Labour Market and Technological Development in Central Asia

Roman Mogilevskii

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Abstract: This paper discusses the current situation in the labour markets of the economies of Central Asia and considers the options available to use labour market policies to support the technological development of these economies. It analyses contemporary issues in the labour markets of these countries including the labour migration, informality, inequality, and financing of pensions through the taxation of labour. The paper provides recommendations for the modification of labour market policies to promote the economic diversification and productivity growth in Central Asia.

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List of Acronyms

ADB	Asian Development Bank
EAEU	Eurasian Economic Union
FMS	Federal Migration Service of the Russian Federation
GDP	Gross domestic product
GVA	Gross value added
GVApe	Gross value added per employed
ICT	Information and communication technologies
ILO	International Labour Organisation
ISCED	International Standard Classification of Education
KGS	Kyrgyz som
KZT	Kazakh tenge
LFPR	Labour force participation rate
LFS	Labour force survey
lhs	Left-hand side axis
MSMEs	Micro-, small and medium enterprises
NSAs	National statistical agencies
NSC	National Statistical Committee of the Kyrgyz Republic
PPP	Purchasing power parity
rhs	Right-hand side axis
Rosstat	Federal State Statistics Service of the Russian Federation
Tajikstat	Agency on Statistics under the President of the Republic of Tajikistan
UNDESA	United Nations Department of Economic and Social Affairs
USD	United States dollar
VAT	Value-added tax
WDI	World Development Indicators
WEF	World Economic Forum

1. Introduction

This paper is a part of the UCA IPPA working paper series discussing the economic policies conducive for productivity growth and technological development in Central Asia. This focus on productivity and technologies is related to an acute need to broaden the economic growth base and diversify the economies of the region. The previous model based on a reliance on natural resources and activities involving relatively simple technologies (e.g. retail, basic agriculture etc.) seems to be fully exhausted. A series of crises and exogenous shocks over the past 12 years (i.e. the 2008 global crisis, the fall in international energy prices in 2014-2015, COVID19-related shocks in 2020, etc.) have adversely affected the Central Asian economies and demonstrated their insufficient resilience to the conditions of "new normal" characterised by lower demand for natural resources, a volatile external environment and even fiercer international competition.

It is clear that skilled labour is key to reorientate the economic development towards technologies, productivity and efficiency. Therefore, creation, accumulation, retention, and the best possible utilisation of the necessary stock of human capital should be central to any economic development strategy aspiring productivity growth and diversification. As a result, labour market policy should be considered as one of the most important government economic policy areas. However, today, this is often not the case. Some of the governments of the region tend to consider labour market policies merely as a tool for maintaining social stability rather than as a key driver of growth. This paper aims at discussing these policies in the region based on available evidence on the labour market situation in Central Asia.

Geographically, the paper covers Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan[1] as well as Afghanistan which has no Soviet background and might not be a formal part of Central Asia but has some common issues and spillovers to/from its northern neighbours. The paper provides a description of key demographic and labour market trends in the region; discusses some key labour market issues common for these economies; briefly reviews the labour market policies currently in use by the Central Asian governments and provides a set of recommendations on policy changes aimed at fostering productivity growth and technological development in the region. The key messages of the paper are summarized at the end.

2. Trends in Labour Supply and Labour Demand

2.1. Demography

Central Asia is traditionally regarded as a region with a relatively high fertility and birth rates and a positive natural growth rate of the population. However, the situation has been gradually changing during the first two decades of XXI century. While the fertility rate in Afghanistan, Tajikistan and Uzbekistan has been falling (from 7.5, 4.0 and 2.6 births per woman in 2000 to 4.5, 3.6 and 2.4 in 2018, respectively) reproducing the global trend of a reduction in fertility,[2] in Kazakhstan and Kyrgyzstan it increased from 1.8 and 2.4 in 2000 to 2.8 and 3.3 in 2018, respectively. One possible explanation for the somewhat unusual fertility trends in these two countries could be the change in the ethnic composition of the population. Due to the permanent migration of the population, the share of urbanised ethnic groups with relatively low fertility rate (Russian, Ukrainians, Tatars, etc.) fell from 39% in 1999 (census data) to 23% in 2019 in Kazakhstan and from 14% in 2000

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1   Turkmenistan is not included because there is insufficient data on its economy.

2   The global fertility rate fell from 2.7 births per woman in 2000 to 2.4 in 2018.

to 6% in 2019 in Kyrgyzstan (sources: National Statistical Agencies). From this perspective, the region is much more ethnically homogenous now than it was 20 years ago.

As a result of these changes in fertility trends, the universal reduction in the death rate and increasing life expectancy, the age structure of the population in Central Asia is going to significantly change in the period till 2050. Based on the latest available UNDESA's Population Division projections (Figure 1), the share of children under 15 years old is going to decrease between 2015 and 2050 by 6 percentage points in all post-Soviet countries and by 18 percentage points in Afghanistan. For the same period in these countries, the share of elderly people (aged 65+ years) is going to increase by 3-8 percentage points by 2050 reaching 12% in Uzbekistan and 14% in Kazakhstan. The share of working age people (15-64 years old) is going to dramatically increase in Afghanistan by 15 percentage points; this would make the age structure almost the same as in its northern neighbours. In the other four countries under consideration, this share is going to stay almost constant with the 2015 level between 60% and 70% of the total population. The labour market implications of all these changes are obvious: the number of working age people is going to increase rather quickly with long-term average growth rates varying from 0.9% per annum in Uzbekistan to 2.6% in Afghanistan. This will push the labour supply up in all these economies. The needs for social programmes for children (education etc.) would relatively diminish in all these countries while the demand for social protection for the elderly would significantly increase.

