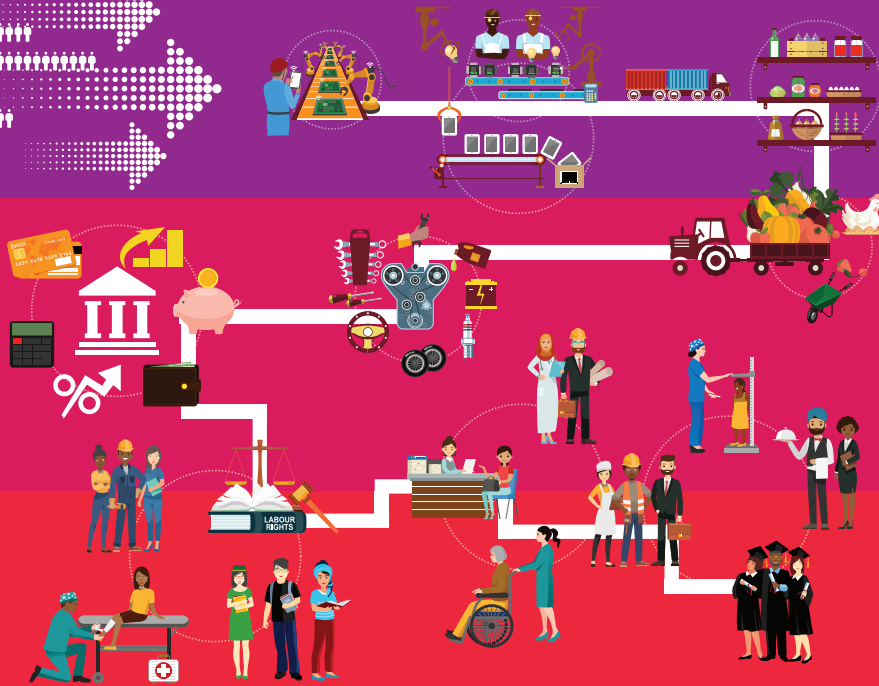




How Immigrants Contribute to Kyrgyzstan's Economy



KYRGYZSTAN

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Foreword

Kyrgyzstan is both an immigration and emigration country. In 2015, its roughly 204 382 immigrants represented 3.4% of the population, while emigrants represented 12.8% of the population. Despite the comparatively low number of immigrants, foreign-born workers, investors and entrepreneurs nonetheless play an important role in selected economic sectors. Yet while there have been some efforts to understand the economic role of emigration for the economy, the empirical evidence on the degree to which immigration affects Kyrgyzstan is insufficient. More systematic analyses are necessary to better understand how immigrants integrate and what development impact they have. Such analyses can better inform what policy responses should be instituted for the benefit of both immigrants and destination countries.

The OECD Development Centre, the International Labour Organization (ILO) and the European Commission have worked together to tackle these challenging questions. Working across different contexts, the goal is to help countries design effective policies for leveraging immigration for positive development outcomes. This has included providing advice on the governance of comprehensive immigration systems and linking development strategies for policy coherence within a country and across countries.

This report, *How Immigrants Contribute to Kyrgyzstan's Economy*, is a step forward in assessing the contribution of immigration to development and improving the design of migration and development strategies. It builds upon the joint OECD-ILO project, *Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination (ECLM)*. The project carried out comparable analyses for Kyrgyzstan and nine other countries – Argentina, Costa Rica, Côte d'Ivoire, the Dominican Republic, Ghana, Kyrgyzstan, Nepal, Rwanda, South Africa and Thailand – to present a greater understanding of immigration's economic impacts. Different key components of the economy are explored through a combination of quantitative and qualitative methodologies.

The report examines empirically how immigrants affect key segments of the economy. These segments include: the labour market in terms of labour force and human capital, economic growth, and public finance. It analyses the political and historical context of immigration in each country and suggests ways to maximise the impact of immigrants in different contexts through appropriate policy responses. The report highlights the fact that the impact of immigration is not straightforward. It depends on the country context and socio-economic conditions. However, any country can maximise the positive impact of immigration by improving policies to better manage and integrate

immigrants so that they can legally invest and contribute to the economy where they work and live while staying safe and leading fulfilling lives. The report also provides a basis for dialogue and policy guidance for development practitioners and policy makers who attempt to integrate immigrants into their economy and society for the benefit of both immigrants and native-born citizens.

Following the discussion on guidance for actions with key stakeholders and policy makers in Kyrgyzstan, the European Commission, the OECD Development Centre and the ILO look forward to continuing their co-operation with Kyrgyzstan in the pursuit of optimising immigration for better economic and development outcomes.

Mario Pezzini
Director of the OECD Development
Centre and Special Advisor to the
OECD Secretary-General on Development

Manuela Tomei
Director of the Conditions of Work
and Equality Department of the
International Labour Organization

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How Immigrants Contribute to Kyrgyzstan's Economy is the fruit of the joint OECD-ILO project, Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination (ECLM), carried-out in ten low and middle-income countries. The project was managed by David Khoudour, Head of the Migration and Skills Unit of the OECD Development Centre, under the guidance of Mario Pezzini, Director of the OECD Development Centre and Special Advisor to the OECD Secretary-General on Development, Federico Bonaglia, Deputy Director of the OECD Development Centre, Manuela Tomei, Director of the ILO's Conditions of Work and Equality Department, and Michelle Leighton, Chief of the Labour Migration Branch at the ILO. Shinyoung Jeon and Hyeshin Park, from the OECD Development Centre, co-ordinated the project, while Theodoor Sparreboom, Chief Technical Advisor in the Labour Migration Branch, led the ILO team. The OECD team included Maria Alejandra Betancourt, Andrea Cinque, Bram Dekker, Fatoumata Diarrassouba and Sarah Kups. The ILO team was composed of Sandra Berger and Jesse Mertens.

The report was mainly drafted by Sarah Kups at the OECD Development Centre. The rest of the ECLM project team provided significant contributions, including valuable comments, advice and feedback on previous versions of the report. Vararat Atisophon, OECD Development Centre, helped with statistical work, while Alexandra Le Cam, OECD Development Centre, and H el ene Lombard, ILO, provided administrative support for the project, including country missions and event organisation. Jill Gaston edited the report and the OECD Development Centre's publications team, led by Delphine Grandrieux and Henri-Bernard Solignac-Lecomte, turned the draft into a publication. The cover was designed by Aida Buend a.

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List of abbreviations

ADB	Asian Development Bank
CIS	Commonwealth of Independent States
ECLM	Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination
EEU	Eurasian Economic Union
EU	European Union
GDP	Gross domestic product
ILO	International Labour Organization
KGS	Kyrgyz som
KIHS	<i>Kyrgyzstan Integrated Household Survey</i>
LiK	<i>Life in Kyrgyzstan</i> (survey)
MHIF	Mandatory Health Insurance Fund
OECD	Organisation for Economic Co-operation and Development
PIAAC	Programme for the International Assessment of Adult Competencies
SCO	Shanghai Cooperation Organization
SSR	Soviet Socialist Republic
TFP	Total factor productivity
UNHCR	United Nations High Commissioner for Refugees
USD	United States dollar
USSR	Union of Soviet Socialist Republics
VAT	Value added tax

Facts and figures of Kyrgyzstan

(Numbers in parentheses refer to the OECD average)

The land, people and electoral cycle

Population (million) ^d	6.1	Official languages	Kyrgyz, Russian
Under 15 (%) ^d	32 (18)	Form of government	Parliamentary republic
Population density (per km ²) ^d	32 (37)	Last election	4 October 2015
Land area (thousand km ²) ^d	191.8		

The economy

GDP, current prices (billion USD) ^d	6.6	Exports of goods and services (% of GDP) ^c	37.3 (28.5)
GDP growth ^d	3.8 (1.7)	Imports of goods and services (% of GDP) ^c	73.5 (28.0)
GDP per capita, PPP (thousands, current international USD) ^d	3.5 (41.7)	GDP shares by sector (%) ^c	
Inflation rate ^d	0.4 (0.4)	Agriculture, forestry and fishing	15.9 (1.5)
General government total expenditure (% of GDP) ^c	36.7	Industry, including construction	28.4 (24.3)
General government revenue (% of GDP) ^c	35.6	Services	55.6 (74.2)

Well-being

Life satisfaction (average on 1-10 scale) ^d	4.9 (6.5)	Population with access to improved sanitation facilities (%) ^c	93 (98)
Life expectancy ^c	71 (80)	Mean years of schooling ^a	10.9
Income inequality (Gini coefficient) ^c	29	Proportion of population under national minimum income standard (%) ^c	32.1
Gender inequality (SIGI index) ^b	0.16 (0.02)	Unemployment rate (%) ^d	7.7 (6.3)
Labour force participation (% of population ages 15+) ^a		Youth unemployment rate (ages 15 to 24, %) ^d	14.9 (14.0)
Native-born	63.8	Satisfaction with the availability of affordable housing (% satisfied) ^d	57 (54)
Foreign-born	47.3	Enrolment rates ^b	
Employment-to-population ratio (% of population ages 15+) ^a		Primary (Net)	90 (96)
Native-born	57.3	Secondary (Net)	80 (89)
Foreign-born	42.7	Tertiary (Gross)	46 (70)

Notes: Data from a) 2009; b) 2014; c) 2015; d) 2016.

Sources: Central Intelligence Agency, *The World Factbook* 2017. Washington, DC <https://www.cia.gov/library/publications/the-world-factbook/index.html>; Gallup (2015), *Gallup World Poll* (database), Gallup Organisation; IMF, *World Economic Outlook Database*, International Monetary Fund, October 2017 edition, Washington DC; Minnesota Population Center. *Integrated Public Use Microdata Series*, International: Version 6.5. Minneapolis: University of Minnesota, 2017. <http://doi.org/10.18128/D020.V6.5>; National Statistical Office, *2010 Population and Housing Census*; OECD, *SIGI Social Institutions and Gender index*, <http://www.genderindex.org/>; UNESCO Institute for Statistics, Data Centre, <http://data.uis.unesco.org/>; World Bank, *World Development Indicators* (database), <http://data.worldbank.org/>, Washington DC.

Executive summary

Throughout the 20th century, Kyrgyzstan has experienced various waves of voluntary and forced immigration. Since its independence from the Soviet Union, the number of Kyrgyz-born individuals that left the country has exceeded the number of foreign-born individuals that moved to the country. Nevertheless, 4% of its population was born abroad, and some suspect that in recent years, immigration has increased more than captured by official statistics. While there is some knowledge base on how emigrants and their remittances affect the economy, almost nothing is known about the economic contribution of immigrants.

This lack of research is not unique to Kyrgyzstan. The role of migration for development is receiving more attention in the international development agenda, but the empirical evidence on migration's economic effects on developing countries disproportionately focuses on emigration rather than immigration. This is despite the fact that more than 70 million immigrants lived in low and middle-income countries as of 2015 and that immigrants represent a significant share of the total population in some of these countries. This knowledge gap can have real-world repercussions: the lack of understanding of how immigrants shape the economies of developing countries reduces policy makers' ability to formulate policies boosting positive and limiting negative effects.

To address this research gap, the OECD Development Centre and the International Labour Organization carried out a project on the *Economic Contribution of Labour Migration in Developing Countries as Countries of Destination*. The project was co-financed by the European Union's thematic programme on Migration and Asylum and implemented from 2014 to 2018. The project aimed to analyse several economic impacts – on the labour market, economic growth, and public finance – of immigration in ten partner countries. The empirical evidence stems from a combination of quantitative and qualitative analyses of secondary and in some cases primary data sources.

A national consultation seminar on 17 November 2015 launched the project's activities in Kyrgyzstan. It was implemented in collaboration with the State Migration Service (formerly Ministry of Migration, Labour and Youth), the Delegation of the European Union to Kyrgyzstan and the ILO Country Office for Eastern Europe and Central Asia.

The limited role of immigration in Kyrgyzstan's economy

The analysis in this report focuses on three main dimensions of the economic contribution of immigrants in Kyrgyzstan: labour markets, economic growth and public finance. The main findings can be summarised as follows:

- **Labour markets:** immigration is usually not associated with job losses or income declines among the Kyrgyz-born population. A higher share of immigrants is of retirement age and accordingly, a lower share participates in the labour force compared to the native-born population. However, immigrants who are working on average have a higher labour income. There is typically no significant relationship between immigrants and native labour-market outcomes, suggesting that native-born workers do not 'pay' for immigration in the form of lost jobs or decreased wages.
- **Economic growth:** at around 5%, immigrants' estimated contribution to value added exceeds their labour force and population shares. This does not imply that the value added would necessarily be 5% lower if immigrants left Kyrgyzstan. The drop could be smaller or (at least in the short run) likely larger as the economy would need to re-adjust to the loss of skills and demand.
- **Public finance:** in 2013, the average immigrant's net fiscal contribution – that is, their estimated tax payments and social security contributions minus the public expenditures that can be allocated to them - was negative, and more so than the average native-born's net fiscal contribution. When pension contributions and payments are excluded from the calculation, the difference between the average net fiscal contributions of foreign- and native-born is much less drastic. This is due to the comparatively generous pension system and the concentration of immigrants in the retirement-age population.

Certain policy changes could further boost the economic contribution of immigration

Kyrgyzstan grants immigrants access to a range of public services and rights. While this strengthens immigrants' well-being, the absence of an active immigration policy can limit their economic contribution. As a higher share of recent immigrants comes from countries where Russian is not an official language, augmenting the availability of Russian and Kyrgyz language courses might be particularly helpful.

Kyrgyzstan has a legitimate interest in controlling access to its labour market by immigrants. However, the extent to which the current labour permit system benefits native-born workers is unclear. Evidence from a qualitative study suggests that it imposes costs on businesses and individuals alike. Further research should be undertaken to establish whether the benefits to native-born workers exceed these costs, in particular in view of the lack of a relationship between the current levels of immigration and labour market outcomes for

native-born individuals. Similarly, the effects of a recent change in requirements for investor visas should be monitored.

Finally, enhancing the co-ordination between ministries as well as between national and local authorities would allow Kyrgyzstan and other destination countries to develop a coherent policy agenda that maximises the development benefits of immigration.

Chapter 1

Immigrants' contribution to Kyrgyzstan's economy: Overview and policy implications

This chapter provides an overview of the full report. It first describes the project on Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination. It then explains how Kyrgyzstan can benefit from studying the economic impacts of immigration on the country. The analysis looks at how foreign-born individuals affect the labour market, economic growth and public finance.

This report aims to provide empirical evidence on the economic role of immigrants in Kyrgyzstan. It was written in the context of a joint OECD Development Centre – International Labour Organization project on **Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination** (ECLM) (Box 1.1). The project was co-funded by the European Union (EU) Thematic Programme on Migration and Asylum. Aside from Kyrgyzstan, nine other low- and middle-income partner countries were involved in the project: Argentina, Costa Rica, Côte d'Ivoire, the Dominican Republic, Ghana, Nepal, Rwanda, South Africa and Thailand.

The report comprises six chapters. Chapter 1 assesses the overall economic contribution of immigration in Kyrgyzstan and draws policy implications. Chapter 2 briefly describes the country's economic context, immigration history and policies. Chapter 3 shows how the educational and labour market characteristics of immigrants and native-born adults compare. Chapters 4 to 6 then turn towards different economic contributions of immigration: how immigrants affect the labour market outcomes of the native-born population (Chapter 4), economic growth (Chapter 5) and public finance (Chapter 6).

To gain a broader perspective of the economic contributions of labour immigration in developing countries, the project's comparative report can be read alongside this country report. While the current report provides an in-depth discussion of immigration in Kyrgyzstan, the comparative report compares the project's findings across the ten partner countries.

Defining immigration is more complex in Kyrgyzstan than in other countries. In accordance with regular usage (Box 1.2), the report usually defines an immigrant as someone who was born abroad and is currently living in Kyrgyzstan. Citizenship plays no role: someone who was born in Kyrgyzstan but has a different nationality is not understood to be an immigrant; while someone who has a Kyrgyz passport but was born abroad is considered an immigrant whether or not he or she already had the nationality at birth. The formal definition of immigrants, which was adopted in order to allow for comparable results between the ten countries, however does not account for the fact that Kyrgyzstan only became independent in 1991. This means that people born in another Soviet republic that were **internal** migrants at the time of their move are now classified as **international** ones. In order to account for this fact, in some parts of the report an additional alternative definition of immigrants is used: individuals either who were born in a country other than a former Soviet republic or who immigrated in 1991 or later.

Box 1.1. What is the value added of the project?

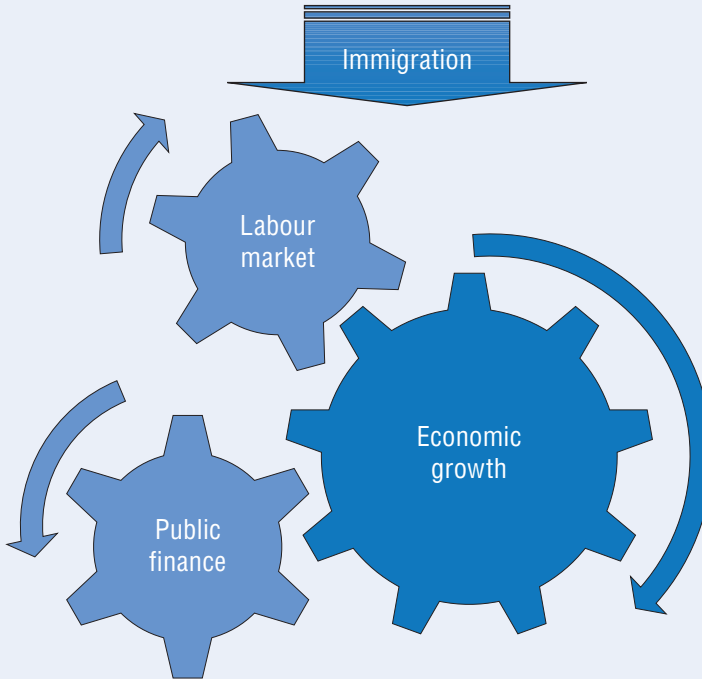
In August 2014, the OECD Development Centre and the International Labour Organization (ILO) launched a project, co-funded by the EU Thematic Programme on Migration and Asylum, on **Assessing the economic contribution of labour migration in developing countries as countries of destination (ECLM)**. This project, implemented from 2014 to 2018, aimed to analyse the economic impact of immigration in developing countries across a variety of dimensions.

The OECD, ILO and EU launched the project in order to address a dual reality. Around 30% of international migrants (UN DESA, 2016) and 25% of all working-age migrant workers (ILO, 2015) currently live in low- and middle-income countries, and yet little is known about how these economies are affected by immigrant populations. This stands in stark contrast to the depth of literature on the economic impacts of immigration in high-income (usually OECD) countries (Kerr and Kerr, 2011; Bodvarsson and Van den Berg, 2013; and Böhme and Kups, 2017). This missing analysis would not be an issue if the existing research results on OECD countries applied equally to non-OECD countries, but they may be different due to a different context.

A large number of immigrants in developing countries come from within their region while many OECD countries host immigrants from the entire globe. Moreover, the economic and policy context in which these immigrants integrate into the labour market is different. As an example, the share of informal employment tends to be more elevated in lower- than in higher-income countries. Both of these factors likely contribute to impacts of immigration that differ between developed and developing countries. Understanding these differences could help low- and middle-income countries formulate immigration and integration policies that maximise the development potential of immigration.

The project was carried out in collaboration with ten partner countries: Argentina, Costa Rica, Côte d'Ivoire, the Dominican Republic, Ghana, Kyrgyzstan, Nepal, Rwanda, South Africa and Thailand. They were selected based on their interest in the project, a substantial (but varying) share of immigrants and a relatively low share of humanitarian immigrants. By working with a diverse group of countries in terms of their geographic location and economic and immigration history and characteristics, the project aimed to provide an indication of the range of possible economic impacts of immigration in developing countries. It therefore addressed not only stakeholders in the ten partner countries, but equally policy makers and other interested parties in other low- and middle-income countries with mid-sized to large immigrant populations.

The key economic effects of immigration analysed in the project are the employment and wage outcomes of the native-born population, enterprises and gross domestic product (GDP) and the current fiscal contribution (Figure 1.1).

Box 1.1. **What is the value added of the project?** (cont.)Figure 1.1. **Immigration: Contributing to host countries' economies**

The methodologies to analyse these various impacts generally follow those used in other contexts and published in the academic literature. Leading migration researchers provided their perspectives on suitable methodologies at an international expert meeting that took place at the OECD in Paris on 23-24 February 2015. Data constraints sometimes made it impossible to analyse all aspects in every partner country. The country reports and the comparative report provide detailed descriptions of their methodologies.

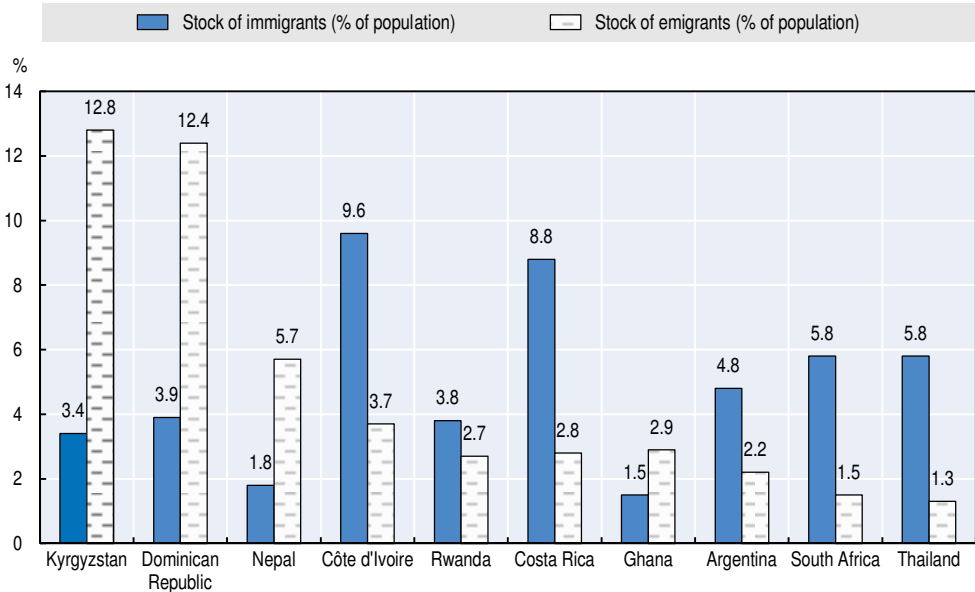
Benefits from studying the economic impacts of immigration

Adjusting policies to maximise the economic contributions of immigration requires that the current effects are well understood, but given Kyrgyzstan's characteristics, this is currently not the case. Very little is known about how lower-middle income countries and other countries with significant numbers of emigrants adjust to immigration. Furthermore, there is currently a dearth of knowledge about the economic role played by immigration in Kyrgyzstan.

Among the project partner countries, Kyrgyzstan is one of the few that either are low income countries or have only recently reached a lower middle-income status and it is the only transition country. Economies with lower per-capita income and which have to transition from a planned to a market economy probably adjust differently to immigration. For example, companies in such countries often find it harder to raise capital even when they have profitable investment opportunities due to insufficiently developed capital markets. If immigration affects such investment opportunities and investments are made under other circumstances, then the productive sector, the labour market and the overall economy are affected differently than in situations where there are no such constraints.

Since Kyrgyzstan's independence in 1991, the country has predominantly been an emigration rather than an immigration country, i.e. more people have left the country than moved to it. Particularly in the early 1990s, emigration rates were high. Even today, the number of people leaving the country exceeds the number that is arriving. Nevertheless, around 3.5% of the population in 2015 were born in a country other than Kyrgyzstan, and immigrants appear to be becoming more important for certain sectors of the economy. As the majority of the research has focused on how emigration – in particular through the channel of remittances – affects the Kyrgyz economy, relatively little is known about the effects of immigration.

The Dominican Republic is the only other country included in the project that like Kyrgyzstan is an important country of origin for emigration (Figure 1.2). Yet these two countries are far from being the only developing countries have a large diaspora but are also immigration countries. Other examples include Armenia, Belarus, Bhutan, Burkina Faso, Georgia, Jordan, Kazakhstan, Lebanon, Serbia and Ukraine. Not surprisingly, many among this group are transition countries. This is testament to the enormous upheavals many of them have undergone over the past quarter century, but also to their pre-independence migration patterns. Some, such as Jordan and Lebanon, are located in geopolitically volatile regions and thus accommodate a large share of humanitarian immigrants. In any case, countries with high emigration levels represent a considerable share of developing countries with medium to high immigration levels. On top of this, the impacts of immigration may differ under these circumstances. For example, it is possible that immigrants in these countries simply “replace” some of the emigrants on the labour market, but it is equally possible that they take on different roles. Therefore, countries within this group need to be included when studying the economic contributions of labour immigration in developing countries.

Figure 1.2. **Kyrgyzstan has a higher share of emigrants than immigrants**

Source: United Nations (2015), *Trends in International Migrant Stock: The 2015 revision*, <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>.

Relatively little is known so far about how immigration affects the Kyrgyz economy. Not surprisingly, most articles related to migration and economics in Kyrgyzstan focus on emigration. Examples include discussions of the economic roots of emigration patterns (Abazov, 1999); the role of Kyrgyz emigrants in the economies of their destination countries (Vunkurov and Pereboyev, 2013); return migration (Thieme, 2014) and the effects of remittances on households and the overall economy (Kroeger and Anderson, 2014; Schoch, Steimann and Thieme, 2010). In contrast, immigration is covered relatively seldom. Most of the relevant reports are published by international organisations and typically describe the history of immigration and emigration alongside current migration patterns (IOM, 2013; National Institute for Strategic Studies/IOM, 2016). A few articles discuss the role of Chinese immigrants in Kyrgyzstan (Zhaparov, 2009; Reeves, 2016). There is hence a knowledge gap on how the Kyrgyz economy is affected by immigration.

This knowledge gap prompted the Kyrgyz authorities to express interest in participating in the project. The project's work in Kyrgyzstan was launched in the context of a national consultation seminar on 17 November 2015. The government focal point is the State Migration Service (previously the Ministry of Labour, Migration and Youth).

The economic contribution of immigration in Kyrgyzstan may currently be limited

The recent effects of immigration on the Kyrgyz economy appear to be limited but may be increasing. Many immigrants have been in the country for several decades. This is a legacy of the Soviet Union's development strategy but also of the strong contraction of the Kyrgyz economy in the early 1990s that resulted from the break-up of the Soviet Union. Many of the immigrants are older, resulting for example in a lower labour force participation rate. Despite this, the estimated share of value added that is generated by immigrants exceeds their share of the labour force but also of the population. Immigration does not appear to lead to a deteriorating labour force situation for the native-born population. The current direct net fiscal contribution appears to be negative, but it does not take into account the prior contributions of immigrants to the Kyrgyz economy overall and to fiscal revenues in particular.

Most immigrants are from Commonwealth of Independent States and arrived prior to independence

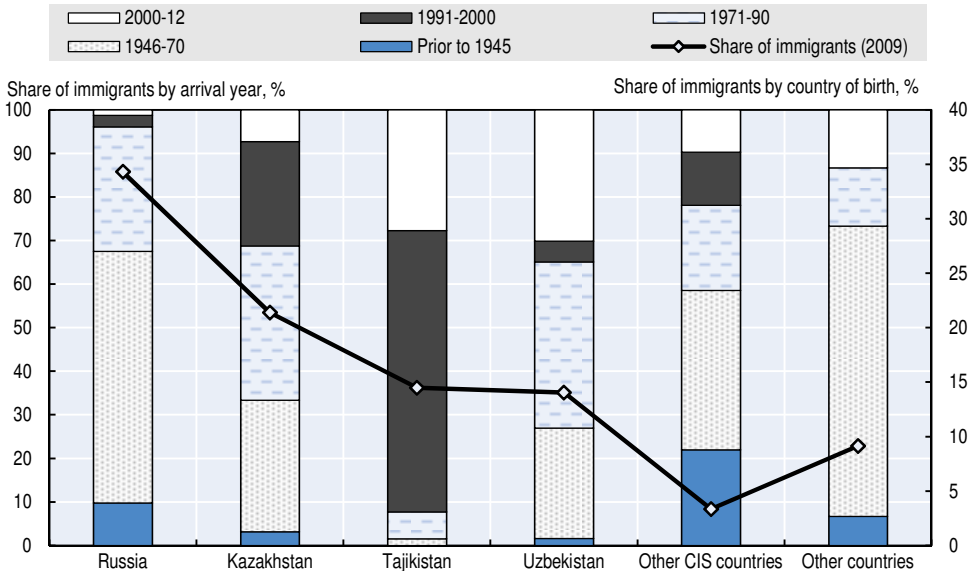
Most immigrants to Kyrgyzstan were born in a Commonwealth of Independent States (CIS) member or associated country. The three top countries of origin – the Russia Federation, Kazakhstan and Tajikistan, in that order – accounted for about three-quarters of immigrants in 2009 (Figure 1.3). The most important non-CIS country of origin is China, which was the country of birth of 3.3% of immigrants included in the 2009 census. It is probable that the actual share of immigrants that were Chinese-born was higher in 2017 than this reported value. This is due to the reported increased immigration from China in more recent years and the observation in other contexts that immigrants that arrived recently and lack local language skills may be most likely to be under-counted in a census (Card and Lewis, 2007).

Around two-thirds of immigrants moved to Kyrgyzstan prior to its independence. The share is even higher among immigrants from Russia. Virtually all immigrants from there (95% of those observed in the *Life in Kyrgyzstan* [LiK] sample) arrived in Kyrgyzstan prior to 1991. In contrast, more than 90% of the sampled immigrants from Tajikistan arrived after independence.

More immigrants than native-born individuals are not employed, but those that are do better on average

Immigrants are slightly more concentrated among the low- and highly-educated compared to the native-born population. This is partially mirrored in the higher share of foreign-born workers that are nominally under-qualified for their jobs compared to native-born workers. In contrast, a smaller share of foreign-born individuals is over-qualified for their jobs.

Figure 1.3. **Most immigrants are from countries in the Commonwealth of Independent States and arrived before independence**



Note: The calculation of the shares is based on the first observation of an individual immigrant in either the 2011 or 2012 round of the Life in Kyrgyzstan survey. The number of observations on which the distribution of arrival years is based is 154 for immigrants that were born in Russia, 96 in Kazakhstan, 65 in Tajikistan, 63 in Uzbekistan, 41 in other CIS countries and 30 in other countries.

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> and National Statistical Committee (2011), *Findings of the 2009 Kyrgyz Population and Housing Census*, www.waikato.ac.nz/_data/assets/pdf_file/0004/180544/Kyrgyzstan-2009-en.pdf.

The labour market integration of immigrants is mixed. On the one hand, a smaller share of immigrants participates in the labour force, and those who do are more frequently unemployed. On the other hand, while the de-formalisation of the labour market implies that the share of workers who are employees is falling among both groups, a higher share of foreign- than native-born are still employees. Immigrants on average also have a higher labour income. The higher concentration in the manufacturing sector and the lower concentration in the agricultural sector explain part but not all of this result.

A higher concentration of immigrants does not appear to be associated with worse labour market outcomes for native-born individuals

A key question in public debates is whether immigration negatively affects the labour market outcomes of the native-born population. This question is analysed based on a statistical method called regression analysis. It examines whether a high concentration of foreign-born labour force participants is related

to a below- or above-average outcome for native-born individuals. To carry out this analysis, the labour market is divided into different segments defined by the education, work experience and, in some cases, region of individuals. The idea behind this division is that people who have a similar background in terms of their educational attainment, work experience and, in some cases, regions can replace each other for jobs but cannot replace people who have different characteristics.

A higher concentration of immigrants does not appear to lead to worse labour market outcomes for the native-born population (Table 1.1). Depending on the data source, it is found that the share of native-born individuals who are employed among the working-age population is either not different or even higher in labour market segments in which a lot of immigrants are present. Vulnerable employment and wage employment rates as well as wages do not appear to differ systematically by the concentration of immigrants.

Table 1.1. The concentration of immigrants and labour-market outcomes of native-born workers do not appear related

Regression results on the relationship between labour market outcomes of native-born and immigrant workers

	Employment-to-population ratio		Employment rate		Vulnerable employment		Wage employment		Annual wage	Annual income
	National	Regional	National	Regional	National	Regional	National	Reg.	National	National
All										
Census	o	+	o	o	o	o	o	o		
KIHS	o		o		o		o		o	o
LiK	o		+		o		+		o	o
<i>Men</i>										
Census	o	o	o	+	o	o	o	+		
KIHS	o		o		o		o		o	o
LiK	+		o		o		o		+	o
<i>Women</i>										
Census	o	+	o	o	o	o	o	o		
KIHS	+		o		o		o		o	o
LiK	o		+		-		o		o	o

Note: An "o" indicates a statistically insignificant coefficient, a "+" a statistically significant positive coefficient and a "-" a statistically significant negative coefficient on the variable "share of immigrants in the labour force". No sign indicates that no regression analyses was done.

Source: Authors' own work based on National Statistical Committee (undated), *Kyrgyz Integrated Household Survey for 2005 and 2010*; Minnesota Population Center (2015), *Integrated Public Use Microdata Series* and IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*.

Immigrants are estimated to generate a share of value added slightly higher than their population share

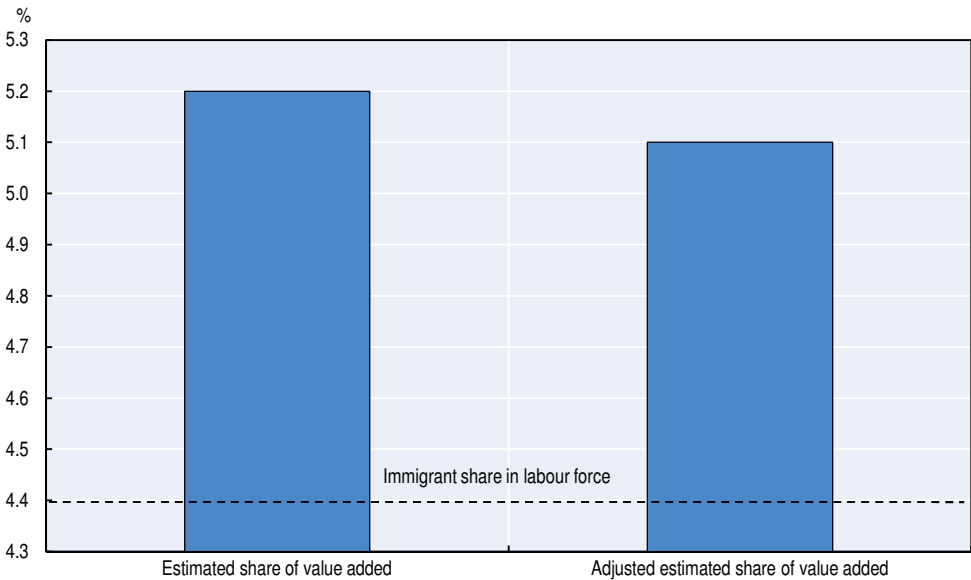
The immigrant contribution to value added is estimated based on their distribution across sectors. In a basic estimate, the value added generated by

each sector is multiplied by the share of immigrants in the total workforce in that sector. The estimated immigrant contributions by sector are then added up to arrive at the total contributions. An adjusted estimate further takes into account that foreign- and native-born workers may on average not be equally productive. The ratio of the years of schooling of foreign- to native-born in a sector is taken as a measure for this productivity difference.

