities population and migration series. Three series were constructed: (a) the population growth of Shanghai (1850-1949); (b) an estimate of migration to Shanghai during the same period; (c) the exact immigration numbers during the Nanjing Government Era (1927-1937). I showed how Shanghai's population grew over nine-fold in under a hundred years to become China's biggest city.

Compared with other large Chinese and non-Chinese cities during the same period, Shanghai's population was one of the fastest growing. This impressive growth was fuelled by a large, endless stream of migrants from all over China. Over 4 million immigrants flooded into Shanghai to make up over 80 per cent of the city's population. Such huge, long-term migrations are the historical exception.

(2) Who were the migrants to Shanghai?

Analysis of official registrations and the 'native-place associations' showed that most migrants came from the countryside. As with internal migration in other countries and periods, most rural migrants to Shanghai were poorly-educated young men and women, seeking jobs in industry. This population movement to Shanghai is not a unique case but is fairly typical of what happens in developing countries.

However, in comparison with other large cities, the internal migration to Shanghai had several special features. One was high geographical concentration, with over half of the city's population hailing from nearby provinces — Jiangsu and Zhejiang. These accounted for 80 per cent of all immigrants to the city and 60 per cent of Shanghai's

entire population. Given the cultural, social and economic differences between the provinces, they were often divided into two areas for academic purposes: Subei and Jiangnan. Segmentation existed among the immigrants from these two areas in terms of: social status; places of abode; daily life; especially immigrants' job opportunities, which were closely linked to and stratified by the migrants' places of origin.

(3) Why did they leave their homes and choose Shanghai?

It was commonly believed that overpopulation and lack of land resources were the reasons for the rural crisis and the high emigration in rural China. Yet nothing was known about the impact of international market and globalisation on China's rural economy. This research has shown that the exodus of farmers from the countryside stemmed from a complex combination of factors. First, agricultural productivity had stagnated for a long time and land holdings were unevenly distributed, consequently agriculture could not absorb population growth. This was the key problem underlying rural emigration. Second, non-agricultural production played a key role in the economic structure of China's rural areas. In some places, over half of peasants' income came from non-agricultural production. Thus regional differences should be taken into account and analysed separately.

Third, after China's opening up to foreign trade, China's agricultural and non-agricultural products were forced to compete with foreign products both at home and abroad. They were strongly affected by swings in international prices, which greatly affected rural non-agricultural production. The combination of competition and wildly fluctuating prices all but ruined China's rural economy. As a result, when 'push factors', such as natural disasters or economic crisis arose, hordes of labourers had to leave their villages to seek opportunities elsewhere.

With regard to 'pull' factors, Shanghai's case is consistent with migration theory and with the case of other international cities during industrialisation. The rapid development of trade, industries and business in Shanghai after China opened up to foreign trade and investment made Shanghai very wealthy. This great prosperity created a lot of jobs and was especially true once Shanghai's industrialisation got under way in

the 1930s, leading to high demand for workers in the manufacturing sectors. It was this more than anything else that made Shanghai such a powerful magnet for migrants.

(4) What was the situation of these immigrants in Shanghai's labour market?

Little was known about the economic and occupational structure of Shanghai. Immigrants were simply lumped together in previous studies on the city's labour market, and little or no attempt was made to discover key differences or inequalities among them.

This research first revealed the relative weights of industry and services in Shanghai's economic and occupational structure. Then it found that the main characteristic of the city's labor market was its segmentation, arising from immigrants's origins (specifically, whether they came from the Subei or the Jiangnan regions).

A regression analysis of income was used to verify this segmentation by origins, in addition to other traditional segmentations such as gender, age, occupations and the type of workers in Shanghai's labour market. This research is one of the first to conduct quantitative analysis of the wage gap in the city.

The dissertation is also an empirical contribution to Labour Market Segmentation Theory [LMST]. The segmentation of immigrants in Shanghai proved the existence of a dual labour market and traditional segmentation factors. Yet the common determinants (ethnic group, religion, nationality) defined by LMST cannot fully explain the observed inequity. That is because China's and Shanghai's cases are special ones. In internal migration in other countries, labour market segmentation is only embodied in the difference between locals and immigrants, or between immigrants from different native places concentrating in the same or similar trades. By contrast, in Shanghai's case, the position of the city's immigrants was largely determined by "where they were from." Based on this exceptional phenomenon in Shanghai, this research dissertation argued that regional origin was also an important determinant of labour market segmentation.

Another contribution made is that Shanghai's case has verified Chain and Network Theories. The social network and access to information for job-seeking were the main

reason for the segmentation of immigrants in Shanghai. The connections and native place associations of immigrants in the city gave them better or worse information for finding a job and adapting to the destination market. It was also proved that migration was not an individual decision but rather a collective one.

(5) Why did so many immigrants keep flooding into Shanghai during The Great Depression?

Previous studies on The Great Depression focused on Western countries, largely ignoring China and The Silver Standard underpinning its currency. We knew nothing about the crisis' impact on migratory flows. This research has established: (a) the impact of The Great Depression on China's economy; (b) the slump's impact on the labour market, by analysing unemployment and real wages. This study is also one of the first to use real wages in Shanghai to ascertain the impact of the crisis on immigrants.

The Great Depression affected Shanghai's economy and labour market in different ways from those in Western countries. The nation's use of The Silver Standard and its sufficient money supply meant that China was spared the banking crises that brought Western nations to their knees. This in turn meant that investment and liquidity kept pace with industry's needs. Consequently, demand for workers continued to grow and real wages, far from declining, showed slow growth. This was the fundamental reason why migrants continued to pour into Shanghai during the crisis.

On the other side, the crisis had varying impacts, depending on the sector considered. Agriculture and the silk industry were hit by the depression earlier than the cotton industry, due to the impact of the silver price and international demand factors. The impact of the crisis on labour-intensive industries led to sizeable lay-offs. However, these were concentrated in relatively few sectors. The problem was overcome because there was considerable overall demand for labour and it was growing.

Based on these empirical results, this research explained the connection between the economic crisis, unemployment and migration growth. According to migration theories, the economic crisis and recession should have made it harder to find a job and would therefore have depressed migration — particularly in relation to low-skilled would-be

immigrants. Yet Shanghai's situation was quite the opposite. Despite severe unemployment, the number of migrants went on rising. This phenomenon was due to a combination of: (1) the concentration of unemployment in certain sectors; (2) rising overall labour demand in Shanghai; (3) worse conditions in rural areas.