Figure 1. Population by age group, 2015-2050
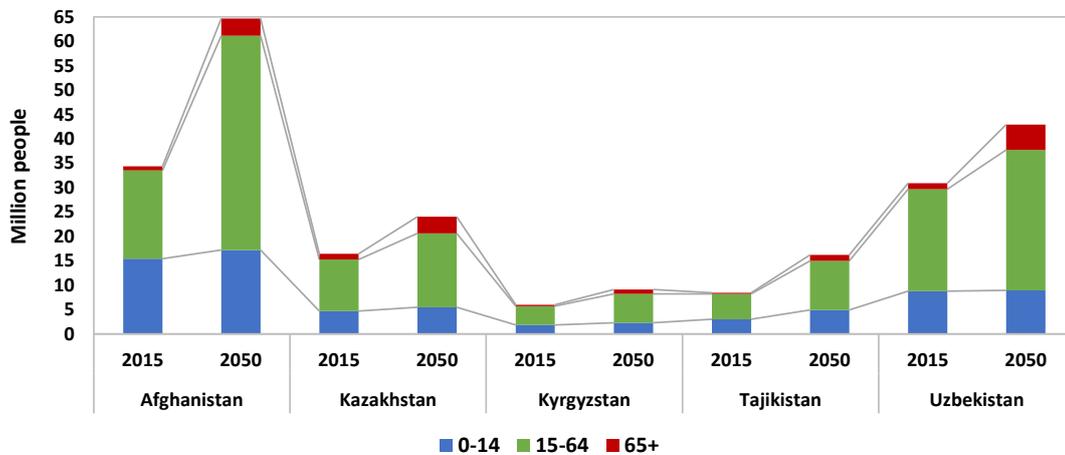
Source: World Population Prospects 2019

2.2. Labour Force Participation and Structure

The economies demonstrate diverging trends in the labour force participation rate (LFPR)[3] (Figure 2). In Afghanistan, it has grown from a very low base; in Kyrgyzstan it has a downwards trend, while in the other three countries it has changed little over the last 20 years. The LFPR in Tajikistan is much lower than in other Central Asian economies and does not grow. This could be an indication of widespread labour emigration which started in this country much earlier than in other countries of the region.

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3   The ratio of total labour force to population in working age.

Figure 2. Labour force participation rate, modelled ILO estimate
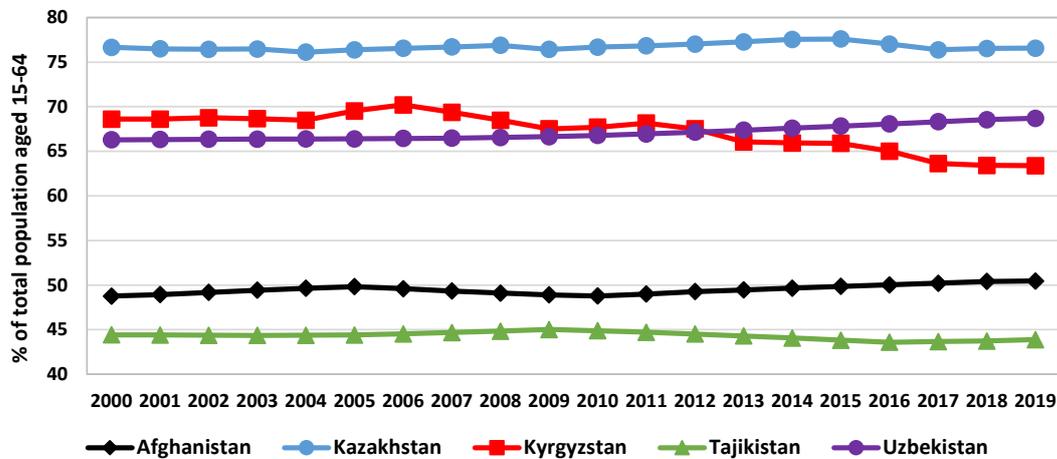
Source: World Development Indicators (WDI)

It seems there are several factors behind these changes in labour force participation. One concerns the labour force participation of women (Figure 3). The increase in women's involvement in the labour market registered in Afghanistan is very much behind the general LFPR in this country. On the other hand, the LFPR decline in Kyrgyzstan is associated with the rather significant fall in the share of women in the total labour force (from 44.1% of total in 2000 to 38.4% in 2019). The minor changes in female labour force participation in the other three countries correlate well with the minor change in general LFPR. The analysis of the reasons behind the ongoing changes in the participation of women in the labour force requires a separate paper based on micro-data. However, one could formulate a few hypotheses related to the changes in the female LFPR in Central Asia: (i) low opportunity costs of labour market non-participation keep many women, especially married, out of work outside their household; in other words, if the foregone wage for a housewife is low, she may well prefer to concentrate on child and elderly care, cooking and other household tasks; (ii) gender patterns of labour migration; if it is relatively easy for women to migrate, they may prefer going abroad thus dropping out from the domestic labour force (see the discussion of available evidence in section 2.4); (iii) an easily observable shift in social relationships towards more conservative values in post-Soviet countries[4] implying a strong preference for women to stay at home would also contribute to the lower female LFPR.

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4   It seems that the attitude in Afghanistan is changing in opposite direction albeit slowly reflecting the society's, Government's and donors' efforts towards achieving more gender equality.