Based on their allocation across sectors and their relative levels of education, immigrants are estimated to contribute a slightly above-average share of total value added (Figure 1.4). However, as is explained in Chapter 5, the estimate is subject to several caveats and does not reflect the share that GDP would shrink should immigrants leave the Kyrgyz labour market.

Figure 1.4. The estimated share of value added created by immigrants exceeds their labour force share

Estimated share of value added in 2010 (%)



Note: The estimated share of value added is calculated by multiplying the value added generated by an economic sector in 2010 by the share of immigrants working in the sector in 2009, and adding up the resulting products. The productivity adjustment is calculated in two steps. First, a proxy for the years of schooling is calculated based on educational attainment. It is assumed that those with less than a primary school education or missing information had 0 years of schooling, those that completed primary school 4 years, lower secondary 9 years, technical secondary 11 years, general secondary 12 years, some college 13 years and completed university 15 years. In the second step, the productivity adjustment is calculated as the ratio of the mean years of schooling of immigrant individuals working in a sector to the mean years of native-born individuals in the same sector.

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5> and National Statistical Committee (undated), *Kyrgyz Integrated Household Survey for 2005 and 2010*.

Self-employment is less prevalent among immigrants

The self-employment share of immigrants is lower than that of native-born workers. The same is true for the share of immigrants that are own-account workers – that is, self-employed individuals that do not employ anyone else. It is unclear whether a smaller share of immigrants also owns businesses since business ownership is quite uncommon overall and the 2009 census did not distinguish between own-account status and business ownership.

The consequences of immigrant entrepreneurship on the Kyrgyz economy are unclear. The study did not include a component that would have investigated its causal effects. Evidence from a qualitative study of the trade and manufacturing sectors revealed opinions that ranged from positive to negative. On the positive side, immigrant business owners might create employment opportunities for native-born workers and might provide a positive example of business practices that could be emulated by their Kyrgyz competitors. On the negative side, some lamented poor working conditions of the immigrant-generated jobs and increased competition that effectively closed off certain sub-sectors to Kyrgyz entrepreneurs.

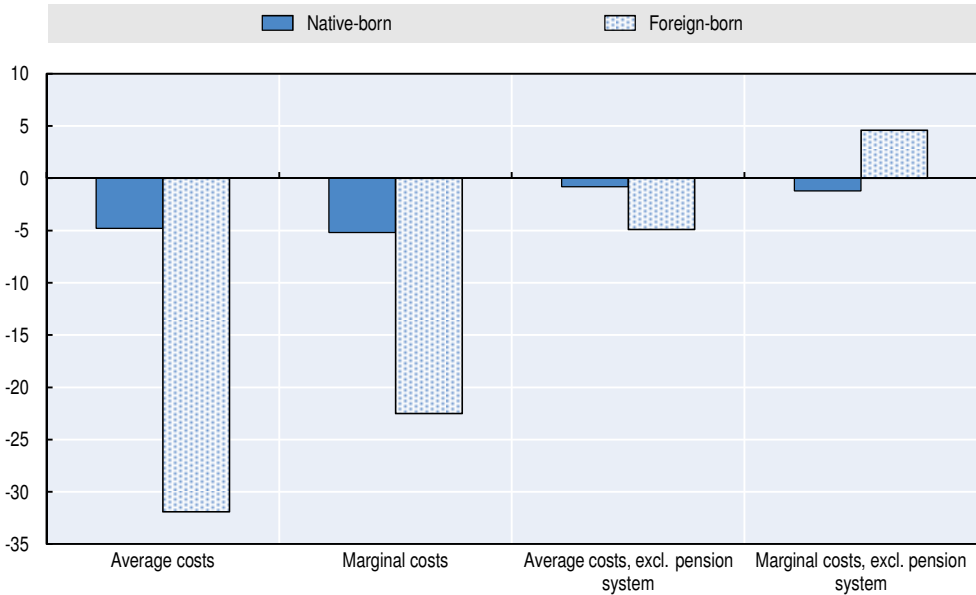
The direct fiscal contribution of immigrants appears to currently be negative

The net fiscal contribution of immigrants was estimated based on recent survey data and the government budget. For each budget component, the shares paid or used by foreign- and native-born individuals respectively were approximated based on the personal characteristics, income levels and public service usage reported by the two groups in the *Life in Kyrgyzstan* survey. The public expenditures were then added up and deducted from the estimated total tax payments in the same year to calculate the net fiscal contribution of immigrants and native-born individuals.

The fiscal costs generated by the average adult inhabitant of Kyrgyzstan in 2013 exceeded their tax contributions, and this is particularly true for immigrants (Figure 1.5). However, an important explanation for this negative contribution is that a higher share of foreign- than native-born individuals are of retirement age. Once both contributions to and benefits from the pension system are excluded, the net fiscal contribution is much less negative or even positive.

Figure 1.5. Immigrants currently generate higher fiscal costs than benefits, not taking into account past contributions

Net fiscal impact of foreign- and native-born adult individuals as a share of per-capita GDP



Note: Under the average costs scenario, expenditures for pure public goods (general public services, defence and security, and environmental protection) are distributed equally among foreign- and native-born individuals. Under the marginal cost scenario, they are only allocated to the native-born population. The exclusion of the pension system implies that neither the current contributions to the pension system nor the benefits paid out by the system are included in the calculation.

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*; Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013* and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*.

Conclusions and policy implications

Immigration generates a series of positive economic consequences in Kyrgyzstan. Thus, immigrants' estimated contribution to value added exceeds their population share. In addition, the presence of immigrants does not appear to lead to job or wage losses among the native-born population. On the other hand, because immigrants in Kyrgyzstan are more likely to be of retirement age, their direct net fiscal contribution in 2013 was estimated to be negative.

The way in which immigrants affect firms are mixed. A qualitative study of the trade and manufacturing sectors revealed that while some perceived the presence of companies owned by immigrants to create learning opportunities, others believed that certain sub-sectors were difficult for Kyrgyz-born firms to enter due to domination by immigrant-owned firms. The net effect of these counter-wailing forces on business creation and growth in Kyrgyzstan would merit further research attention, as would estimations both of the effect of

immigration on productivity and economic growth and of the lifetime fiscal contribution of immigrants.

Pay more attention to how an integration gap can undermine immigrants' contribution

While offering immigrants access to certain public goods and services can increase their economic contribution (OECD, 2017), the lack of an active integration mechanism is problematic for two reasons:

- First, when part of the foreign-born working age population is not engaged in the labour force, this lessens their potential contribution. The labour force participation of foreign-born individuals in Kyrgyzstan is below that of the native-born, even when their age is taken into account. The significantly lower employment rate of immigrants is only present in two other project countries (Nepal and Rwanda), which together with Kyrgyzstan have the lowest per-capita incomes among the partner countries. In OECD countries the average employment rate is comparable between the native- and foreign-born, but in certain long-standing immigration countries in particular in the European Union, a lower share of immigrants are employed (OECD/European Union, 2015). This suggests that the labour market integration of immigrants may be particularly problematic in countries with lower per-capita income levels and in some with higher levels and less of an issue in middle-income countries. However, additional country cases would need to be analysed to be certain about this conclusion.
- Second, when foreign- and native-born individuals are not able to communicate as well in the workplace, this lessens any productivity impulses that can stem from a diverse workforce (Niebuhr, 2010). While in past decades, many immigrants came from countries where Russian was one of the main languages, in recent years the number of, for example, Chinese-born immigrants is increasing. Even if their economic integration may be seemingly successful (although they may be concentrated in certain occupational niches), their chances of social integration are bound to be severely limited as long as they do not learn Kyrgyz or Russian.

Reassess active integration policies

For these reasons as well as to support immigrants' well-being, the government should reconsider its absence of an active integration policy. An important component here could be language courses that could either be offered by the government or that could be organised with the help of the social partners and immigrant groups. Additional research identifying the additional barriers faced by unemployed immigrants could further support the development either of integration policies or of general labour market policies.

Re-evaluate the labour permit system

Kyrgyzstan is not alone in pursuing an immigration policy that seeks to protect certain segments of the labour market and that is not accompanied by an active integration policy. Regarding immigration, individuals born in a Eurasian Economic Union member country can work in the country without a permit. Others do need one, and the number is limited by a quota. Some project partner countries, such as Côte d'Ivoire, also treat immigrants from certain countries preferentially while trying to limit the immigration of others only to sectors in which there are skill shortages. Still others, such as Argentina, in contrast are more open to immigrants regardless of their country of origin or the sector in which they seek to work.

While Kyrgyzstan is thus not an exception, some aspects of its immigration policy may be worth rethinking. The trade and manufacturing sectors study undertaken for this project revealed that the labour permit system may in some cases suffer from corruption. Kyrgyzstan is engaging in steps to combat corruption, but in many areas these still need to be strengthened (OECD, 2015). In the specific field of labour permits, it is unclear to what extent their existence significantly reduces immigration into sectors of the economy where native-born workers would lose their jobs if the permits were abolished. Further research and potentially a pilot programme could investigate this question and analyse whether the benefits of these permits to Kyrgyz-born workers exceed the costs imposed on the Kyrgyz administration and businesses. The fact that the labour market impacts of immigration generally do not tend to be negative even in project partner countries with more open immigration regimes suggests that the benefits of the permits to Kyrgyz-born individuals may be limited and may thus not offset the costs.

Monitor the impact of newly introduced policies

The recent lowering of the minimum investment in order to obtain an investor visa from KGS 35 million to 10 million (around USD 150 000) is already a positive step that could increase the attractiveness of Kyrgyzstan for foreign-born investors (The State Agency for Investment and Export Promotion under the Ministry of Economy of the Kyrgyz Republic, undated). The impacts of this policy change on both the demand for this type of visa and on the survival of already established firms in Kyrgyzstan should be monitored, with a further adjustment of the threshold as a possibility.

Realise the importance of non-migration sectoral policies

Beyond the policies targeted directly towards immigrants, non-migration sectoral policies can also help maximise the economic contribution of immigration (OECD, 2017). For instance, well-designed labour market and

social policies can enhance this contribution by easing the integration process. Therefore, keeping immigrant integration in mind when designing these sectoral policies and improving the co-ordination between ministries for a coherent policy agenda will help the country benefit further from immigration (OECD, 2016).

The above-mentioned policy implications are based on this Kyrgyz country report. Policy recommendations on immigration, labour market, fiscal and other policies stemming from the comparative analysis of the ten-country study are presented in the project's comparative report (OECD/ILO, forthcoming).

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ANNEX 1.A1

Data used in the report

The three main data sources used in the report are the 10% sample of the 1999 and 2009 population census (Minnesota Population Center, 2015); the 2005 and 2010 waves of the *Kyrgyz Integrated Household Survey* (KIHS) (National Statistical Committee of the Kyrgyz Republic, 2005 and 2010) and the 2010-13 *Life in Kyrgyzstan* (LiK) survey (IZA, 2016).

The census sample is used to analyse a number of socio-economic characteristics of foreign- and native-born individuals and the relationship between immigrant concentrations and labour force participation and employment rates of the native-born population. Its advantage is that its sample is much larger than the two household surveys. Its disadvantage is that it contains less detailed labour market information on the respondents. For example, it does not contain questions about labour income, and the 2009 census no longer contained a question about occupations. In addition, it is not possible to identify whether immigrants arrived prior to or following independence.

The KIHS is a rotating quarterly household survey carried out by the National Statistical Committee. It is representative at the national and oblast (regional) levels, and it covers a variety of topics including detailed information on the labour force status (Esenaliev, Kroeger and Steiner, 2011). Its major disadvantage is the smaller sample size. It is also not possible to identify the year of immigration.

The LiK is a yearly household survey carried out jointly by the German Institute for Economic Research and the Stockholm International Peace Research Institute. It also covers a wide array of topics, including detailed labour market information. It is the only survey that allows the identification of post-independence immigrants. However, its sample size is even more limited, and the survey is not representative at the oblast level.

Chapter 2

The immigration landscape in Kyrgyzstan: Patterns, drivers and policies

This chapter presents the historical and policy context of immigration to and emigration from Kyrgyzstan. It provides a basis for the analysis of the economic contribution of immigration in the following chapters. It helps to explain how the history and characteristics of immigration, laws and practices, and integration policies affect this contribution.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Since gaining independence in 1991, Kyrgyzstan has experienced many socio-economic and political changes and reforms. However, inter-ethnic tensions and economic stagnation continue to hinder the country's development.

The modern history of immigration in Kyrgyzstan is complex, in part due to historical links with countries of the Union of Soviet Socialist Republics (USSR). It borders three former Soviet republics (Kazakhstan, Tajikistan and Uzbekistan) as well as China. Soviet migration policies continue to shape the Kyrgyz population. Following independence, the country still experienced immigration but more so emigration. Today, Kyrgyzstan remains a net emigration country, but also draws immigrants from a range of countries.

Within these circumstances, Kyrgyzstan has enacted several policies that have shaped the impact of immigration. While policies accord the same rights to immigrants as to native-born citizens, except for the rights to vote and run in elections, implementation of these policies is not always assured. Given the low significance of immigration compared to emigration, integration appears to be a low priority. However, the country has embarked on initiatives to collect more accurate and comprehensive data on immigrants.

Immigration is an important issue for Kyrgyzstan. The country has a shortage of skilled labour, due to low quality of education and training, combined with skills mismatches of educated individuals (ADB, 2013; Sagynbekova, 2016). The shortage of skilled labour arose out of a combination of new economic requirements and difficulties of the educational system during the transition period. The government has responded to these challenges through further investments in the education system. But in the mid-2000s there remained large quality differentials between the schooling in urban and rural areas and a need to provide lifelong learning opportunities through the vocational education and training system and modernise the higher education system (OECD, 2010; UNESCO, 2011). Responding to these challenges will require more evidence-based research and policy solutions.

Box 2.1. The challenge of defining “immigrants”

One important challenge is related to the definitions of immigration. Different organisations use different definitions and every country has its own definition. For the sake of comparison across countries the project tried to use the same working definitions for all countries, even though the only available statistics do not always fit these definitions.

No universal definition of an immigrant really exists. The most commonly cited definition accords with the 1998 Recommendations on Statistics of International Migration: “any person who changes his/her country of usual residence, [...] in which an individual normally spends his daily period of rest” (United Nations, 1998). An individual who enters the nation for up to three months is not considered as an immigrant, but rather a visitor. Beyond three months, the individual will be termed a short-term immigrant for the next nine months. Only after one year of legal residency in the country the immigrant will be termed a long-term migrant.

In line with this definition, the Population Division of the United Nations’ Department of Economic and Social Affairs estimates international migrant stocks by using the country of birth as a reference (United Nations, 2015). This report adopts this definition, in particular for the empirical analysis, as it is widely used in analytical work and as data are available in all countries covered by the project. International immigrants are therefore individuals who were born in another country than the country in which they live. This definition does not take into account the citizenship of people.

Table 2.1. Understanding the difference between immigrants and foreigners

		Country of birth	
		Born in the country of residence	Born in a foreign country (immigrant)
Citizenship	<i>Citizens of the country of residence</i>	Native-born citizens	Foreign-born citizens
	<i>Citizens from another country (foreigners)</i>	Native-born foreigners	Foreign-born foreigners

Table 2.1 illustrates four different scenarios in terms of country of birth and citizenship. Some people are born abroad, but are not foreigners, while others are born in their country of residence, but do not have its citizenship. This is often related to the national legislations in terms of citizenship and naturalisation. In the countries that favour *jus sanguinis*, it is more difficult for the children of immigrants born in the country to get access to the citizenship of their country of birth (native-born foreigners). In the countries where *jus soli* prevails, children of immigrants can become citizens of their country of birth more easily. They are therefore native-born citizens, but are often referred to as the second generation. In some countries, and depending on the

Box 2.1. The challenge of defining “immigrants” (cont.)

naturalisation rules, individuals born abroad can become citizens of their country of residence after a certain number of years; they are foreign-born citizens. In most cases the foreign born are also foreigners, either because they do not stay long enough to acquire the citizenship, or because the legislation in their country of origin do not allow for double citizenship, or because the rules in their host country are strict, while most people born in their country of residence are also citizens of this country.

In Kyrgyzstan, the 2000 Law on External Migration defines an immigrant as a foreign or stateless person who moves to Kyrgyzstan for the purpose of permanent residence; and migration as movements within and across the state lines for various purposes (IOM, 2016). The Ministry of Labour, Migration and Youth (the former authorised body for migration policy) identifies four groups of immigrants:

- persons who previously were Kyrgyz citizens, later took the citizenship of another state, but continue to reside in Kyrgyzstan
- Kyrgyz who left for Russia and secured Russian citizenship and who later returned to Kyrgyzstan for permanent residence
- foreign citizens who have close relatives who are citizens or permanent residents of Kyrgyzstan
- persons who have intentions and wherewithal to contribute to the economic, social and spiritual development of Kyrgyzstan.

The identification of “true” immigrants is made more difficult by the fact that Kyrgyzstan only became independent in 1991. This independence means that people born in another Soviet republic that were internal migrants at the time of their move are now classified as international ones. In order to account for this fact, in some parts of the report an additional alternative definition of immigrants is used: individuals either who were born in a country other than a former Soviet republic or who immigrated in 1991 or later.

Recent economic development patterns

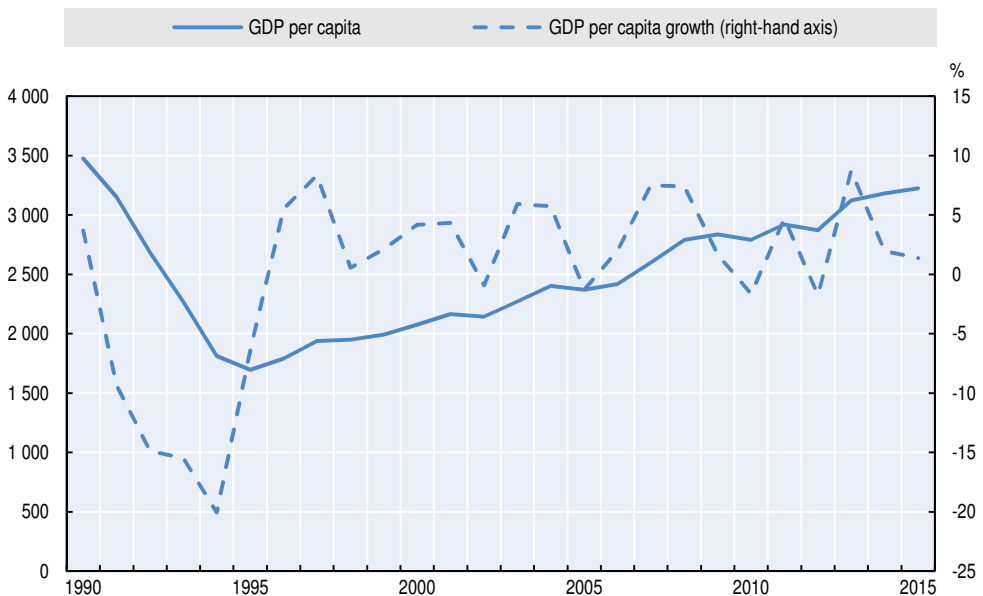
Per-capita gross domestic product (GDP) in Kyrgyzstan has slowly but steadily been recovering from its drastic drop in the early 1990s (Figure 2.1). The initial economic depression occurred in the context of an uncertain political and economic situation. The newly independent country lost subsidies flowing from the rest of the USSR that had amounted to around 10% of its GDP (ADB, 2014). It had to create many state institutions that had not existed before. Moreover, its prior trade patterns with the former Soviet republics were disrupted, meaning

that essential supplies were missing and established export markets all of a sudden were inaccessible (Mogilevsky and Omorova, 2011).

The country started to recover through a mix of reforms and economic readjustments. State-owned enterprises were privatised, agriculture was de-collectivised and the economy was opened. This entailed a realignment of the economy towards a higher share of services, in particular wholesale and retail trade in the national value added, and a higher share of private employment. The process was not entirely smooth. Maintaining the social and physical infrastructure at its pre-independence levels turned out to be too costly for the newly independent state, and in 1998-99, the country experienced an economic crisis (Mogilevsky and Omorova, 2011). Since then, there have been periodic downturns but overall, the economy has been growing. The downturns were often related to political events. These include the Tulip Revolution in March 2005 and the opposition protests and resulting resignation of President Kurmanbek Bakiyev as well as the ethnic violence in southern Kyrgyzstan in 2010 (ADB, 2012).

Figure 2.1. Per-capita GDP is slowly regaining pre-independence levels

Per-capita GDP PPP in constant 2011 international dollars and growth of per-capita GDP



Source: World Bank (undated), World Development Indicators, <https://data.worldbank.org/data-catalog/world-development-indicators>.

The Kyrgyz GDP has been slowly expanding but with one potentially problematic feature: the important role played by inward remittances. In 2015, remittances sent back mainly from Kazakhstan and the Russian Federation made up 25.7% of GDP (World Bank, undated). This creates a high dependency.

Changes in the immigration rights in the countries of destination and exchange rate fluctuations can lead to drastic swings in the remittance receipts. For example, in 2014, the share of remittances in GDP was more than four percentage points higher than in 2015. The drop is largely attributable to the devaluation of the Russian ruble.

History and characteristics of immigration

The composition of immigrants to and emigrants from Kyrgyzstan has changed over the past decades. During the Soviet period, most immigrants came from other Soviet republics, in particular from Kazakhstan, Russia, Tajikistan and Uzbekistan. Those immigration inflows and the networks they created continue to have an impact to this day. In 2009, more than 90% of immigrants in Kyrgyzstan were born in member countries of the Commonwealth of Independent States (CIS). However, the countries of origin of newly arriving immigrants have recently diversified. For example, the share of Chinese individuals has increased among labour immigrants. As for emigration flows, following independence in 1991, many emigrants returned to their countries of origin or ancestry prompted by the drastic socio-economic transformation in the 1990s. More recently, emigrants are often Kyrgyz citizens seeking better economic opportunities.

Most immigrants in Kyrgyzstan are from countries that now belong to the Commonwealth of Independent States

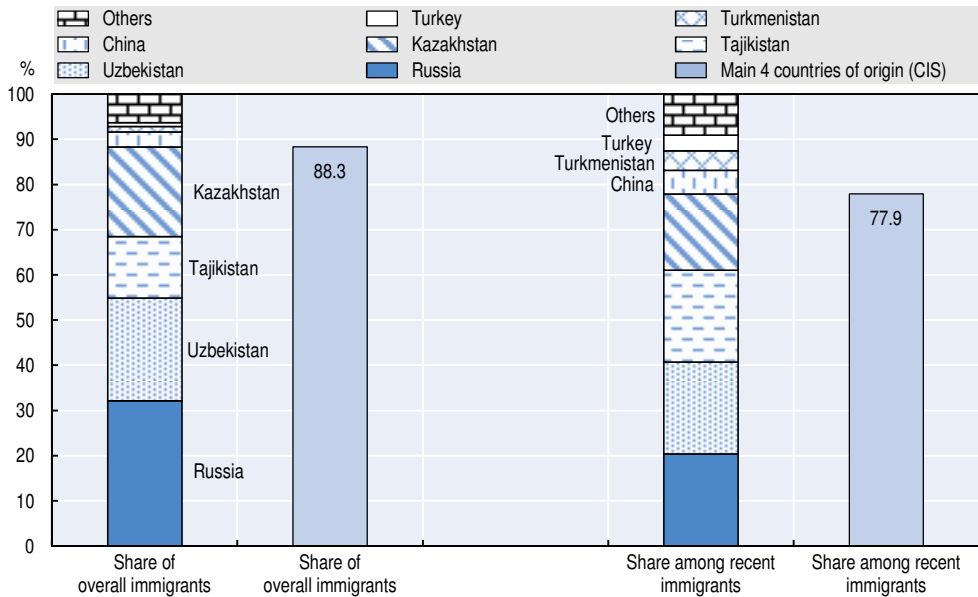
The majority of the foreign-born population in Kyrgyzstan comes from the Commonwealth of Independent States (CIS). In 2009, about one-third of immigrants were born in Russia, 22.7% in Uzbekistan, 19.8% in Kazakhstan and 13.6% in Tajikistan, making up a total of 88.3%. The recent immigrants with 1-4 years of residence are from more diverse countries of origin including China, Turkey and Turkmenistan (Figure 2.2). This composition is a direct result not only of geographic proximity but also of Kyrgyzstan's history.

During the Soviet period, immigrants often arrived through evacuation and resettlement processes

The migration processes in the USSR were driven by political and economic considerations as well as the impact of the Second World War (Figure 2.3). The Communist Party's policy prioritised the provision of labour to areas with high economic potential. The creation of multi-ethnic societies was a further aim, as it was thought that multi-ethnicity positively impacted work performance and inter-personnel relationships (Sujikov and Demakov, 1974). The Party achieved these goals through a variety of voluntary and forced resettlement programmes.

Figure 2.2. **Almost 90 percent of immigrants in Kyrgyzstan were born in countries of the Commonwealth of Independent States**

Foreign-born population by country of birth (%), 2009



Note: Recent immigrant is defined as a foreign-born individual who arrived in Kyrgyzstan within the previous four years.

Source: National Statistical Committee (2011), Findings of the 2009 Kyrgyz Population and Housing Census, http://www.waikato.ac.nz/_data/assets/pdf_file/0004/180544/Kyrgyzstan-2009-en.pdf.

Figure 2.3. **Economic phases and migration processes in Kyrgyzstan have changed over the past century**

1917				1991
Soviet period				Post-independence
Collectivisation 1920-40 Industrialisation 1925-40	The Second World War: evacuation of the industry 1941-45	Post-war development of the economy 1945-70	Economic slowdown, partial liberalisation of the labour market 1970-90	Transition to the market economy
Planned, forced, voluntary migration to Kyrgyzstan: Organised recruitments, Evacuation of people from the war zone, Mass repatriation				New forms of migration

Source: Adopted from Sagynbekova (2016), *The Impact of International Migration: Process and Contemporary Trends in Kyrgyzstan*, <https://link.springer.com/book/10.1007%2F978-3-319-26991-7>.

During the pre-war period, there were organised settlements of Russians and Ukrainians along rivers and roads in provinces bordering Kazakhstan and Uzbekistan. As a result, the overall population increased and the ethnic composition shifted. For example, while the number of ethnic Kyrgyz increased by around 220% between 1897 and 1937 (from 233 700 to 731 000), the number of ethnic Russians increased by around 1 100% (from 22 400 to 270 000) (Polyakov et al., 2007).

From the late 1920s to the 1950s, numerous categories of individuals were forcibly relocated to the Kirghiz Soviet Socialist Republic (SSR). One group was special settlers (*spetspereselenets*). They technically had the status of fully-fledged citizens of the USSR, but had no right to leave their place of residence (usually in remote areas) to which they were deported. Initially, they were often well-off farmers (*kulaks*) or individuals considered traitors (*podkulachniks*). Later on, certain ethnic groups, such as Finns, Germans and Italians accused of collaborating during the war, and individuals with special social status were targeted. Deportees (*sslynopere selentsy*) suffered even more drastic conditions and were deprived of all civil rights (Mankevich, 2008).

During the Second World War, a series of mass evacuations took place (Junushalieva, 2013). From 1941 to 1942, about 140 000 individuals as well as industrial production sites, higher education institutions and orphanages were evacuated from the war zone to the Kirghiz SSR.¹ The Council of People's Commissars of the Kirghiz SSR monitored the movement via police and passport offices and provided accommodation, employment and medical assistance as well as food and clothes (Nurmatova, 2015). For example, a total of 10 000 Polish nationals arrived in the Kirghiz SSR in December 1941 and were employed at various plants and institutions. Polish schools, kindergartens and catering points were opened for Polish children. In the immediate post-war period up to 1961, there continued to be repatriation programmes from China and Eastern Europe, some of which settled in the Kirghiz SSR.

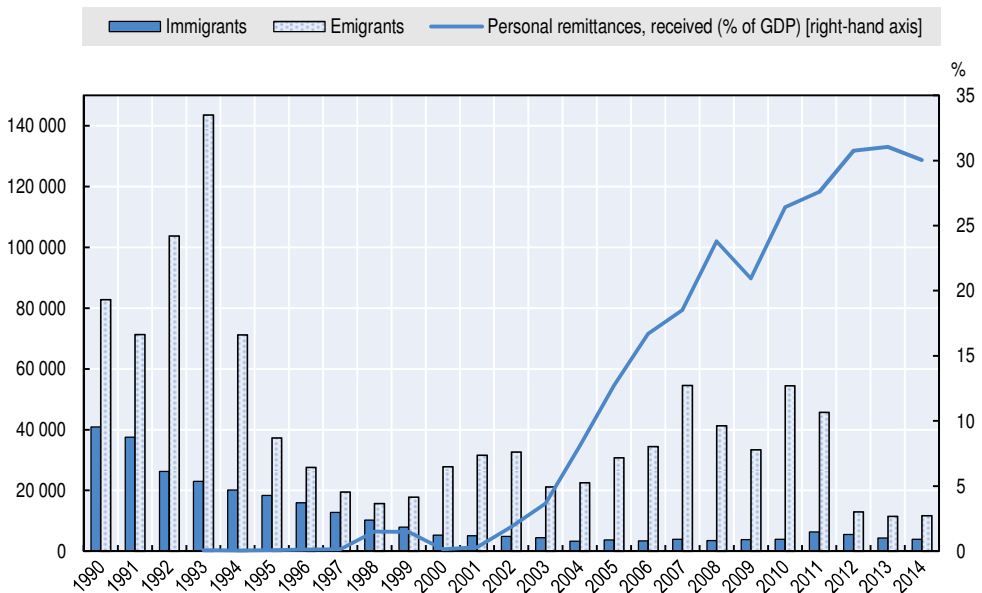
The organised resettlement and deportation programmes resulted in a lower share of indigenous ethnic workers across different sectors compared to other Soviet republics. Their share was around 9-10% in industry and construction and 28% in state farms in 1937. In comparison, in the Kazakh SSR, the shares were 40% in industry, 28% in construction and 50% on state farms. The overall share of indigenous ethnic workers rose slightly until the late 1950s (Sujikov and Demakov, 1974). By the late 1970s, many positions were filled with indigenous workers, leading to some emigration flows. At this point in time, Kyrgyzstan nonetheless had the second highest share of immigrants among all Soviet republics after Kazakhstan.

Kyrgyzstan experienced significant emigration and tension following independence

Following the collapse of the Soviet Union and the independence of Kyrgyzstan in 1991, the country pursued reforms towards a market economy and democratic governance. The reforms could not stave off socio-economic instability including poverty, unemployment and job insecurity (Sagynbekova, 2016) nor an increase of emigration flows (Figure 2.4). Since independence, the country has had a negative migration balance, peaking in 1993 when over 140 000 people emigrated (IOM, 2016). Such movement included ethnic Germans and Jews that were attracted by special resettlement programmes in Germany and Israel: between 1989 and 1995, the number of ethnic Germans dropped from 101 300 to 26 100 (IOM, 2016).

Figure 2.4. **Emigration has been high in Kyrgyzstan**

The numbers of immigrants and emigrants and the personal remittances received



Note: "Personal remittances comprise personal transfers and compensation of employees. Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from non-resident households. Personal transfers thus include all current transfers between resident and non-resident individuals. Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and of residents employed by non-resident entities. Data are the sum of two items defined in the sixth edition of the IMF's Balance of Payments Manual: Personal Transfers and Compensation of Employees" (World Bank, 2015).

Source: Authors' own work based on National Statistical Committee (2011), *Findings of the 2009 Kyrgyz Population and Housing Census*, http://www.waikato.ac.nz/_data/assets/pdf_file/0004/180544/Kyrgyzstan-2009-en.pdf and World Bank (2015), *Migration and Remittances Factbook 2016*, <http://www.worldbank.org/en/research/brief/migration-and-remittances>.

While the soaring emigration during the 1990s resulted in a more mono-ethnic country mainly due to the outflow of Slavs, interethnic conflicts emerged in border areas such as Osh and Batken (IOM, 2016). Such interethnic tensions have continued until recently. For example, in June 2010, there was large-scale unrest in the south. The nominal source of these tensions was that immigrants from Tajikistan who live illegally in the Batken region acquired land (Foundation for Tolerance International, 2008; Al'keyev and Senyutkina, 2014). The region saw further disturbances throughout 2013 and in early 2014. In January 2014, the Kyrgyz-Tajik border experienced tensions leading to a military confrontation between Kyrgyz and Tajik border guards (World Bank, 2014).

The second wave of emigration, after the turn of the millennium, differs from the first wave during the 1990s by ethnic composition and motivation, as more ethnic Kyrgyz were included and able to send a higher level of remittances (Figure 2.4). However, the first wave facilitated the second wave. Some of the emigrants in the 1990s returned to Kyrgyzstan either permanently or temporarily (IOM, 2016). Kyrgyz people have economic incentives to migrate to CIS countries given the higher wages, especially in Kazakhstan and Russia where the average wage is more than 2.7 times higher than in Kyrgyzstan. This explains the country's negative migratory balance with all CIS countries with the exceptions of Tajikistan and Uzbekistan.