This research has thus contributed to our knowledge on China's and the world's economy during the first decades of the 20th Century, and to some recent debates touching on Shanghai's case.

1. Globalisation

When we talk about the first globalisation, we always forget both China's influence, and globalisation's impact on China's economy. After losing wars with Western countries (and Japan prior to The Second Sino-Japanese War), China was dragged into the international market. Imports and exports, agriculture and industries tightly linked China's economy with the rest of the world. Any changes in prices and/or demand would cause big impacts on the country's rural and urban economies. This was a factor that few considered in previous studies on China.

2. The Great Divergence and industrialisation.

The analysis on rural China contributed to the famous debate on 'The Great Divergence'. The root of this divergence between China and European countries lies in the Asian giant's rural development problems. Analysis has shown that China's farming was stuck in a rut, with static productivity and hopelessly inequitable land distribution. These factors and labour-intensive farming meant that without technology and land reform, China's agriculture simply could not absorb any more rural population. It was a fundamental problem in China's rural areas and was the deeper reason for large rural migrations to the towns.

3. The Great Depression.

This research also contributed to the debate on whether China's economy grew or stagnated during The Great Depression. I proved China's economy kept growing (albeit

slowly) during the crisis. China had sufficient money supply, the country's banking system was resilient and there were no runs on the banks like in some Western countries. This ensured investment and liquidity not only kept the wheels of industry turning but also delivered industrial growth. China's economy in 1930s was a shining example of how a market system can work very well without regulation and in which both families and companies could 'make free choices'.

For a hundred years or more, millions of migrants flooded into Shanghai. They came from different places and for different reasons yet they all shared the same dream — making a better life for themselves. Yet for the the great majority of immigrants, cruel reality often brought a rude awakening. The dreamers were Ningbo businessmen, building commercial empires but who ended up closing their stores and factories as the crisis dashed their hopes. They were women from Jiangnan, dreaming of a cushy desk job in a foreign bank but who ended up tending noisy textile machines endlessly spinning yarn. Then there were poor farmers from Subei who were doomed to pull rickshaws through the streets of The French Concession and who lived in overcrowded, ramshackle straw huts. The stories of these immigrants, their dreams and their fates are what made Shanghai what it is today and is now part of the history of Modern China.

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Appendix

Appendix II.1 Residents of Greater Shanghai Classified according to place of birth (1930-1935)

Province	1930		1931		1932		1933		1934		1935	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Shanghai	436,337	25.78	455,662	24.98	430,875	27.43	473,636	25.79	488,631	25.51	513,704	25.27
Jiangsu	669,253	39.55	725,470	39.77	619,298	39.42	725,510	39.50	751,531	39.23	797,843	39.25
Zhejiang	342,032	20.21	367,270	20.14	283,625	18.05	341,568	18.60	358,364	18.17	384,622	18.92
Guangdong	40,554	2.40	47,023	2.58	22,343	1.42	38,579	2.10	48,795	2.55	54,987	2.75
Anhui	60,013	3.55	64,882	3.56	65,324	4.16	79,852	4.35	86,510	4.52	91,726	4.52
Shandong	25,958	1.54	28,861	1.58	25,836	1.65	30,259	1.65	31,684	1.66	33,018	1.62
Hubei	24,270	1.43	27,291	1.50	26,798	1.71	28,836	1.57	34,211	1.79	35,100	1.72
Hebei	14,840	0.88	16,889	0.93	15,173	0.97	18,614	1.01	30,294	1.58	31,649	1.55
Hunan	8,200	0.48	9,414	0.52	9,256	0.59	10,810	0.59	11,401	0.60	12,276	0.60
Jiangxi	6,946	0.41	8,407	0.46	6,801	0.43	7,898	0.43	8,452	0.44	9,293	0.46
Fujian	12,173	0.72	13,454	0.74	11,052	0.70	12,963	0.71	13,196	0.69	13,351	0.65
Henan	4,872	0.29	6,213	0.34	5,706	0.36	7,758	0.42	8,306	0.44	8,859	0.43
Sichuan	2,420	0.14	2,648	0.14	1,798	0.12	2,028	0.11	2,134	0.11	2,193	0.11
Guangxi	846	0.05	975	0.05	637	0.04	1,065	0.06	1,129	0.06	1,147	0.06
Shanxi	383	0.02	382	0.02	306	0.02	380	0.02	405	0.02	424	0.02
Yunnan	320	0.02	325	0.02	146	0.01	213	0.01	216	0.01	232	0.01
Shaanxi	818	0.05	247	0.01	216	0.01	208	0.01	202	0.01	177	0.01
Guizhou	224	0.01	277	0.02	63	0.00	142	0.01	130	0.01	163	0.01
Gansu	138	0.01	188	0.01	50	0.00	44	0.00	37	0.00	30	0.00
Manchuria and others	212	0.01	319	0.02	327	0.02		0.00	653	0.03	754	0.04
Guangzhou	1,469	0.09	1,736	0.10	1,074	0.07		0.00	--	--	--	--
Nanjing	22,875	1.35	25,211	1.38	25,195	1.60	29,959	1.63	31,316	1.64	33,237	1.63
Hankou	4,066	0.24	5,115	0.28	4,535	0.29		0.00	--	--	--	--
Tianjin	8,178	0.48	9,662	0.53	9,069	0.58		0.00	--	--	--	--
Beiping	4,204	0.25	5,309	0.29	5,013	0.32	6,095	0.33	6,466	0.34	7,065	0.35
Total	1,692,335	100	1,823,989	100	1,571,089	100	1,836,629	100.00	1,914,694	100	2,032,399	100

Source: Statistics of Shanghai (published in 1933, 1934, 1935, 1936, 1937), The Shanghai Civic Association.