Figure 3. Share of women in the labour force
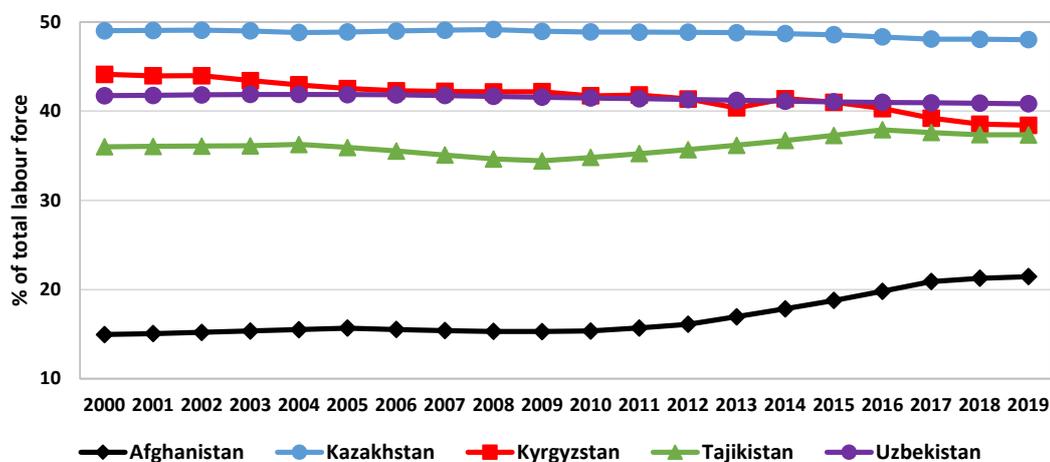
Source: WDI

Second, there is a clear positive correlation between the LFPR and the level of urbanisation measured by the share of the urban population in the total population. Kazakhstan is the most urbanised country in the region (in 2019, 57.5% of the total population lived in urban areas, source: WDI) and has the highest LFPR. Afghanistan and Tajikistan have the lowest urbanisation values (25.8% and 27.3%, respectively) and the lowest LFPRs. Uzbekistan's increase in urbanisation in XXI century by 4.3 percentage points (50.4% in 2019) resulted in a modest increase in LFPR, while Kyrgyzstan's lack of almost any progress in urbanisation (from 35.3% to 36.6% between 2000 and 2019) is accompanied by a declining LFPR. Apparently, a rural environment (lack of childcare facilities and employment opportunities, low wages etc.) is conducive for keeping some women out of the labour force. Also, the well-known phenomenon of chronic rural unemployment/ underemployment encourages men and women to migrate abroad. On the contrary, in large cities it is easier to find a job thus providing some alternatives to emigration. Other labour emigration drivers are simultaneously the explanatory variables for the LFPR (see section 2.4).

Countries of Central Asia have a rather high level of labour force education compared to their level of development. All post-Soviet countries have adult literacy rates above 99% of the total population (15+ years old) for both men and women. In Afghanistan, the rate is much lower, but increasing; it was 55% for men and 30% for women in 2018 up from 45% and 18% in 2011, respectively (source: WDI). Figure 4 provides data on the education structure of the labour force for those countries where data are available. Obviously, the level of labour force education is positively correlated with the level of economic development. In Kazakhstan, the share of people with some professional education was 85%, while in Kyrgyzstan (with the second highest GDP per capita among these three economies) it was 42%, and in Tajikistan – 30%. The median level of education in Kazakhstan is secondary professional (ISCED 4), while in Kyrgyzstan and Tajikistan – general secondary. These countries have almost no workers with a level of education below basic secondary.

Figure 4. Labour force structure by education
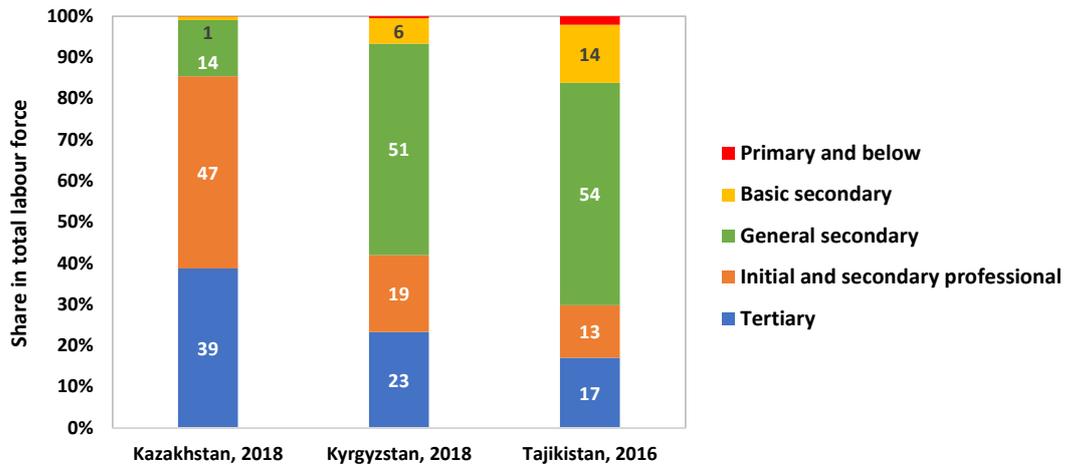
Sources: National Statistical Agencies (NSAs)

2.3. Domestic Employment

The structure of domestic employment in all countries of the region saw dramatic changes in 2000-2019 (Figure 5). Sector-wise, there was a major shift in these economies from agriculture to services and, to a lesser extent, industry.[5] In 2000-2019, agriculture as an employer lost from 15 (Tajikistan) to 32 (Kyrgyzstan) percentage points of the total employment; at the same time, the share of services in total employment increased by 9 (Uzbekistan) to 19 (Kyrgyzstan) percentage points. The share of industry in total employment increased in all countries except Tajikistan mostly due to construction. As a result of this change, agriculture lost its role as the main employer in Kyrgyzstan and Uzbekistan and took on a smaller role in the other economies, too. These changes are consistent with the significant global trend of workers moving from agriculture to services with a relatively minor increase in industrial employment.