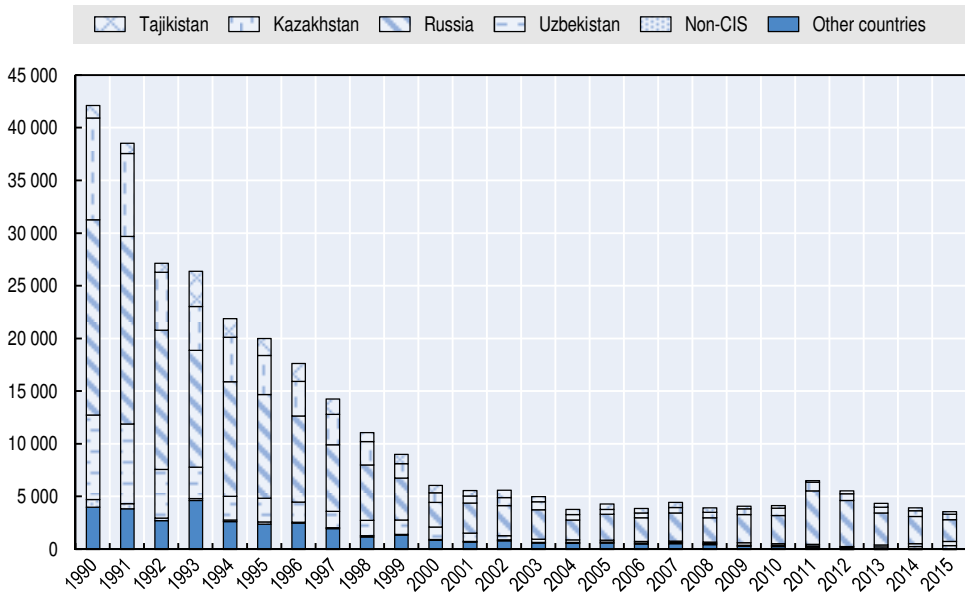
Immigrants from Kazakhstan and Russia are still dominant, but those from China are increasing

Most regular immigrants to and emigrants from Kyrgyzstan continue to move from or to CIS countries. Specifically, immigrants from Kazakhstan, the Russian Federation and Uzbekistan are dominant in Kyrgyzstan (Figure 2.5). Likewise, the most popular destination countries for Kyrgyz emigrants are Russia and Kazakhstan, in that order.

One main group of immigrants to Kyrgyzstan are *Kairylman*. These are persons of Kyrgyz origin who are either foreign citizens or stateless. Given that they were usually not born in Kyrgyzstan, they are considered immigrants, not return migrants (who are individuals that move to another country and then return to the country of origin). The government simplified the immigration procedure for this group in 1993-94 and adopted the State *Kairylman* Programme in 1997. Its measures included psychological support and integration interventions, but they were not implemented due to insufficient funds. Since 2007, the law "On state guarantees for ethnic Kyrgyz returning to their historical homeland" put in place the necessary conditions for *Kairylman* to settle in the country, although there are still some limitations. Out of 50 000 ethnic Kyrgyz who moved to Kyrgyzstan between 1992 and 2014, about 40 000 secured citizenship and around 37 000 are still on the Kyrgyz territory (State Migration Service, undated).

Figure 2.5. **Registered immigrants in Kyrgyzstan are mostly from Russia**

Registered immigrants by country of origin



Source: National Statistical Committee (undated), *External migration of population by state of arrival (departure)*, <http://www.stat.kg/en/statistics/naselenie/>.

In recent years, immigrant workers are increasingly coming from China. In 2014, around 28 000 Chinese nationals were registered in the country. However, according to certain experts, the country may be hosting more than 40 000 Chinese citizens. Among these are ethnic Uighurs and Dungans from Xinjiang that work in Kyrgyz bazaars which have become important venues for exporting Chinese goods into Central Asia and Russia (IOM, 2016). According to some media sources, about 100 000 Han Chinese permanently reside in Kyrgyzstan (Steiner, 2013), most of whom are undocumented (IOM, 2016). Some of these individuals may not be immigrants under the project's definition, either because they were born in Kyrgyzstan or because they commute back and forth between the two countries and do not stay sufficiently long to count as immigrants. However, even if this is the case, these figures either are gross over-estimates or indicate that Chinese immigrants are drastically under-counted in official data: the 2009 census only counted 7 673 Chinese-born individuals.

In 2014, 72% of the labour quota spots went to workers from China, and the shares were similar in 2012. The upcoming "Immigration in law and practice" section explains how the labour quota system functions. Chinese immigrants are primarily employed in construction and gold mining. Immigrant workers from Turkey are the second largest group and mainly work in construction, trade, education and services. Immigrants from South Korea are mostly engaged in

construction, mining, education and consulting sectors. Those from Iran often work in construction, trade and services, and Pakistanis in trade. Immigrants from the Russian Federation principally work in the communications industry and manufacturing (IOM, 2016).

Kyrgyzstan has received refugees from neighbouring countries since the late 1980s

Since the late 1980s, Kyrgyzstan has been host to different refugee populations. The ethnic conflict in Uzbekistan brought about 5 000 Uzbek refugees to Kyrgyzstan in 1989. However, they were not granted refugee status, as it did not exist in the USSR. Starting from 1992-93, the first recognised refugee flows mainly from Afghanistan and Tajikistan emerged. In 1993, 4 626 refugees were documented. In 1994, this number increased by 55%. In 1999, 15 000 Tajik refugees were in Kyrgyzstan. In conjunction with the lack of any specific regulatory instruments on refugee status, all applicants were recognised as refugees, including citizens of Azerbaijan and Georgia. In 2000, a small but steady flow of Chechen asylum seekers began arriving. However, until recently, the majority of refugees still came from Afghanistan and Tajikistan.

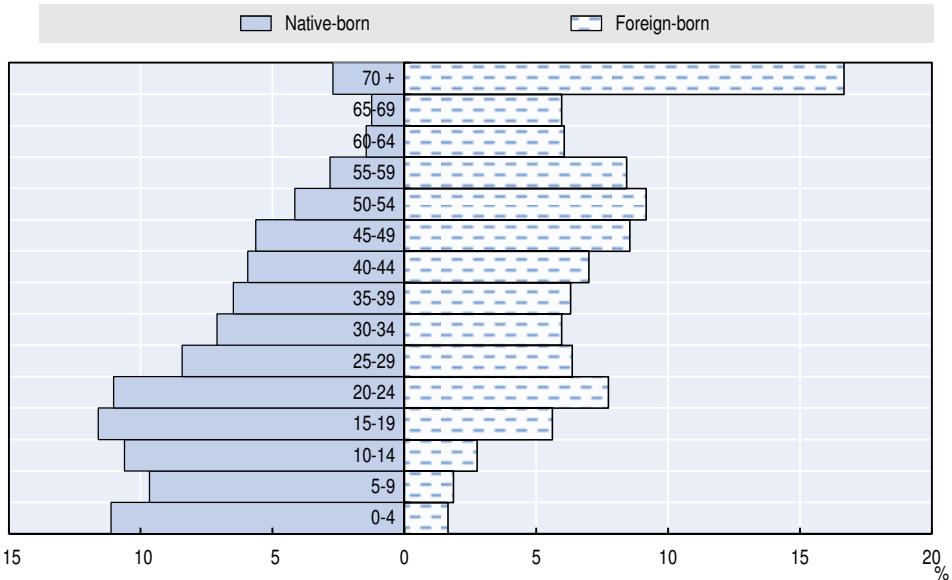
Kyrgyzstan has maintained efforts aimed at regulating refugee flows with respect to improving legislation, facilitating the repatriation and integration of refugees, and solidifying the co-operation with the United Nations High Commissioner for Refugees (UNHCR) (IOM, 2013). It was one of the first countries in the region to become a signatory to the 1951 Refugee Convention and the 1967 Protocol. Kyrgyzstan sought assistance from UNHCR on issues such as an integration programme for recognised refugees in Kyrgyzstan. Refugees are required to reside in the country for only three years compared to five for other foreigners before they can be naturalised. As a result, more than 9 000 have secured Kyrgyz citizenship. Attempts by the authorities to accommodate refugees and members of their families in the remote regions of Kyrgyzstan have not been successful because of the low level of development of these regions, the limited job capacity for refugees and negative attitudes of the local population towards refugees (Omarov, 2001).

Immigrants are of prime working and retirement ages and are concentrated in the Chui region

Compared to the native-born population, a higher share of immigrants is of working age or older (Figure 2.6). While nearly a third of the native-born population is younger than 15, for the immigrant population this share is only 6.3%. Similarly, youth aged 15-24 make up 22.6% of the native-born population but 13.3% of immigrants. However, individuals of prime working age (25-54) make up 37.7% of the native-born population and 43.3% of immigrants. Individuals

aged 55 and over are on the opposite end of the spectrum from those under 15: the share is 8.2% among native-born individuals and 37.1% among immigrants.

Figure 2.6. A higher share of immigrants is of working-age or older
Percentage distribution across age group by place of birth, 2009



Note: Each population group (foreign-born and native-born) = 100%.

Source: National Statistical Committee (2011), *Findings of the 2009 Kyrgyz Population and Housing Census*, http://www.waikato.ac.nz/_data/assets/pdf_file/0004/180544/Kyrgyzstan-2009-en.pdf.

This age distribution translates into a higher age dependency ratio among the native-born population (55) than among immigrants (41). In recent years, the overall ratio increased consistently, from 53 in 2010 to 55 in 2015. This is still lower than the average ratio of other lower-middle-income countries, decreasing from 61 in 2009 to 58 in 2015. However, it is higher than in Russia (39), Kazakhstan (45), China (35) and Uzbekistan (52) and lower only than Tajikistan (65) in 2009. Except for Tajikistan and Uzbekistan, the ratio in all these countries increased by 2015.

Women are over-represented among immigrants. Overall, 58.9% of the foreign-born population in 2009 were women. The share is even higher among immigrants from the three main countries of origin – Kazakhstan, the Russian Federation and Uzbekistan – where it is above 60%. There is near parity among immigrants from Tajikistan, while immigration from China is male-dominated (59.8% are men). In the area of the former Soviet Union, the important proportion of women in migrant populations has already existed for decades (Morrison, Schiff and Sjöblom, 2008) and continues to be high.

The distribution of native-born and immigrant populations across the Kyrgyz territory is quite different. Among the native-born population, the most populated regions are Osh and Jalal-Abad with 26.5% and 19.6% in 2009, respectively. This is followed by Bishkek (15.0%) and the Chui region (12.6%). In contrast, only 7.5% and 6.2% of the total foreign-born population live in Osh and Jalal-Abad, respectively. More than half of immigrants live in the Chui region (53%) and 25% in Bishkek.

Irregular immigration is concentrated in border regions and among transit immigrants

Irregular migration is an issue in the border areas between Kyrgyzstan, Tajikistan and Uzbekistan. For example, the Batken province bordering Tajikistan shows increased internal emigration since 2012. Migration within the valley has occurred for a long time without regards to state borders. About 80% of residents in this border area of Kyrgyzstan informally hire seasonal workers from neighbouring countries for farms (State Migration Service, undated).²

Many of the immigrants that enter without documents or overstay visas do so with the intention of transiting to Europe. These irregular immigrants mainly come from Afghanistan, Bangladesh, Chad, India, Iran, Iraq, Malaysia, Pakistan, Russian Federation, Sri Lanka, Uzbekistan. At the beginning of 2000s, European Union countries were gravely concerned about the situation when Kyrgyz tourist companies organised tours to transport migrants to Western countries. In 2002-03, the Government of Kyrgyzstan signed an agreement with the governments of Switzerland and Turkey on the readmission of persons who did not have permission to stay in the country.

An estimated 70% of irregular immigrants entered the country with a valid visa. From 2005 to 2009, 1 116 immigrants were expelled (International Center for Migration Policy Development, 2013). The number of foreign nationals charged with violating immigration legislation increased from 3.5% of total immigration inflows in 2011 and 6.1% in 2014 (IOM, 2016).

Immigration in law and in practice

At the legislative level, immigration is regulated by a set of documents that include the constitution; laws on citizenship, external labour migration, domestic migration and legal status of foreign citizens; and the labour code. The most relevant laws are briefly described in Box 2.2.

The practice of granting or extending immigrant status over the past years

Until recently, the majority of cross-border movements to and from Kyrgyzstan are with CIS countries, mainly Kazakhstan. However, cross-border movements are probably underestimated due to weak border controls. For

example, an estimated 40 000 unregistered border crossings took place at a Kyrgyz-Uzbek border spot (Cooley, 2012). In recent years, about half of visas were issued to Chinese citizens. For example, in 2011 out of 31 539 visas across different categories, 16 516 were issued to Chinese citizens and 3 295 to Turkish citizens. About 80-90% of entries occur for private reasons. Business visas make up a far smaller share – around 2% in 2014 – and the share entering for the purpose of permanent residence is well below 1% (IOM, 2016).

Box 2.2. Relevant immigration laws in Kyrgyzstan

The major laws relevant to immigration in Kyrgyzstan include:

- **1993 Law on Legal Status of Foreign Citizens** (dated 14 December 1993 #1296-XII). Immigrants with permanent residency may work for companies, institutions and organizations or engage in other labour activities according to the same procedures as established for Kyrgyz citizens. Immigrants with temporary residency may engage in labour activities consistent with the goals and terms of their stay in the country, if they secured an appropriate permit from the authorised state body responsible for migration.
- **2000 Law on External Migration** (amended in 2002, 2005, 2008, 2009, 2011, 2012, 2013 and 2015) and **2006 Law on External Labour Migration** regulate the conditions of labour market access for immigrants.
- **2004 Labour Code** (4 August 2004 #106) governs labour activities of immigrants, together with the **Law on External Labour Migration and the Regulation on Procedure for Labour Migration in Kyrgyzstan** (dated 8 September 2006 #639).
- **2003 Law on Investment in Kyrgyzstan** (27 March 2003) states that foreign investors have no requirements about how many Kyrgyz nationals must be hired. Investors have the right to freely hire foreign workers in Kyrgyzstan.

The number of permanent resident permits issued to foreign nationals is increasing, in particular to Chinese citizens. For temporary permits, five types of visas are relevant to labour migration in Kyrgyzstan: diplomatic, administrative service, investment, business and work visas. Private visas may serve for labour migration if proof of employment is attached. The other types of visas – study, tourist, religious and transit visas – are not directly related to labour migration unless the immigrant later takes on employment in the country (see Table 2.2 for the different types of visas).

Table 2.2. **There are five types of temporary visas directly related to labour migration in Kyrgyzstan**

Type of visa	Directly related to labour migration	Maximum duration
Diplomatic	V	3 years
Administrative service	V	3 years
Investment	V	5 years, renewable
Business	V	3 months (B1) and 1 year (B2), with a possibility to apply for the residence permit
Work	V	For the duration of the work; W1 for 67 countries and W2 for the rest
Private	▲	P1/P2 for 3 months; P3 from 6 months to 1 year with the right to obtain a residence permit, refugee status or citizenship
Study	X	1 year, to be extended for not more than 5 years
Tourist	X	3 months
Religious	X	6 months
Transit	X	5 days

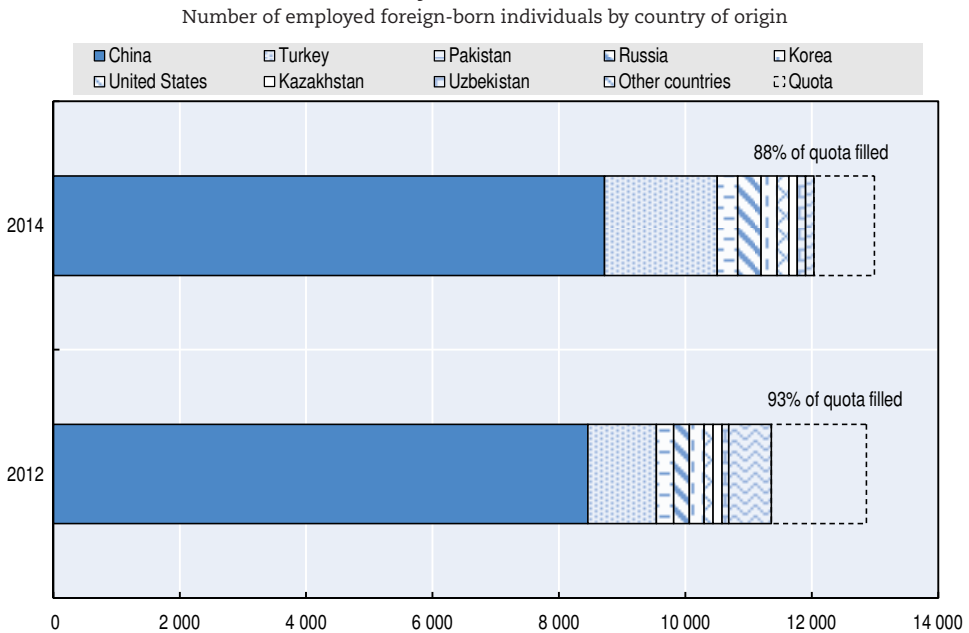
Note: V = relevant to labour migration; ▲ = partially relevant to labour migration; X = not directly relevant to labour migration.

Kyrgyzstan requires two permit types when immigrants would like to work. The first one is the employers' permit to recruit and the second one the employee work permit.³ Employee permits are only issued to individuals aged 18 and older. Refugees and permanent residents do not require permits. To receive a work permit, the following documents are needed: a written request from an employer in Kyrgyzstan, a recruitment permit and a work permit. Requirements include proof that the job cannot be filled by native-born workers and that it is in a sector or occupation with a skills shortage. Employer and employee permits moreover require the payments of fees.

The labour immigration quota is usually unmet and mostly filled by Chinese workers

Kyrgyzstan has two types of quotas: (i) a labour quota specifying the number of foreign labour immigrants; (ii) an immigration quota specifying the number of immigrants granted permanent residency. The State Migration Service distributes quotas among regions. For this distribution, local public administrations submit information on the needs of the local labour market. In 2012, 88% of the labour quota was met out of the demand of 12 864 workers. In 2014, it was 93% out of 12 990 (Figure 2.7.). Almost three-quarters of this quota was filled by Chinese citizens. The quota remained the same in 2015 while it increased to 14 490 in 2016.⁴ Not all labour permit requests are approved. For example in 2014, of 1 682 applications by businesses (which could be for more than one worker), only 1 329 were granted (Bekmurzaev, Sartbaev and Bakenov, 2014).

Figure 2.7. **Kyrgyzstan's labour migration quota is usually unmet and mostly filled by Chinese workers**



Source: State Migration Service of the Kyrgyz Republic (undated), <http://ssm.gov.kg/reports/view/2>; according to the Governmental Decree No. 259 (2012),⁵ and No. 167 from (2013), No. 704 (2013)⁶ and Governmental Decree No. 58 (2015).⁷

The industry and construction sectors accounted for a little less than 40% of labour quotas from 2008 to 2015, before increasing to more than 50% in 2016. The trade sector's share decreased from a level similar to that of the industry and construction sectors in 2008 to 17% in 2016. Chinese quota recipients mostly fill positions in the commerce, construction and mining sectors while Turkish quota recipients work in the construction, education and services sectors (Toksonaliyeva, undated).

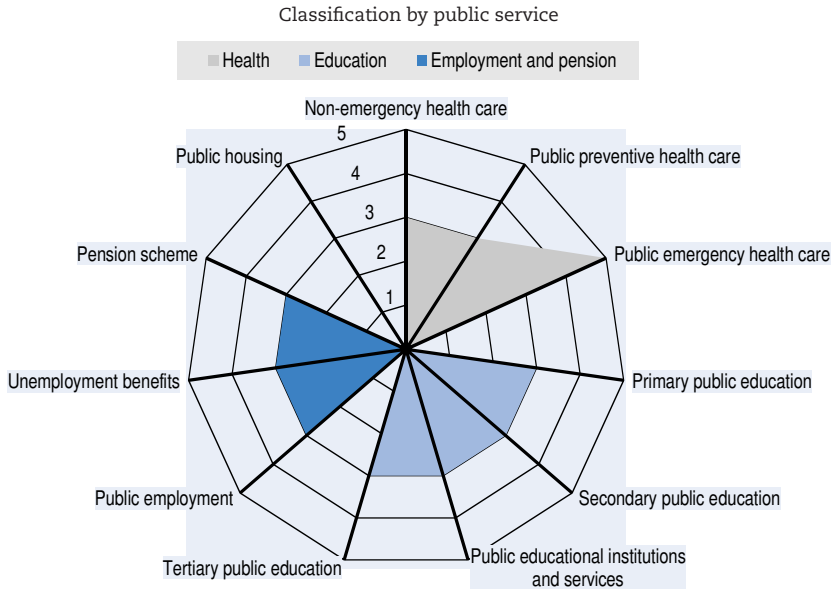
Foreign and Kyrgyz citizens in principle have equal rights in many areas

Foreign citizens and stateless persons enjoy equal rights to those of the Kyrgyz citizens before the law irrespective of their personal characteristics or other status. This includes the right to create and join trade unions; the right to receive equal pay for equal work and the right to receive restitution of losses in case of a breach of contract by the employer. Likewise, immigrants must comply with obligations on par with citizens. Exceptions are set by the law on Legal Status of Foreign Citizens and international treaties (IOM, 2016).

Immigrants also have access to public services (Figure 2.8). For example, documented immigrants and their children have access to education services.

In addition, higher education certificates gained abroad are recognised free of charge by the Directorate of Professional Education under the Ministry of Education and Science. Documented immigrants can participate in the social insurance scheme. Public emergency health care services are available to all regardless of their legal status.

Figure 2.8. **Most public services are available for documented immigrants**



Note: 0 = not available at all; 1 = only available for citizens; 2 = available to documented immigrants, provided minimum amount of stay/other conditions; 3 = immediately available for documented immigrants; 4 = available to all immigrants, provided minimum amount of stay/other conditions; 5 = immediately available for all immigrants.

Immigration and integration policy enforcement and implementation

Not surprisingly given its net emigration status, migration policy in Kyrgyzstan has long focused on emigration over immigration. For example, the *National Sustainable Development Strategy 2013-2017* partially covers migration issues with respect to the labour market, but only references state support for Kyrgyz citizens employed abroad. Kyrgyzstan's current migration policy strategies are set under the *Concept of State Demographic and Migration Policy (2000)* and the *Concept of State Migration Policy 2010 (2004)* (NISS, 2015). These conceptual approaches outline the country's migration legislation, services and management and attempt to improve the flows and impact of labour migration. Although these documents focus more on emigration and return migration, they have evolved to better regulate, protect and enable immigrant workers to contribute to the country's economy.

The State Migration Service is drafting a *Concept of Migration Policy 2030*, which will provide a set of supportive conditions for foreign businesses to facilitate their integration and increase the receipt of foreign investments in the country. Favourable integration conditions will also affect the employment of skilled foreign workers and foreign students. With respect to unskilled labour, the Concept 2030 will include restrictive barriers against immigrant workers to retain jobs for Kyrgyz citizens with the exception of individual bilateral and international treaties.

Frequent changes of the responsible institutions have hampered consistent immigration governance

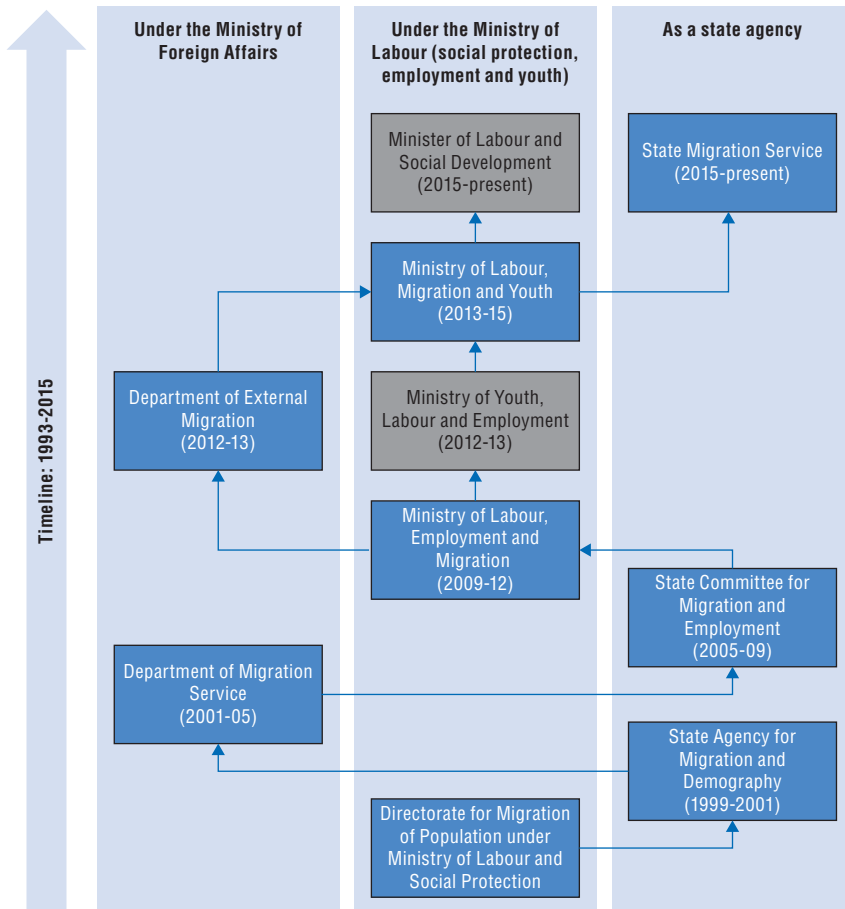
Since independence, Kyrgyzstan has governed immigration by defining institutions responsible for migration management. However, frequent changes of the responsible institutions have hampered building consistent immigration governance (Figure 2.9). From 1993, the Directorate for Migration of Population under the Ministry of Labour and Social Protection⁸ managed the migration process, followed by the State Agency for Migration and Demography from 1999 onwards (NISS, 2015).⁹ Moreover, the Department of Migration Service under the Ministry of Foreign Affairs managed migration between 2001 and 2005.¹⁰ Then, the State Committee for Migration and Employment was established in 2005 and functioned until 2009 when it was transformed into the Ministry of Labour, Employment and Migration.¹¹ In February 2012, the Ministry was transformed into the Department of External Migration and the Ministry of Youth, Labour and Employment.¹² The issues of external migration were again transferred to the Ministry of Foreign Affairs, but later came back to the Ministry of Labour, Migration and Youth in March 2013.¹³ After the 2015 election, the migration function was assigned to the State Migration Service (November 2015).¹⁴

Acknowledging this lack of consistency and coherence, Kyrgyzstan established the *Coordination Council for Migration* in May 2016 to co-ordinate state bodies and public and international organisations in the regulation of migration processes. It is too early to evaluate the function of this Council, but it aims to develop an effective mechanism for co-operation of state bodies on migration and to draft recommendations on the implementation of migration measures.

The government also recognised the lack of reliable data on migration and thus launched several programmes. For example, the *State Programme for Regulation of Migration Processes 2007-2010* attempted to enhance inter-agency interaction regarding the counting and registration of migrants, the re-equipment of border checkpoints and other steps to improving migration statistics. The government has also tried to expand the existing database of migration management, frequently with support from international organisations (OSCE, 2014). However, the 2020 Programme of Facilitating Employment of Population and Regulation of Labour Migration, approved in 2013, mentioned that this

programme (2007-10) created only a small number of jobs with relatively high wages, and resulted in unbalanced regional economic development and weak participation of local administrations in the implementation.

Figure 2.9. **Kyrgyzstan has frequently changed the main institution responsible for migration**



International and regional organisations influence migration management

Kyrgyzstan ratified 53 ILO conventions with provisions concerning labour and labour migration. The rights of immigrant workers are based on generally recognised human rights: the rights to life, to liberty, to be protected from discrimination and to freedom of movement. These underlying principles were solidified in international ILO standards, intergovernmental agreements of CIS

and Eurasian Economic Union (EEU) member states and bilateral covenants and were reflected in national legislation. The country ratified the 1949 ILO Convention on Migration for Employment and the 1990 International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families.

Pursuant to these legal instruments, Kyrgyzstan recognises the following rights of its citizens and individuals present in its territory: the rights to work, to freely choose work, to enjoy fair and favourable working conditions, to be protected from unemployment, to receive equal pay for equal work without any form of discrimination, and to enjoy just and fair remuneration ensuring the decent existence of individuals and their families and augmented, if needed, by other means of social security.

The accession of Kyrgyzstan to the CIS as well as its subsidiary organisations has changed the migration management of the country. The CIS established a consultative council of migration in 1992 and a council of heads of migration bodies¹⁵ in 2007 to deal with migration issues; the councils' aim is to regulate labour migration and social protection of the populations of CIS countries.¹⁶ However, they frequently fail to resolve issues immediately associated with labour activities of migrant workers.¹⁷

Immigrant workers of the EEU member states do not need a permit to engage in labour activities. They are eligible for the same treatment of social security, and currently treaties on mandatory payment of pension contributions and on the portability of pension benefits are being drafted (Eurasian Economic Commission, 2016). Pursuant to the EEU Treaty, Kyrgyzstan recognises diplomas and other education certificates issued in the EEU member states without a recognition procedure. Regulated professions (teachers, lawyers, medical and pharmaceutical personnel) are not included under this provision.

Kyrgyzstan is also a member of the Shanghai Cooperation Organization (SCO). The SCO was founded in 2001 by leaders of China, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan and Uzbekistan. It aims to establish co-operation among its members in the areas of regional security, the economy and culture. The 2002 SCO Declaration states that the member states were ready for multilateral co-operation in “countering arms and drug trafficking as well as other types of transnational crime and illegal migration” (Antonyuk and Neklyudova, 2012). Migration issues have thus only been viewed through a lens of unregulated migration, as seen in the Tashkent Declaration¹⁸ and the SCO Development Strategy 2025. This is despite the fact that co-operation in areas such as banking, finance, investment and joint ventures will likely result in mutual migration of skilled workers of member states.

Other than regional co-operation, Kyrgyzstan's relationship with China is based on a 1992 Cooperation Agreement and a 2008 Protocol. In terms of

migration, these accords include provisions related to facilitating tourism as well as scientific, cultural and educational exchange and common efforts on fighting irregular migration. Further, two Chinese officials ensuring communicative support to migrants are stationed at the Chinese Embassy in Kyrgyzstan.

Kyrgyzstan's implementation challenges

Although the legal instruments in the country protect immigrant rights, none of the state organisations or civil society organisations claim the protection of rights of foreign citizens staying in the Kyrgyz territory as a part of its mandate. Moreover, the integration of immigrants is not regulated by legislation and no state institutions are mandated to implement related activities (IOM, 2016). The reassignment of migration issues from one agency to another and back has caused inadequate regulation of migration processes in the country, resulting in migration being left outside of the scope of state regulation for several years.

The importance of immigration is often neglected due to lack of data and evidence. Immigration is not considered important given its size compared to emigration in Kyrgyzstan. The data gaps that lead to an underestimation of immigrants and their impacts may contribute to it. No state agency gathers full-scale migration data in the country – the State Border Service collects data and analyses them in assistance with an automatised border control system that only records border crossing based on citizenship (IOM, 2016). This brings about a lack of understanding of the needs of immigrants. Nevertheless, the country has created favourable conditions to attract investments while increasing employment and innovation; and it does not restrict the work rights of legal immigrants.

Conclusions

This chapter showed that a large part of the immigrant population is from countries within the region and many arrived prior to independence. On the one hand, this implies that many of the immigrants speak Russian, a lingua franca within many parts of Kyrgyzstan. On the other hand, the number of recent immigrants that have to be integrated into the economy and society is quite limited, suggesting that both positive and negative effects on the labour market, firms and the economy might be limited as well.

There is no specifically formulated immigration and integration policy strategy. It is unclear to what extent prospective immigrants face binding immigration constraints. On the one hand, the labour quota has not been filled over the past few years and immigrants from the Eurasian Economic Union – which includes the major countries of origin of Kazakhstan and Russia – do not require a permit. On the other hand, some requests for work permits do not get

approved, and outside of approved sectors or occupations regular immigration routes may be barred. To the extent that skills gaps go unfilled as a cause of these constraints, this may lower the potential economic contribution of immigration. The following chapters explore how existing immigrants integrate into the labour market and into the productive sector.

Notes

1. According to the Central Archives of the Kyrgyz Republic, as of 29 August 1941, the Kyrgyz Republic hosted and operated more than 25 evacuated light industry, textile and food industry plants and 38 large industrial production sites (Shakhnazarov, 2012). In addition, higher education institutions such as Rostov University were relocated. A total of 41 orphanages were evacuated; 3 438 orphans were relocated into Kyrgyzstan, together with teachers and wards from orphanages and schools (Shakhnazarov, 2012).
2. <http://ssm.gov.kg/reports/view/2>.
3. www.k-a.kg/sites/default/files/hiring_foreign_employees_law_and_practicenazik_satkeyeva_rus.pdf.
4. <http://cbd.minjust.gov.kg/act/view/ru-ru/215057>.
5. <http://cbd.minjust.gov.kg/act/view/ru-ru/93548?ckwds=2012>.
6. <http://cbd.minjust.gov.kg/act/view/ru-ru/94911?ckwds=2014>.
7. <http://cbd.minjust.gov.kg/act/view/ru-ru/97302>.
8. Resolution of the Government of the Kyrgyz Republic dated 30 July 1993 #345.
9. Resolution dated 17 August 1999 #450.
10. Resolution of the Government dated 1 September 2001 #505 "On Amendments to, and Repeal of, Certain Decisions of Government of the Kyrgyz Republic on Migration".
11. Decree of the President of the Kyrgyz Republic dated 15 October 2005 #462 "On Measures to Ensure Implementation of the Law of the Kyrgyz Republic "On Approval of Structure of Government of the Kyrgyz Republic" dated 26 October 2009 #425.
12. Resolution of the Government of the Kyrgyz Republic dated 20 February 2012 #122.
13. Pursuant to the Resolution of the Government of the Kyrgyz Republic dated 05 March 2013 #109.
14. Pursuant to Resolution dated 16 November 2015 #768 "On Organizational Measures due to Approval of a New Structure of Government of the Kyrgyz Republic".
15. On 5 October 2007, a Council of Heads of Migration Bodies of CIS Member States was assigned a role in the co-ordination of co-operation in the entire spectrum of migration problems and adopted the Declaration on Agreed Migration Policy of CIS Member States (CIS, 2007).
16. The CIS countries signed an Agreement on Cooperation of CIS Member States in Combating Illegal Migration on 6 March 1998 except Turkmenistan. This "agreement remained dormant until 2004, when the first meeting" "established a framework for cooperation on issues such as border control, deportations, exchange of information and training" (Papadopoulou-Kourkoulou, 2008).