Appendix II.2 Chinese Residents in Shanghai's International Settlement

Classified according to place of Birth (1885-1930)

Province	1885		1890		1895		1900		1905	
	Total	%	Total	%	Total	%	Total	%	Total	%
Jiangsu	39604	36.2	60789	42.5	101176	46.1	141855	47.3	169001	43.3
Zhejiang	41304	37.8	52891	36.9	77533	35.4	109419	36.5	134033	34.3
Guangdong	21013	19.2	22295	15.6	31200	14.2	33561	11.2	54559	14.0
Anhui	2683	2.5	2201	1.5	2590	1.2	4320	1.4	7422	1.9
Shandong	374	0.3	520	0.4	720	0.3	1379	0.5	2863	0.7
Hubei	646	0.6	628	0.4	1121	0.5	2021	0.7	4744	1.2
Hebei	1911	1.7	1905	1.3	2237	1.0	2469	0.8	4674	1.2
Hunan	15	0.0	142	0.1	212	0.1	378	0.1	1266	0.3
Jiangxi	462	0.4	500	0.3	839	0.4	905	0.3	2659	0.7
Fujian	708	0.6	568	0.4	963	0.4	2184	0.7	3358	0.9
Henan	30	0.0	210	0.1	198	0.1	224	0.1	773	0.2
Sichuan	62	0.1	149	0.1	229	0.1	301	0.1	1235	0.3
Guangxi	1	0.0	22	0.0	21	0.0	172	0.1	619	0.2
Shanxi	483	0.4	267	0.2	200	0.1	373	0.1	785	0.2
Yunnan	3	0.0	36	0.0	12	0.0	25	0.0	602	0.2
Shaanxi	3	0.0	17	0.0	18	0.0	51	0.0	688	0.2
Guizhou	4	0.0	14	0.0	26	0.0	51	0.0	723	0.2
Gansu	--	--	--	--	11	0.0	20	0.0	393	0.1
Manchuria and others	--	--	--	--	--	--	--	--	--	--
Total	109306	100	143154	100	219306	100	299708	100	390397	100

Province	1910		1915		1920		1925		1930	
	Total	%	Total	%	Total	%	Total	%	Total	%
Jiangsu	180331	43.6	230402	42.7	292599	42.9	308096	42.7	500576	55.0
Zhejiang	168761	40.8	201206	37.3	235779	34.5	229059	31.7	304544	33.4
Guangdong	39366	9.5	44811	8.3	54016	7.9	51365	7.1	44502	4.9
Anhui	5263	1.3	15471	2.9	29077	4.3	26500	3.7	20537	2.3
Shandong	2197	0.5	5158	1.0	10228	1.5	12169	1.7	8759	1.0
Hubei	3353	0.8	7997	1.5	11253	1.6	14894	2.1	8267	0.9
Hebei	4623	1.1	7211	1.3	16259	2.4	15803	2.2	7032	0.8
Hunan	680	0.2	2798	0.5	2944	0.4	7049	1.0	4978	0.5
Jiangxi	1488	0.4	5353	1.0	7221	1.1	10506	1.5	4406	0.5
Fujian	2134	0.5	5165	1.0	9970	1.5	12464	1.7	3057	0.3

Henan	832	0.2	2481	0.5	3662	0.5	7049	1.0	2027	0.2
Sichuan	972	0.2	3244	0.6	3551	0.5	6694	0.9	1135	0.1
Guangxi	587	0.1	1464	0.3	1213	0.2	3746	0.5	224	0.0
Shanxi	704	0.2	2135	0.4	1929	0.3	5002	0.7	177	0.0
Yunnan	407	0.1	1025	0.2	584	0.1	3538	0.5	172	0.0
Shaanxi	630	0.2	1424	0.3	932	0.1	3547	0.5	167	0.0
Guizhou	469	0.1	944	0.2	469	0.1	2422	0.3	144	0.0
Gansu	516	0.1	926	0.2	686	0.1	2073	0.3	19	0.0
Manchuria and others	--	--	--	--	104	0.0	110	0.0	151	0.0
Total	413313	100	539215	100	682476	100	722086	100	910874	100

Source: Statistics of Shanghai 1933-1937; Zou 1980:112-117.

**Appendix IV.2 Factors Influencing Income of Industries in Shanghai (1930-1936)
(Regression of LOG Monthly Income)**

VARIABLE	Variable	Model 1 TOTAL SAMPLE	Model 2 TOTAL SAMPLE	Model 3 TIME WORKER	Model 4 TIME WORKER	Model 5 PIECE WORKER	Model 6 PIECE WORKER
GENDER (Ref.=male)	FEMALE	-0.3434*** (0.0227)	-0.3430*** (0.0229)	-0.2934*** (0.0279)	-0.2933*** (0.0280)	-0.3160*** (0.0413)	-0.3123*** (0.0421)
	1931	-0.0511 (0.0293)		-0.0453 (0.0299)		-0.0524 (0.0446)	
	1932	0.0129 (0.0313)		-0.0491 (0.0326)		0.0780 (0.0500)	
	1933	-0.0578* (0.0282)		-0.0513 (0.0303)		-0.1259** (0.0464)	
YEAR (Ref.=1930)	1934	-0.0450 (0.0267)		-0.0235 (0.0296)		-0.0989* (0.0417)	
	1935	-0.1463*** (0.0289)		-0.1083*** (0.0317)		-0.2410*** (0.0476)	
	1936	-0.0988*** (0.0273)		-0.0931** (0.0317)		-0.1526*** (0.0430)	
1930-1936			-0.0196*** (0.0037)		-0.0137** (0.0043)		-0.0358*** (0.0063)
ORIGIN REGION (Ref.=Jiangnan)	Subei	-0.3440*** (0.0640)	-0.3462*** (0.0656)	0.1913* (0.0908)	0.1883 (0.0960)	-0.5176*** (0.0685)	-0.5308*** (0.0712)
	Others	-0.0979 (0.0905)	-0.0968 (0.0902)	-0.0059 (0.0690)	-0.0071 (0.0711)	-0.5131*** (0.0937)	-0.5137*** (0.0934)
TYPE OF WORKERS (Ref. = time worker)	PIECE	0.1148*** (0.0219)	0.1154*** (0.0219)				
WORKING HOURS		0.0451*** (0.0119)	0.0471*** (0.0122)	-0.0020 (0.0316)	0.0006 (0.0314)	0.0602*** (0.0136)	0.0704*** (0.0135)
	Match frame setting	0.0891 (0.0735)	0.0917 (0.0705)	0.0885 (0.0733)	0.0887 (0.0704)	(omitted)	(omitted)
	Oiling & head dipping	0.6943*** (0.1977)	0.6966*** (0.2102)	0.1865* (0.0900)	0.1596 (0.0877)	-0.2374 (0.2127)	-0.2805 (0.2247)
	Match frame offsetting	0.5851** (0.1997)	0.5881** (0.2115)	0.0326 (0.0971)	0.0129 (0.0956)	-0.3170 (0.2229)	-0.3617 (0.2280)
	Box filling	0.4240 (0.2305)	0.4121 (0.2420)	0.0960 (0.0972)	0.0726 (0.0946)	-1.2784*** (0.2310)	-1.3924*** (0.2349)
	Box painting	0.5278* (0.2065)	0.5296* (0.2178)	-0.0019 (0.1123)	-0.0216 (0.1100)	-0.3180** (0.1227)	-0.3212* (0.1264)
	Packing	0.3883 (0.2019)	0.3798 (0.2136)	0.0467 (0.1053)	0.0188 (0.1047)	-0.7181** (0.2170)	-0.7973*** (0.2203)
	Plaque making	0.2047* (0.0908)	0.2096* (0.0905)	0.5889*** (0.1459)	0.5911*** (0.1452)	(omitted)	(omitted)