Figure 5. Employment by sector, modelled ILO estimate
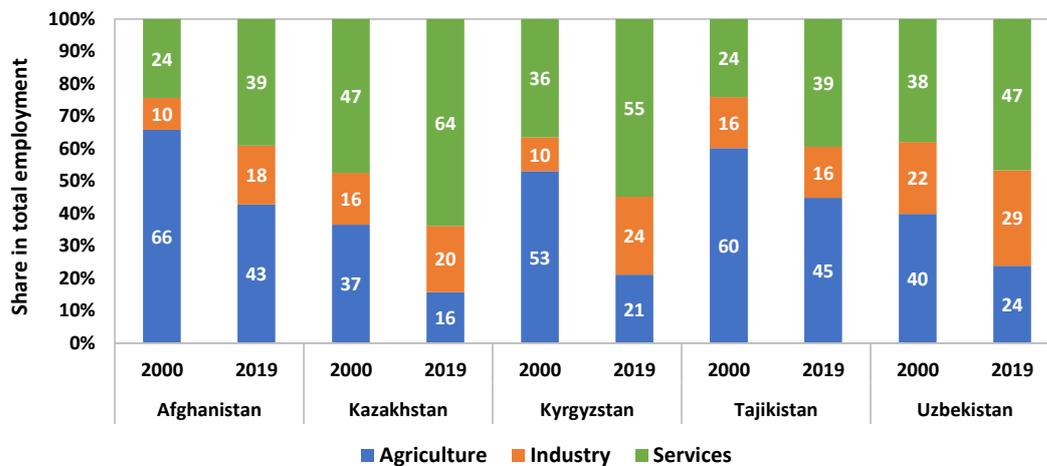
Source: WDI

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5   Agriculture includes crop production, livestock husbandry, agricultural services, forestry and fishery. Industry includes manufacturing, mining, electricity, water and gas production and supply, and construction. Services include all private (retail, finance, ICT etc.) and public (administration, education, health, etc.) services.

Analysis of the gender structure of employment reveals major differences in occupations selected by or accessible to women and men (Figure 6). In Afghanistan and Tajikistan, women are concentrated in agriculture, while in the other three countries most women are employed in services. In all countries, most men are concentrated in services. Interestingly and somewhat counter-intuitively, in Afghanistan the share of women employed in industry exceeds that of men;[6] in the other four economies under consideration, the proportions are the reverse: the shares of men working in industry are much higher than those of women. Uzbekistan is the country with the largest share of male employment in industry, which is as high as that in services. These gender differences in sectors of employment are associated with the relative productivity of jobs (Figure 7)[7] and, hence, the level of wages received by workers (assuming wages are positively correlated with jobs' productivity). As a rule, men go to the better paying sectors leaving women in the sectors with lower pay. Indeed, one can see that in most cases industry is the most productive and agriculture is the least productive sector. There are only two notable exemptions to this rule: in Afghanistan, industry is less productive than services, and in Uzbekistan services are less productive than agriculture. These exemptions are well consistent with the above-mentioned deviations in the distribution of working men and women by sector observed in these countries. So, in all cases, these sector employment patterns are behind the well-known gender pay gap registered in all countries of the region.

An important feature of the labour market in Central Asia is the very high share of the self-employed among those employed (Figure 8), especially in Afghanistan. Unlike developed countries where the self-employed are mostly representatives of liberal professions or employers (and a growing number of those involved in the gig economy), in the region these people are predominantly farmers and small traders/service providers. The country differences in the self-employment rate directly relate to the employment shares of agriculture and retail and consumer services. These are low quality occupations due to the relatively low income and high volatility of the working environment without any job safety considerations. The trend of some reduction in the share of self-employment in the total employment observed in all countries of the region could be attributed to the diminishing role of agriculture where most self-employed are concentrated.

Figure 6. Gender structure of employment by sector, modelled ILO estimate, 2019
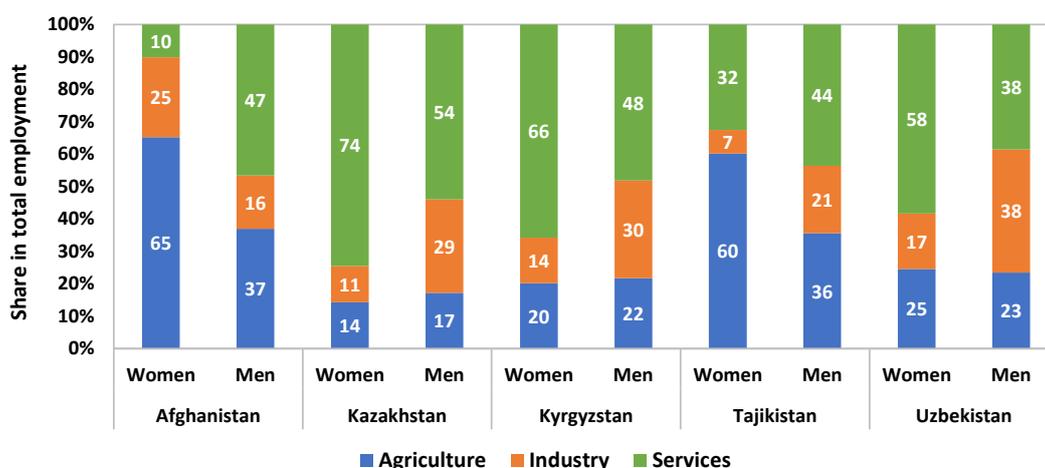
Source: WDI

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6   This is possibly due to the large female employment in carper industry, one of the key economic sectors in Afghanistan.