17. For example, the 1994 CIS Agreement on Cooperation in the Field of Labour Migration and Social Protection of Migrant Workers, the Convention on Legal Status of Migrant Workers and Members of Their Families of CIS Member States of 14 November 2008 (Chisinau Convention) and the General Principles and Mechanisms of Organized Attraction of Migrant Workers to Implement Labour Activities in CIS Member States (October 2009), www.cis.minsk.by/reestr/ru/index.html#reestr/view/text?doc=2554.
18. Tashkent Declaration of the 15th Anniversary of the Shanghai Cooperation Organization, <http://kremlin.ru/supplement/5094>.

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Chapter 3

Immigrant integration in Kyrgyzstan: Labour market outcomes and human capital

This chapter lays the groundwork by comparing the educational and labour market characteristics of the foreign- and native-born populations. The first part discusses the human capital characteristics and the second part the labour force characteristics. The chapter looks specifically at levels of educational attainment, employment and unemployment rates, status in employment, the number of hours worked, income, employment sectors, and occupations.

Aside from their overall number, two factors strongly shape how immigrants affect the economic outcomes of the native-born population: their educational background and their integration into the labour market. For example, if immigrants have skills that are complementary to the native-born labour force, they can strengthen the economy. If immigrants are however unable to gain a foothold in the labour market, this may be costly for the host country's social security system.

The educational attainment of the native- and foreign-born labour forces

Human capital is an important “ingredient” in the economic development of a country (Becker, 2009). While it encompasses the complete stock of knowledge and skills that an individual has acquired, be it at school, on the job or elsewhere, only the educational attainment can be easily measured based on non-specialised surveys. Therefore, the present report only focuses on this component.

Immigrants can alter the distribution of educational attainment in the host country directly and indirectly. They do so directly when they have different levels of schooling than the native-born population. They may change it indirectly when their presence for example affects the quality of schooling or the relative wages of high-skilled workers and hence the incentives for native-born teenagers to invest in education. This chapter focuses primarily on direct effects.

The foreign- and native-born labour forces in Kyrgyzstan have similar educational attainments. Immigrants' entry into the labour force changes its educational composition relatively little, in particular when compared to young entrants. Therefore, it can be concluded that the human capital effects of immigration appear to be quite limited, especially when compared to the effects of emigration.

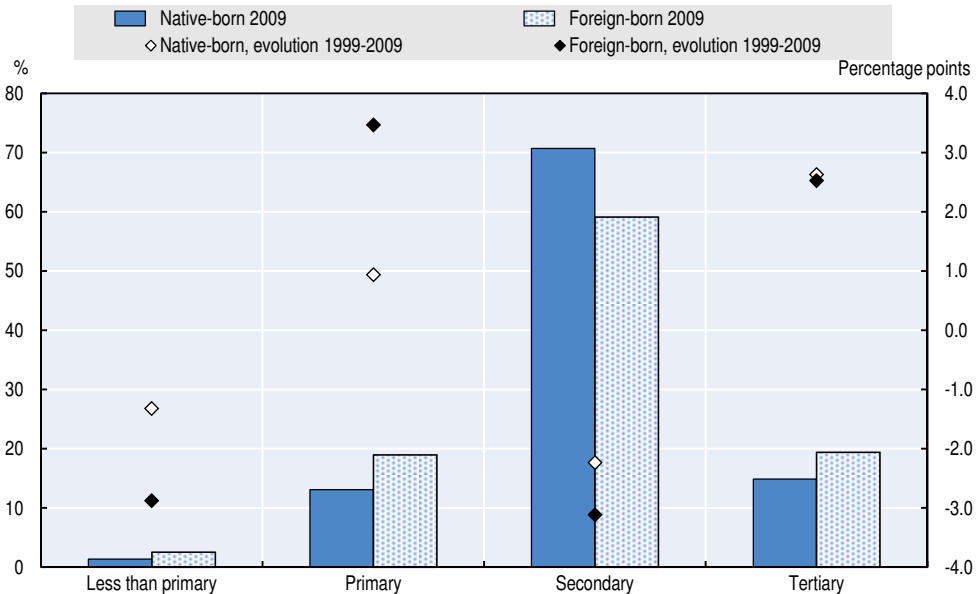
The educational attainment among the foreign- and native-born populations are relatively similar

Immigrant and native-born workers did not have equal educational attainment levels in 2009, but they were relatively similar (Figure 3.1). A higher share of foreign- compared to native-born individuals in the labour force had not completed primary school (2.5% versus 1.4%), had completed primary school (19.0% compared to 13.1%) and had completed university

(19.4% compared to 14.9%). In contrast, a lower share of immigrant than native-born workers had completed secondary school (59.1% versus 70.7%).¹ The pattern is the same among men and women.

Figure 3.1. Educational attainment varies between the foreign- and native-born labour forces

Highest educational attainment (% of the foreign- and native-born labour forces)



Note: Includes the working and unemployed populations ages 15 and over.

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

The educational attainment among the labour force is higher than among the adult population overall. Among native-born individuals, the share in the general population that did not complete primary school is higher (7.0% compared to 1.3% in the labour force only) while the share that completed secondary or tertiary education is lower (64.2% compared to 70.7% for secondary and 12.1% compared to 14.9% for tertiary). Among immigrants, the share with less than a primary education among the overall adult population is higher (8.9% versus 2.5%) while the share that completed tertiary education is lower (15.4% compared to 19.4%). The other shares are relatively similar.

Among both foreign- and native-born workers, educational attainment rose over the 1999 to 2009 period. In particular, a higher share of both populations completed primary school and university. The distribution across different levels of educational attainment is relatively similar among immigrants that have been in the country for a long time and those that arrived recently. There are, however,

more recent immigrants than non-recent immigrants² that completed at least secondary school (62.6% versus 57.9%). The opposite is true for the completion of primary school (16.1% versus 20.0%).

Recent immigrants do not contribute much to labour force growth or to its shifting educational distribution

Recent immigrants only contributed 1.4 percentage points to the overall growth rate of 20.3% of the labour force (Table 3.1). In contrast, the size of the young cohort grew 157% over the period, which translates to a net change of 38.6 over the total labour force. The prime-age and older labour force categories, in contrast, had a net change of -7.7 and -12.0.

Table 3.1. The entry of young workers contributes more to labour force growth than immigration

Contributions to growth in the labour force by demographic group, 1999-2009

Total growth of the labour force (%)	20.3
Young workers	38.6
Recent immigrants	1.4
Prime-age workers	-7.7
Older workers (retirees)	-12.0
Net turnover	29.8
Replacement surplus (entry of younger workers + retirement of older workers)	26.6

Note: Includes the working and unemployed populations. The contribution of each group is the net change over the labour force in 1999. The other demographic groups include non-recent immigrants. Recent immigrants are identified by proxy: individuals that were born abroad and that have been living in their current location for less than ten years.

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

Over the 1999 to 2009 period, the share of the labour force with more than a primary education rose. The highest growth rates were among those whose highest educational attainment was a complete secondary or tertiary education. The positive growth is almost entirely in the young age cohort (aged 15-34 in 2009) (Figure 3.2).

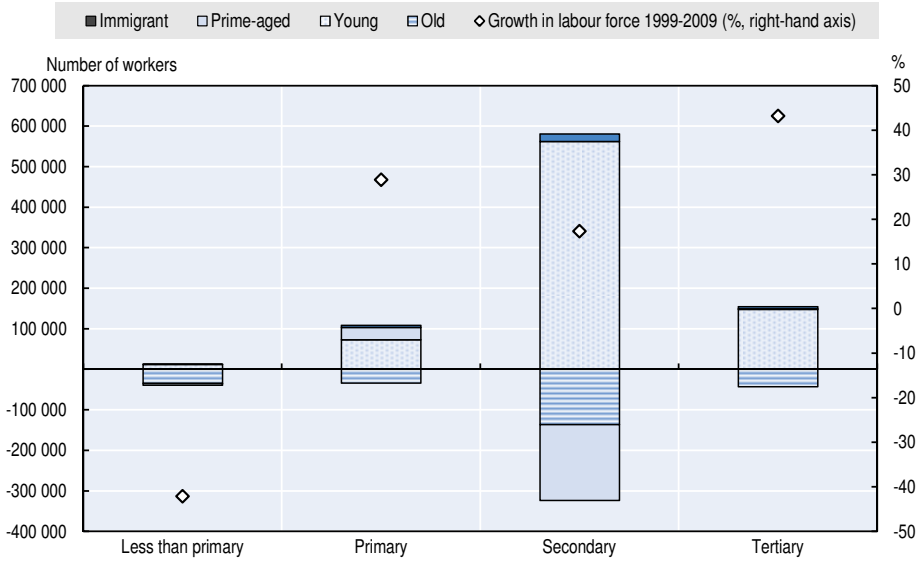
Emigrants from Kyrgyzstan appear to be more educated than immigrants

Changes in the composition of the native-born labour force occur because people drop out of the labour force, because they die or because they return from or move to a foreign country. Of these changes, the emigration component may be of particular interest.

Since 1990, recorded emigration flows have always exceeded the net immigration flows (Figure 3.3). Only in the late 1990s and in recent years have the flows become more equal.

Figure 3.2. The entry of young worker alters the educational attainment of the labour force more than immigration

By demographic group, 1999-2009

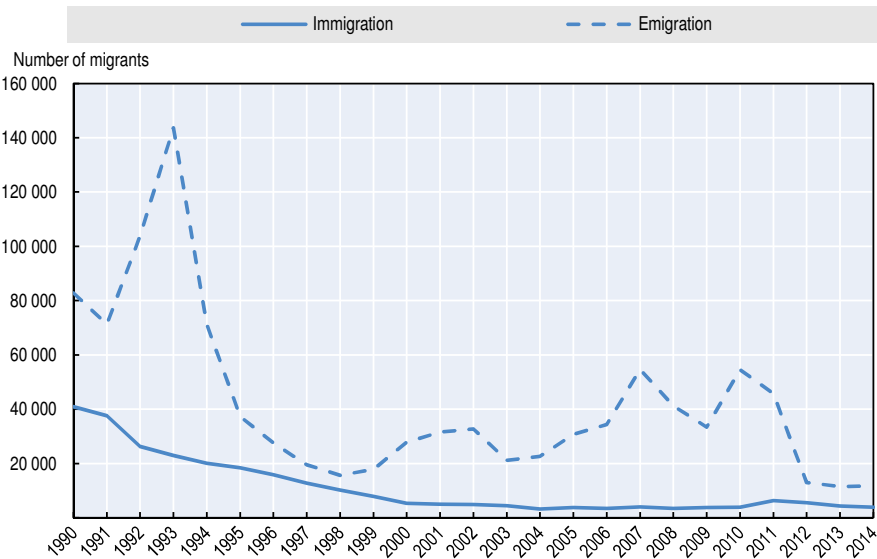


Note: Includes the working and unemployed populations. The other demographic groups include non-recent immigrants, i.e. foreign-born individuals that have been in their current location for at least ten years.

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

Figure 3.3. Emigration exceeds immigration in post-independent Kyrgyzstan

Reported migration flows, 1990-2014



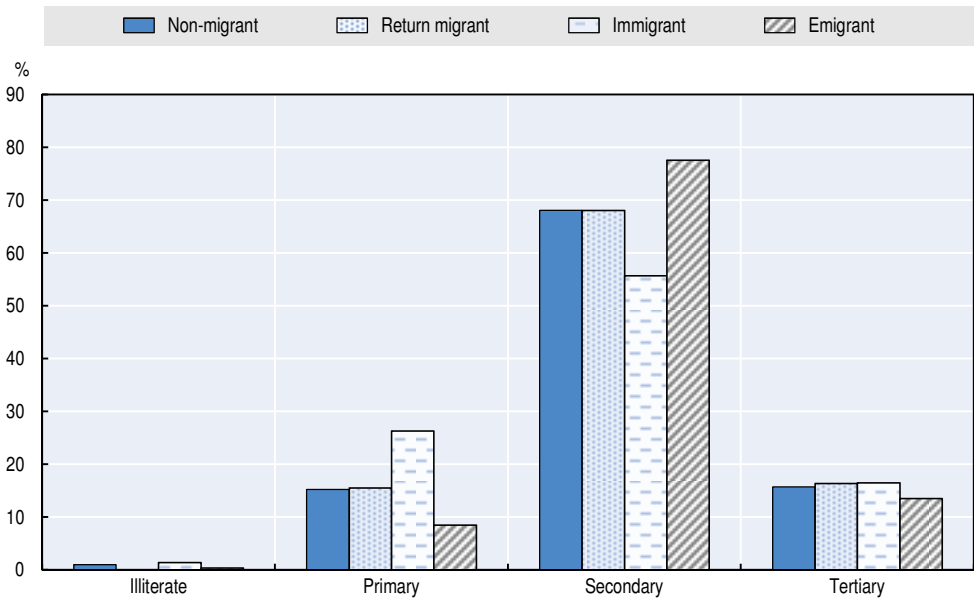
Source: National Statistical Committee (undated), *Database of the National Statistical Committee of the Kyrgyz Republic*, <http://www.stat.kg/en/statistics/naselenie/>.

Emigrants³ are on average more educated than non-migrants, return migrants and immigrants (Figure 3.4).⁴ In the 2010-13 *Life in Kyrgyzstan* (LiK) survey, the shares who are illiterate or who have a university degree are nearly equal between the four groups. The difference can be found among those with intermediate educational attainment. Native-born individuals completed primary and secondary education to equal degrees, whether or not they had ever lived abroad (15-16% and 68%, respectively). In contrast, a higher share of current emigrants has completed secondary school and a corresponding smaller share has completed primary school (78% and 9%). For immigrants, the opposite is true: only 56% completed secondary school and 26% completed primary school.

In net terms, migration is likely associated with a lowering of the share of the population that has completed secondary school. This is driven by the fact that emigration exceeds immigration and that a higher share of emigrants than immigrants and non-migrants have completed secondary education.

Figure 3.4. Fewer immigrants have completed secondary school than emigrants, return migrants and non-migrants

Share of educational attainment of adults by migration status



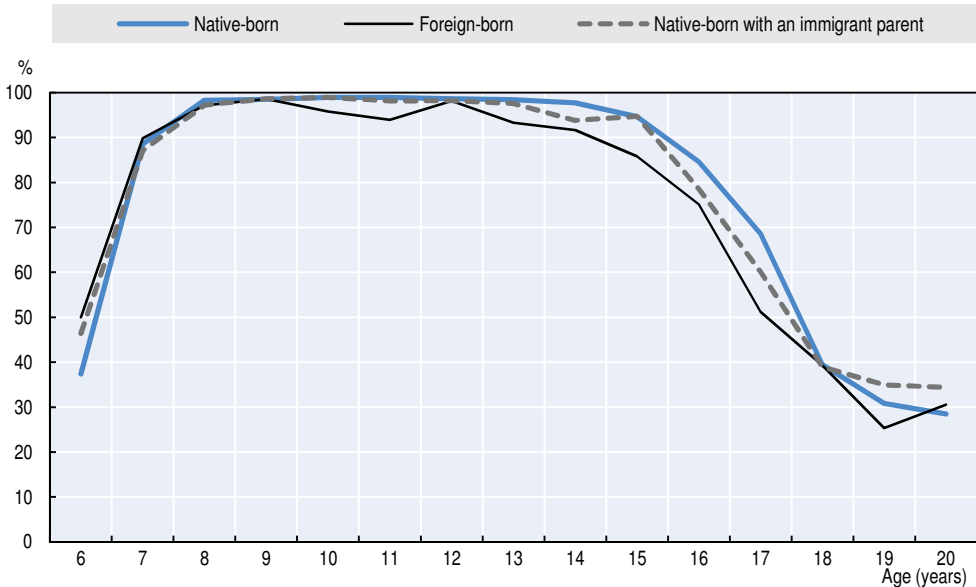
Note: The pooled 2010-12 data were used. The different migration categories are defined as follows: Non-migrant – Native-born individuals that have never lived abroad for more than three months; Return migrants – Native-born individuals that have lived abroad for more than three months; Immigrants – Foreign-born individuals; Emigrants – Individuals that have moved and are still living abroad.

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1>.

Children of immigrants still living at home have similar school enrolment rates to others

Immigration may alter the long-term human capital distribution in the destination country if immigrant children and the children of immigrants acquire different educational levels in their country of destination. In Kyrgyzstan, the school attendance of teenage immigrants and children of immigrants is slightly lower than that of native-born children of native-born parents.

Figure 3.5. **A higher share of immigrant than native-born teenagers is out of school**
School enrolment rates (%), by age



Note: The school enrolment rates are only given for children and teenagers whose relationship to the household head is "child". The definition of the different groups is as follows: Native-born – born domestically and the parent(s) the person is living with was also born domestically; Foreign-born – born abroad; Native-born with an immigrant parent – one (or both) of the parents the person is living with was born abroad.

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

In 2009, young immigrants and children of immigrants still living at home attended school at slightly lower rates than non-immigrant children of non-immigrant parents (Figure 3.5).⁵ For example, 95% of native-born 15-year-olds with or without immigrant parents were going to school while only 86% of foreign-born 15-year-olds were going to school. The school enrolment rates of foreign-born youth are lower than that of the native-born with non-immigrant parents at every age from 10 to 18, with the difference ranging from -1 to -17 percentage points (although not all of the differences are statistically significant).

For native-born children of immigrants, the differences are smaller and fluctuate more. At age 20, the school attendance rate of people still living with their parents is actually higher for immigrants and children of immigrants (31% and 34% compared to 29%), although the difference between non-migrants and immigrants is not statistically significant.

Native-born and immigrant labour force characteristics

The development of the labour market since independence has not been positive across a number of dimensions. Over the past 25 years, the growth rate has fluctuated strongly, stymieing job creation. An estimate by the ILO (2008) suggests that in three formal sectors, at least 6% of output growth must be achieved in order to have employment growth of 2.4%, matching the growth of the labour force. Jobs have shifted away from the formal sector and, during much of the 1990s and early 2000s, from industrial to service and agricultural jobs (Schwegler-Rohmeis, Mummert and Jarck, 2013).

The integration of immigrants into the labour force presents a mixed picture. On the one hand, a lower share of immigrants participates in the labour force and when they do, they more frequently suffer from unemployment. On the other hand, immigrants that secure a job are more frequently formally employed and earn more. The fact that a higher share of immigrants than native-born individuals work in the manufacturing sector and a smaller share in the agricultural sector probably contributes to this outcome because wages and formal employment are more common in the former sector than in the latter. The higher concentration in the manufacturing sector, in itself, may be a result of the higher average age of foreign- compared to native-born individuals.

The description of the labour market characteristics follows the structure of the Key Indicators of the Labour Market (ILO, 2015b). The indicators are presented for the population aged 15 or older, separately for the native- and foreign-born. The main results are based on the 10% sample of the 1999 and 2009 census. Supplementary results are presented based on the *Life in Kyrgyzstan* survey.

Immigrants have lower employment and labour force participation rates

The labour force participation rate of native- and foreign-born men and women was lower in 2009 than in 1999 (Table 3.2). Regardless of the country of birth, the drop was around 6 percentage points. The drop was stronger among women than men, in particular among the native-born population. It also occurred among all ages except for the 55 to 64 age group. It is possible that in 1999, a larger number of older workers were still displaced and decided to drop out of the labour force in the wake of the breakup of the Soviet Union as well as the financial crisis that occurred during this time. By 2009, this age group may have started to be better integrated again.

In contrast, the employment-to-population ratio has remained relatively stable, in particular for native-born individuals. Among immigrants, it fell slightly. The employment-to-population ratio of both native- and foreign-born men rose by 1-2 percentage points, while the employment-to-population ratio of women fell by 2-3 percentage points.

Table 3.2. The labour force participation rate of both foreign- and native-born individuals is falling

Labour force participation rate and employment-to-population ratio of population aged 15+, by place of birth

		Total %		Male %		Female %	
		1999	2009	1999	2009	1999	2009
Labour force participation rate	Native-born	69.5	63.8	76.8	73.2	62.5	54.9
	Foreign-born	53.4	47.3	63.5	59.1	46.6	39.3
Inactivity rate	Native-born	30.5	36.2	23.2	26.8	37.5	45.1
	Foreign-born	46.6	52.7	36.5	40.9	53.4	60.7
Employment-to-population ratio	Native-born	57.6	57.3	65.0	67.0	50.4	48.0
	Foreign-born	42.7	41.0	51.8	52.7	36.5	33.2

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

The rising gap in the labour force participation rates of men and women contrasts with trends in other former Soviet republics. A recent study (EBRD, 2015) posits that shifting gender roles are among the driving factors, along with certain legal provisions that while originally intended to protect women are in effect discriminatory. Moreover, the ability of young mothers to continue working may have suffered from the decrease in the availability of child care facilities (EBRD, 2015).

A lower share of immigrants than of native-born individuals work, and the difference has remained stable over time. In 1999, with labour force participation rates of 69.5% and 53.4%, the difference was around 16 percentage points. In 2009, both rates had dropped and the difference stood at 17 percentage points. The difference exists for both men and women. These results differ from the average for lower-middle income-countries: on average, the labour force participation rate of foreign-born males is lower than that of native-born males, but for women, the immigrant participation is higher (ILO, 2015a).

The difference in the share of the working-age population that is employed among the foreign- and native-born is similar to the difference in labour force participation rates. Immigrants' lower labour force participation rate may limit their impact on the labour market outcomes of the native-born.

The personal characteristics of immigrants explain about two-thirds of the difference in the labour force participation rate. Specifically, when the age distribution is taken into account, the difference in labour force

participation between immigrants and native-born individuals drops by around ten percentage points. The education distribution can account for around five percentage points. The fact that there remains a difference however indicates that something other than their education, age, sex and school attendance prevents some immigrants from joining the labour force.

Based on the *Life in Kyrgyzstan (LiK)* survey, the labour force participation rate of native-born individuals continued to increase and the rate of foreign-born individuals stayed relatively constant over the 2010 to 2012 period. Among native-born individuals, it was 55.8% in 2010 and 62.7% in 2012. Among foreign-born individuals, it was within the 42-44% range. The figures are not comparable to the census-based results because the definition of employment and unemployment are different.⁶

A higher share of immigrant labour force participants are unemployed but fewer work part-time

The unemployment rate fell between 1999 and 2009. The high unemployment rate⁷ in 1999 occurred in the context of the transition of the economy from a planned to a market economy and the lay-offs of both private and public workers that this entailed (ILO, 2008). A factor in the decline of the unemployment rate was the decreased labour force participation rate.

The unemployment rate of immigrants was more elevated than among the native-born in both 1999 and 2009 (Table 3.3). This was true for both men and women and for different age groups (15-24, 25-54, 55-64 and 65+).

According to the much narrower unemployment definition based on the *Life in Kyrgyzstan* survey, the unemployment rate of native-born individuals continued to drop over the 2010 to 2012 period (from 6.6 to 3.8%) while among immigrants, there was a new spike in 2012 (from 6.3% to 7.1%). However, for neither group were the year-to-year changes statistically significant.

Table 3.3. Unemployment rates for native- and foreign-born labour force participants are falling

Unemployed (% of labour force), by place of birth

	Total %		Male %		Female %	
	1999	2009	1999	2009	1999	2009
Native-born	17.1	10.3	15.3	8.6	19.3	12.5
Foreign-born	20.1	13.3	18.4	10.9	21.6	15.6

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

As for the population overall, the unemployment rate among 15-24 year olds fell between 1999 and 2009 (Table 3.4). This is true for both immigrant and native-born workers. In both groups, the youth unemployment rate is about

twice as elevated as among the adult labour force overall. Therefore, the higher unemployment rate among young immigrants compared to the young native-born is in line with the entire immigrant labour force. The same patterns of falling rates over time and higher rates among immigrants can be observed when analysing the share of young people that are not in education, employment or training.

Table 3.4. Young foreign-born workers are more frequently unemployed than young native-born workers

Measures of youth unemployment and youth not in employment, education or training, by place of birth

		1999		2009	
		Native-born (%)	Foreign-born (%)	Native-born (%)	Foreign-born (%)
Youth unemployment as a share of the youth labour force	Total	28.6	36.9	18.4	27.2
	Male	27.3	36.8	16.3	22.6
	Female	30.3	37.0	21.1	32.7
Ratio of the youth to the adult unemployment rate	Total	2.2	2.1	2.4	2.4
	Male	2.5	2.3	2.7	2.5
	Female	2.0	1.9	2.2	2.4
Youth unemployment as a proportion of total unemployment	Total	43.4	20.7	44.7	25.1
	Male	46.4	22.9	47.8	27.5
	Female	40.5	18.9	42.0	23.4
Youth unemployment as a share of the population of youth	Total	16.0	19.8	8.8	10.7
	Male	16.7	21.0	8.9	9.9
	Female	15.4	18.8	8.7	11.4
Youth not in education, employment or training	Total	22.9	32.5	18.9	27.8
	Male	19.9	27.0	14.7	16.6
	Female	25.9	37.2	22.9	38.3

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/DO20.V6.5>.

From 1999 to 2009, the unemployment rate dropped for almost all educational levels (Table 3.5). The drop in the unemployment rate ranged from 3 to 11 percentage points among native-born workers. An exception is the group with less than a primary education, for whom the unemployment rate actually rose by 7 percentage points. The drop is the most drastic for individuals with primary education as the highest level of education. Among foreign-born workers, the drops are similarly between 5-10 percentage points for the groups that have completed primary school at a minimum. In contrast to the experience of native-born individuals, the unemployment rate of foreign-born individuals with less than a primary education actually dropped by 0.5 percentage points.

The unemployment rate of immigrant labour force participants in comparison to the native-born is higher at intermediate to upper education levels. In contrast, the unemployment rates of those with a completed primary school degree as their highest level of education are basically equal in 1999 and

2009. Possible reasons include that highly educated immigrants are more likely to suffer from a lack of skill recognition or that long-established social networks among native-born individuals play a more important role in recruitment at higher than at lower skill levels. In 2009, the unemployment rates of foreign-born workers with less than a primary education were actually lower than among the native-born.

Table 3.5. The unemployment rate is generally higher among foreign-born than native-born labour force participants regardless of education level

Unemployment rate by highest completed education and place of birth

		Less than primary (%)	Primary (%)	Secondary (%)	Tertiary (%)
1999	Native-born	12.9	23.3	17.4	10.3
	Foreign-born	16.0	22.6	21.6	13.5
2009	Native-born	19.4	12.7	10.3	7.2
	Foreign-born	15.5	12.7	14.8	8.9

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

The rate of the native-born population working part-time dropped between 2010 and 2012 but not the rate of the foreign-born (Table 3.6). However, only the 2010 to 2011 drop was statistically significant. The part-time employment rate of immigrants is lower than that of native-born workers, but the difference is only statistically significant in 2010.

Table 3.6. The rate of part-time employment is falling for native-born but not for foreign-born workers

Part-time employment rate by place of birth, 2010-2012

	Total %			Male %			Female %		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Native-born	23.4	19.2	20.3	19.1	15.1	15.7	29.7	25.3	27.0
Foreign-born	15.4	14.5	15.8	5.4	15.7	7.6	23.3	17.8	22.1

Note: Part-time employment is defined as working more than zero and less than 30 hours. The rate is calculated for the population aged 18 and above.

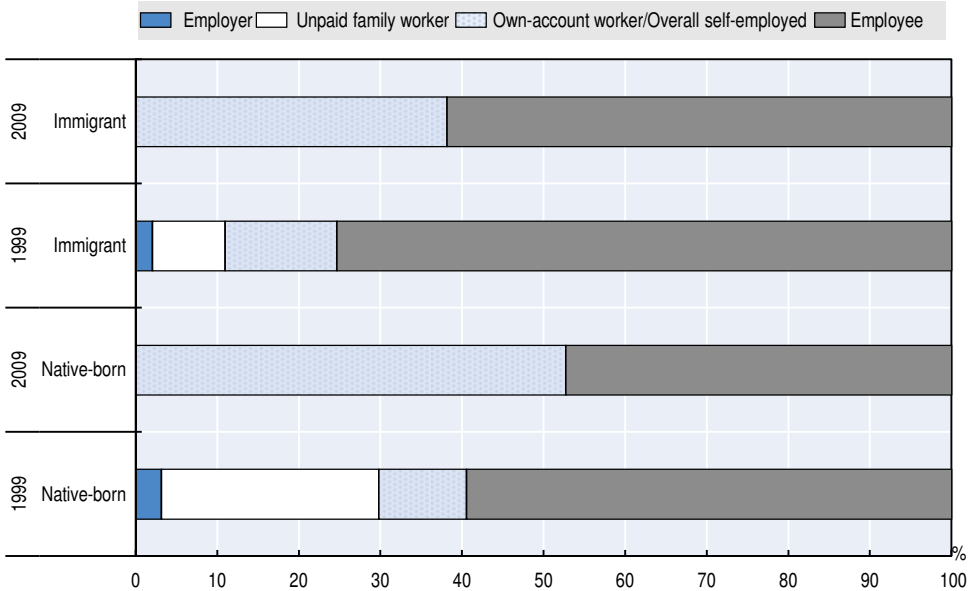
Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izaap.7055.1>.

Higher shares of immigrants than native-born workers are employees and formally employed

Between 1999 and 2009, the share of employed individuals who were employees dropped for both immigrant and native-born workers (Figure 3.6).⁸ This can be explained by the continued shedding of jobs in private companies and public bodies and less job creation compared to the growth of the labour force (Schwegler-Rohmeis, Mummert and Jarck, 2013). Immigrants are more likely to be employees than are native-born individuals.

Figure 3.6. **The share of workers who are employees, whether immigrants or native-born, is falling**

Status in employment, by place of birth



Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

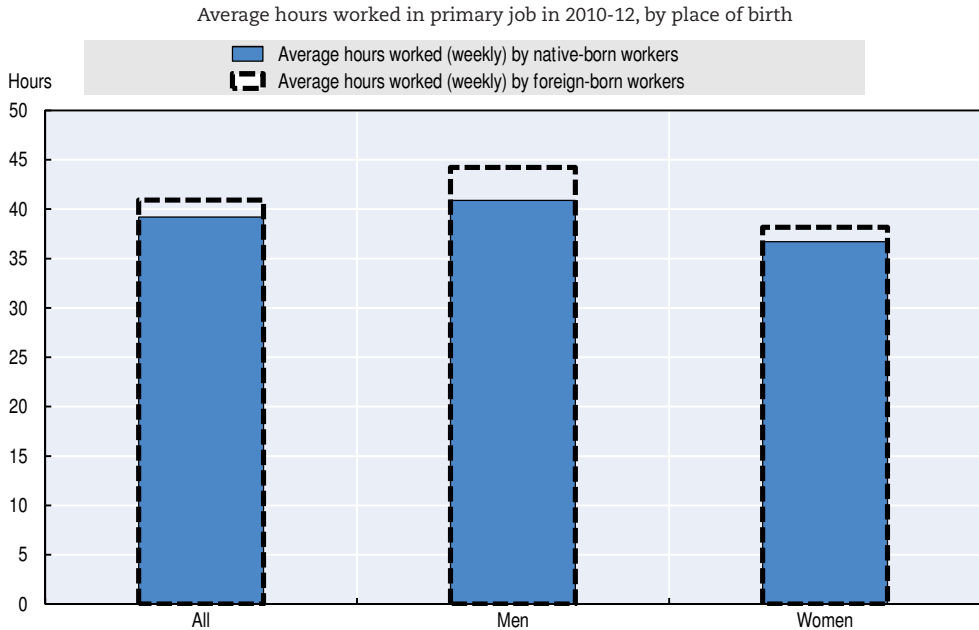
A higher share of immigrants is formally employed. According to the LiK survey, over the 2010-12 period, 59.4% of immigrant employees, members of producers' co-operatives and contributing family workers had a work book. A work book records an individual's employment history and serves as a basis for his or her social security contributions and, later on, pension payments. Among native-born individuals with the same employment status, only 49.9% had a work book. The proportionally higher representation of immigrants in manufacturing could explain this fact. In contrast, a lower share of the immigrant self-employed has a formally registered business: 33.7% compared to 44.8%.

Immigrants work more hours in their primary jobs than native-born workers

Immigrants on average work longer hours in their primary jobs than native-born workers do (Figure 3.7). While native-born individuals work around 39 hours, immigrants work around 41 hours. Among men, the difference reaches around 3 hours, while among women, the difference is about half that (all differences are statistically significant at the 5% level). Employers work the longest hours and contributing family workers the shortest. For all employment groups, the average hours worked by immigrants exceed the hours worked by

native-born workers, but for the most part the differences are not statistically significant (possibly due to the relative small sample sizes even in the pooled LiK data).

Figure 3.7. **Immigrants on average work slightly longer hours than native-born workers**



Note: The analysis excludes observations of individuals that worked zero hours during the previous week (1.4% of observations) and of individuals that did not know (0.4% of observations). The averages apply to the population aged 18 and above.

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1>.

Immigrants on average earn more from their primary economic activity than native-born workers

For most people, the primary source of income is from their work, be it as an employee or a self-employed person. The mean labour incomes are thus a key outcome to be compared between immigrant and native-born workers.

In Kyrgyzstan, immigrants on average earn more than native-born workers. Real labour income is defined as either the wage from the primary job among employees or family workers or as the personal profits among self-employed individuals, in both cases inflation-adjusted. Among immigrants, fewer earn very low amounts and more earn intermediate amounts. In the following chapter, it will be seen that neither the age, education, occupation, nor sector distribution of immigrants account for the difference in average labour incomes. It is possible that immigrants have unobserved skills that are more highly remunerated or that they are concentrated in sub-sectors in which earnings are higher.

The higher wages are also found when comparing the mean real labour income. With a monthly income of KGS 7 420 (approximately USD 165), immigrants earn about 15% more than native-born workers (KGS 6 538, around USD 140).⁹ The difference is statistically significant. The gap in average incomes is higher for men (28% higher incomes for immigrants) than for women (9% higher incomes for immigrants). In fact, the differential in average incomes from the primary economic activity between foreign- and native-born workers is smaller than the differential between men and women (25% higher incomes for men).

Immigrants are over-represented in the manufacturing sector and underrepresented in the agricultural sector

Between 1999 and 2009, the share of workers employed in the agricultural sector decreased (Table 3.7). This was mostly offset by very slight increases in the share working in other sectors. The exceptions are wholesale and retail trade and construction, which increased their shares in overall employment by 3-5 percentage points. Lower shares of immigrants work in the agriculture and construction sectors while higher shares work in manufacturing, trade, transportation and communication, and other services.