SECTOR Ref category: splint ordering

Frit making	0.2593* (0.1135)	0.2646* (0.1101)	0.3146** (0.0954)	0.3155** (0.0966)	(omitted)	(omitted)
Enamelling	0.3559** (0.1145)	0.3611** (0.1096)	0.4270*** (0.0872)	0.4281*** (0.0871)	(omitted)	(omitted)
Color decorating	0.4053* (0.1839)	0.4118* (0.1967)	0.0791 (0.1516)	0.0644 (0.1523)	-1.1197*** (0.1537)	-1.1954*** (0.1604)
Blowing	0.3775 (0.2145)	0.3815 (0.2261)	-0.5310*** (0.1037)	-0.5527*** (0.1044)	omitted	omitted
Carding	0.5083* (0.2125)	0.5167* (0.2256)	-0.3947*** (0.1005)	-0.4175*** (0.1007)	-0.6665*** (0.1318)	-0.6681*** (0.1324)
Roving	0.4523* (0.2066)	0.4495* (0.2185)	-0.4161*** (0.1083)	-0.4406*** (0.1077)	-0.8565*** (0.1521)	-0.9565*** (0.1592)
Spinning	0.5331* (0.2333)	0.5310* (0.2434)	-0.2416 (0.1343)	-0.2633* (0.1336)	-0.9599*** (0.2463)	-1.0557*** (0.2484)
Twisting	0.5880* (0.2290)	0.5901* (0.2401)	-0.4056** (0.1394)	-0.4258** (0.1404)	-0.6422* (0.2860)	-0.7100* (0.2820)
Reeling	0.6318** (0.2169)	0.6393** (0.2279)	-0.2917** (0.1032)	-0.3118** (0.1036)	-0.6815* (0.3403)	-0.7036* (0.2947)
Baling	0.3174 (0.2145)	0.3180 (0.2263)	-0.5907*** (0.1003)	-0.6126*** (0.0993)	-0.8899*** (0.1915)	-0.9681*** (0.1980)
Waste Cotton	0.5367* (0.2121)	0.5361* (0.2242)	-0.3792*** (0.1023)	-0.4021*** (0.1020)	-0.7101*** (0.1933)	-0.8185*** (0.1966)
Book binding	1.3863*** (0.2157)	1.3930*** (0.2240)	0.8847*** (0.1738)	0.8914*** (0.1661)	0.3561 (0.2356)	0.2895 (0.2286)
Finishing	(omitted)	(omitted)	(omitted)	(omitted)	-0.8064*** (0.0729)	-0.8186*** (0.0755)
Leaf	0.3030** (0.1117)	0.3001** (0.1110)	0.7071*** (0.1506)	0.7040*** (0.1513)	-1.3103*** (0.1186)	-1.3381*** (0.1137)
Letter press printing	0.8431*** (0.0777)	0.8484*** (0.0778)	0.7079*** (0.0865)	0.7114*** (0.0874)	0.6140*** (0.1383)	0.6004*** (0.1248)
Manufacturing	0.0703 (0.0910)	0.0717 (0.0906)	0.5649*** (0.0691)	0.5638*** (0.0712)	-0.3046** (0.0965)	-0.3041** (0.0964)
Off-set printing	1.5737*** (0.1961)	1.5784*** (0.2057)	1.0641*** (0.1339)	1.0479*** (0.1331)	0.7039*** (0.1544)	0.6702*** (0.1595)
Quilling	0.5959** (0.2143)	0.5935** (0.2267)	-0.2100 (0.1250)	-0.2358 (0.1258)	-0.6337** (0.2136)	-0.7203*** (0.2161)
Raw material	0.1078 (0.1147)	0.1085 (0.1083)	0.4711*** (0.1356)	0.4706*** (0.1356)	(omitted)	(omitted)
Type casting & stereo typing	0.8951*** (0.1272)	0.8983*** (0.1246)	0.9481*** (0.1568)	0.9559*** (0.1488)	0.9575*** (0.1090)	0.9297*** (0.0973)
Warping	0.8199*** (0.2049)	0.8198*** (0.2167)	-0.0510 (0.1042)	-0.0729 (0.1045)	-0.4356* (0.1696)	-0.5225** (0.1717)
Weaving	0.9890*** (0.2136)	0.9903*** (0.2260)	0.0610 (0.0793)	0.0403 (0.0787)	-0.2165 (0.1872)	-0.3755* (0.1833)