7   Labour productivity is estimated as a sector's gross value added per one employed in this sector. The observed huge variation in sector labour productivity relates to the natural, physical and human capital endowments in the countries, access to external markets, level of competition etc.

Figure 7. Labour productivity by sector
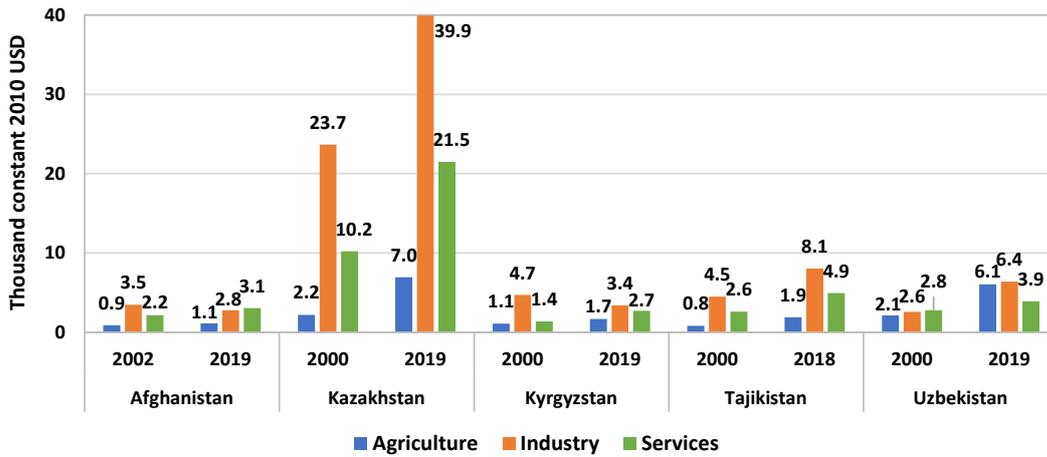
Source: WDI

Figure 8. Self-employment
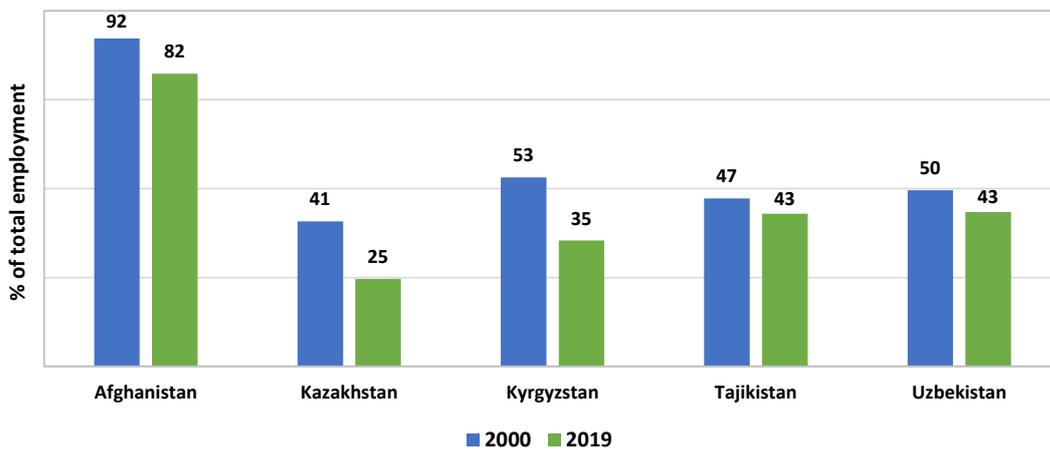
Source: WDI

Very often in Central Asia, self-employment goes hand in hand with informality. The definition and features of informality in the region are discussed in section 3.1. Apart from small farmers and other self-employed workers, informal workers also include farmers' family members working on their own farm and workers hired informally by individuals or enterprises. Evidence of the spread of informality in the labour market based on labour force surveys (LFSs) conducted in some countries of the region is provided in Figure 9 which shows significant variation in informality patterns. In Kazakhstan, 80% of all workers are employed in the formal non-agricultural sector; some agricultural workers also have formal employment arrangements. Therefore, informality in Kazakhstan is a relatively minor issue. In contrast, in Kyrgyzstan just less than 30% of total employment is in the formal sector as virtually all agricultural workers are informally employed on their own small farms, and more than half of all non-agricultural workers are employed informally. The situation is similar in Tajikistan and especially in Afghanistan where small farmers and their family members and informal non-agricultural workers constitute more than 50% and 80% of total employment, respectively. Pervasive informality is one of the key labour market features in the poorer countries of Central Asia.