Table 3.7. Immigrants are under-represented in agriculture and over-represented in manufacturing

Distribution of workers across sectors, by place of birth

	1999		2009	
	Native-born (%)	Foreign-born (%)	Native-born (%)	Foreign-born (%)
Agriculture, fishing and forestry	57.3	34.1	45.7	31.4
Mining	0.5	0.6	0.6	0.8
Manufacturing	5.5	13.5	5.4	8.9
Electricity, gas and water	1.4	2.9	1.2	2.3
Construction	1.8	4.9	7.4	6.2
Wholesale and retail trade	9.6	12.3	13.2	15.4
Hotels and restaurants	1.0	1.7	2.6	2.8
Transportation and communication	3.0	5.7	4.4	6.2
Financial services and insurance	0.4	0.6	0.7	0.7
Public administration and defence	4.0	4.0	3.2	3.6
Real estate and business services	0.2	0.6	2.0	2.5
Education	7.4	7.6	6.1	7.4
Health and social work	4.5	4.6	2.8	3.7
Other services	2.8	5.9	3.7	6.5
Private household services	0.2	0.7	0.5	1.0
Other industry, not elsewhere classified	0.0	0.0	0.5	0.7

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

Immigrants are over-represented in higher-skill occupations and under-represented in elementary occupations

Between 1999 and the early 2010s, the share of immigrants working as skilled agricultural workers and plant and machine operators decreased and the share working in crafts and related trades and in elementary occupations increased (Table 3.8).¹⁰ Immigrants tend to be over-represented in occupations requiring higher skill levels, with the exception of skilled agricultural workers. Immigrants are under-represented among skilled agricultural workers and elementary occupations, and over-represented among crafts and related trades in both 1999 and the early 2000s. In 1999, they were also over-represented among professionals (in the LiK survey, the difference is not statistically significant), service and shop and market sale workers and plant and machine operators.

Table 3.8. A higher share of native- than foreign-born individuals work in elementary occupations

Distribution of workers across occupations, by place of birth

		1999 Census			2010-2012 LiK		
		Total (%)	Men (%)	Women (%)	Total (%)	Men (%)	Women (%)
Legislators, senior officials and managers	Native-born	4.6	5.9	3.0	2.4	3.1	1.3
	Foreign-born	7.5	8.8	6.1	3.2	3.5	2.9
Professionals	Native-born	7.4	5.0	10.3	9.2	6.0	13.8
	Foreign-born	9.2	6.8	11.4	10.8	6.7	14.2
Technicians and associate professionals	Native-born	7.3	4.8	10.4	6.5	4.3	9.7
	Foreign-born	8.4	5.3	11.4	8.7	4.7	11.9
Clerks	Native-born	1.3	0.7	2.0	4.3	3.2	6.0
	Foreign-born	1.9	0.9	2.9	5.7	2.8	8.1
Service and shop and market sale workers	Native-born	10.6	9.2	12.2	11.2	11.1	11.5
	Foreign-born	13.6	11.4	15.8	11.9	8.3	14.8
Skilled agricultural workers	Native-born	17.0	17.0	16.9	5.7	7.4	3.3
	Foreign-born	9.3	8.1	10.4	2.3	3.5	1.3
Crafts and related trades	Native-born	5.0	6.8	2.8	11.9	14.9	7.5
	Foreign-born	11.6	17.5	5.8	17.4	26.0	10.3
Plant and machine operators	Native-born	5.3	8.7	1.0	1.2	1.2	1.0
	Foreign-born	8.3	14.6	2.3	0.9	0.8	1.0
Elementary occupations	Native-born	41.5	41.6	41.3	47.3	48.3	45.8
	Foreign-born	30.1	26.5	33.5	39.2	43.7	35.5
Other occupations	Native-born	0.1	0.1	0.1	0.3	0.5	0.1
	Foreign-born	0.2	0.2	0.2	0.3	0.5	0.1

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5> and IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1>.

A higher share of immigrants is under-qualified and a lower share over-qualified compared to native-born workers

Nominal under- and over-qualifications are measured by assigning a skill requirement in terms of high, low and unskilled to each occupation group.

For example, for the ISCO group “Craft and related trades workers”, which is classified under the skilled manual group, the corresponding education requirement is secondary level. Therefore, the fractions of people with a primary education working in this group are considered as under-skilled and the fractions of people with a tertiary education are considered as over-skilled. Of course, this measure is relatively crude and does not capture that certain jobs within an occupation group might in fact require a higher, lower or simply more specialised education than the average education requirement suggests. Moreover, educational qualifications obtained domestically and abroad may not be perfect substitutes.

Immigrant workers are less frequently over-qualified and more frequently under-qualified compared to native-born workers; and over-qualification appears to have become a slightly more pressing problem in recent years. For example, in 1999, 36% of native-born and 24% of foreign-born individuals were nominally over-educated. Although the figures are not directly comparable, it appears that the share had increased until 2010-12: 47% of native-born and 35% of foreign-born respondents in the *Life in Kyrgyzstan* survey were nominally over-qualified. The increase may be testament to the rising education levels while job creation in higher occupation categories remained tepid. The under-education rates are 17% among native-born workers and 25% among foreign-born workers in 1999 and 12% among native-born workers and 16% among foreign-born workers in 2010-12 – again, likely a by-product of the rising education levels.

Conclusions

Immigrants are slightly more concentrated at the low- and high-skilled educational levels. This is associated with a less frequent representation among low-skilled occupations, a more frequent under-qualification and a less frequent over-qualification compared to the native-born population. It appears that a large part of the immigrant population is well integrated into the labour market, leading to a higher average labour income. The fact that many immigrated during the Soviet period from other Soviet republics and that they therefore often speak local languages and have been living in the country for several decades probably contributes to this outcome. Still, a higher share of the foreign-born population than of the native-born appears to be struggling to integrate into the labour force, as evidenced by a higher unemployment rate.

At a time when the situation of the labour force has become more precarious, the Kyrgyz population may be particularly concerned about any additional shock that could worsen its outcomes. Foreign-born individuals may be over-represented in certain occupations and sectors in which the levels of formalisation and wages tend to be higher. However, the share working in manufacturing or as professionals, for example, actually decreased between 1999 and 2009. At the same time, immigrants are not over-represented in sectors

such as agriculture or in elementary occupations, perhaps implying that they do not create downward pressures on labour conditions or wages. The following chapter investigates these hypotheses and explores their impacts.

Notes

1. The shares are relatively comparable in the 2012 *Life in Kyrgyzstan* survey.
2. Non-recent immigrants are foreign-born individuals that have been in their current location for at least ten years. Recent immigrants are defined as foreign-born individuals who have been in their current location for less than ten years. The recent immigrant category therefore likely includes some individuals that have already been in Kyrgyzstan for at least a decade but that moved within the country.
3. The birth place of emigrants is unknown. It is therefore possible that some of the emigrants were foreign-born. Moreover, the year(s) of emigration for return migrants and the year of immigration are not identifiable in the *Life in Kyrgyzstan* dataset. It is therefore impossible to compare the education of emigrants, return migrants and immigrants that emigrated or immigrated around the same time.
4. In addition to having a higher level of formal educational attainment, emigrants may also have higher cognitive skills. In a survey on migration and skills, it was found that individuals with emigration intentions from Kyrgyzstan and Uzbekistan had higher memory and literacy skills as well as better non-cognitive skills (Ajwad et al., 2014).
5. Since second-generation immigrants cannot be identified if they are not living with at least one parent, the analysis is restricted to children whose relationship to the household head is “child”. The school enrolment of teenagers that no longer live at home cannot be analysed. It is possible that some second-generation immigrants do not get identified as such because they only live with a non-immigrant parent.
6. For the *Life in Kyrgyzstan* survey, an individual is defined as working based on the questions about whether he or she works for a member of the household, has undertaken any farming over the previous seven days, normally has a job, a business or other income-generating activity, or works as an unpaid family worker even if he or she was not working over the previous seven days. An individual is defined as unemployed if he or she was looking for a job over the previous seven days. Otherwise, the individual is defined as being out of the labour force.
7. The registered unemployed are those that applied to public employment agencies. The unemployment rates reported here far exceed the registered unemployment rate (ILO, 2008). They also exceed the unemployment rates published by the ILO in the *Key Indicators of the Labour Market (KILMs)*, which are based on the *Integrated Household Survey*. The KILMs indicate a much lower unemployment rate in 1999 and a much less pronounced drop across the years (Schwegler-Rohmeis, Mummert and Jarck, 2013).
8. The 2009 census did not distinguish between different types of self-employment (own-account workers versus employers). Moreover, in 1999, for 12% of the working population the status in employment was indicated as “Not in universe”.
9. This statistic excludes incomes above the 99th percentile. If these are included, the difference climbs to 49% and continues to be statistically significant.
10. The 2009 census data do not contain information about occupations. It is therefore necessary to base the recent data on the 2010-12 pooled *Life in Kyrgyzstan* survey.

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Chapter 4

How immigrants affect the labour market in Kyrgyzstan

This chapter provides empirical evidence on the impact of immigration on Kyrgyzstan's labour market. The first part of the chapter discusses the income difference between immigrant and native-born workers, as well as vulnerable employment. The second part describes the methodology and data used for the analyses, followed by the estimation results and the conclusions.

Kyrgyzstan represents an interesting case for the study of immigration impacts. Along with the emigration of many workers, immigrant workers are also active in the local labour market. Under the conditions of already tight employment opportunities, the implications of this development are important. Despite the media discussing issues related to in particular Chinese immigration, there are no empirical studies on the impact of immigration on local labour market. Given this gap, this chapter provides empirical evidence on the relationship between immigration and the labour market outcomes of native-born workers in Kyrgyzstan.

The first part of the chapter discusses the income difference between immigrants and native-born individuals. The second part of the chapter first describes the analysis's methodology and data, followed by the estimation results and the conclusion.

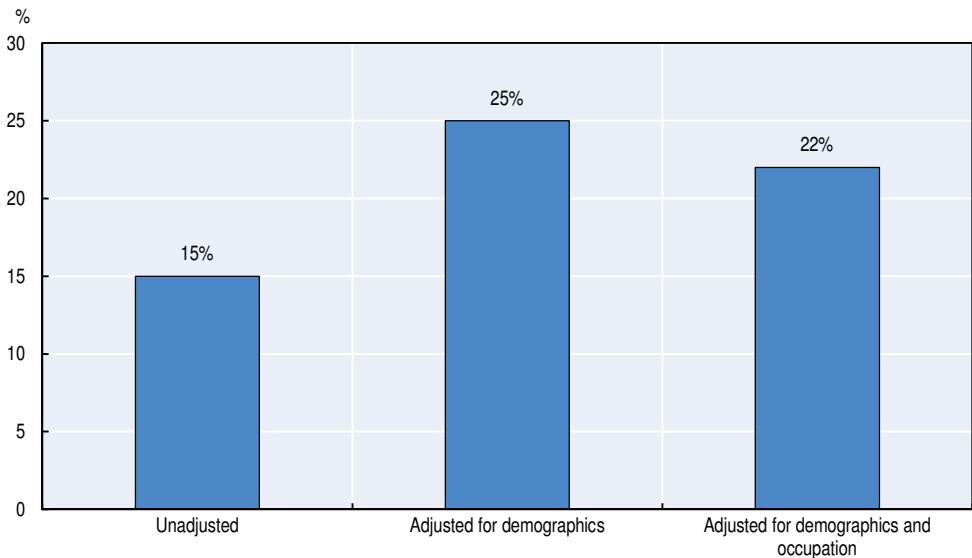
The difference in labour incomes between foreign- and native-born workers

Immigrants earn more than native-born workers in Kyrgyzstan, but their characteristics are quite different. In the previous chapter, it was shown that the average labour income of foreign-born workers was 15% higher than that of native-born workers over the 2010-12 period. At 28%, the difference was even higher for men. However, Chapters 2 and 3 also showed that immigrants differed in many other characteristics – such as a higher average age and a higher proportion of university graduates – that could potentially explain the gap.

The higher average labour income of immigrants persists even when their personal characteristics are taken into account. In fact, when considering the sex, age and education distributions of immigrants and native-born individuals, the difference is even larger – 25% instead of 15% (Figure 4.1). When in addition the distribution across occupations is accounted for, the difference shrinks to 22% but still exceeds the unadjusted difference. It also stays the same when controlling for the sector. Interestingly, the difference amounts to 55% for own-account workers while it is only 15% for employees. For other categories, the differences are not statistically significant because there are too few observations.

Figure 4.1. Immigrants earn more than similar native-born workers

Difference in the principal labour income of foreign- and native-born individuals, adjusted for characteristics, 2010-12



Note: The adjusted differences are obtained through Mincer regressions. The log real labour income from the primary job (including profits from self-employed activities) is regressed on whether someone is an immigrant, sex and marital status interactions, age, age squared, education indicators, working hours, year and, where indicated, occupation fixed effects. Incomes above the 99th percentile are excluded. The analysis is restricted to individuals aged 15 or older.

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1>.

The difference is even larger than most differences by education levels. Compared to people without any degree, when not controlling for occupation, individuals who completed primary school earned on average 5% more than otherwise similar individuals; secondary-school graduates 8% more and university graduates 52% more. However, only the earnings premium for university graduates is statistically significant. Once occupation is taken into account, none of the differences are statistically significant. Compared to legislators, senior officials and managers, all other occupation groups have lower average incomes (except the armed forces, where the difference is not statistically significant).

The income difference between foreign- and native-born individuals drops drastically when the oblast (region) is also controlled for. It is 9% when occupations are not controlled for and 10% when they are. For employees, the difference is only 7% and for own-account workers 22%.

The potential reasons for negative and positive wage gaps are similar

Two common explanations for wage gaps, whether negative or positive, between foreign- and native-born individuals are skill differences – including country-specific skills – and discrimination. In OECD countries, immigrants tend to have lower earnings than native-born individuals (Nielsen et al., 2004). In multiple project partner countries, in contrast, there is a positive difference in labour incomes. The importance of country-specific skills can partially account for the wage assimilation, to the extent that some migrants are able to “blend in” better over time. A decline in discrimination towards them may also help explain part of this assimilation.

Not all of the skill differences may be observable. Some of them – such as language skills – are observable in theory but may not be captured fully in existing surveys, or only in specialised surveys such as the Programme for the International Assessment of Adult Competencies (PIAAC) (OECD, 2013). Others – such as business acumen or knowledge about the local economy – may not be observable even with a specialised survey.

A third possibility is that certain occupations or sub-sectors of the economy have access restrictions that bar immigrants from entry. For example, non-citizens are not allowed to work for the public sector in certain countries. This factor only plays a role when the sector and occupation are not held constant, that is, when foreign-born individuals are not compared to native-born individuals within the same occupation or sector. However, given data constraints, the regressions can only control for broad sectors or occupations.

Given the positive wage gaps between foreign- and native-born individuals in Kyrgyzstan, similar explanations apply. Immigrants could either have specific skills that are well-remunerated, be positively discriminated against or have access to specific occupations. The higher wage premium experienced by own-account workers compared to employees suggests that employer discrimination is not a strong factor. The possibility that customers discriminate against native-born own-account workers seems less plausible, as does the possibility that immigrants have certain country-specific skills to a greater degree than native-born individuals. The most plausible explanations are that they have non-country specific skills or that there are certain occupations or sectors to which they have easier access. For example, immigrants active in the trade sector may have contacts that allow them to import goods from or export them to their home countries more easily (see Chapter 5).

Box 4.1. Are immigrants less subject to vulnerable employment?

Higher average labour incomes are not the only labour market characteristic that appears to give immigrants in Kyrgyzstan an advantageous position: a lower frequency of vulnerable employment is another. Immigrants do not appear more or less likely to be in precarious work situations than native-born workers who have similar demographic and educational characteristics and who live in the same parts of the country.

A vulnerable worker is someone who is either an own-account or a contributing family worker. These categories of workers are often in a precarious situation because their labour income can fluctuate more drastically and because they can be excluded from social protection schemes (ILO, 2009). In 2010-12, 51% of native-born workers and 37% of foreign-born workers were vulnerably employed. For men, both the vulnerable employment rate and the difference in the rates between foreign- and native-born workers are higher than is the case for women (55% and 39% for men, compared to 45% and 34% for women). Of course, the work of employees is not necessarily secure either. In particular informal workers may have few protections from being laid off and receive few benefits. One possible measure of this is whether an employee has a written contract. For this measure, there is no noticeable difference between foreign- and native-born employees. In 2011-12, around 60% of employees had a written contract according to the *Life in Kyrgyzstan* survey.

Table 4.1. Immigrants are not less likely to be vulnerably employed than comparable native-born individuals

Marginal effects for migration status, sex and education from probit regressions

	Vulnerable employment			Employment with a written contract		
	Unadjusted	Adjusted for age, sex and education	Adjusted for age, sex, education and oblasts	Unadjusted	Adjusted for age, sex and education	Adjusted for age, sex, education and oblasts
Immigrant	-0.149***	-0.121***	-0.005	-0.023	-0.037	-0.038
Female		-0.114***	-0.105***		0.004	0.008
Primary school		-0.097	-0.103		0.235	0.312
Secondary school		-0.034	-0.072		0.336	0.398
University		-0.418***	-0.366***		0.623***	0.679***
Observations		13 548			3 693	

Note: The vulnerable employment regression is based on workers aged 15 and older and the contract regressions on employees aged 15 and older from the 2011-12 waves of the survey. *** = Statistically significant at the 0.01 level.

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1>.

Box 4.1. Are immigrants less subject to vulnerable employment? (cont.)

Just as with wages, the age, sex, education and place of residence of an individual may influence how likely he or she is to be vulnerably employed. Regression analyses are used to investigate whether the vulnerable employment gap persists when these factors are taken into account. Surprisingly, they show that the basic demographic characteristics – age, sex and education status – do not explain the vulnerable employment gap. It only shrinks from 15 to 12 percentage points (Table 4.1). However, once the oblast where the respondent lives is also taken into account, the difference practically disappears. The effect of being an immigrant on the likelihood of being vulnerably employed shrinks to below one percentage point and is not statistically significant. The fact that accounts for this drastic change is that more than three-quarters of immigrants live in the Chui region and in Bishkek, while less than one-third of native-born individuals do (see Chapter 2). At 20%, Bishkek has the lowest vulnerable employment rate and at 38%, the Chui region has the third highest rate. With the exception of Osh city, the vulnerable employment rate exceeds 60% in all other oblasts.

Immigrant employees do not appear more or less likely to have a written contract than native-born individuals. While the unadjusted difference is equal to two percentage points (with a slightly smaller share of immigrants having a contract), the difference appears to increase slightly when only the demographic characteristics are taken into account and drop again to the prior level when the place of residence is also included. However, the differences are not statistically significant.

The labour market impacts of immigration

The absence of a negative wage premium for immigrants could indicate that their presence is unlikely to lower the labour income for native-born workers, but it does not rule it out. Furthermore, immigrants could displace native-born workers and increase their unemployment rate. This possibility is explored in this section.

The analysis follows an established methodology

The analysis presented below follows the skill-cell approach proposed by Borjas (2003) and variations thereof by Facchini, Mayda and Mendola (2013). The relationship investigated is whether a mean labour market outcome (such as the employment rate or labour income) of a group of native-born workers as defined by their education levels and work experience is affected by the share of immigrants in that same group. The implementation of this analysis occurs through regression analysis and is explained in more detail in Annex 4.A1. The underlying assumption is that native-born and immigrant workers only compete with each other if they have the same skill level.

A negative and significant coefficient on the immigrant concentration variable would indicate that when there are more immigrants that have the same skills, native-born workers suffer.

The differences between the two approaches relate to how the relevant labour market is defined and which additional impacts are taken into account. Following Borjas, the first skill groups are defined solely by the education level and their estimated work experience. This assumes that workers are completely mobile across the national territory. Following Facchini, Mayda and Mendola, groups are also defined by oblast. This assumes that labour markets are not national but regional. For both approaches, only individuals aged 15 to 64 are included. In order to account for the fact that the labour market outcomes may be systematically different by education, work experience or year, variables are included in the analysis that control for them.

The analysis distinguishes between four education levels and eight work experience levels, yielding 32 skill groups overall. The educational qualifications are no education or some primary education, primary education, secondary education (including some primary technical and secondary technical education) and post-secondary education. Work experience is estimated by deducting the presumed age at the end of education from the current age. The presumed age is 14 for those that are at most primary school graduates, 17 for secondary school graduates and 22 for post-secondary education graduates. Since the employment rates of men and women are relatively similar in the survey, no additional years are deducted for women.

Three data sources are used. These are the 10% sample of the 1999 and 2009 population censuses (Minnesota Population Center, 2015); the 2005 and 2010 waves of the *Kyrgyz Integrated Household Survey* (KIHS) (National Statistical Committee, undated) and the 2010-13 *Life in Kyrgyzstan* (LiK) survey (IZA, 2016). The census data is advantageous because of its large sample size (see Table 4.2). However, it lacks information on the respondents' wages and income. The other two surveys have much more detailed labour market information, but their sample sizes are limited. In contrast to the other two surveys, LiK is not representative at the oblast level.

As in Chapter 6, it would have been preferable to distinguish between immigrants that arrived recently or come from countries other than the former Soviet Union and those that were internal rather than international migrants at the time of their migration. Unfortunately, this is not possible. The census sample contains no information on the year of immigration. The other two surveys do, but their sample sizes are too small (ranging from 124 to 169 depending on the survey and year).

Another important weakness of the analysis in this chapter is that the variation of the immigration concentrations across skill groups and regions is not exogenous. Other studies have addressed this by for example studying

the effects of “natural experiments” – the sudden inflow of immigrants due to non-economic factors. However, no such external factor can be identified for Kyrgyzstan. The refugee flows from Afghanistan and Tajikistan are quantitatively too small to serve as such an exogenous variation.

Table 4.2. The census sample has more observations than household surveys
Sample sizes of 15-64 year olds in three data sources

	Population census 10% sample				Kyrgyz Integrated Household Survey			
	1999		2009		2005		2010	
	Number	Population share	Number	Population share	Number	Population share	Number	Population share
Total	278 460		367 865		13 109		12 500	
Native-born	251 615	90.4	349 896	95.1	12 572	95.9	12 085	96.7
Foreign-born	26 845	9.6	17 969	4.9	537	4.1	415	3.3
Life in Kyrgyzstan survey								
	2010		2011		2012		2013	
	Number	Population share	Number	Population share	Number	Population share	Number	Population share
Total	7 466		7 378		7 477		7 099	
Native-born	7 092	95.0	7 067	95.8	7 155	95.7	6 831	96.2
Foreign-born	374	5.0	311	4.2	322	4.3	268	3.8

Source: Authors' own work based on National Statistical Committee (undated), *Kyrgyz Integrated Household Survey for 2005 and 2010*; Minnesota Population Center (2015), *Integrated Public Use Microdata Series* and IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*.

Finally, it is unclear whether the surveys adequately capture recent immigrants. One indication is the dropping population share in the *Life in Kyrgyzstan* panel survey across waves. This may be driven by disproportionately high drop-outs of immigrants of the panel and could skew the results. One reason for a higher drop-out ratio is that immigrants may move more frequently than native-born individuals and might thus be harder to re-contact. Another indication is that estimates of Chinese immigrants far exceed the number enumerated in the 2009 census. It is plausible that recent immigrants who do not speak Russian or Kyrgyz are more likely to not be captured in household surveys and the census.

Immigrants are concentrated more among groups with more work experience

Identifying the impact of immigration relies on variations in the concentration of immigrants and in the outcome variables across skill cells. These variations exist and follow certain clear patterns.

Immigrant concentrations are higher among individuals with longer estimated work experiences and were usually higher in 1999 than in 2009 (Figure 4.2). The only exception is the section of the labour force with less than a primary school education: for individuals with estimated work experience of 5 to 19 years, the share was higher in 2009 than in 1999.

Box 4.2. Empirical studies on the labour market impact of immigration in OECD and developing countries

Empirical analyses on the impact of immigration on the labour market have mostly been elaborated within OECD country contexts and usually focus on income and employment effects. The majority of these studies find only small effects, though certain population groups – in particular low-income workers and prior immigrant cohorts – may experience some income declines (Kerr and Kerr, 2011; Longhi, Nijkamp and Poot, 2005).

There are only a few studies that focus on developing countries cases. Facchini, Mayda and Mendola (2013) find that immigration to South Africa has a negative effect on the native-born employment rate at the district level but not at the national level and that no clear conclusion can be drawn with respect to the effect on the wages of native-born individuals. Gindling (2009) reveals a slightly negative effect on the wages of native-born women with low educational attainment in Costa Rica, while there is no evidence for a negative effect of immigration on the wages of native-born men. Özden and Wagner (2014) uncover a significantly positive effect of immigration on both native-born wages and employment in Malaysia; however, for native-born workers with little education, immigration has negative implications. With these few and varied results, no definite conclusion can yet be drawn on the labour market impacts of immigration in developing countries (OECD, 2016).

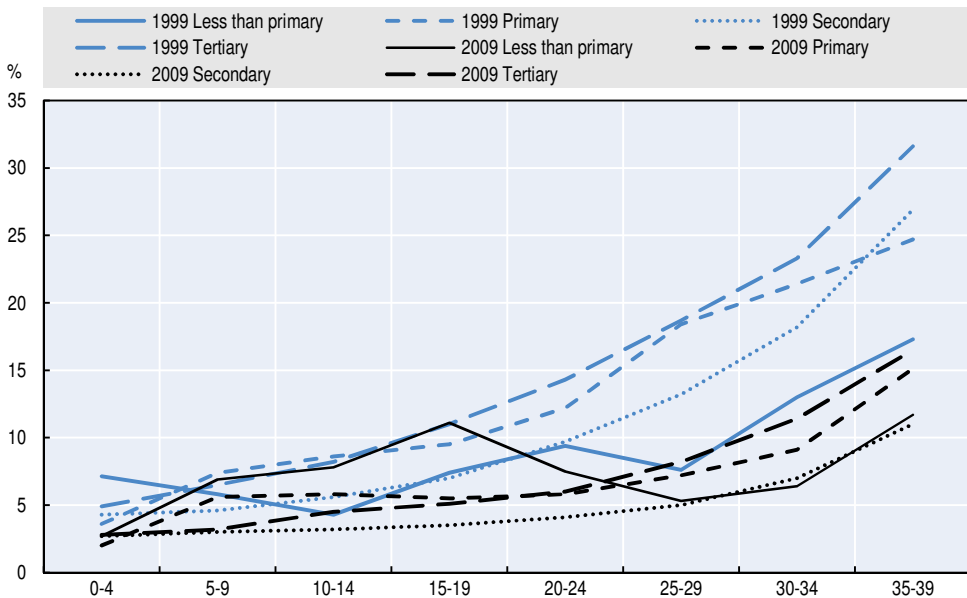
Another change between 1999 and 2009 is the concentration across education categories. In 1999, the share of foreign-born workers rises with their education level for almost all experience levels. In particular, for labour force groups with at least ten years of estimated work experience, the immigrant share is higher among those that completed primary school compared to those that did not, then drops again for secondary school graduates (but still to a higher share than among those that did not complete primary school), and finally reaches the highest levels among university graduates. In 2009, in contrast, the immigrant concentrations are higher among those with less than primary school degrees for almost all groups with work experience of less than 25 years.

Labour market outcomes for native-born individuals, such as the unemployment rate, also show clear patterns by work experience, education and year. Young workers that just entered the labour force suffer from the highest levels of unemployment (Figure 4.3). The rates first drop drastically

and then more slowly. This stems from a combination of it being easier to find employment with higher levels of work experience and, for the higher work experience levels, more individuals exiting the labour force to retire. The lower unemployment rates in 2009 compared to 1999 and for more highly educated individuals have already been noted in Chapter 3.

Figure 4.2. **Immigrants' concentrations are higher among workers with long work experience**

Share of foreign-born individuals in the labour force by estimated work experience and highest completed education

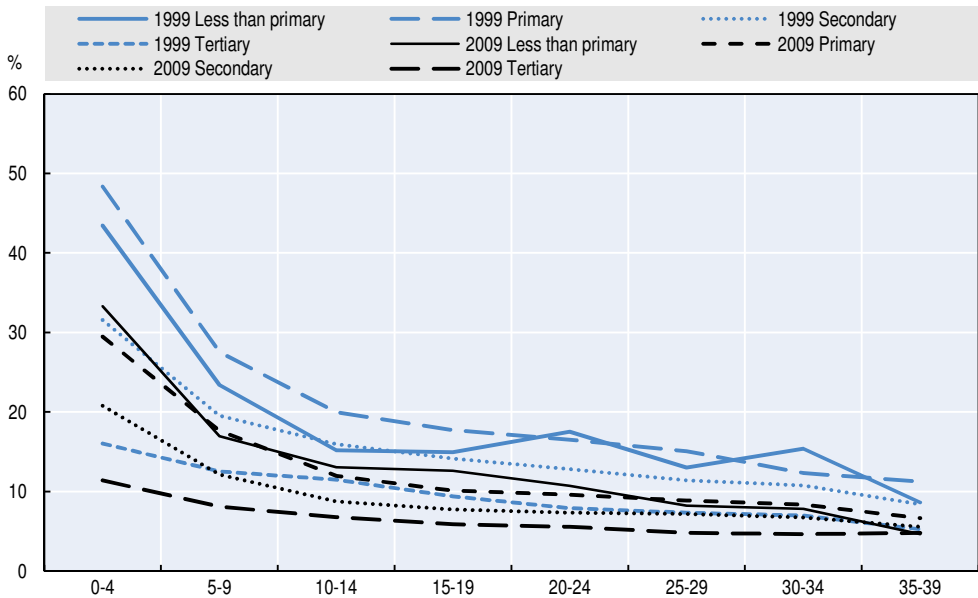


Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

Other labour market indicators also show that less educated native-born workers are more vulnerable. For example, the vulnerable employment rate drops somewhat with estimated work experience and drastically with education level. In 2009, the unweighted average in the vulnerable employment rate across the skill groups was 71% among those that lacked a primary school diploma, 53% among those that completed primary school, 58% among those that completed secondary school and 26% among those that obtained a university degree. In contrast to the unemployment rate, though, while in 1999 the vulnerable employment rate was still lower for those with more work experience, by 2009, this was no longer the case. As previously mentioned, the share of employees among workers dropped over this time period, leading to a rise in vulnerable employment.

Figure 4.3. Workers with low levels of work experience are much more frequently unemployed

Unemployment rate for native-born individuals by estimated work experience and completed education



Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

Immigration does not appear to worsen the labour market outcomes for Kyrgyz-born individuals

The impact on the following labour market outcomes of native-born individuals are analysed in the three data sources:

- employment-to-population ratio: the ratio of employed workers to the population
- employment rate: the ratio of employed workers to the labour force
- vulnerable employment rate: the proportion of native-born own-account workers and contributing family workers in total employment
- wage employment rate: the proportion of native-born wage employees to the labour force
- wages: annual wage earnings of workers
- income: income from employment activities.

The results are mixed depending on the data source used but also on whether the level of analysis is the national or regional labour market (Table 4.3).

Table 4.3. The concentration of immigrants and labour-market outcomes of native-born workers often do not appear related

Regression results on the relationship between labour market outcomes of native-born and immigrant workers

	Employment-to-population ratio		Employment rate		Vulnerable employment		Wage employment		Annual wage	Annual income
	National	Regional	National	Regional	National	Regional	National	Reg.	National	National
All										
Census	o	+	o	o	o	o	o	o		
KIHS	o		o		o		o		o	o
LiK	o		+		o		+		o	o
Men										
Census	o	o	o	+	o	o	o	+		
KIHS	o		o		o		o		o	o
LiK	+		o		o		o		+	o
Women										
Census	o	+	o	o	o	o	o	o		
KIHS	+		o		o		o		o	o
LiK	o		+		-		o		o	o

Note: An “o” indicates a statistically insignificant coefficient, a “+” a statistically significant positive coefficient and a “-” a statistically significant negative coefficient on the variable “share of immigrants in the labour force”.

Source: Authors’ own work based on National Statistical Committee (undated), *Kyrgyz Integrated Household Survey for 2005 and 2010*; Minnesota Population Center (2015), *Integrated Public Use Microdata Series* and IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*.

The first result to note is that higher immigrant concentrations do not seem to be correlated with reduced native-born employment (measured as an employment-to-population ratio and the employment rate). If anything, the relationship might be mildly positive: according to the oblast-level regression for men and women together, a higher immigration rate of one percentage point is associated with a higher native-born employment-to-population ratio of 0.2 percentage points (see Annex 4.A2).

The quality of employment also does not appear to be affected. Vulnerable employment as a share of total employment for immigrant and native-born workers is either not at all or negatively related. Similarly, the relationship to wage employment may be positive. The magnitude of the estimates is relatively large: a one percentage point increase in the employment rate may be associated with more than a one percentage point decrease in the vulnerable employment rate of women and a 0.4 to 1.7 percentage point increase in wage employment (as a share of employment).

Finally, there is probably no relationship between immigration and wages or income. Most of the estimated coefficients are not statistically significant, with the exception of the men-only regression based on the LiK data, where the coefficient is quite large and positive.

Conclusions

The prior chapter's finding that immigrants' labour income is higher than native-born labour income applies even when their distribution across sectors and their age and education are taken into account. Overall, higher immigration shares in a given skill group are not associated with less positive labour market outcomes for native-born workers. Given that the majority of immigrants are long-term immigrants, it is likely that the labour market has already fully adjusted to their presence. The effect may in theory be stronger for recent immigrants. However, the surveys do not contain sufficient observations to study their effects; and overall, their numbers are likely too low to have an important impact on the average labour market outcomes, even if they may influence the labour market in certain towns or occupations.

Some of the results are similar to the other partner countries while others are not. In the partner countries, immigrants tend to make either more than or an equal amount to similar native-born workers. The exceptions are Argentina and South Africa. Unlike in Kyrgyzstan, where there is no mostly significant relationship between immigration and labour market outcomes of native-born workers, there are selected effects in some countries. These are discussed in the comparative report.

Future research could expand the analysis of the labour market impact of immigration in Kyrgyzstan in two main ways. First, the analysis could be applied based on data from all waves of the KIHS data. Secondly, future research could try to capture the simultaneous effects of immigration and emigration. That is, what are the labour market effects of increased emigration? And do immigrants tend to take jobs that are left open by emigration, or do they settle into different roles?