Basin workers	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Blacksmiths	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Bleaching & dyeing	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Bleaching & mixing	0.2246 (0.1295)	0.2258 (0.1224)	-0.1227 (0.1474)	-0.1230 (0.1473)	(omitted)	(omitted)
Blending	-0.1447 (0.1299)	-0.1378 (0.1261)	-0.2373 (0.1544)	-0.2363 (0.1550)	(omitted)	(omitted)
Boarding	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Box filling	-0.6257* (0.2487)	-0.6010* (0.2606)	0.1125 (0.0772)	0.1319 (0.0715)	0.2619 (0.2026)	0.3612 (0.2058)
Box painting	-0.2750 (0.2088)	-0.2651 (0.2221)	0.2762** (0.0939)	0.2919** (0.0900)	(omitted)	(omitted)
Bundling	-0.0981 (0.1969)	-0.0942 (0.2091)	0.2266** (0.0859)	0.2471** (0.0851)	0.4774* (0.1954)	0.5259** (0.1980)
Bundling & smashing	-0.5082* (0.2256)	-0.5179* (0.2337)	0.0169 (0.2059)	0.0179 (0.1967)	-0.0956 (0.2315)	-0.0635 (0.2211)
Cake grinding	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Carding	-0.3736 (0.1932)	-0.3798 (0.2070)	0.2354** (0.0784)	0.2564** (0.0782)	-0.1829 (0.1295)	-0.2221 (0.1275)
Case packing	0.1828 (0.2391)	0.1907 (0.2500)	0.6072*** (0.1587)	0.6316*** (0.1600)	(omitted)	(omitted)
Chemical preparing	-0.4969* (0.1980)	-0.4946* (0.2097)	0.0115 (0.1002)	0.0389 (0.0971)	-0.1786 (0.1940)	-0.1272 (0.2049)
Chinese type setting	(omitted)	(omitted)	(omitted)	(omitted)	-0.2584* (0.1154)	-0.2595** (0.1000)
Cigarette making	0.4031* (0.1590)	0.4054** (0.1541)	(omitted)	(omitted)	(omitted)	(omitted)
Color decorating	-0.2732 (0.1907)	-0.2733 (0.2025)	0.0984 (0.1694)	0.1153 (0.1685)	(omitted)	(omitted)
Conditioning or re-ordering	0.2110* (0.1006)	0.2176* (0.0955)	-0.1016 (0.1493)	-0.0997 (0.1504)	(omitted)	(omitted)
Cone winding	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Cooking	0.2887** (0.1043)	0.2877** (0.0974)	-0.0112 (0.1262)	-0.0140 (0.1283)	(omitted)	(omitted)
Coppersmiths	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)

Counting & assorting	0.4053*** (0.1012)	0.4019*** (0.1005)	-0.0466 (0.0783)	-0.0467 (0.0773)	0.1892 (0.1240)	0.1373 (0.1275)
Counting & Receiving	-0.0071 (0.1486)	-0.0070 (0.1515)	-0.5399*** (0.1305)	-0.5395*** (0.1339)	(omitted)	(omitted)
Cutting	0.2135** (0.0703)	0.2135*** (0.0636)	-0.1099 (0.1322)	-0.1114 (0.1313)	(omitted)	(omitted)
Design applying	-0.2943 (0.2341)	-0.2988 (0.2460)	0.3960 (0.4131)	0.4225 (0.4021)	-0.0251 (0.2061)	0.0833 (0.2069)
Designing	-0.5052** (0.1883)	-0.5092* (0.2022)	-0.1290 (0.1650)	-0.1122 (0.1645)	-0.0289 (0.2291)	0.0227 (0.2314)
Doubling	-0.4602* (0.2052)	-0.4606* (0.2190)	0.4440** (0.1354)	0.4668*** (0.1385)	-0.2120 (0.2470)	-0.1881 (0.2517)
Drawing	-0.3146 (0.1779)	-0.3116 (0.1913)	0.1011 (0.0838)	0.1217 (0.0824)	0.1251 (0.1250)	0.1823 (0.1306)
Drying	0.5570*** (0.1635)	0.5592*** (0.1573)	0.1538 (0.0934)	0.1538 (0.0957)	(omitted)	(omitted)
Dusting	0.3587*** (0.1024)	0.3579*** (0.0912)	0.0552 (0.1237)	0.0526 (0.1231)	(omitted)	(omitted)
Dyeing	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Electro typing	0.2855 (0.1539)	0.2908* (0.1481)	-0.0414 (0.1718)	-0.0415 (0.1668)	(omitted)	(omitted)
Enamelling	(omitted)	(omitted)	-0.0147 (0.0807)	-0.0149 (0.0792)	(omitted)	(omitted)
Engraving	(omitted)	(omitted)	-0.1486 (0.1753)	-0.1505 (0.1678)	(omitted)	(omitted)
Filling winding	-0.3775* (0.1868)	-0.3746 (0.1990)	0.0626 (0.1072)	0.0838 (0.1064)	0.0366 (0.1491)	0.0908 (0.1530)
Finishing	-0.8464*** (0.2139)	-0.8568*** (0.2275)	0.1240 (0.1175)	0.1379 (0.1217)	-0.5956* (0.2391)	-0.5056* (0.2308)
Finishing & assorting	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Finishing & baling	0.4303*** (0.0914)	0.4329*** (0.0912)	-0.0473 (0.0763)	-0.0492 (0.0783)	0.5175*** (0.0745)	0.5082*** (0.0788)
Finishing & pressing	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Fitters	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Flour filling	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Folding	-0.6863**	-0.6921**	-0.1816	-0.1708	-0.2452	-0.2127