Figure 9. Informal employment

Sources NSAs
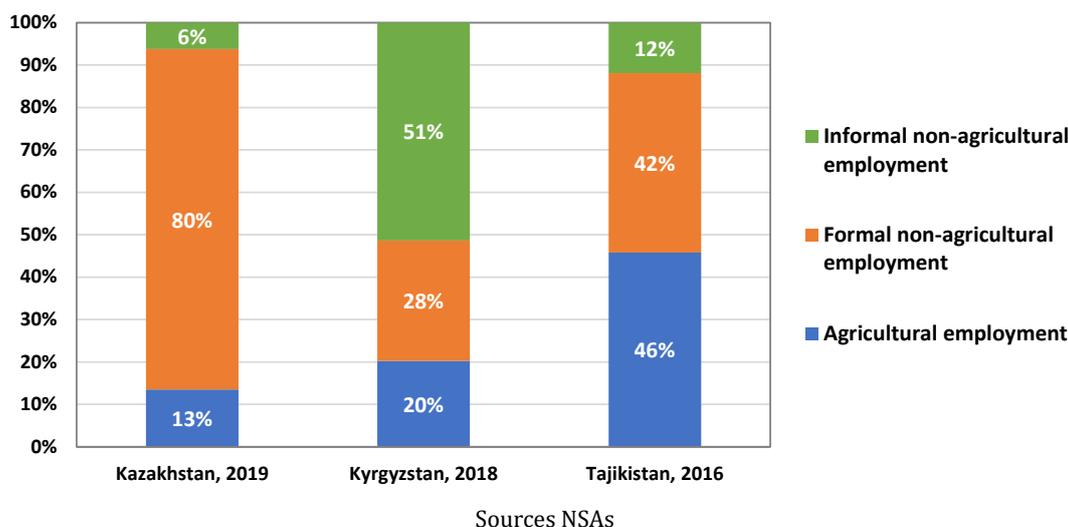
As with any other market, the labour market is not only about quantities traded (i.e. the numbers of people employed/unemployed/economically inactive, etc.), but also about prices (wages in the labour market context). In Central Asia, the interpretation of wages should be done with caution. Among other things, widespread self-employment means that the notion of wages is not applicable to this group of workers. They receive a so-called mixed income which reflects their dual roles as workers and entrepreneurs. Mixed income has two inseparable components: labour remuneration and the entrepreneur's profits. Thus, in a narrow sense, a wage relates only to people employed as hired workers in the formal sector of these economies which might represent a relatively minor part of total employment as the data provided above suggest. The composition of formal jobs is different across the economies of the region, so there is only a limited scope for inter- and intra-country wage comparisons. Still, these wages are of interest as they serve as a benchmark for understanding the incomes of the self-employed and informal workers. To better understand the relative size of wages, it is useful to compare the wage data with some indications of incomes in agriculture and non-labour incomes (mostly profits) in the non-agricultural sector. A comparison of nominal average wage values (Figure 10) shows that, somewhat expectedly, in Kazakhstan workers receive the highest wages in the region which are some two times higher than in Uzbekistan and Kyrgyzstan (in these countries, the wages are almost the same if measured in current USD) and 3.4 times higher than in Tajikistan. While the wage gap between Kazakhstan and other countries of the region is significant, it is not as big as the difference in GDP per capita (5.6-11.2 times in 2019, source: WDI). A comparison of nominal wages with the gross value added per employed (GVApe) in agriculture[8] and the non-agricultural sector reveals an interesting variation in remuneration patterns across these economies. In Uzbekistan, the GVApe in agriculture is significantly higher than the formal sector's average wage; in Kyrgyzstan, on the contrary, the average wage is much higher than the agricultural GVApe. These relationships seem to be consistent with the dynamics of agricultural employment: rather stable in Uzbekistan and quickly falling in Kyrgyzstan – the share of this sector in total employment fell in Uzbekistan and Kyrgyzstan by less than 5 and more than 10 percentage points for the last five years, respectively. So, agricultural jobs in Uzbekistan seem to be more productive than in other sectors of the economy unlike in the other three countries for which data are available. In Kazakhstan and Tajikistan, there is no

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8   Taking into account the prevalence of small farming in the agricultural sector of all countries of the region, the GVApe may serve as a proxy for mixed income of farmers.

major difference between wages in the formal sector and the agricultural GVApe. This suggest a comparable return to labour in agriculture and in the hired formal employment.

Another observation one can make about the agricultural GVApe is its low values in Central Asia (USD132-489/month) compared to some other countries. For example, the agricultural GVApe is equivalent to USD1,744/month in the Republic of Korea, USD762/month in Turkey and averages USD825/month for the post-socialist countries of Central Europe and Baltics. So, low productivity in the agricultural sector is key for understanding many trends in the economies of Central Asia. Similarly, the GVApe values in services are low by international standards. This is partially because all these countries except Kazakhstan belong to the low or lower middle-income groups (according to the classification of the World Bank), so prices for services are relatively low while the structure of services also plays a role. Total employment in the high productivity and best-paying sectors like ICT and finance is relatively small (e.g. the cumulative employment in these two sectors of Kazakhstan and Kyrgyzstan was 4.0% and 2.7% of total employment in 2019/2018, respectively). Most new jobs are created in such sub-sectors of services as retail trade, transport, hotels and restaurants, etc. These sectors in Central Asia are not particularly demanding in terms of workers' education and skills and offer only modest wages.

Figure 10. Average wages
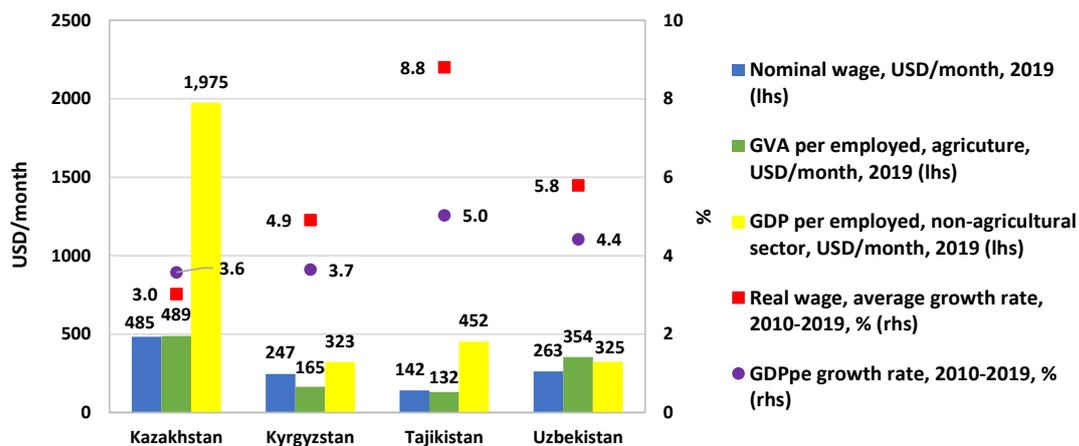
Sources: NSAs, WDI