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ANNEX 4.A1

Methodology

The methodology for this chapter follows Facchini, Mayda and Mendola's 2013 analysis of the labour market impact of immigration in South Africa. Their analysis is in the tradition of Borjas (2003) and Card (2001).

The estimations are based on group-level ordinary least squares regressions. Each of the outcomes is regressed on the share of immigrants in the labour force in the skill(-oblast) group. The regressions also include fixed effects for education, experience and year, interaction thereof and the oblast for the regional regressions. A significantly negative coefficient on the immigrant concentration variable suggests that when there are more immigrants that have the same skills, the relevant labour market outcome for the native-born population diminishes. For the employment rate, wage employment and income, this would represent a deterioration of their situation while for the vulnerable employment rate, it would represent an improvement.

For the first (national-level) regressions, the equation to be estimated is the following:

$$Y_{ijt} = \beta m_{ijt} + e_i + w_j + c_t + (e_i * w_t) + (e_i * c_t) + (w_i * c_t) + u_{ijt} \quad (1)$$

where Y_{ijt} is the labour market outcome for a native-born worker with education i ($i = 1...4$) and work experience j ($j = 1...8$) for year t .

$$m_{ijt} = M_{ijt} / (M_{ijt} + N_{ijt})$$

where M_{ijt} is the number of immigrant workers with education i , work experience j at time t and N_{ijt} is the number of native-born workers with education i , work experience j at time t . The other explanatory variables are a set of fixed effects that aim to take into account the education level (e_i), work experience (w_j) and the time period (c_t).

For the second (oblast-level) regressions, the following equation is estimated:

$$Y_{ijt} = \beta m_{ijt} + d_i + s_j + c_t + (d_i * s_j) + (d_i * c_t) + (s_j * c_t) + u_{ijt} \quad (2)$$

where Y_{ijt} is the labour market outcome for a native-born worker in region i ($i = 1 \dots I$), skill level j ($j = 1 \dots J$) at time t . Skill levels ($j = 1 \dots J$) are identified by combining education and work experience.

$$m_{ijt} = M_{ijt} / (M_{ijt} + N_{ijt})$$

where M_{ijt} is the number of immigrants in region i , skill level j , at time t and N_{ijt} is the number of native-born workers in region i , with skill level j , at time t . The other explanatory variables are a set of fixed effects that aim to take into account the geographic region (d_i), skill level (s_j) and the time period (c_t). Dependent variables and breakdowns are the same as for the first method.

ANNEX 4.A2

Additional tables

Table 4.A2.1. Regression coefficients on the immigrant share variable: National level

	Native-born employment-to- population ratio	Native-born employment rate	Native-born vulnerable employment (% native-born employment)	Native-born wage employment (% native-born labour force)	Wage income	Total income
Census						
Total	-1.597	0.0933	0.310	0.165		
Men	-1.508	-0.307	-0.508	-0.347		
Women	-1.190	-0.341	1.183	-0.135		
KIHS						
Total	-0.255	-1.879	-1.502	0.941	-0.140	-4.416
Men	-0.602	-1.086	-0.439	-1.501	-0.625	1.832
Women	0.833**	0.614	-0.352	0.401	-0.379	-1.117
LiK						
Total	0.237	1.521*	-1.183	1.718**	-3.039	0.0937
Men	1.341**	0.928	0.848	1.073	3.289**	-0.644
Women	0.0157	1.053*	-1.596***	0.457	2.154	0.0157

Note: Significance levels * = 0.1, ** = 0.05 and *** = 0.01.

Source: Authors' own work based on National Statistical Committee (undated), *Kyrgyz Integrated Household Survey for 2005 and 2010*; Minnesota Population Center (2015), *Integrated Public Use Microdata Series* and IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*.

Table 4.A2.2. Regression coefficients on the immigrant share variable: Oblast level

	Native-born employment-to- population ratio	Native-born employment rate	Native-born vulnerable employment (% native-born employment)	Native-born wage employment (% native-born labour force)	Wage income	Total income
Census						
Total	0.244***	-0.0319	-0.242	0.318		
Men	0.385	0.259**	0.0378	0.370**		
Women	0.252***	-0.230	-0.270	0.244		

Note: Significance levels * = 0.1, ** = 0.05 and *** = 0.01.

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/D020.V6.5>.

Chapter 5

Immigration and economic growth in Kyrgyzstan

This chapter covers different aspects related to the link between immigration and economic growth. First, it explores the relationship between immigration and various macroeconomic outcomes, including an estimation of the share of value added created by immigrants. Second, it discusses how immigration is related to firm creation and firm behaviour. In particular, it sheds a light on the relative self-employment propensity of foreign- and native-born individuals and the role of immigrants in the manufacturing and trade sectors.

Immigration does not only affect the labour market; it may also entail further economic adjustments within companies and the economy at large. This chapter focuses on these aspects: it first describes possible links between key economic developments and immigration. Second, it focuses on how immigration may affect firm creation and firm behaviour. For this part, the chapter relies not only on macroeconomic data, but also on a qualitative study of the manufacturing and trade sectors.

The contribution of immigrants to value added and GDP

As described in Chapter 2, Kyrgyzstan's economy has been gradually recovering from the break-up of the Soviet Union. Macroeconomic data provides no clear answer on how any positive or negative developments were affected by immigration (or vice versa). However, the value added created by immigrants may exceed their population share.

It is difficult to observe links between the strengths of economic growth and immigration flows

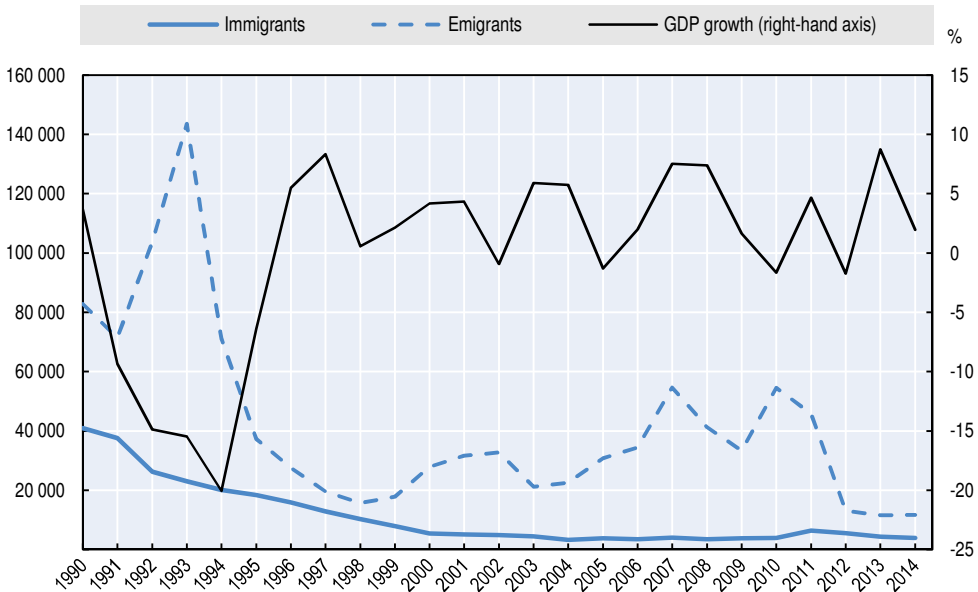
A visual observation of registered immigration and emigration flows as well as of per-capita growth rates of gross domestic product (GDP) suggests that emigration and GDP growth move more in tandem than immigration and GDP growth (Figure 5.1). In the post-independence period, immigration flows declined until around 2000. They stayed fairly stable for the decade and only experienced a noticeable uptick in 2011. However, actual immigration flows are likely higher. Emigration flows doubled from 1991 to 1993 (from around 71 000 to 144 000 emigrants). They then dropped continuously until 1999. Thereafter, there were several spikes in emigration flows (in 2000-02, 2007 and 2010). These usually either coincided with or followed periods of weak economic growth.

It is not possible to formally analyse the link between immigration flows and GDP growth in Kyrgyzstan. However, it is unlikely that at the county level such a link exists. The political and economic shocks that Kyrgyzstan has weathered since gaining independence certainly outweigh the impacts of relatively small changes in immigration flows. Moreover, the country's emigration flows have outweighed its officially observed immigration flows by a factor of at least 1.5 and often much more (up to 13.8 in 2007). Their impacts

likely outweigh those of immigration flows. However, this does not imply that there cannot be an impact on per-capita GDP growth in Kyrgyzstan. It is just likely to be small and unobservable based on aggregate data.

Figure 5.1. **Emigration flows may be more sensitive to GDP growth fluctuations than immigration flows**

Immigration and emigration flows and per-capita GDP growth rates



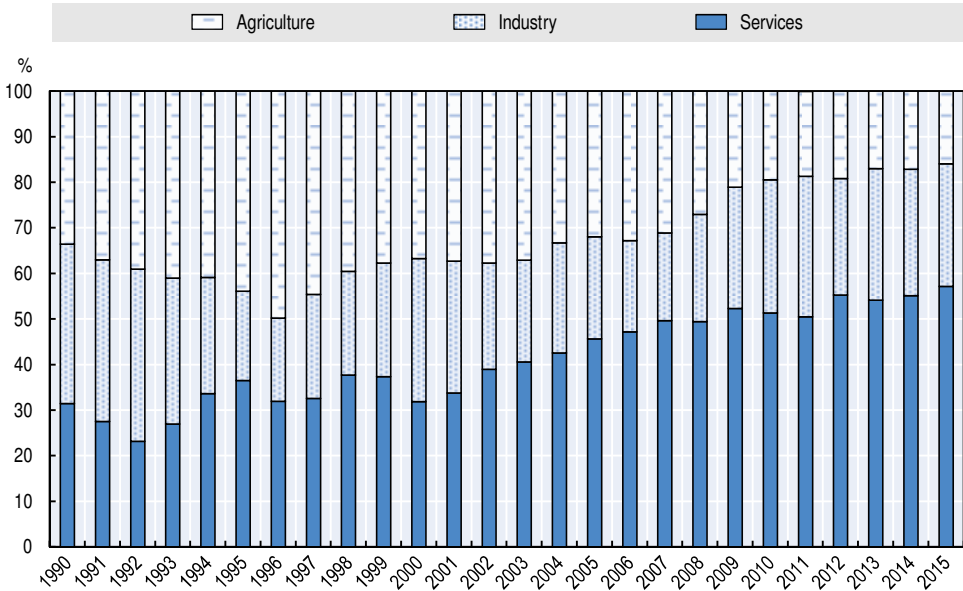
Source: National Statistical Committee (undated b), *National accounts statistics – GDP by economical [sic] activity in last year prices*, <http://stat.kg/en/statistics/nacionalnye-scheta/> National Statistical Committee (undated a), 5.01.00.15. *External migration of population by nationality*, <http://www.stat.kg/en/statistics/naselenie>.

The service sector has greatly expanded

The structure of the Kyrgyz economy has drastically changed since the early 1990s (Figure 5.2). While in 1990, GDP was generated in about equal parts by agriculture (33.5%), industry (35.0%) and services (31.4%), by 2015, the economy was heavily dominated by its service sector. Services now produce around 57% of GDP, while agriculture only generates 15.9% and industry 26.9%. However, it should be noted that the industrial sector has partially recovered: in 1996, it only made up 18.3% of the economy, and this at a GDP per-capita level far below those of 1990 or 2015. A 2014 Asian Development Bank (ADB) report for instance notes that Kyrgyzstan has been able to produce goods (in particular textiles) for export (ADB, 2014).

Figure 5.2. **The service sector's contribution to GDP has almost doubled over the past 25 years**

Share of value added (% of GDP)



Source: National Statistical Committee (undated b), National accounts statistics – GDP by economical [sic] activity in last year prices, <http://stat.kg/en/statistics/nacionalnye-scheta/>.

Immigrants contribute a slightly above-average share of value added

The estimated value added that is generated by immigrant workers is slightly higher than their population share. The estimate is derived by multiplying the value added produced in an economic sector by the share of immigrants working in that sector. Then, the resulting estimated sums of value added produced by immigrants in each of these sectors are added up.¹ In order to account for potentially differing productivity of immigrant and native-born workers, it is assumed that the ratio of estimated years of completed education reflected the relative productivity of immigrants in the sector. According to the non-adjusted estimate, 5.2% of value added is produced by immigrants (Table 5.1). The adjusted estimate suggests a slightly lower value of 5.1%. The share is higher than the immigrant share of the labour force (4.4%) as well as higher than their share of the overall population (4.5%) according to the 2009 census. The above-average concentration of immigrants in the sectors such as mining and manufacturing with relatively high value added per hour work accounts for this result.

Table 5.1. Immigrants contribute a slightly higher share of value added than their share of employed individuals
 Estimated value added produced by immigrants

	2010 Gross value added (million KGS)	2009 Immigrant share	Productivity adjustment	Estimated immigrant value added	
				Without adjustment	With adjustment
Agriculture, forestry and fishing	38 450.6	3.0	1.01	1 168.9	1 181.2
Mining and quarrying	1 384.0	5.6	0.95	77.0	73.1
Manufacturing	37 154.9	7.0	0.96	2 600.8	2 498.9
Electricity, gas and water	7 172.6	7.7	0.98	549.4	540.4
Construction	12 169.1	3.7	0.95	445.4	424.9
Wholesale and retail trade	35 086.4	5.0	0.98	1 768.4	1 731.9
Transportation and communication	19 993.4	6.1	0.98	1 219.6	1 195.2
Accommodation and food services	2 762.0	4.6	1.00	127.1	127.1
Financial and insurance services	8 573.9	4.5	1.00	386.7	384.8
Public administration and defence	12 363.4	4.9	0.98	603.3	593.3
Real estate and business services	6 009.3	5.6	0.96	333.5	319.2
Education	9 654.1	5.2	1.02	503.0	511.4
Human, health and social work	5 588.3	5.7	0.99	316.3	313.8
Other services	8 696.1	7.4	1.01	632.2	635.8
Overall	205 058.1	4.4%		5.2%	5.1%

Note: The productivity adjustment is calculated in two steps. First, a proxy for the years of schooling is calculated based on educational attainment. It is assumed that those with less than a primary school education or missing information had 0 years of schooling, those that completed primary school 4 years, lower secondary 9 years, technical secondary 11 years, general secondary 12 years, some college 13 years and completed university 15 years. In the second step, the productivity adjustment is calculated as the ratio of the mean years of schooling of immigrant individuals working in a sector to the mean years of native-born individuals in the same sector.

Source: Authors' own work based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series*, <http://doi.org/10.18128/DO20.V6.5> and National Statistical Committee (undated b), *National accounts statistics – GDP by economical [sic] activity in last year prices*, <http://stat.kg/en/statistics/nacionalnye-scheta/>.

The result that an approximate 5% of GDP can be attributed to immigrant workers does not imply that GDP would be 5% lower if immigrants left. In reality, both the immediate and the long-term impacts may be higher or lower than a 5% loss. The first reason is the weakness of the value added estimate itself. Productivity can vary substantially within a sector, and immigrants may be working disproportionately in companies with above- or below-average productivity. In addition, the ratio of estimated years of schooling is only a crude proxy for productivity differences between foreign- and native-born individuals. Second, the economic activities of immigrants can have broader effects. If they disproportionately create high productivity and high growth firms or fill vital and previously unfilled positions, their impact on GDP can be larger than 5%. In contrast, if they displace native-born workers or companies, it can be smaller. The previous chapter has shown that there may be some labour market displacement effects. But these effects may be offset by positive ones, as will be discussed later in the chapter in the context of the manufacturing and trade sector study.

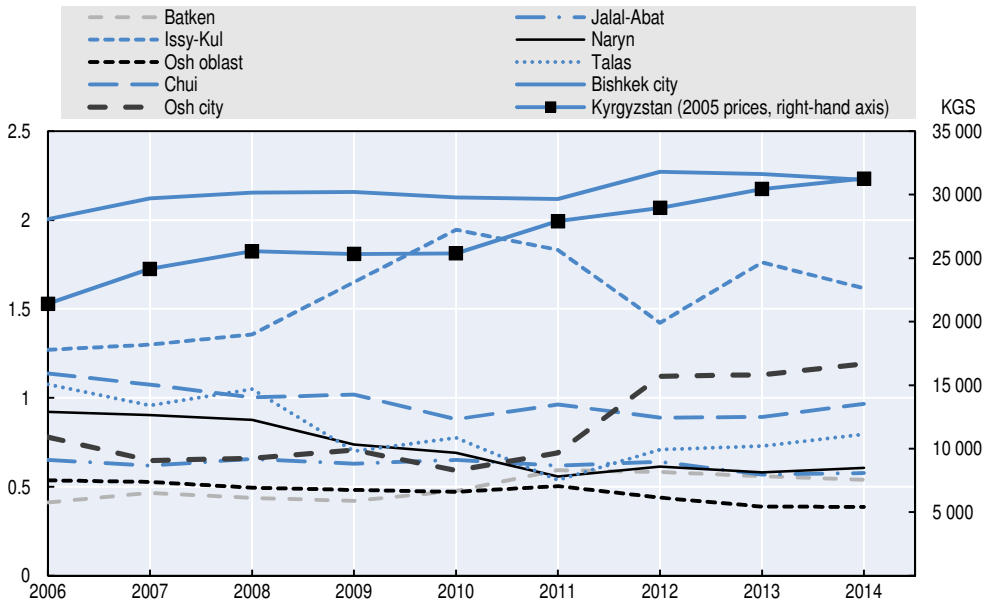
Incomes are higher in Bishkek and in urban areas overall

Different regions generate proportionally different amounts of value added. As is the case in many countries, the population in the capital city is on average richer than elsewhere. Over the 2006-14 period, the per-capita income in Bishkek was consistently twice the national average (Figure 5.3). This ratio has risen over time, with a noticeable jump from 2011 to 2012. The per-capita income is likewise above average in the Issy-Kul oblast and Osh city, although in the latter case this is only true since 2012.

In all oblasts, wages are higher in large than small enterprises. In the country overall, workers at small companies earn 43.2% of average wages, those at medium-sized companies 68.3% and those at large companies 145.9%. The discrepancy is highest in the Issy-Kul oblast: the relative wages here are 13.6%, 19.6% and 173.5% of average wages in the oblast (National Statistical Committee, undated b).

Figure 5.3. **The relative per-capita income is rising in the Issy-Kul oblast and the cities of Bishkek and Osh**

Per-capita GDP relative to the national average and average GDP per capita in 2005 prices



Source: National Statistical Committee (undated), National accounts statistics – GDP by economical [sic] activity in last year prices, <http://stat.kg/en/statistics/nacionalnye-scheta/>.

Average wages are lowest in the agriculture and fishing sectors and highest in mining, manufacturing, utilities, transport and communication, and financial activities. In all areas of economic activity with the exception of agriculture

and fishing, wages are higher in Bishkek than the regional average (National Statistical Committee, undated b). The dominance of urban areas is not restricted to Bishkek: urban wages exceed rural wages in all industries except mining (ADB, 2014).

Foreign direct investment and trade have been rising

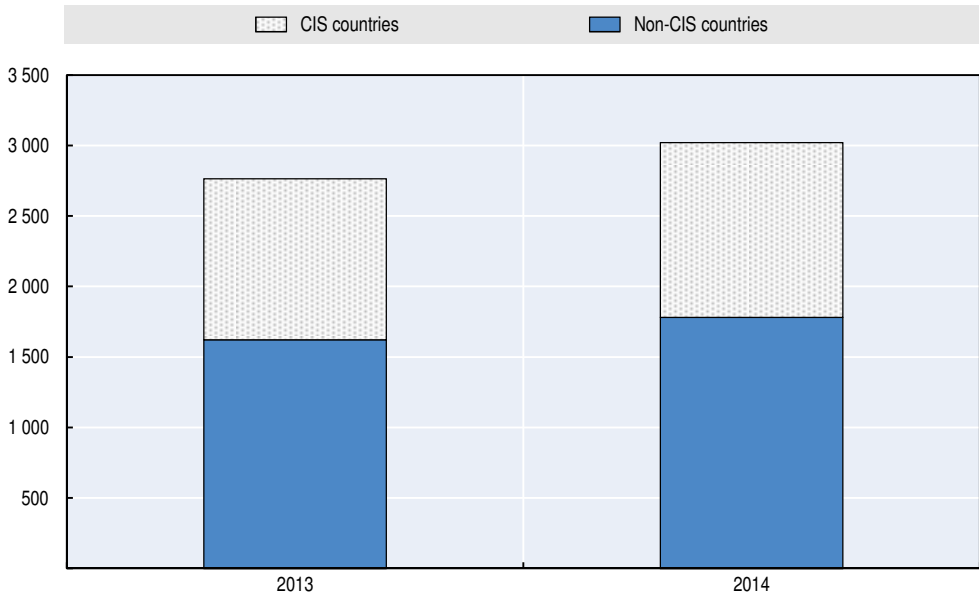
Since independence, Kyrgyzstan has opened itself both to foreign direct investment and trade. Kyrgyzstan has a relatively liberal system for the protection of foreign investor rights. The 2003 Law on Investment elaborates the investment policy (IFC, 2015). Foreign and Kyrgyz investors enjoy equal rights, including the right to move freely within the national territory and to invest in any object or legal activity. Investors may freely export or repatriate capital and revenues. Kyrgyzstan also secured a Generalised Scheme of Preferences Plus (GSP +) status from the European Union (EU). Through this status, exporters from Kyrgyzstan gain an opportunity to supply more than 6 000 items to the EU on a duty-free basis. This mostly applies to agricultural and textile products.

In 2014, the country hosted 3 022 operational companies with foreign investments, of which 53.8% were fully foreign-owned. Compared to 2010, the number of companies with foreign investments increased by 15.7%. Primary partners included non-CIS countries (1 623 companies) (Figure 5.4). In 2014, a predominant share of companies consisted of joint ventures with China, Kazakhstan, Russia and Turkey. The largest number of companies with foreign investments is concentrated in wholesale and retail, automotive repairs, processing industry, professional, scientific and technical fields, construction, and information and communication technologies.²

The net trade balance has decreased over time, driven by increasing imports. Both imports and exports made up a higher share of GDP than the average for lower-middle-income countries, as well as the average for non-high income European and Central Asian countries, in the early 1990s. This is partially explained by the fact that small countries tend to engage more in external trade as internal markets are more limited. However, since the turn of the century, imports have risen drastically. The negative trade balance was initially offset by positive net remittances, but since 2005 the trade balance has been too negative for that to occur (ADB, 2014).

The ranking of Kyrgyzstan's trade partners differs for imports and exports. Nearly three-quarters of imports originate from three countries –China, Kazakhstan and the Russian Federation. These countries do not even account for 30% of exports. Instead, the most important export trade partner is Switzerland. Almost the entirety of the exports is gold. Overall, gold represented 42% of exports in 2015 (UN, undated).

Figure 5.4. The number of companies with foreign investors is increasing
 Number of operational companies with foreign investment by country of origin of investors



Source: National Statistical Committee (2014), *Deyatelnost predpriyatij s inostrannymi investitsiyami v KR 2010-2014 gg*, <http://www.stat.kg/media/publicationarchive/9fac2a89-13da-45b9-bffd-666921637276.pdf>.

Cross-national empirical studies have consistently found that rising numbers of immigrants strengthen the investment and trade ties between the countries of origin and destination (e.g. Co, Euzent and Martin, 2004; Dunlevy and Hutchinson, 1999; Felbermayr and Toubal, 2012; Gould, 1994; Lewer and Van den Berg, 2009; White, 2007). If this is true, domestic companies could benefit by having access to more and potentially cheaper capital, more diverse and again potentially cheaper inputs, and a larger number of potential buyers.

It is unclear whether this link is present in Kyrgyzstan and, if so, whether the impacts of immigration are as important as the impacts of emigration. If there is a link between trade and immigration, it appears to be stronger when it comes to imports rather than exports: more of the important import trade partners than export trade partners are countries of origin of immigrants (in particular China, Kazakhstan and Russia). In contrast, only 2.5% of exports go to China. As previously mentioned, Kyrgyzstan has become a trade hub within the region. Many goods are imported in particular from China but also from Turkey and other countries and re-exported to Kazakhstan, Russia, Uzbekistan and other Central Asian countries (Mogilevsky and Omorova, 2011). Immigrants may contribute to this development. However, joining the Eurasian Economic Union decreased this role (Galdini and Nematov, 2016; European Parliamentary Research Service, 2017).

As regards foreign investment, the direction of causality is unclear. Immigrants may certainly create linkages with investors from their home countries. But while this was not mentioned, some stakeholders suggested that foreign direct investors that are active in Kyrgyzstan – for example Turkish construction companies and Chinese infrastructure companies – bring along some workers.

Firm creation and behaviour: Overview

Immigration may affect the productive sector in multiple ways. New firms may be created and existing firms may carry out investments, manage to raise their productivity and innovate, or go out of business due to increased competition. This section discusses these different aspects as well as factors that may affect how firms adjust to labour force growth.

The immigrant self-employment rate is lower than the native-born rate

Immigrants may create businesses themselves or create conditions that make it easier for native-born individuals to start their own companies. A report of the Ministry of Labour, Migration and Youth in 2013 states that foreign-owned companies and partially foreign-owned joint ventures employed more than 40 000 Kyrgyz citizens but that foreign-born employers created just 1 500 new jobs for local residents (IOM, 2016).

As was seen in Chapter 3, in 2001, the share of employed individuals that were business owners was lower among immigrants than among the native-born population. The same is true for the share of own-account workers in the 2009 census. The second result is confirmed based on the 2010-12 *Life in Kyrgyzstan* survey: there are too few observations to come to any conclusions about whether the business ownership rate differs between immigrants and the native-born. In contrast, the own-account worker share is lower among foreign-born individuals (27.1%) than among native-born individuals (34.1%).

Even when controlling for the demographic characteristics (age, age squared and sex) and education of immigrants and the year, the result persists: the average marginal effect on the immigrant variable is -0.04. This implies that the combined (own-account and business owner) self-employment rate is 4 percentage points lower among foreign-born employed individuals than among similar native-born individuals in the 2010-12 period. The results are similar based on the 1999 and 2009 censuses: the average marginal effect on the immigrant variable is -0.03. In 1999, moreover, the likelihood of being a business owner was also lower among immigrants: the average marginal effect is -0.017.

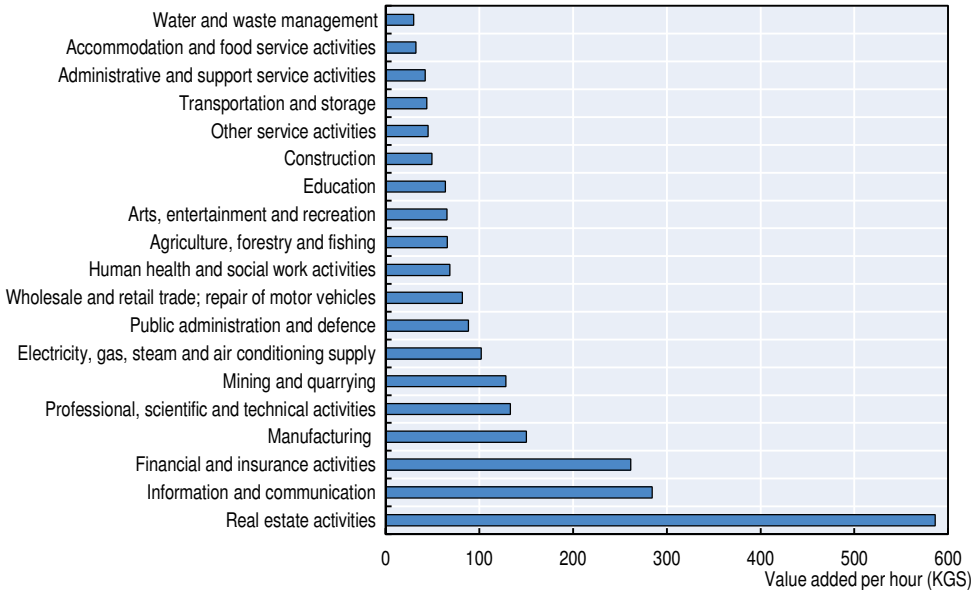
Labour productivity has started to recover

Labour productivity varies greatly by sector. When using a proxy measurement that is equal to the value added per hour worked (and thus does not consider different levels of other inputs), in 2014 the value added

ranged from KGS 30 in the water supply, sewage and waste management sector to KGS 586 in real estate activities (roughly equal to USD 0.5-10) (Figure 5.5). The value added is thus highest in selected service activities. They are particularly high in real estate, information and communication, and financial and insurance activities. These are followed by the mining, manufacturing, and electricity and gas sectors – sectors which usually require high capital investments – as well as professional, scientific and technical activities. In addition to the water and sewage sector, the value added per hour is also very low in construction, transportation and storage, accommodation and food service activities, administrative and support service activities, transportation and storage and other service activities. These are sectors in which relatively large shares of workers are low-skilled. There is no clear pattern of immigrants clustering in low or high value added sectors.

Figure 5.5. **Value added varies drastically across sectors**

Value added per hour worked by sector in Kyrgyz som, 2014



Note: The value added per hour worked is calculated by dividing the value added of the sector by the product of the average hours worked per week in the sector times 52 times the number of individuals working in the sector.

Source: Authors' own work based on ILO (undated), *ILOSTAT Database*, www.ilo.org/ilostat/ and National Statistical Committee (undated b), *National accounts statistics – GDP by economical [sic] activity in last year prices*, <http://stat.kg/en/statistics/nacionalnye-scheta/>.

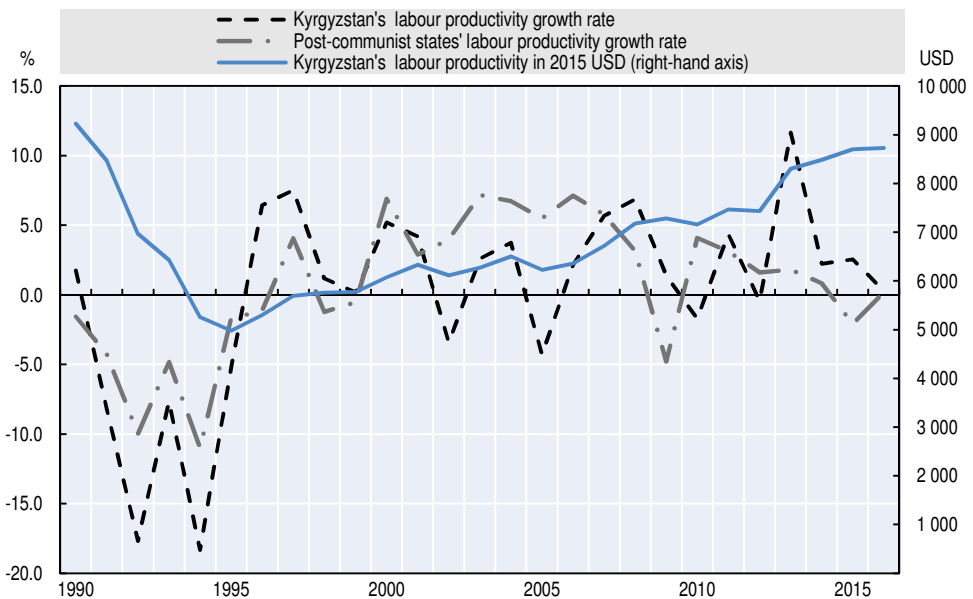
Labour productivity overall has grown in recent years, but has still not reached pre-independence levels (Figure 5.6). Following the breakup of the Soviet Union, output plummeted and as industrial production declined,

workers turned to lower productivity economic activities (ADB, 2014). Since then, years with medium to high labour productivity growth have alternated with years with negative growth. A recent report by the Asian Development Bank (ADB, 2014) identified several factors contributing to low productivity:

- the concentration of workers in low-productivity sectors
- skill gaps driven by a combination of out-migration, the declining quality of the educational system, and a mismatch between the training and education tracks chosen by young adults and the needs of the labour market
- declining infrastructure and land quality
- corruption.

Figure 5.6. Labour productivity growth has been unsteady in the past two decades

Labour productivity per employed worker in 2015 USD and labour productivity growth rate



Source: The Conference Board (2016), *The Conference Board Total Economy Database™*, <https://www.conference-board.org/data/economydatabase/>.

The drop in total factor productivity (TFP) has been even more drastic than the drop in labour productivity. Total factor productivity measures how efficiently inputs are turned into outputs. Improvements in TFP may for example reflect a more efficient allocation of inputs across firms or economic sectors as well as technical progress. While labour productivity is now at roughly 95% of the 1990 level, TFP is around 71%. Nonetheless, the level of TFP in the

manufacturing sector alone may be relatively high. Estimates based on the World Bank's Enterprise Surveys suggest that among the sample of post-Communist European and Central Asian states, Kyrgyzstan had an above-average (by a factor of more than 2.5) aggregate TFP (Saliola and Seker, 2011).

Theoretical and empirical research (Peri, 2012; Ortega and Peri, 2009; Quispe-Agnoli and Zavadny, 2002) suggests that the productivity effects of immigration can be positive or negative. If immigrants are predominantly middle aged, they may be more productive (Feyrer, 2007). Immigrants can also introduce new technologies from their home countries (Hornung, 2014; Markusen and Trofimenko, 2009) or be particularly innovative. More diverse firms may also be more productive, but only if the diversity does not exceed a certain threshold and communication within the company becomes too difficult.

It is currently impossible to estimate the effect of immigration on productivity in Kyrgyzstan, because of a lack of a sufficiently large and detailed enterprise survey. Immigration could however address one of the factors that are holding back productivity and economic growth – the difficulty of companies in finding workers with the right skills (World Bank, 2014). In particular, technical specialists and human resources personnel appeared to be missing (OECD, undated). However, it is not clear to what extent this is actually the case. As was seen in previous chapters, the share of university graduates is higher among foreign- than native-born individuals, but the share with a secondary education is lower. A disaggregated perspective on the formally and informally obtained skills that immigrants bring and which the economy is lacking is not available. Nonetheless, interviews with employers and workers suggest that immigrants may bring some skills and this could have positive productivity effects.

Firm behaviour and immigration: A qualitative study of the trade and manufacturing sectors

To understand the full economic impacts of immigration and the mechanisms that lie behind it, it is necessary to understand how firms react. The previous section provided a general discussion of some of the macro-level outcomes of these firm reactions. This section complements this general view with the perspectives of individual native- and foreign-born entrepreneurs and workers in Kyrgyzstan.