	(0.2321)	(0.2395)	(0.2429)	(0.2390)	(0.2418)	(0.2307)
Foreign type setting	0.1593	0.1595	0.0555	0.0558	(omitted)	(omitted)
	(0.0847)	(0.0821)	(0.0777)	(0.0810)		
Grinding	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Head dipping	-0.6883**	-0.6873**	-0.3394	-0.3195	-0.1561	-0.1121
	(0.2334)	(0.2460)	(0.2712)	(0.2710)	(0.2118)	(0.2264)
Knitting	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Knotting	-0.4115	-0.4151	0.7169*	0.7347*	-0.2573	-0.2222
	(0.2217)	(0.2343)	(0.2960)	(0.2968)	(0.1868)	(0.1904)
Letter press printing	0.0954	0.0954	0.1794	0.1818	-0.2764*	-0.2791*
	(0.0823)	(0.0816)	(0.1096)	(0.1122)	(0.1290)	(0.1213)
Lettering	-0.2231	-0.2372	0.1286	0.1417	(omitted)	(omitted)
	(0.2171)	(0.2300)	(0.2059)	(0.2077)		
Looping	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Match frame offsetting	-0.5391**	-0.5377*	-0.0520	-0.0321	-0.1225	-0.0750
	(0.2008)	(0.2137)	(0.1151)	(0.1131)	(0.2032)	(0.2099)
Match frame setting	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Milling	0.0011	0.0010	0.0030	0.0029	(omitted)	(omitted)
	(0.0864)	(0.0783)	(0.0777)	(0.0779)		
Mixing	-0.3318	-0.3310	0.1945*	0.2145*	(omitted)	(omitted)
	(0.1943)	(0.2068)	(0.0847)	(0.0856)		
Moulders	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
New hands	-0.6758**	-0.6784**	-0.0350	-0.0187	-0.4072*	-0.2861
	(0.2143)	(0.2282)	(0.1254)	(0.1200)	(0.1916)	(0.1907)
Off-set printing	-0.6706***	-0.6691**	-0.3224*	-0.3054*	-0.2434	-0.2213
	(0.2025)	(0.2114)	(0.1316)	(0.1293)	(0.1812)	(0.1842)
Oil pressing	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Oil refining	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
oiling	-0.5506*	-0.5494*	-0.1365	-0.1167	-0.0721	-0.0267
	(0.2248)	(0.2385)	(0.1909)	(0.1908)	(0.2425)	(0.2598)
Others	-0.4183*	-0.4176*	0.1108	0.1307*	-0.0457	-0.0053
	(0.1857)	(0.1983)	(0.0581)	(0.0560)	(0.1766)	(0.1769)
Packet packing & tin packing	0.0511	0.0658	0.6371**	0.6636**	-0.0159	0.0516
	(0.2363)	(0.2464)	(0.2226)	(0.2211)	(0.2116)	(0.2132)

Packing	0.1827 (0.2124)	0.1895 (0.2264)	(omitted)	(omitted)	0.7515*** (0.2061)	0.7998*** (0.2110)
Paper making	0.4477*** (0.1025)	0.4465*** (0.0992)	0.0042 (0.0845)	0.0026 (0.0841)	(omitted)	(omitted)
Paper receiving	0.0055 (0.1075)	0.0077 (0.1073)	-0.4669*** (0.0893)	-0.4674*** (0.0906)	(omitted)	(omitted)
Pattern makers	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Photo engraving	0.2451* (0.1214)	0.2471* (0.1179)	0.0117 (0.1369)	0.0086 (0.1284)	-0.1650** (0.0591)	-0.1656** (0.0626)
Pickling	0.0176 (0.1056)	0.0176 (0.0977)	0.0028 (0.0950)	0.0026 (0.0933)	(omitted)	(omitted)
Plaque burning	(omitted)	(omitted)	-0.3216* (0.1465)	-0.3232* (0.1457)	(omitted)	(omitted)
Plate making	0.1251 (0.1675)	0.1241 (0.1828)	0.5020*** (0.1376)	0.5178*** (0.1364)	(omitted)	(omitted)
Pressing	0.1990 (0.1126)	0.2029 (0.1078)	-0.2049 (0.1574)	-0.2064 (0.1551)	(omitted)	(omitted)
Printing	(omitted)	(omitted)	0.2975 (0.1802)	0.3172 (0.1829)	(omitted)	(omitted)
Pulping	0.3092** (0.0997)	0.3086*** (0.0897)	0.0025 (0.1211)	0.0001 (0.1214)	(omitted)	(omitted)
Quiling	-0.5511* (0.2142)	-0.5479* (0.2272)	0.2069 (0.1475)	0.2295 (0.1504)	-0.1404 (0.2354)	-0.0971 (0.2405)
Raising & refining	0.4036*** (0.1127)	0.4136*** (0.1146)	0.0553 (0.0968)	0.0596 (0.0997)	(omitted)	(omitted)
Raw materials	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Reeling	-0.4646* (0.1963)	-0.4763* (0.2069)	0.1979** (0.0715)	0.1894** (0.0688)	-0.0593 (0.3371)	-0.0742 (0.2889)
Repairing	0.0185 (0.0880)	0.0186 (0.0757)	(omitted)	(omitted)	(omitted)	(omitted)
Rib knitting	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Ring spinning	-0.2771 (0.2163)	-0.2749 (0.2273)	0.1823 (0.1247)	0.2029 (0.1233)	0.1757 (0.2494)	0.2346 (0.2449)
Roving	-0.2731 (0.1839)	-0.2668 (0.1969)	0.1544 (0.0870)	0.1771* (0.0860)	0.2241 (0.1367)	0.2907* (0.1430)
Scoutching	-0.3000 (0.1919)	-0.3011 (0.2041)	0.2331** (0.0758)	0.2530*** (0.0754)	(omitted)	(omitted)
Silk waste preparing	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)