A comparison of average wages with the GVApe in the non-agricultural sector is also informative. Apart from the wages of hired workers, the GVApe also includes the profits of entrepreneurs and the mixed income of the self-employed in the non-agricultural sector. Depending on the structure of the economy's non-agricultural sector, either component of the GVApe may prevail. In Kazakhstan, the difference between the non-agricultural GVApe and the average wage is four-fold; this is explained by the very high GDP share of the extractive industries, metallurgy, finance and some other capital-intensive sectors. So, the GVApe consists mostly of profits (the income of capital owners) rather than hired workers' income. Tajikistan has a similar situation when the non-agricultural GVApe exceeds the average wage by more than three times. In Kyrgyzstan and Uzbekistan, the relationship is different with wages being around 80% of the GVApe in the non-agricultural sector. This hints at the concentration of less productive and labour-intensive jobs in the non-agricultural sector of these two economies.

Finally, it should be noted that the real wage growth rates are higher than the GDP per employed growth rates in Kyrgyzstan, Uzbekistan and especially Tajikistan (all migration-dependent countries). Apparently, the outflow of workers to better paying labour markets such as Russia and other migration destination countries results in some catch-up effects in wages, so they grow faster than the domestic economy. Thus, migration makes the wages of the workers staying in the domestic economy higher than they would be in the absence of migration (see the case of Kazakhstan).

2.4. Labour Migration and Mobility

Massive labour emigration from Central Asia to Russia and some other destinations (i.e. Kazakhstan, the Republic of Korea, Turkey etc.) has become a key feature of the labour markets of these economies since the early 2000s. The general level of economic development and related wage level determine the incentives for labour emigration. Wages in Kyrgyzstan, Tajikistan and Uzbekistan are much lower than in Russia,[9] which drives the migration to Russia and other destinations and, among other things, results in a lower LFPR. On the other hand, for demographic and economic reasons the market of these destination countries requires cheaper labour; so, there is a natural complementarity between Central Asian countries and Russia and other destinations. In addition, to migrate abroad, one should have not only incentives, but also possibilities. Migration from Central Asia to Russia (known to be the main destination for Central Asian workers hosting some 90% of all labour migrants from the region) is very high not only because of the wage gap, but also due to the visa-free regime, common historical, institutional and cultural heritage and, importantly, the availability of Central Asian diasporas in Russia.[10] Kazakhstan is the richest country of the region, where wages are comparable to their level in Russia and some other potential migration destination countries. Thus, workers in Kazakhstan have fewer incentives to migrate and drop out from the domestic labour force.

The process of migration from Central Asia to Russia is rather irregular and partially informal. There are many seasonal migrants working in construction and agriculture travelling between their home countries and Russia more than once a year. Some migrants become permanent residents of Russia; others eventually acquire Russian citizenship (losing their migrant status in Russia) while still keeping their passport of the country of origin (i.e. continue being considered as migrants at home). These dynamics are not accounted for well, so only rough estimates of the total number of labour migrants exist. Perhaps, with regards to Russia, a proxy for the total number of migrants is the number of other countries' citizens registered by the Russian Ministry of Interior; these data have been published in the current format since 2016. According to these data (Figure 11a), in 2019 almost 10 million Central Asian migrants were registered in Russia, up by some 40% from their number in 2016. This increase may partially reflect the actual increase in the number of migrants and partially be a by-product of the changes in performance of the Russian registration system. Relative to the total number of people of working age (Figure 11b), the number of migrants is huge in Tajikistan (some 50% of all able-bodied people were in Russia in 2019), very large in Kyrgyzstan and Uzbekistan (more than 20% of all people of working age) and significant even for Kazakhstan (6%). At the moment of primary registration, migrants have to declare their purpose for arriving in Russia. More than 80% of all migrants from Uzbekistan,

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9   According to the Russian statistical agency Rosstat, the average wage in Russian Federation in 2019 was equivalent to USD739/month, i.e. it was 3-5 times higher than in Kyrgyzstan, Tajikistan and Uzbekistan and some 50% higher than in Kazakhstan (see Figure 10).

10   All these possibilities are not available for potential migrants from Afghanistan. So, they have fewer migration opportunities, in general, and if they migrate, they choose other destinations.

75-80% of migrants from Kyrgyzstan and Tajikistan and 24% of migrants from Kazakhstan indicated 'work' as the purpose. So, according to these data around 7 million people from Central Asia were looking for jobs in Russia in 2019.[11] This could be compared with the total labour force of some 30 million in these four countries. Without any exaggeration, labour migration is one of the key (if not the main) economic sectors in Kyrgyzstan, Tajikistan and Uzbekistan and has become noticeable even in Kazakhstan.[12]