The perspectives described in this section were obtained through a qualitative, interview-based study of the trade and manufacturing sectors. The motivation for this sector study was to gain insights into how those that work and own businesses in these sectors perceive the interplay between native-born and immigrant workers and the positive and negative impacts of immigration on their activities. This makes it possible to generate hypotheses about the impact of immigration on the productive sector. Given that the results are not

based on nationally representative survey data, it is however impossible to draw strong conclusions about the causal impact of immigration on companies. Future survey data collection efforts will hopefully address this shortcoming.

The trade and manufacturing sectors employ an above-average share of foreign-born workers

The trade and manufacturing sectors were selected because of their economic weight and their share of immigrant employment. Aside from agriculture, manufacturing and wholesale and retail trade are the most important economic sectors in terms of value added. Together, they produced over one-third of GDP in 2010. Furthermore, immigrants are over-represented in these two sectors: 8.9% of immigrant workers versus 5.4% of native-born workers were employed in the manufacturing sector in 2009; and 15.4% of immigrant workers versus 13.2% of native-born workers worked in wholesale and retail trade (Table 3.7). According to officially registered workers, in 2015, 1.2% of the employees in the manufacturing and construction sectors and 0.5% of the workers in the trade, and restaurant and food services sectors were foreign-born workers. However, their definition is based on nationality rather than country of birth.

One reason why employment of immigrants in the two sectors (but particularly in trade) is so attractive may be because of the high degree of informality. Immigrant workers may thus be able to be work even when they lack the right paperwork, and employers may take advantage of this. The high prevalence of informal employment is of course problematic for multiple reasons, including the lack of social protection coverage that these workers face and the reduced tax revenue.

Since 2009, other sectors may have taken the lead as disproportionate employers of immigrants. Government and business association stakeholders frequently suggested that the construction and mining sectors now employ the most immigrants. In 2009, immigrants were still under-represented in the construction sector: 6.2% of immigrant workers worked in construction as opposed to 7.4% of native-born workers. The share of immigrants working in mining was slightly more elevated than the share of native-born workers employed in the sector. But less than 1% of all workers were employed in mining.

The perception of the increased employment of immigrants in these sectors appears to be partially attributable to the activities of both private and public foreign investments. The mining sector attracts the majority of foreign direct investment and these investments have been growing (UNCTAD, 2016). Regarding infrastructure, China and Kyrgyzstan have signed numerous public investment agreements concerning – among other investments – road construction (CABAR, 2016). It is unclear to what degree these investments are associated with an increased concentration of immigrants in these sectors.

Since there is no data basis to ascertain this and since the share of workers employed in the mining sector is so small, this report does not focus on these two alternative sectors.

The qualitative study consisted of focus groups and stakeholder and enterprise interviews

The sector study centres around several research questions: what drew immigrants to Kyrgyzstan and into the specific sectors? What were barriers to employment of immigrants? And what effects did their presence have on the enterprises employing them as well as on their competitors and on native-born workers? Given the qualitative nature of the study, the majority of the questions revolved around perceived rather than “actual” effects.

In addition to a review of the literature, the main bases for the sector study were three qualitative instruments: stakeholder interviews, enterprise interviews and focus group discussions. The stakeholder interviews were carried out with a total of 19 representatives from government, business and migrant organisations and foreign investors. The sampling scope included stakeholders in the labour migration process. Potential interview partners were contacted through letters, e-mails and phone calls. Overall, 50 contacts were attempted. Among the interviewees, there were eight high-level representatives from relevant government bodies, namely the Ministries of Foreign Affairs and Labour, the State Migration Service, the State Committee on Manufacturing, the State Registration Service, the National Statistical Committee and the National Institute for Strategic Studies. There were six director-level representatives of industry and business associations, including the International Business Council, the Kyrgyz Union for Manufacturers and Entrepreneurs and the Chamber of Commerce and Industry. Finally, there were five representatives of civil society and investor organisations.

The enterprise interviews were carried out with a total of 71 respondents in 60 formal enterprises in the manufacturing and wholesale and trade sectors. The overwhelming majority of the interviews were carried out in Bishkek (66), while an additional 5 were carried out in Osh. This naturally does not reflect the distribution of companies across Kyrgyzstan: in 2016, out of around 638 000 registered companies, most (146 000) were located in Osh and 113 000 in the Chui region (Aki Press, 2016). This sample is naturally not large enough to draw conclusions about the frequency of firm behaviours and outcomes of companies that are representative of the two sectors. Nonetheless, it can indicate whether certain practices or problems exist.

The sampling frame for the formal enterprises included those named by the Kyrgyz Chamber of Trade and Manufacturing and other business associations, administrators of the Free Economic Zone, and the Tazabek industry rating (Aki Press, 2016). A letter was sent to the enterprises in order to request a visit for

an interview with a high-level representative as well as the inclusion of two workers in focus group discussions. In addition, self-employed individuals were recruited through snowball sampling among personal and professional contacts. The response rate of companies was poor: only 17% responded to the request for an interview, and the level of perceived anxiety in responding to questions was high. Four percent of the sample were among the larger companies listed in the Tazabek Top 200 Companies Index; thus the country's large companies made up almost one-quarter (23.3%) of the final sample, and small and medium-sized enterprises represented three-quarters.

Of the respondents to the enterprise interviews, 28 were in the trade, 19 in the manufacturing and 23 in mixed trade and manufacturing sectors. Nine of the companies were joint stock companies, 42 limited liability companies and the remainder private enterprises with individual entrepreneurs. The distribution across these categories was similar in the trade and manufacturing samples. Fourteen of them are among the top 200 companies in Kyrgyzstan according to the Tazabek rating. The number of years that the companies had already existed varied widely and ranged from 1 to 75 years. Those older than 25 were previously state owned. About two-thirds of the enterprises had Kyrgyz owners. The majority of the remaining enterprises was owned by Chinese and Turkish owners, and some by Iranians, an Indian and a Jordanian. The majority of respondents worked for companies with less than 20 employees. There were no respondents from firms with more than 500 employees, but 9 with more than 100 employees.

In this sample, 28 out of the 60 companies had between 1 and 390 formally reported foreign-born employees. Companies that were foreign-owned had a much higher share of immigrant workers (around one-third) than companies with Kyrgyz or mixed ownership, where the share hovered in the lower single digits. While this sample is non-representative, it nonetheless suggests that the concentration of immigrant workers is higher in companies that are foreign-than native-owned. In the three types of companies, the concentration of immigrants in managerial or specialist roles was higher than in mid-skilled or workshop occupations.

The focus group discussions were carried out with ten groups of foreign- and native-born workers working for both formal and informal enterprises (including self-employed workers) in the two sectors in Bishkek and the Osh and Chui oblasts. Some of the groups consisted of both Kyrgyz and immigrant workers, while others were separate. A total of 70 people were interviewed in focus groups ranging from 4 to 11 participants. The immigrant workers came from a variety of countries: ten were born in China, five in Turkey, three in Uzbekistan, two each in India, Kazakhstan, Pakistan, Tajikistan and the United States and one each in Afghanistan, Canada, Norway and Russia. An almost

equal number of men and women participated, and the distribution across age groups was also fairly even, with a concentration among prime-age workers.

The focus group participants were recruited through the formal letters to the enterprises as well as snowball sampling among both formal and informal workers. It was difficult to recruit workers and therefore, in 3 of the discussions, 15 workers outside of the trade and manufacturing sectors were included. These were workers at a Turkish-owned restaurant and language teachers.

The manufacturing and trade sectors are the most important sectors in Kyrgyzstan

The manufacturing and trade sectors are currently the most important economic sectors in Kyrgyzstan. In 2014, 16% of GDP (excluding financial intermediation services indirectly measured and net taxes on products) was generated by the manufacturing sector and 19% by the trade sector (National Statistical Committee, 2015a). Aside from the agricultural sector (14%), no other sector generates 10% of GDP or more.

The manufacturing sector is dominated by the metal (specifically, gold) processing sub-sector and concentrated in the Bishkek and the Chui, Issy-Kul, and Jalal-Abad regions. From 2011 to 2015, the production of basic and finished metal articles accounted for an average of 69% of the value of manufacturing output. The three sub-sectors that followed in terms of output value were food production (17%), production of rubber and plastic items (9%) and textile production (6%). All other sub-sectors accounted for at most 2% on average. Almost 40% of the physical output is produced in the Chui oblast, followed by 23% in Issy-Kul, 19% in Bishkek city and 10% in Jalal-Abad.

The growth of the manufacturing sector is not consistent. It fell in 2012, grew in 2013 and then stayed relatively stable until 2015. Overall, manufacturing's output value only increased by 4% over these years (National Statistical Committee, 2015b). The number of small and medium-sized enterprises in the sector exceeds 2 200, 6% of which have more than 50 employees.

The trade sector is expanding rapidly. From 2009 to 2015, the total turnover (including repair activities) increased every year. Since 2012, the number of small and medium-sized enterprises in the sector has also continuously increased, reaching nearly 3 600 in 2015. Less than 5% of these enterprises have more than 50 employees. According to official statistics, about half of the turnover takes place in Bishkek city, 13% in the Chui oblast, 10% in Jalal-Abad and 8% in Osh city (National Statistical Committee, 2016).

A large share of retail and wholesale trade takes place on the Kyrgyz bazaars. The two main ones are the Dordoi market in Bishkek and the Kara-Suu market in Osh. They are each independent markets of around 250 hectares that even back in 2008 provided direct employment to more than 70 000 individuals

(Kaminski and Mitra, 2012). Enterprises active in retail or wholesale trade often also provide other services, such as companies that sell cosmetic products but also offer beauty treatments or that sell construction materials but also offer architectural planning services.

Numerous factors affect the integration of foreign-born workers in the Kyrgyz formal and informal sectors

Push and pull factors

The focus groups yielded relatively few insights into which factors in their home countries encouraged immigrants to emigrate to Kyrgyzstan. For certain specialist workers, a combination of high competition in their respective home countries' labour markets and attractive working conditions in Kyrgyzstan may have been decisive. Companies may offer similar salaries than individuals could expect in their home countries – as appears to be the case for certain specialist workers from China, Russia and Turkey – while immigrants can benefit from the lower living expenses. In addition to the salaries, specialists may be offered benefits such as flights to their home countries and paid Russian courses. However, it is unclear what percentage of immigrant workers are offered such attractive conditions, even at the managerial or professional level.

Some immigrant workers initially move to Kyrgyzstan to obtain a higher education and end up staying. In some cases, they start enterprises. For instance there was an entrepreneur from Tajikistan, who initially came to Kyrgyzstan to study for his bachelor's degree, but then got involved with goods manufacturing. Another respondent from Pakistan also moved to Kyrgyzstan to continue his education and later, started to work in the trade sector.

The background literature also offers some insights into why immigrants may choose to immigrate to Kyrgyzstan, in particular in the very recent past. For example, a survey carried out in Kyrgyzstan and other transition economies indicated that in 2016, the majority of respondents believed that the overall economic and political situations had improved over the previous four years and more than two-thirds believed that their households were doing better. While only a third believed that corruption had declined over the same time frame, this was nonetheless better than the regional average (EBRD, 2016). A general sense that “things are getting better” and a comparatively high level of life satisfaction could certainly be among the pull factors for immigration, even if they were not explicitly mentioned in the focus group interviews.

For immigrant entrepreneurs and self-employed individuals, structural characteristics of the Kyrgyz economy may have driven their decision to immigrate and work in Kyrgyzstan rather than elsewhere. For example, according to a representative of a business organisation, the relatively low tax rates and preferential customs treatment from the European Union might have

induced some immigration and subsequent investment. The liberal investment and tax regimes and the World Trade Organization membership were mentioned by another. Lower wages were also frequently cited. Certain interviewees suggested that other national markets may be more competitive and immigrant entrepreneurs might thus be compelled to start a business in Kyrgyzstan's less competitive environment. In fact, some even believe that entrepreneurs that have failed elsewhere turn to Kyrgyzstan.

In addition to economic factors, immigrant entrepreneurs as well as immigrant workers may be attracted to Kyrgyzstan for social and cultural factors. Advantages that were mentioned included a tolerant and liberal environment compared to other Central Asian states or Russia and the presence for example of Turkish schools.

However, some of the relative advantages that made Kyrgyzstan attractive to foreign-born entrepreneurs in comparison to other Central Asian countries may be disappearing. In terms of economic factors, according to a government representative, since the creation of the Eurasian Economic Union, some Chinese traders are now active on the Kazakh Horgos market rather than the Kyrgyz Kara-Suu market because Kazakhstan has a direct rail link to China. As for political factors, some business association representatives argued that the political instability and the two revolutions in 2005 and 2010 have scared away existing or potential foreign-born entrepreneurs. In fact, it was mentioned that some companies went bankrupt because they were looted and subsequently not compensated for their losses.

The recruitment of foreign-born labour

While immigrant workers get hired at all skill levels, among the enterprises included in the sample the hiring appears to be particularly concentrated at the specialist or managerial level. The majority of those enterprises was foreign-owned. However, companies owned by Kyrgyz-born entrepreneurs also employed foreign-born specialists or managers.

The foreign-owned companies seem to prefer hiring workers from their own home country. This is noticeable with the Chinese-owned companies. Out of a total workforce of 760, the companies with Chinese ownership employed 20 Chinese nationals at the managerial/specialist level (alongside 20 native-born managers/specialists), 200 at the middle-level (alongside 400 native-born middle-level workers) and 60 at the workshop level (alongside 60 native-born workers).

Enterprises that seek to hire foreign-born workers use a variety of ways to recruit them. The most common ones are through vacancy postings, personal networks, or business and diaspora organisations. Recruiting agencies are less frequently used. The 12 foreign-owned firms that employed 25% of the

immigrant workers in the sample had filed 365 work permit applications. In contrast, the immigrant-employing native-owned companies had applied for 88 work permits.

For the case of foreign-owned companies, many suggested that foreign-born workers are hired through the entrepreneurs' networks in their home countries. However, it is noted that foreign-born entrepreneurs may struggle with the bureaucratic processes as procedural information is not easy to find in English or in their native languages.

Foreign-owned companies in the manufacturing sector tend to hire immigrants for the managerial- or specialist-level jobs and for middle-level jobs. However, the key interviews suggested that in other sectors such as road construction and mining that were outside of the scope of this sector study, there seems to be a very high intake of immigrants for menial jobs.

Corruption and bureaucracy processes as barriers to employing foreign-born workers

When seeking to obtain work permits, employers have to overcome bureaucratic hurdles that only a minority of respondents do not perceive as problems. In fact, only one-quarter of the respondents stated that no difficulties arose, while another quarter saw bureaucracy as a major obstacle. A particular problem appears to be that work permits are sometimes only granted for a few months. The frequent need to renew the permits places a large administrative burden on companies.

One persistent problem that also manifests itself in the hiring of foreign-born employees is corruption. Some immigrant workers reported that they had to pay bribes in order to obtain permits; and employers seeking to hire foreign-born workers equally reported that in some cases, they were asked to pay bribes. In fact, 15% of respondents stated that corruption was a difficulty they faced when hiring foreigners. One respondent active in the import business even reported that he was arrested when he refused to pay a bribe. It appears that bribes are often requested when permits need to be renewed.

While corruption appears to be occurring, it is not universal. Several immigrant workers obtained their permits according to the legal procedures, without having to pay any bribes. In some cases, institutions assisted them with the procedures. Some had initially come to Kyrgyzstan as students and their universities helped them obtain the required documents. Others were assisted by the embassies of their home countries. However, still other immigrants were able to get the work permits by themselves without paying bribes. Overall the impression is that the higher the education of the immigrants the easier it is for them to get all the paperwork in order and obtain permits. Knowledge of the relevant legislation seems to help this group of immigrants. In contrast, the labour immigrant's country of origin does not

appear to be a relevant predictor of the type of treatment he or she receives or of the cost of successfully obtaining permits.

Bureaucratic tax burdens as a push into the informal sector

The informal economy in Kyrgyzstan is large and has grown over time. About two-thirds of workers are employed in the informal sector, with the vast majority (80%) of them working in agriculture. Estimates of the share of GDP generated by the informal sector vary: the National Statistical Committee estimated that it had grown from USD 1.4 billion in 1995 to USD 26 billion in 2007. Some independent experts still see this as an underestimate and believe that more than half of the country's GDP is generated by the informal sector (Building Migration Partnerships, 2011). Others, in contrast, believe that the National Statistical Committee figures are overestimates.

Heavy tax burdens, extensive administrative requirements and a lack of confidence in government authorities have come to be seen as drivers of the informalisation of the Kyrgyz economy (Building Migration Partnerships, 2011; UNDP, 2007). One focus group participant indicated that he was not able to deal with the reporting requirements of the tax authorities and therefore preferred to pay fines rather than taxes. One self-employed immigrant noted that he was subject to extortion attempts by different state bodies that were asking him to pay bribes, threatening to close his business. Immigrant entrepreneurs that are not fluent Russian or English speakers may be particularly affected because taxes can only be reported in those languages.

Language skills play a key role in the integration of workers

Not surprisingly, language is a key factor in how successful immigrants integrate with the rest of the workforce. Focus group participants that stated that the integration occurred easily often referred to the fact that there were no language barriers. This was particularly the case in the manufacturing sector. In contrast, local workers in the trade sector mentioned that sometimes certain groups of immigrants, such as the Chinese, did not seek to communicate with the Kyrgyz-born traders and instead preferred to stay among themselves.

Religion and mentality differences or similarities can also play a role. Sharing a common religion was also cited as a factor easing integration. For example, employers in the service and trade sectors said they found working with Turkish immigrants particularly easy because they were also Muslim. Some employers, in particular in the trade sector, noted that one of the skills which immigrants lack is an understanding of the Kyrgyz mentality.

The perceived effects of immigrant employment on firms in Kyrgyzstan

Immigrants may fill skill gaps

One way in which enterprises may benefit from immigration is if they are able to fill skill gaps. According to the assessment of the Asian Development Bank (2013), growing skill deficits – along with a harsh business environment and tight and expensive financing – are a major constraining factor for expanding into higher value added products and services. Skills which were named by enterprise and association representatives as being in short supply included engineering, operations, electrical and mechanical maintenance, and financial and supervising functions.

As was previously mentioned, in the sample of enterprises that were interviewed, immigrant workers were particularly over-represented at the managerial or specialist level, even though their numbers are more elevated among middle and workshop level workers. In combination with the higher wages that, in some cases, have to be paid for such foreign-born specialists compared to equivalent Kyrgyz workers, this indicates that immigration may fill some skill deficits.

This positive role of immigrants was outlined by certain interlocutors. For example, different business organisation representatives mentioned that when certain skills are simply not available on the market, it is preferable to hire an immigrant even at extremely elevated wages because the entire production process could otherwise not be carried out in its planned form. And in the interviews with enterprise representatives, the absence of suitable qualifications in the local labour market was the second most frequent response to the question of why immigrant workers were hired (after the answer that it is the policy of the company to hire the best suited worker regardless of his or her country of origin). The types of skills for which immigrant workers were seen as stronger cover the gamut of technical and business skills and probably depend on each company's individual characteristics.

Immigrant businesses as competition

Even when immigrant and native-born workers are active in the same sub-sectors, they may take up different niches. For example, Kyrgyz-born traders mentioned they believed that many foreign-born traders sold low-quality goods at low prices, while they themselves sold high-quality goods at higher prices.

There are however perceptions that (mostly Chinese and Turkish) entrepreneurs displace some native-born workers in the trade sectors. Among the available explanations is that importing consumer goods is cheaper for Chinese immigrants in particular. In general, immigrants from industrial

countries have more connections with manufacturers in their countries of origin, and consequently it is easier for them to import consumer goods to Kyrgyzstan.

Participants in the focus group discussions and enterprise interviews gave multiple examples of immigrant specialisation in specific niches that, in some cases, created barriers of entry for the native-born population. For example, the Uyгур traders from China at the Madina market tend to sell specific commodities imported to Kyrgyzstan in large quantities, such as fabrics and home apparel made in China, at a very low cost, which makes any competition with those traders extremely difficult. The Han Chinese traders and entrepreneurs play a similar role in the sale of cosmetics, facial and personal hygiene products, clothes, and shoes in the Kara-Suu market in Southern Kyrgyzstan. Over time, the quality of goods imported from China tends to increase. These goods are then sold and further re-exported by Kyrgyz traders to Kazakhstan, Russia and a number of other countries.

There also appears to be a growing specialisation of the traders in construction and home apparel goods from Arab, European, Russian and Turkish makers. The goods include porcelain toilets and lavatory sinks, special lighting, energy-saving light bulbs and systems for power outages, heating systems, and air conditioners. Finally, interviewees reported growing competition between traders from the Arab Emirates, China, Russian and Turkey in the area of white goods for the kitchen and home appliances, such as laundry and dish washers, refrigerators, TV sets, personal computers, mobile phones, and gadgets.

The increased competition may however have positive consequences in the long term. A business association representative suggested a way in which Kyrgyz traders could deal with the increased competition: by working together with Chinese designers, they could develop and subsequently sell new products. In fact, in some cases this already appears to occur. Another representative asserted that increased competition from foreign-born entrepreneurs could push Kyrgyz firms to innovate, leading to positive growth.

The perceived effects of immigration on Kyrgyz workers

The skills of immigrant workers

Immigrants can contribute to skill and technology transfers. Several manufacturing workers in the focus group discussions said that they had learned new skills through working with immigrants. These immigrants also introduced new technologies, such as production methods for polyurethane pipes and modern tractors. Workers in the trade sector similarly mentioned that Turkish traders had strong skills in terms of how to advertise goods and communicate with customers, and that they were able to emulate some of their skills.

The skill transfer can either occur informally or be explicitly planned. In the first situation, foreign- and native-born workers can learn from each other while they are working side-by-side. In other situations, foreign-born experts might be on a limited-time contract to teach Kyrgyz workers how to take over the job completely and/or companies might institute mentorship schemes and training seminars. However, in some cases, language barriers actually prevent mutual learning.

Some of the focus group participants were quite optimistic about how much native-born workers could learn from immigrant workers. For example, several respondents said they believed that the number of immigrants in Kyrgyzstan would decline over the next decade as native-born workers would be able to learn from them over this period and eventually replace them.

Hiring by immigrant entrepreneurs

Native-born workers may benefit from immigration if they are hired by immigrant business owners; however, some native-born workers in the informal trade sectors complained that they were only seen as a cheap source of labour and that the immigrant business owners either did not have a sufficiently polite attitude towards them or regarded them as less educated than immigrants. This was mentioned also by self-employed traders that came to this conclusion based on their own observations as well as the experience of friends or relatives. One respondent cited cases where foreign-born business owners mistreated native-born carriers and loaders by paying them too little for extra work and verbally abusing them when they disagreed. However, it is obviously unclear whether such behaviour is any more or less common among immigrant- than native-born employers.

The representative of a Kyrgyz business organisation similarly suggested that native-born workers earned less for an equivalent position. He said this was the case once additional benefits for predominantly high-skilled immigrant workers such as in housing are taken into account.

In some cases, immigrant employers in the formal sector prefer to hire employees from their home countries, in particular for management or professional positions. It was suggested that some do so out of the belief that their compatriots are more qualified, experienced or hard-working. For example, different government representatives asserted that immigrants' lack of family ties makes them less likely to take time off to attend festivities or help relatives. In other cases, according to the beliefs of a government representative, it is simply that they wish to have the same language and cultural knowledge within the company. A different business culture may be behind some difficulties. For example, a representative of a consulting investment firm suggested that

Chinese entrepreneurs were not able to understand the strict limits Kyrgyz workers set on their work time.

However, the preference for workers from the foreign-born entrepreneurs' home countries may be changing. A representative of a business organisation noted that while in the 1990s foreign-owned companies typically brought managers from their home countries, they now often prefer to and are able to hire qualified local workers. This preference occurred not only because wages of local managers are lower than those of their expatriate workforce, but also because Kyrgyz-born workers have more local skills, including knowledge of local languages and legislation and the ability to deal with the local bureaucracy.

Whether or not a foreign-born entrepreneur hires native- or foreign-born workers is not fixed over time. When a new manufacturing or mining operation is launched, it may initially be necessary to bring in foreign-born experts. However, after a training period, native-born workers may be able to take over the work and the foreign-born specialist may leave, as suggested by a government representative.

Conclusions

This chapter sought to gather evidence on the role of immigrants in the Kyrgyz productive sector from two different sources of evidence: first, macroeconomic data and second, a qualitative study on the trade and manufacturing sectors. These sectors were selected for the case study because they are among the most important ones in terms of their contributions to GDP and because immigrants are over-represented in them. Together, they show that immigrants certainly play a role in the Kyrgyz economy in terms of creating value added and in some cases filling skill gaps. However, the evidence does not allow a definite conclusion on just how important of a role immigrants play.

The share of the value added that is produced by immigrants is estimated to slightly exceed their share in the population and in the labour force. However, the estimate is simplified. For example, it does not take into account that the productivity of immigrant and native-born workers within a sector, respectively, is not constant but instead varies from person to person. Even if accurate, it provides no indication of how much lower overall GDP would be if all immigrants suddenly left the country. In some cases, native-born workers who are currently unemployed or under-employed could take their jobs, erasing the loss from the departure of immigrants. In other cases, immigrants are key employees or employers and companies would have to shut down or curtail their production, thereby leading to an even higher loss of value added. Moreover, immigrants are consumers. If there was less demand for goods and services produced in Kyrgyzstan due to the immigrants' departure, this would also affect GDP.

The evidence from the sector study suggests a hiring pattern whereby immigrant workers are over-represented in foreign-owned companies and the concentration of immigrants among the managerial and professional level is higher in both foreign- and native-owned firms. Among the sampled companies, the “network effect” of hiring workers appeared to be strong, as the concentration of immigrant workers (often from the same home country) tended to be higher in foreign- than in native-owned companies.

While numerically there are more immigrants employed at the mid-skilled or workshop level, in terms of shares of total workers immigrants are more represented at the specialist or managerial level. Together with examples from the focus group discussions and enterprise interviews on learning opportunities, this suggests a scope for knowledge transfers from immigrants to native-born individuals. However, the observed over-representation among high-skilled workers is likely a result of the selection of companies in the formal sector. As was seen in Chapter 3 (Figure 3.1), a slightly higher share of foreign-born than native-born workers has a university degree, but immigrants are equally over-represented among those with low levels of education (primary school degree or less).

Nationally representative data shows that immigrants are actually under-represented among the self-employed and business owners. The impact of immigrant entrepreneurship on Kyrgyz companies may be mixed. On the one hand, it can increase competition and make it more difficult for native-owned companies to enter or stay in business, particularly in certain sub-sectors. On the other hand, the presence of immigrant specialists can help firms grow, and new firms can create new business opportunities for others. One example is re-exports of goods imported by immigrant entrepreneurs while another is services of law firms that help companies recruit immigrant workers and undertake the necessary bureaucratic steps to legally hire them.

Overall, there is a relatively prevalent attitude among different stakeholders that immigrants entering the Kyrgyz labour market should be investors or workers with specialised skills rather than individual entrepreneurs or low-skilled workers. Some stakeholders believe that immigrant entrepreneurs have such strong advantages in establishing their businesses in Kyrgyzstan due to help from their home governments or contacts with low-cost suppliers from their home countries (in particular in the trade sector) that native-born entrepreneurs are displaced. Similar thoughts are expressed about non-highly skilled immigrant workers. While these attitudes are perhaps understandable, they fail to take into account pathways through which immigrant business owners and lower-skilled immigrant workers could ultimately benefit the Kyrgyz economy. The creation of new business opportunities in the re-export market through increased import activities of immigrant business owners has already been mentioned.

With regards to immigrant workers in other countries, such as Denmark (Foged and Peri, 2015), Spain (Amuedo-Dorantes and de la Rica, 2011) and the United States (Peri and Sparber, 2009), it has been observed that when there are more low-skilled immigrant workers, an “occupational upgrading” takes place among native-born workers. This means that more native-born workers move from jobs that require less education and training to jobs that require more qualifications. They may do so to escape increased competition in manual jobs or to benefit from wages that are rising quickly for non-manual jobs. It is unclear whether such an effect has already taken place in Kyrgyzstan or might do so in the future.

Many other questions about the effects of immigration on the productive sector remain unanswered. For example, while the sector study revealed that foreign-owned companies and immigrant workers were sometimes able to introduce new production methods into the country, no evidence was established on whether the presence of immigrants – and thus the expansion of the labour force – creates any incentives for additional or reduced capital investments by both native- and foreign-owned firms. This question has longer-term implications as an economy’s investment rate is an important determinant of long-term economic growth. Another question which still deserves further attention is the causal relationship between immigration and economic growth.

Notes

1. The method follows the one proposed by Martin (2007). However, the productivity adjustment factor is estimated at the sector level rather than set at a fixed ratio.
2. Branches and representative offices of foreign companies are not considered legal entities in the Kyrgyz Republic. They are vested with property of the legal entities that created them and operate on the basis of regulations created by them. Pursuant to Kyrgyz laws, branches and representative offices possess rights and comply with obligations as provided for by laws of the Kyrgyz Republic to legal entities (Kalikova & Associates, 2012).

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Chapter 6

Immigrants' contribution to public finance in Kyrgyzstan

This chapter analyses the impacts of immigration on public finance in Kyrgyzstan in 2013. The chapter first presents the structure of the government budget, followed by the estimation of the share of taxes and revenues attributable to foreign- and native-born individuals. To conclude, it presents estimates of the net fiscal impact of immigration of the average immigrant and native-born person.

Immigrants may have positive and negative effects on the economy of their destination countries, including on the government budget. Foreign-born individuals increase tax revenues through for example paying income or value added taxes, but their use of government services and social benefits generates costs that may or may not exceed these revenues. Existing studies suggest that in OECD countries, the fiscal impacts range from negative to positive and can vary by immigrant group within the same destination country (OECD, 2013). Up to now, there existed no comparable body of evidence on the fiscal impacts in developing countries.

This chapter presents an analysis of the impact of immigration on public finance in Kyrgyzstan while the project's comparative report compares the outcome of similar analyses for eight other partner countries (OECD/ILO, forthcoming). The methodology is similar to an analysis on the direct fiscal impact of immigration in the United Kingdom (Dustmann and Frattini, 2014). The contribution of foreign- and native-born individuals to the different expenditure and revenue elements are estimated based on the 2013 *Life in Kyrgyzstan* (LiK) survey (IZA, 2016) and public budget data and then added up to obtain an estimate of their net fiscal contribution. The estimation requires a number of assumptions. Therefore, when reading and interpreting the outcomes of the analysis, attention should be focused more on the overall direction of the estimates rather than on specific figures.

Due to the consequences of the break-up of the Soviet Union, two different definitions of immigrants are used in this chapter. First, there is the usual definition of having been born in a country other than Kyrgyzstan. According to a second, narrower, definition, an immigrant is someone who was born in any other country and immigrated after Kyrgyz independence or was born in a non-Soviet country and immigrated at any point in time. Since the survey only collects information on the country of birth of individuals aged 18 and above, public expenditures and costs are allocated only to adults.

Fiscal expenditures and revenues in Kyrgyzstan

In 2013, Kyrgyzstan's tax revenues amounted to 17.6% of gross domestic product (GDP) (World Bank, undated). Compared to 1992, this represents an increase of 2.7 percentage points. Kyrgyzstan's tax generation capability as a share of GDP thus is higher than the unweighted average for lower-middle-income countries (11.4%) and even for the group of European and Central

Asian countries that are eligible for loans from the International Development Association or the International Bank for Reconstruction and Development (16.1%). Given that fiscal capacity tends to expand as a country becomes richer (Besley and Persson, 2013), this is even more surprising for three reasons: Kyrgyzstan is at the lower range of per-capita incomes among lower-middle-income countries, it was classified as a low-income country until 2014 and most of the other Central Asian countries and all of the Baltic states have higher per-capita incomes than Kyrgyzstan.

However, according to a recent estimate (IMF, 2014), the shadow economy accounts for nearly 40% of overall output. It is therefore possible that the revenue share is over-estimated in Kyrgyzstan compared to other countries. Moreover, according to the International Monetary Fund, Kyrgyzstan's tax effort (the realized tax-to-GDP ratio as a share of the tax capacity) is 74%, below a sample of comparator countries (Gicquel et al., 2015).

Indirect taxes generate a larger share of total government revenues¹ than direct taxes and contributions (Figure 6.1). The relatively high share of revenues generated by indirect and in particular trade taxes in comparison to income taxes is typical for countries with lower levels of per-capita income and tax revenues as a share of GDP (Besley and Persson, 2013). Two factors help explain this. First, the undeveloped formal private sector does not represent a large potential for generation of direct taxes. Second, effective administration of direct taxes necessitates a strong control and monitoring system, which may not yet exist.

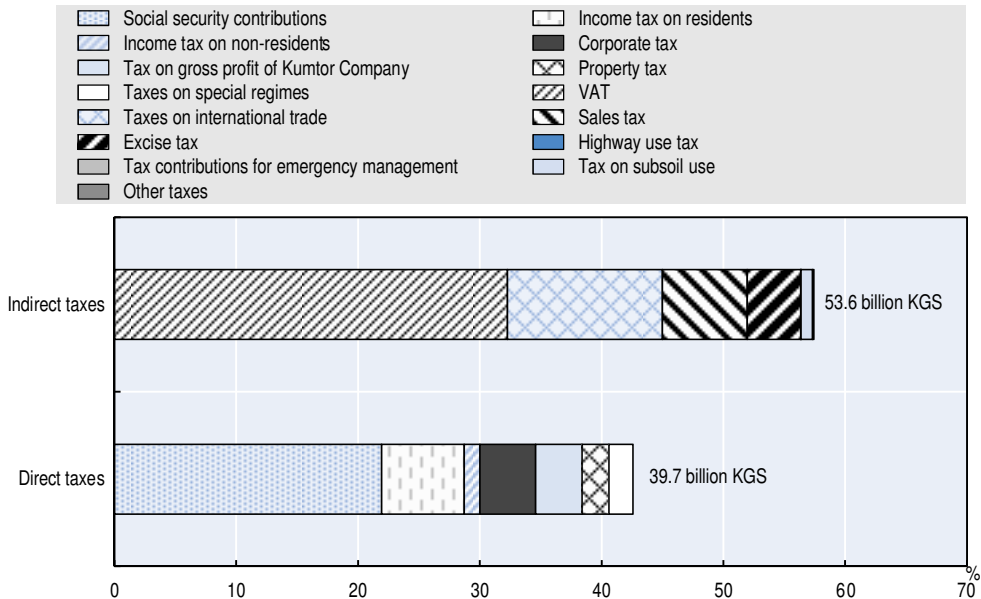
Some of the taxes are levied exclusively at the local level while others are subject to sharing between the central and local budgets. Taxes on property, vehicles and real estate are in the former group; while income and sales tax as well as subsoil taxes and taxes on special regimes are in the latter category. For income, sales and subsoil taxes, the sharing rate is 50%. The special regimes tax has a sharing rate of 100% for local areas, making it a de-facto local tax. Social security contributions are administered separately by the Social Fund.