Sizing	-0.4470*	-0.4484*	0.3421***	0.3623***	-0.1725	-0.1336
	(0.1935)	(0.2063)	(0.0978)	(0.0986)	(0.1622)	(0.1649)
Smelting	0.1809*	0.1808*	0.1833*	0.1832*	(omitted)	(omitted)
	(0.0883)	(0.0802)	(0.0818)	(0.0805)		
Sorting	-0.0728	-0.0693	-0.3761***	-0.3755***	-0.9113***	-0.9518***
	(0.1226)	(0.1158)	(0.0805)	(0.0826)	(0.1127)	(0.1084)
Spinning	-0.5783**	-0.5773**	0.3398*	0.3627*	-0.4844*	-0.4606*
	(0.2069)	(0.2201)	(0.1380)	(0.1407)	(0.2124)	(0.2142)
Splint bundling	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Splint ordering	0.0739	0.0807	-0.0394	-0.0381	-0.4285**	-0.4277**
	(0.0909)	(0.0928)	(0.0874)	(0.0863)	(0.1387)	(0.1388)
Stereo typing	0.2584	0.2638	(omitted)	(omitted)	-0.2538*	-0.2391*
	(0.1403)	(0.1351)			(0.1077)	(0.0930)
Stripping	-0.2976	-0.2972	0.2506**	0.2715**	(omitted)	(omitted)
	(0.1941)	(0.2082)	(0.0873)	(0.0862)		
Transferring	-0.4496*	-0.4523*	-0.0964	-0.0760	(omitted)	(omitted)
	(0.2013)	(0.2109)	(0.1176)	(0.1178)		
Trimming & binding	-0.5516*	-0.5583*	-0.1215	-0.1277	-0.0970	-0.0586
	(0.2257)	(0.2338)	(0.1878)	(0.1836)	(0.2444)	(0.2340)
Turners	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Twisting	-0.3076	-0.3044	0.3597*	0.4010**	0.0121	0.0432
	(0.2047)	(0.2163)	(0.1452)	(0.1345)	(0.2489)	(0.2427)
Type casting	-0.0555	-0.0537	-0.2615	-0.2639	-0.5949***	-0.5843***
	(0.1294)	(0.1241)	(0.1478)	(0.1394)	(0.1461)	(0.1276)
Warp winding	-0.6237**	-0.6273**	-0.0496	-0.0334	-0.3104	-0.2620
	(0.1948)	(0.2067)	(0.1142)	(0.1108)	(0.1846)	(0.1879)
Warping	-0.0191	-0.0156	0.2535*	0.2787**	0.4395**	0.4929**
	(0.1913)	(0.2038)	(0.1009)	(0.1023)	(0.1654)	(0.1683)
Waste cotton picking	-0.6099**	-0.6094**	-0.0127	0.0057	-0.3565	-0.2857
	(0.1911)	(0.2039)	(0.0697)	(0.0694)	(0.1930)	(0.1929)
Weaving	-0.3390	-0.3400	(omitted)	(omitted)	-0.0895	0.0316
	(0.1994)	(0.2131)			(0.1818)	(0.1791)
Weighing	-0.3691	-0.3619	0.1711*	0.1911*	-0.0087	0.0661
	(0.1938)	(0.2065)	(0.0842)	(0.0820)	(0.2073)	(0.2071)
Wheat filling	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Winding	-0.4397*	-0.4403*	0.3397**	0.3626**	-0.0752	-0.0400
	(0.1970)	(0.2099)	(0.1174)	(0.1213)	(0.2034)	(0.2063)
Wrapping	-0.6241*	-0.6091*	0.2507**	0.2747**	-0.2733	-0.2141
	(0.2464)	(0.2602)	(0.0932)	(0.0894)	(0.2188)	(0.2217)
Wrapping & boxing	-0.2669	-0.2494	0.1328	0.1620	-0.3655	-0.2722

	(0.2428)	(0.2521)	(0.1665)	(0.1693)	(0.2110)	(0.2130)
Yarn winding	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Constant	2.2952*** (0.1531)	40.1485*** (7.2441)	2.6720*** (0.3224)	29.1678*** (8.2918)	3.2888*** (0.1285)	72.2810*** (12.1516)

N	1329	1329	836	836	493	493
r ² _a	0.7015	0.6980	0.7013	0.7002	0.8145	0.8056

Legend: Standard errors in parenthesis. * p<.05; ** p<.01; *** p<.001

Source: Calculation with data of *Labour statistics in Shanghai (1930-1937)*.

Appendix V.1 Retail prices in Shanghai (1926-1937)

Category	Commodities	Annual consumption	Unit	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Food	Unglotionous Rice	5.014	Shi	13.342	12.25	9.372	11.678	14.77	11.31	10.3	7.567	9.333	10.872	9.943
	Sien Rice	3.37	Shi	11.988	11.174	9.171	11.42	13.65	10.962	9.595	7.679	9.007	10.094	9.735
	Glutenous Rice	0.118	Shi	13.877	12.352	11.351	14.35	14.693	11.307	11.816	8.916	10.41	10.994	10.348
	Wheat Flour	1.122	Parke	3.231	3.278	3.102	3.202	3.5	2.925	2.818	2.425	2.289	2.6	3.448
	Fresh Noodle	38.117	Jin	0.078	0.072	0.066	0.065	0.076	0.074	0.07	0.061	0.058	0.059	0.074
	Bean Curd	459.152	Piece	0.0077	0.0072	0.007	0.0068	0.0071	0.0074	0.007	0.0066	0.006	0.0061	0.0072
	Dried Bean Curd	207.497	Piece	0.0058	0.0055	0.0053	0.0059	0.0071	0.0074	0.007	0.0066	0.006	0.0061	0.0074
	Sheet Bean Curd	382.186	Sheet	0.0046	0.0043	0.0042	0.0046	0.0054	0.0056	0.0051	0.0048	0.005	0.0044	0.0051
	Fried Bean Curd	4.138	Jin	0.21	0.197	0.191	0.207	0.243	0.255	0.295	0.255	0.242	0.225	0.251
	Sprouted Broad Bean	22.656	Jin	0.033	0.038	0.038	0.039	0.046	0.056	0.057	0.05	0.042	0.039	0.042
	Fresh Mung Bean Starch in Strips	22.75	Jin	0.052	0.049	0.048	0.047	0.049	0.058	0.059	0.052	0.045	0.042	0.046
	Yellow Soy Bean Sprouts	49.735	Jin	0.03	0.036	0.037	0.032	0.035	0.038	0.038	0.032	0.029	0.027	0.033
	Hsueh-li-hong	67.125	Jin	0.035	0.037	0.039	0.045	0.053	0.054	0.049	0.054	0.045	0.039	0.055
	Chin-ts'ai	304.145	Jin	0.024	0.049	0.028	0.025	0.031	0.045	0.036	0.036	0.027	0.017	0.035
Turnips	52.21	Jin	0.024	0.034	0.035	0.03	0.036	0.038	0.034	0.031	0.025	0.023	0.034	