There are some differences in the tax treatment of citizens and non-citizens as well as of residents and non-residents. In practice, this translates into differences in the tax treatment of native- and foreign-born individuals because residency and citizenship status are distributed differently among the two populations. These differences will be explained in the sections on social security contributions and personal income tax.

In 2013, expenditures for the operating activities of the government made up 21.4% of GDP. Unlike tax revenues, there have been strong fluctuations in this expenditure: in 1995, they stood at 25.6% and in 2000 at 15.8%. The expenditure share stands above that within lower-middle-income countries in general

(17.2%) but below the share for IDA and IBRD eligible European and Central Asian states (29.6%). However, in the first half of 2014, total spending had reached 43% of GDP (compared to 38.7% the previous year), driven by foreign-financed infrastructure projects (World Bank, 2014a).

Figure 6.1. **Indirect taxes are more important than direct taxes in 2013**

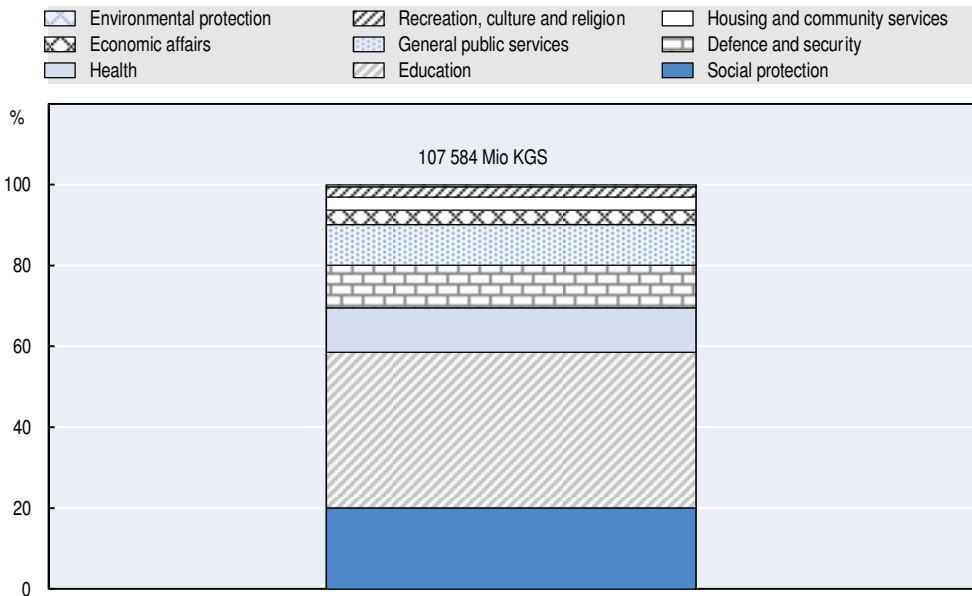


Source: Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*, <http://minfin.kg/ru/novosti/godovoy-otchet-ob-ispolnenii-byudzhetata/otchet-ob-ispolnenii-gosudarstvennogo-byudzhetata-ky1386.html> and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*, <http://cbd.minjust.gov.kg/act/view/ru-ru/96806>.

Public expenditures are strongly tilted towards social expenditures (Figure 6.2). Of public expenses, 38.4% go to social protection (around three-quarters of which go to pension payments), 20.2% to education, 11% to health and 3.3% to housing and community services. In contrast, general public services only make up 10% of the budget. A recent IMF publication notes that the high share of current expenditures in the budget might not be supportive of future growth (Gicquel et al., 2015).

The expenditure and revenue statistics indicate that total expenditures exceed total tax and benefit revenues by around KGS 14 billion. In contrast, the actual government deficit is around half this amount, due to non-tax revenues and official transfers from abroad.

Figure 6.2. In 2013, social protection expenditures made up an important share of public expenditures



Source: Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*, <http://minfin.kg/ru/novosti/godovoy-otchet-ob-ispolnenii-byudzhet/otchet-ob-ispolnenii-gosudarstvennogo-byudzhet-ky1386.html> and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*, <http://cbd.minjust.gov.kg/act/view/ru-ru/96806>.

Fiscal revenues

Indirect taxes (57% of public revenues)

Indirect taxes represent a substantial revenue source. The value added tax (VAT) alone accounts for 32% of total public revenues. Along with excise tax, sales tax and taxes on international trade, its share reaches almost 60% of total tax revenues.

The tax rates differ by products and quantities. While VAT has a fixed rate at 12%, excise duties are specific taxes. Their rate is based on the physical amount of goods, while taxes on international trade vary by rate and estimation method. These variations in rates make it impossible to implement an estimation approach in which specific tax rates for different goods are applied. Instead, the share of indirect taxes paid by immigrants is assumed to be equal to the share of per-capita expenditures as reported in the LiK survey. Household-level expenditures are divided among all adult household members.

The estimated indirect per-capita tax payments of immigrants are similar (Table 6.1). The per-capita payment is estimated to be around KGS 14 300 for native- and KGS 15 200 (around USD 300-320²) for foreign-born adult individuals.³

Table 6.1. The estimated per-capita indirect tax payments of immigrants were similar to those of native-born individuals in 2013

	Estimated total tax payments (million KGS)	Payment share (%)	Per-capita tax payments (KGS)
Native-born	50 057	95.3	14 277
Immigrant 1	2 496	4.8	15 167
Total (Official budget)	52 553		
Native-born	51 907	98.3	14 406
Immigrant 2	646	1.7	13 266
Total (Official budget)	52 553		

Note: Immigrant 1 includes all foreign-born individuals. Immigrant 2 only includes immigrants that come from a country outside of the former Soviet Union or that immigrated after Kyrgyz independence. Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> and Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*.

Social security contributions (22% of public revenues)

Social fund contributions of wage employees are paid by both employees and employers. The respective employee and employer contributions are 10% and 17.3% of labour income (Law of the Kyrgyz Republic, 1993). The rates are equally applicable for foreign citizens that reside permanently in Kyrgyzstan. However, for temporarily residing foreign citizens – i.e. those that spend less than six months per year in the country – the rates are 3% for both the employer and employee.

For self-employed individuals, the rules differ depending on whether the activities are agricultural or not. In 2013, the social fund contributions for farmers working their own land were the same amount as the land tax, whose rates vary by district. In 2015, they were instead based on the average wage in the region. In contrast, most self-employed individuals in the non-agricultural sector contributed through a simplified, so called “special tax regime”. Under this regime, self-employed individuals purchase patents and pay social fund contributions according to rates determined by the government. The purchase of patents replaces their tax payment and the costs of the patents vary by type of activity. The varying cost of patents makes it difficult to determine the social fund contributions of self-employed individuals outside of the agriculture sector.

Therefore, this analysis of social contribution payments focuses on wage employees and the self-employed in agriculture. For the purposes of the estimation, all immigrants are considered as permanently residing in the country and having the same rights and obligations as Kyrgyz-born individuals. The rules on temporary residency of immigrants are ignored because for those 383 immigrants in the LiK data for whom the information is available, only four arrived in 2012 or 2013. It is, of course, possible that they only live in Kyrgyzstan part-time, but the same may be true for citizens and non-citizens born in Kyrgyzstan.

The estimation steps are as follows:

- First, based on the reported wage in the survey data, the social fund contributions paid by employees and employers are estimated.
- Second, employees that are unlikely to pay these contributions are identified and their estimated contributions are set to zero. Employees are identified by whether they have a work book which, as mentioned earlier, records their employment history and serves as a basis for their social security contributions and, later on, their pension payments. This step is particularly important because of the high informality rate. There is a high probability that those working without the work book do so unofficially and do not pay social fund contributions.⁴ In total, 558 survey respondents who are employees do not have a work book.
- Third, the social fund contributions paid by the self-employed in agriculture are estimated using the average tax rates for oblast per hectare of land. In the final step, the social contributions paid by wage employees and the self-employed in agriculture are added up and the relative share of immigrants and native-born individuals are used to estimate the per-capita social fund contributions.

There is almost no difference in the estimated social security payments of foreign- and native-born adults (Table 6.2).⁵ The difference is larger when the narrower definition of an immigrant is used.

Table 6.2. Foreign- and native-born individuals are estimated to have contributed similar per-capita amounts to social security in 2013

	Estimated total contributions (million KGS)	Contribution share (%)	Per-capita contributions (KGS)
Native-born	19 521	95.6	5 567
Immigrant 1	928	4.5	5 641
Total (Official budget)	20 449		
Native-born	20 169	98.6	5 597
Immigrant 2	280	1.4	4 166
Total (Official budget)	20 449		

Note: Immigrant 1 includes all foreign-born individuals. Immigrant 2 only includes immigrants that come from a country outside of the former Soviet Union or that immigrated after Kyrgyz independence. Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*, and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*.

Income taxes (8% of public revenues)

The treatment of resident and non-resident foreign and Kyrgyz citizens is similar across the principal income tax rules, but not identical. Income that is received as a result of activities in Kyrgyzstan is taxed at a flat rate of 10%. The major differences are that while Kyrgyz citizens do not have to pay taxes on capital income in general, foreigners do not have to pay taxes on certain dividends, and while Kyrgyz citizens can make standard, social and property

deductions, only the first of these is available to resident foreigners and none are available to non-resident foreigners. However, in practice, the social and property deductions are not commonly taken because of the additional documentation that is required and only the standard deduction of KGS 650 per month is applied.

The estimation follows the same procedure as for social contributions. It focuses on wage employees only because small-scale entrepreneurs and the self-employed use the special regimes for income tax payments (see below). The income tax payments from temporary immigrants are included but not specifically split up between immigrant and native-born workers. This implies that the share paid by the native-born is likely over-estimated. The estimated income tax payments by immigrants and native-born adults under the broad definition are almost equal (Table 6.3).

Table 6.3. **Per-capita income tax payments of immigrants and native-born individuals were estimated to be similar in 2013**

	Estimated total tax payments (million KGS)	Payment share (%)	Per-capita tax payments (KGS)
Native-born	7 202	95.5	2 054
Immigrant 1	343	4.5	2 081
Total (Official budget)	7 545		
Native-born	7 441	98.6	2 065
Immigrant 2	104	1.4	1 537
Total (Official budget)	7 545		

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/iza.dp.7055.1> and Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*.

Corporate taxes (5% of public revenues)

Analogous to the income tax rate, the corporate tax rate is 10% of profits, to be paid by legally registered companies. Enterprises with an annual gross income below a certain threshold can use special regimes. This means they do not pay corporate profit taxes.

Dustmann and Frattini (2014) point out that there is an ongoing debate on how corporate taxation should be allocated between shareholders, workers and consumers. They therefore chose to allocate these taxes on a per-capita basis, after deducting the percentage that is likely paid by foreign shareholders. The estimate is nonetheless based on income from household enterprises and individually reported profit from the self-employed and employers. These profit estimations are used for the relative share of immigrants and the native-born. Profits at or above the 99th percentile are excluded to minimize the impact of outliers.

Immigrants are estimated to pay lower corporate tax payments (Table 6.4). While on average, a native-born adult is estimated to pay around KGS 1 180, a foreign-born adult is estimated to pay around KGS 800 (USD 25 and USD 17,

respectively) However, the difference is minimal when the narrower immigrant definition (and the correspondingly wider native-born definition) is employed.

Table 6.4. Native-born individuals are estimated to have paid higher corporate taxes than immigrants in 2013

	Estimated total contributions (million KGS)	Contribution share (%)	Per-capita contributions (KGS)
Native-born	4 136	96.9	1 180
Immigrant 1	131	3.1	799
Total (Official budget)	4 268		
Native-born	4 195	98.3	1 164
Immigrant 2	73	1.7	1 077
Total (Official budget)	4 268		

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> and Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*.

Taxes on the gross profit of the Kumtor Gold Company (4% of public revenues)

The Kumtor Gold Company is one of the strategic gold mining enterprises in Kyrgyzstan. Its output accounts for almost one-third of exports. According to the latest (2009) agreement between Kumtor and the government, the company pays an annual tax on its gross profit. The Kyrgyz government also holds a 33% stake in Kumtor's parent company, Centerra Gold Inc.

For this analysis, the citizen and foreign-born worker share is taken as a proxy for the share of the taxes generated by native- and foreign-born individuals, respectively. According to the company's website, 97% of full time staff are Kyrgyz citizens, while the remaining 3% are foreign-born workers.⁶

The estimates suggest that the share paid by immigrants is lower if the immigrant definition is large and larger if it is strict (Table 6.5). It is assumed that all of the Kumtor foreign-born workers belong to the latter category.

Table 6.5. The Kumtor Gold Company tax payment share of native-born individuals exceeds their population share

	Estimated total tax payments (million KGS)	Payment share (%)	Per-capita tax payments (KGS)
Native-born	3 461	97.0	987
Immigrant 1	107	3.0	650
Total (Official budget)	3 568		
Native-born	3 461	97.0	961
Immigrant 2	107	3.0	1 580
Total (Official budget)	3 568		

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> and Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*.

Taxes on special regimes (2% of public revenues)

As indicated previously, small enterprise owners in general do not pay separate private or corporate income or sales taxes. Instead, they pay taxes under a special simplified single regime. In addition, there are a few other special tax regimes that apply to different types of businesses. Depending on the specific tax, rates differ according to the type of business, its location and the duration the company has been in business. Given this complexity, in order to calculate this component, a simplified estimate based on the share of own-account workers is used.

Immigrants are estimated to pay around 60% of the amount native-born individuals pay in special regime taxes (Table 6.6).

Table 6.6. Per-capita special regime taxes by native-born individuals were estimated to be higher than those of immigrants in 2013

	Estimated total tax payments (million KGS)	Payment share (%)	Per-capita tax payments (KGS)
Native-born	1 791	97.3	511
Immigrant 1	49	2.7	301
Total (Official budget)	1 841		
Native-born	1 816	98.7	504
Immigrant 2	24	1.3	361
Total (Official budget)	1 841		

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> and Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*.

Remaining taxes

The remaining tax revenues are grouped into the “other taxes” category. The main revenue in this category is the property tax. It includes taxes on real estate for business and non-business purposes, transport vehicle taxes and land tax. However, it does not have a standard rate but varies by the object of the tax and by region. Due to the complexity of the rules and the small weight of these revenues in the overall government budget, these revenues are divided equally among all adult individuals. The estimated per-capita tax payments of these taxes are KGS 836.

Fiscal expenditures

Social protection (34% of public expenditures)

Foreign citizens with permanent residence status are entitled to receive a pension in accordance with their social security contributions. For immigrants from the Commonwealth of Independent States (CIS), their employment history prior to 1995 is also taken into account (Law of Kyrgyz Republic, 1997: Article 8).

The share of pensions and the share of allowances of immigrants and native-born individuals are estimated based on the household survey. Aside from old-age pensions, the share of pensions includes disability and survivors pensions and pensions for special working conditions. The share of allowances comprises unified monthly allowances for low-income families and individuals, social monthly allowances, allowances from local authorities, unemployment benefits, and other allowances. Since the total amounts received by the household are reported in the questionnaire, the overall household receipts are divided by the number of people eligible for these benefits in the household.

The estimated average per-capita pension benefits received by immigrants are estimated to be higher (KGS 22 285 versus KGS 8 211, around USD 485 and USD 170) while immigrants under the narrower definition receive similar pensions to native-born adults (Table 6.7).

Table 6.7. The per-capita social protection benefits received by immigrants were higher than those of native-born individuals in 2013

	Estimated total benefits (million KGS)	Benefit share (%)	Per-capita benefits (KGS)
<i>Pension payments</i>			
Native-born	28 667	88.7	8 211
Immigrant 1	3 791	11.3	22 285
Total (Official budget)	32 458		
Native-born	31 812	98.0	8 829
Immigrant 2	646	2.0	9 535
Total (Official budget)	32 458		
<i>Other allowances</i>			
Native-born	8 352	94.5	2 391
Immigrant 1	520	5.5	2 959
Total (Official budget)	8 872		
Native-born	8 781	99.6	2 427
Immigrant 2	91	1.4	1 886
Total (Official budget)	8 872		

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*, and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*.

Pure and congestible public goods (30% of public expenditures)

Two major components of public expenditures are pure and congestible public goods. Pure public goods are those to which additional users can be added without reducing availability or quality (non-rivalry), while congestible public goods are reduced (rival). The distinction between the two can sometimes be somewhat arbitrary. Some congestible public goods are estimated separately because their beneficiaries can be identified. The classification of pure public goods includes government expenditures on general public services, defence

and security, and environmental protection. Housing and community services, economic issues, recreation, and culture and religion expenditures are classified as congestible public goods.

The estimation is based on two methods. The first apportions total expenditure on pure and congestible public goods to the total number of individuals aged 18 and over (average cost scenario). The second method apportions pure public goods to native-born individuals only, assuming that the cost of providing additional individuals with the public good is zero (marginal cost scenario). Under the average-cost scenario, the per-capita costs per adult inhabitant are equal to around KGS 9 201 (USD 194) (Table 6.8).

Table 6.8. The immigrant expenditure share for public goods depends on the assumptions made

Estimated per-capita costs of pure and congestible public goods in 2013 according to average and marginal cost scenarios, by place of birth

	Total costs (million KGS)	Per-capita costs (KGS)					
		Average cost scenario		Marginal cost scenario			
		Native-born, immigrant 1 and immigrant 2		Native-born	Immigrant 1	Native-born	Immigrant 2
Pure public goods	22 638	6 167		6 457	0	6 283	0
Congestible public goods	10 075	2 745					

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> and Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*.

Public education expenditures (20% of public expenditures)

The education system of Kyrgyzstan consists of these levels: pre-primary, secondary general (including primary), secondary technical and special, post-secondary non-tertiary, and tertiary education. Most of the tertiary education services are provided on a fee basis. Therefore, the government budget is mostly (87%) focused on pre-primary, primary and secondary education (National Statistical Committee, 2014: p. 197).

The education costs between immigrant and native-born populations are calculated as follows. First, the government education budget is disaggregated by education levels based on the share of expenditure for each level of education in the total education expenditure in Kyrgyzstan for 2011 (World Bank, 2014b). Then, the number of children in the household, enrolled in the education process by level of education, is estimated by the migration status of their household. A household is considered as immigrant if the household head and spouse is an immigrant. The number of children from mixed households (with an immigrant household head and a native-born spouse, or vice versa) is distributed equally across immigrant and non-immigrant households. Adults enrolled in educational institutions are also included, but based on their own rather than the household head's place of birth.

A major assumption is that the share of children in immigrant and native-born households who attend private rather than public school is equally distributed. This assumption is necessary because the survey lacks information on whether these services are provided privately or publically. This is a strong assumption given the higher probability that for many foreigners temporarily residing in Kyrgyzstan, the standard government education institutions are not appropriate due to language and other limitations. Where this is the case, they may be more likely to send their children to private school and the public educational costs attributed to immigrants may hence be over-estimated.

The per-capita expenditures for education are found to be higher among immigrants than among native-born individuals (Table 6.9).

Table 6.9. **The 2013 per-capita public education expenditure were estimated to be higher for native- than for foreign-born individuals**

Expenditures		Immigrant 1		Native-born		Immigrant 2		Native-born 2	
		% of enrolled	Per-capita expenditure	% of enrolled	Per-capita expenditure	% of enrolled	Per-capita expenditure	% of enrolled	Per-capita expenditure
Pre-primary	1 860	0.04	489	0.96	508	0.02	609	0.98	505
General primary and secondary	12 401	0.04	2 811	0.96	3 405	0.02	3 031	0.98	3 382
Technical	930.	0.03	188	0.97	256	0.02	305	0.98	252
Tertiary	3 410	0.02	354	0.98	956	0.02	861	0.98	930
Non-allocated	3 100.	0.04	706	0.96	851	0.02	829	0.98	844
Total expenditure	21 702		4 548		5 976		5 633		5 913

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izaadp.7055.1> Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*, and World Bank (2014 b), *Kyrgyz Republic - Public expenditure review policy notes: education*.

Public health expenditures (11% of public expenditures)

Kyrgyzstan implemented major programmes for health system reform through the Manas (1996-2006) and Manas Taalimi (2006-10) programmes. These reforms aimed to strengthen primary health care, develop family medicine and create a mandatory health insurance system. The Mandatory Health Insurance Fund (MHIF) purchases health services through entering into contracts with hospitals. Financial resources from national and local budgets and payroll taxes are pooled under this fund. Most of the health services are provided by public hospitals. Private health services are not yet well developed and are concentrated in the capital city (Ibraimova et al., 2011). Still, in 2014 about 44% of total health expenditures were private (World Bank, undated).

Like access to other social programmes, the level of access to the public health system for immigrants depends largely on their citizenship and residence status. According to the law "On the legal status of foreign citizens in the Kyrgyz Republic", foreign citizens permanently residing in Kyrgyzstan have equal rights to citizens in terms of their access to social services such as health, social protection

and government allowances (Law of Kyrgyz Republic, 1993, 2009). The same is true for ethnic Kyrgyz “returnees” (*Kairylman*) while they wait for naturalisation (Law of Kyrgyz Republic, 2007). In contrast, for foreign citizens temporarily residing in the country, these services are provided in accordance with the procedure established by other laws and regulations. For instance, health services for them are priced in US dollars and are more expensive (Government of Kyrgyz Republic, 2000).

Two methods are used to estimate public health care expenditures. The first is based on the share of health expenditures as reported by the household survey. For the second method, the numbers of times individuals consulted a doctor over the previous 12 months from household survey data are added up to calculate the relative share of each group (consultations of children are not indicated in the survey).

According to both methods, immigrants generate slightly higher health costs than native-born individuals (Table 6.10). Based on the usage share, the average cost generated by a native-born adult is KGS 3 149 (USD 66) and the cost generated by a foreign-born person is KGS 4 787 (USD 101).

Table 6.10. Per-capita public health expenditures appeared to be higher for immigrants than native-born individuals in 2013

	Native-born	Immigrant 1	Native-born	Immigrant 2
Estimate based on expenditure share				
Share	93.6	6.5	97.8	2.2
Total estimated expenditure (million KGS)	11 066	763	11 566	263
Per-capita expenditures (KGS)	3 156	4 636	3 210	3 876
Estimate based on usage share				
Share	93.3	6.7	98.2	1.9
Total estimated expenditure (million KGS)	11 041	788	11 610	219
Per-capita expenditures (KGS)	3 149	4 787	3 222	3 230

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*, <https://doi.org/10.15185/izadp.7055.1> Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013*, and World Bank (2014 b), *Kyrgyz Republic - Public expenditure review policy notes: education*.

Net fiscal contribution

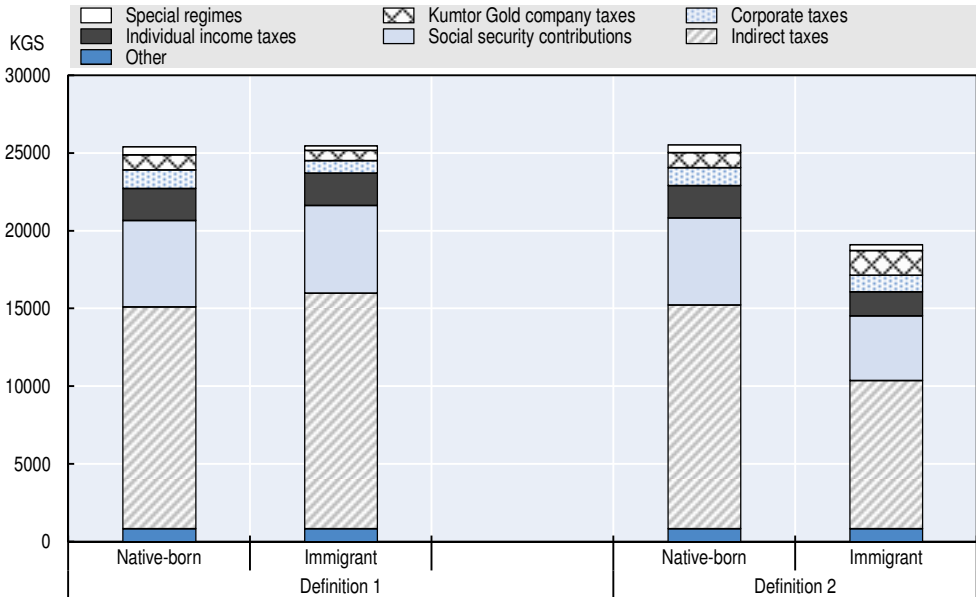
After estimating the individual expenditure and tax revenue elements, it is possible to compare the direct net fiscal impact of immigrants and native-born individuals. Native-born adults are estimated to contribute an average of KGS 24 576 (USD 515) to the public coffers while immigrants contribute around KGS 24 639 (USD 517) (Figure 6.3).

The result is different for public expenditures, which appear to be higher for immigrants than native-born individuals on average. Under the scenario where expenditures for pure public goods are also allocated to immigrants, the adult per-capita public expenditure was KGS 44 030 (approximately USD 920) for immigrants under the broader definition and KGS 28 647 (USD 600) for native-born individuals (Table 6.11). While other estimated average per-capita

expenditures for immigrants are similar to those for native-born individuals, the major difference is in pension payments, which are drastically higher among foreign- than native-born individuals. The different age structure in the two populations is a major contributor: a higher share of immigrants than of native-born individuals is of retirement age (Figure 2.6).

Figure 6.3. In 2013, native- and foreign-born individuals on average paid similar amounts of taxes

Estimated per-capita tax revenues in 2013 (in KGS), by place of birth



Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*; Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013* and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*.

Table 6.11. Estimated per-capita public expenditures for immigrants were higher than for native-born individuals in 2013

	Definition 1		Definition 2	
	Native-born	Immigrant	Native-born	Immigrant
Pensions	8 211	22 285	8 829	9 535
Other social expenditures	2 391	2 959	2 427	1 886
Pure and congestible public goods (average/marginal)	8 912 / 9 201	8 912 / 2 745	8 912 / 9 028	8 912 / 2 754
Public education expenditures	5 976	4 548	5 917	5 633
Public health expenditures	3 156	4 636	3 210	3 876
Total (average/marginal)	28 647 / 28 936	44 030 / 37 863	29 295 / 29 411	29 842 / 23 675
Share of native-born tax payments (average/marginal)		154 / 131		101 / 80

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*; Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013* and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*.

The average direct net fiscal contribution of immigrants is shown to be much lower than that of native-born individuals. While the average direct net fiscal impact of native-born individuals in 2013 under the narrow definition was around KGS -4 100 (USD -85), among immigrants it amounted to KGS -19 000 (USD -390) (Table 6.12). The deficit is around 6% of per-capita GDP among native-born adults, but is a high 29% among foreign-born adults. When the cost of pure public goods is allocated only to the native-born population and the narrower definition of an immigrant is employed, the average fiscal contribution generated by immigrants becomes similar to that of native-born adults. The shift is probably due to the fact that the individuals that moved prior to 1991 from other CIS states are much more likely to receive pension payments than more recent immigrants.

Table 6.12. The estimated per-capita direct net fiscal contribution of immigrants was more negative than that of the native-born in 2013

	Definition 1		Definition 2	
	Native-born	Immigrant	Native-born	Immigrant
Per-capita public expenditures (average/marginal)	28 647 / 28 936	43 340 / 37 173	29 295 / 29 411	29 842 / 23 675
Per-capita public revenues	24 576	24 639	24 627	21 987
Per-capita net fiscal contribution (average/marginal)	-4 071 / -4 360	-18 700 / -12 533	-4 688 / -4 784	-7 855 / -16 883
Per-capita net fiscal contribution (average/marginal) (% per-capita GDP)	-6.3 / -6.7	-28.8 / -19.3	-7.2 / -7.4	-12.1 / -2.6
Per-capita net fiscal contribution without pensions (average/marginal)	-1 427 / -1 716	-2 056 / 4 111	-1 436 / -1 552	-2 486 / 3 681
Per-capita net fiscal contribution without pensions (average/marginal) (% per-capita GDP)	-2.2 / -2.6	-3.2 / 6.3	-2.2 / -2.4	-3.8 / 5.7

Source: Authors' own work based on IZA (2016), *Life in Kyrgyzstan Study, 2010-2013*; Ministry of Finance of Kyrgyz Republic (2014), *Report on Government Budget Implementation for 2013* and Audit Chamber of Kyrgyz Republic (2014), *Report on Audit of Social Fund Budget Implementation for 2013*.

These stark differences between the direct net fiscal contributions of immigrants and foreign-born individuals drastically underline one of the major weaknesses of the accounting-based estimation – namely, its inability to take into account lifecycle effects. Many of the immigrants that now appear to drain the public budgets likely paid much higher taxes and were much lower utilizers of public transfers in the past, when they were still of working age.

One way to help address this issue is to analyse the net fiscal contribution while excluding the pension system, which is partially based on prior payments and which also entails future financial burdens. When this budget aspect is removed, the net fiscal contribution of both native- and foreign-born individuals increases. But the shift is even more dramatic for immigrants than for native-born individuals. In fact, under the marginal cost scenario the average fiscal contribution of immigrants – both under the narrower and the wider definitions – actually turns positive while the contribution of native-born individuals remains slightly negative (but at around 1% of per-capita GDP).

Utilisation of benefits

Immigrants do not appear to receive public benefits in excess of what their demographic characteristics would suggest. A higher share of immigrants (38%) than native-born individuals (17%) in the 2013 *Life in Kyrgyzstan* survey received a Kyrgyz pension of any type. However, the demographic characteristics of immigrants explain these results: in logit regressions of benefit receipt on age, age squared, an indicator for individuals aged 65 and above, being female, education levels and being married or living with a partner, the coefficient on whether someone is an immigrant is not statistically significant. Age, sex and educational attainment in contrast are linked with the probability of receiving such benefits. In regression of log pension amounts, the coefficient on the immigrant variable is in contrast marginally statistically significant at the 10% level: immigrants appear to receive a pension about 11% more elevated than non-migrant pension recipients. The link with the education level is however much larger: For example tertiary educated individuals are estimated to receive 67% higher pensions than individuals with otherwise similar characteristics.

Conclusions

The estimates presented in this chapter suggest that when focusing solely on 2013, the direct net fiscal contribution of immigrants was even more negative than the contribution of native-born individuals. Two main factors drive this difference: first, immigrants spend less and are therefore estimated to pay fewer indirect taxes. These taxes however are important for the government budget. Second, immigrants on average receive more social security payments. The reason is that the immigrant share is higher among the older than among the working-age population.

Many assumptions had to be made in order to arrive at the estimates. For instance, it is assumed that the expenditures of foreign- and native-born individuals are equally likely to be spent on goods and services, for which taxes are actually paid. The resulting estimate should therefore not be interpreted as the “true” impact. It can nonetheless serve as a useful basis for discussion.

Nonetheless, there is a very large scope for future research on this topic that could improve the estimates’ accuracy and reliability as a basis for policy recommendations. The most decisive improvement would be a direct analysis of individual tax records, provided that they contain information on the country of birth.

Notes

1. Official reports on the government budget implementation in Kyrgyzstan do not include full information about the Social Fund contributions paid by the taxpayers and expenditures of this fund for pension payments and mandatory health insurance because it has an off-budget status. For this reason, the overall government revenue

and expenditure data combine the government budget data and the Social Fund budget data. For the government budget data, the general government budget data without classification into local and central government budgets are used. The Social Fund of Kyrgyz Republic receives a large share of government subsidies, which in 2013 accounted for 37% of its total revenue. The government budget expenditures data report these under the social protection item. Therefore, in order to avoid double counting, these subsidies are deducted from the Social Fund total expenditure and the remaining amount is used in forming the total expenditure table.

2. Based on an average exchange rate of KGS 47.4 per USD in 2013 (National Bank of the Kyrgyz Republic, undated).
3. The per-capita estimates are obtained by dividing the total amount by the estimated number of foreign- and native-born adult individuals. These estimated numbers were obtained by multiplying the total number of adult inhabitants of Kyrgyzstan according to the 2009 census by the estimated share of immigrants. Immigrants are identified by whether or not they were born abroad according to the last wave for which the variable is available for that individual in the *Life in Kyrgyzstan* survey. One potential problem is that for 171 individuals in the sample, in different waves there are inconsistent answers for this variable.
4. The estimated contribution shares of immigrant and native-born individuals hardly change when the second step is omitted. The similar share of native- and foreign-born employees in the sample who work without a work book is a partial explanation for this similar result.
5. The LiK only contains information about the migration status of individuals aged 18 and above. The per-capita payments are thus estimated based on this population as follows: the total contributions are multiplied by the estimated share paid by native- and foreign-born individuals. Then, the number of adult non-immigrant and immigrant populations are estimated by deducting the number of individuals under 18 years old from the total and multiplying the remaining figure by the share of immigrants and native-born individuals in the 18-and-above population (as estimated based on the LiK data). Then, the total contributions are divided by thus estimated number of adult native- and foreign-born individuals .
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How Immigrants Contribute to Kyrgyzstan's Economy

The recent effects of immigration on the Kyrgyz economy appear to be limited. Many immigrants have been in the country for several decades, hence are overrepresented among the older cohorts, resulting in a lower labour force participation rate than among the native-born. Still, the estimated share of value added generated by immigrants exceeds their share of the labour force but also of the population. Overall, immigration is not associated with a deteriorating labour force situation for the native-born population. In contrast, the current contribution of immigrants to public finance appears to be negative. The high concentration among retirement-age individuals is a major reason for this outcome as the estimate disregards their prior contributions to public revenues. Kyrgyzstan's economy would benefit from changes in certain migration and non-migration sectoral policies.

How Immigrants Contribute to Kyrgyzstan's Economy is the result of a project carried out by the OECD Development Centre and the International Labour Organization, with support from the European Union. The project aimed to analyse several economic impacts – on the labour market, economic growth, and public finance – of immigration in ten partner countries: Argentina, Costa Rica, Côte d'Ivoire, the Dominican Republic, Ghana, Kyrgyzstan, Nepal, Rwanda, South Africa and Thailand. The empirical evidence stems from a combination of quantitative and qualitative analyses of secondary and in some cases primary data sources.

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