	Sweet Potatoes	18.39	Jin	0.03	0.034	0.033	0.034	0.041	0.045	0.042	0.03	0.029	0.027	0.036
	Allium Odorum	22.136	Jin	0.04	0.044	0.038	0.04	0.045	0.051	0.078	0.051	0.071	0.052	0.06
	Spinach	17.116	Jin	0.037	0.049	0.032	0.029	0.049	0.045	0.047	0.04	0.022	0.021	0.042
	Fresh Pork	48.06	Jin	0.274	0.28	0.299	0.293	0.314	0.335	0.37	0.313	0.282	0.244	0.292
	Fresh Beef	10.06	Jin	0.208	0.212	0.213	0.228	0.248	0.27	0.309	0.268	0.242	0.222	0.239
	Salted Pork	6.918	Jin	0.259	0.28	0.318	0.293	0.285	0.326	0.307	0.327	0.276	0.256	0.301
	Chicken	2.948	Jin	0.344	0.375	0.392	0.36	0.391	0.436	0.451	0.395	0.324	0.302	0.326
	Silver Carp	4.158	Jin	0.391	0.352	0.354	0.337	0.406	0.442	0.376	0.423	0.419	0.376	0.377
	Fresh Fish	32.996	Jin	0.173	0.152	0.16	0.173	0.187	0.216	0.18	0.192	0.173	0.149	0.163
	Salted White Fish	9.918	Jin	0.106	0.102	0.109	0.147	0.143	0.183	0.168	0.14	0.158	0.141	0.144
	Fresh Duck's Egg	84.932	Piece	0.023	0.027	0.026	0.028	0.032	0.032	0.027	0.024	0.021	0.021	0.024
	Soy Bean Oil	68.318	Jin	0.173	0.193	0.206	0.195	0.221	0.187	0.169	0.171	0.126	0.169	0.241
	Soya Bean Sauce	2.638	Jin	0.062	0.068	0.073	0.073	0.084	0.085	0.374	0.326	0.298	0.271	0.307
	Lard	72.775	Jin	0.28	0.293	0.304	0.305	0.319	0.353	0.083	0.09	0.092	0.091	0.099
	Salt	37.575	Jin	0.047	0.043	0.061	0.067	0.069	0.071	0.071	0.082	0.102	0.104	0.112
	White Sugar	10.307	Jin	0.082	0.096	0.088	0.095	0.099	0.136	0.202	0.214	0.182	0.176	0.205
Houserent	2-Story House with Courtyard	0.22	Jian	2.776	2.757	2.837	2.918	2.988	3.186	3.272	3.276	3.286	3.228	3.11
	2-Story House with no Courtyard	0.58	Jian	1.969	1.848	1.878	1.963	2.07	2.215	2.271	2.529	2.536	2.552	2.495
	One-Story House	0.54	Jian	1.972	2.003	2.052	0.119	2.14	2.29	2.343	2.395	2.402	2.236	2.149
Clothing	Grey Sheetings	6.253	Chi	0.085	0.087	0.092	0.093	0.092	0.1	0.1	0.085	0.081	0.078	0.085
	Grey Shirtings	19.643	Chi	0.108	0.107	0.105	0.109	0.113	0.119	0.122	0.098	0.088	0.086	0.091
	Stripped Shirtings	20.713	Chi	0.06	0.06	0.06	0.067	0.067	0.072	0.071	0.065	0.061	0.057	0.06
	Printed Shirtings	9.159	Chi	0.102	0.102	0.094	0.091	0.101	0.124	0.135	0.119	0.106	0.102	0.097
	White Shirtings	5.155	Chi	0.124	0.124	0.131	0.139	0.14	0.167	0.153	0.148	0.138	0.13	0.128
	Native Sheetings	3.696	Chi	0.04	0.039	0.04	0.045	0.048	0.057	0.058	0.053	0.049	0.049	0.046
	Fancy Twills	10.957	Chi	0.158	0.155	0.154	0.17	0.166	0.194	0.197	0.161	0.144	0.137	0.146
	Cotton Flannel	5.09	Chi	0.106	0.105	0.109	0.11	0.106	0.146	0.143	0.099	0.078	0.076	0.083
	Jeans and Drills	3.241	Chi	0.104	0.108	0.108	0.107	0.11	0.122	0.123	0.097	0.086	0.083	0.09

	Raw Cotton	1.479	Jin	0.545	0.481	0.559	0.524	0.573	0.622	0.604	0.511	0.452	0.447	0.477
	Cotton Socks	3.948	Shuang	0.28	0.28	0.28	0.35	0.35	0.42	0.42	0.314	0.287	0.276	0.272
Fuels	Coal	171.543	Jin	0.014	0.014	0.013	0.013	0.015	0.017	0.017	0.015	0.014	0.013	0.014
	Kerosene	63.499	Jin	0.061	0.068	0.068	0.073	0.111	0.154	0.143	0.113	0.11	0.123	0.136
	Rirewood	117.897	Bundle	0.046	0.056	0.055	0.054	0.053	0.057	0.053	0.05	0.044	0.037	0.042
	Useless Timber	493.874	Jin	0.009	0.009	0.01	0.012	0.013	0.013	0.014	0.015	0.014	0.013	0.014
	Bean Stalks	185.451	Jin	0.0076	0.0081	0.0081	0.0084	0.0089	0.0094	0.0108	0.0088	0.008	0.0069	0.0063
	Raw Straw	205.368	Jin	0.0039	0.004	0.0044	0.005	0.0068	0.0063	0.0073	0.0049	0.004	0.0043	0.0043
	Matches	90.052	Box	0.0077	0.0072	0.007	0.007	0.009	0.013	0.0104	0.0099	0.009	0.0092	0.01
	Charcoal	0.68	Basket	0.88	0.944	0.894	0.958	0.981	0.99	0.966	0.92	0.858	0.825	0.929
Other items	Soap	50.827	Piece	0.051	0.05	0.049	0.051	0.058	0.065	0.065	0.06	0.055	0.05	0.051
	Toilet Paper	15.244	90 Sheets	0.068	0.075	0.075	0.07	0.078	0.083	0.076	0.072	0.067	0.065	0.067
	Cigarette	231.869	Box	0.035	0.036	0.042	0.045	0.048	0.056	0.051	0.048	0.048	0.046	0.047
	Shao-shing	44.597	Jin	0.078	0.078	0.08	0.082	0.09	0.09	0.083	0.079	0.091	0.095	0.094
	Kao-liang	25.14	Jin	0.106	0.116	0.117	0.122	0.132	0.133	0.127	0.132	0.147	0.149	0.152
	Tea	2.849	Jin	0.237	0.237	0.284	0.284	0.296	0.332	0.332	0.332	0.332	0.35	0.35
	Hot Water	443.6469	10 Ladle	0.014	0.014	0.017	0.017	0.018	0.019	0.017	0.017	0.016	0.015	0.017

Sources: Shanghai Wage Statistics (1936) and Shanghai Labour Statistics(1930-1937).