Figure 11. Central Asian migrants registered by the authorities of the Russian Federation

a) Million people

b) % of population aged 15-64 years
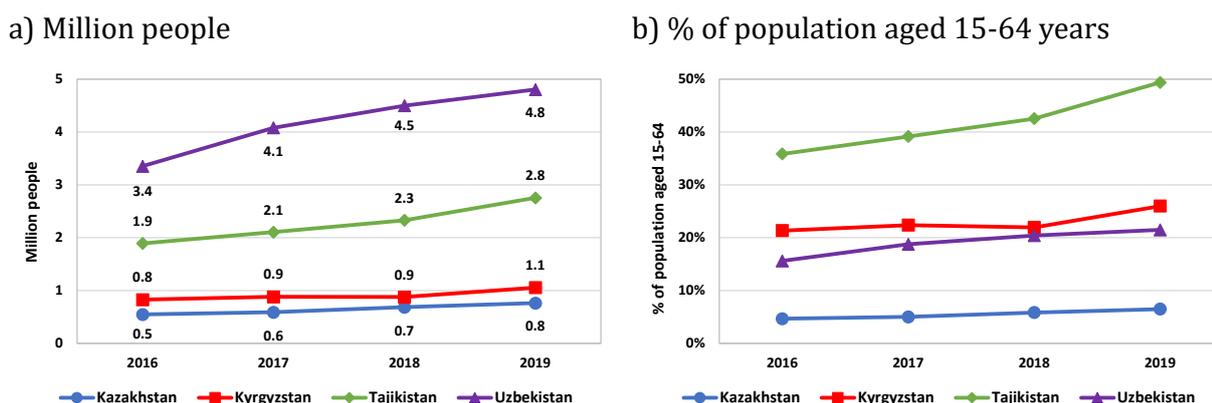
Sources: Ministry of the Interior of the Russian Federation, WDI

The reports provided by NSAs[13] and the Russian authorities provide some further details on the structure of labour migrants. According to the Kyrgyz LFS, in 2018, 26% of all migrants worked in retail and wholesale trade in destination countries, 24% in construction, 23% in hotels and restaurants, 16% in industry, 4% in agriculture and 7% in other sectors. So, about half of all Kyrgyz migrants work in trade or other services and one quarter – in construction. The sector proportions might be a bit different for Tajik and Uzbek migrants with a higher share in constriction and a lower share in services. This may be related to the fact that Kyrgyz migrants generally have better command of the Russian language, Thus, it is easier for them to find easier/better paying jobs sometimes becoming self-employed and entrepreneurs in services in big cities. The 2016 Tajik LFS found that only 16% of all migrants were women. This estimate is consistent with the women's share of 15% among the Tajik migrants of working age (18-60 years) provided by the Federal Migration Service of the Russian Federation (FMS)[14] in the same year. The FMS also provided the following estimates for the share of migrant women of working age: 38% for Kyrgyzstan and 17% for Uzbekistan. Available data on the age structure of migrants (Table 1) show that young people prevail among male migrants in all three countries and among female migrants from Kyrgyzstan.

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11   These estimates exceed the data published by the NSAs in some countries of Central Asia. For example, the 2016 LFS in Tajikistan published by the Statistical Agency of Tajikistan reported 517,000 labour migrants to Russia and other countries, i.e. some three times less than the above-mentioned Russia statistics. Similarly, the 2018 LFS in Kyrgyzstan provides estimate for the total number of labour migrants from the country of only 263,000 people compared with the estimate of 676,000 derived from the Russian source. It seems the methodologies used by NSAs tend to seriously underestimate the number of labour emigrants from these countries.

12   Based on the above-mentioned sources, some 200,000 Kazakh migrants worked in Russia in 2019; this is equivalent to 2% of total domestic employment in Kazakhstan.

13   While, as noted above, the NSAs' estimates for the total number of migrants may deviate from some other sources, one can assume that there is no bias in other data collected in these LFSs.

14   In 2016, FMS was transformed into a department of the Russian Ministry of Interior. After this transformation, the gender and age structure of migrants to Russia is not published anymore.

Apparently, it is more difficult for young Tajik and Uzbek females to migrate compared to women aged 30+. This difference (as well as the higher female share among all migrants) may reflect the more liberal attitude towards female migration in Kyrgyzstan.

Table 1. Share of young (18-29 years old) migrants to Russia, 2016

	FMS		Tajikstat	
	Women	Men	Women	Men
	% of all migrants aged 18-60 years old			
Kyrgyzstan	54	60	...	...
Tajikistan	44	55	41	40
Uzbekistan	38	54	...	...

Sources: 2016 Tajik LFS, FMS

Importantly, international labour migration is likely to remain a long-term feature of the labour markets in Central Asia. The comparison of demographic and economic development trends in Central Asia and key migration destinations (Figure 12) shows that the two key migration drivers—the difference in the level of economic development and the combination of labour abundance in the region and labour scarcity in the destination countries—are going to stay or be reinforced by 2050 unless some unpredictable positive economic shock materialises in Central Asia.

Apart from international labour migration, there is very substantial domestic migration from rural areas and small towns to big cities. The reduction in agricultural employment discussed in section 2.3 is related to both the external and internal migration of workers. Importantly, there is also substantial mobility of workers between economic sectors even without changing their place of residence. In some countries of the region, the variation in the number of employed by sector is huge. For example, in Kyrgyzstan in 2011-2018 the difference between the largest and the smallest numbers of employed in manufacturing was 129,000 or 67% of the average number of employed in this sector for the same period of time (193,000, source: NSC). Similarly, for the same period in Tajikistan the latter ratio for manufacturing was as high as 51%. This change is due to fluctuations, and is not a smooth trend (for comparison, the performance of sectoral labour demand in Kazakhstan was much more stable). Such dynamics imply high instability of jobs and the preparedness of workers to change working places and professions. This volatile performance of labour demand seems to disincentivise both employers and employees from investing in skill development and the professional growth of workers. No surprise that in these economies most people do not look for professional education (see Figure 4). The interest of youth in the continuation of education beyond what is compulsory is also declining. In Kyrgyzstan, the share of those basic secondary school (nine grades) graduates who continued their studies and received general secondary education (11 grades) was 81% in 2000; by 2019 this share fell to 55% (source: NSC).

Figure 12. Trends in the working age population and GDP per capita in Central Asia and key migration destination countries
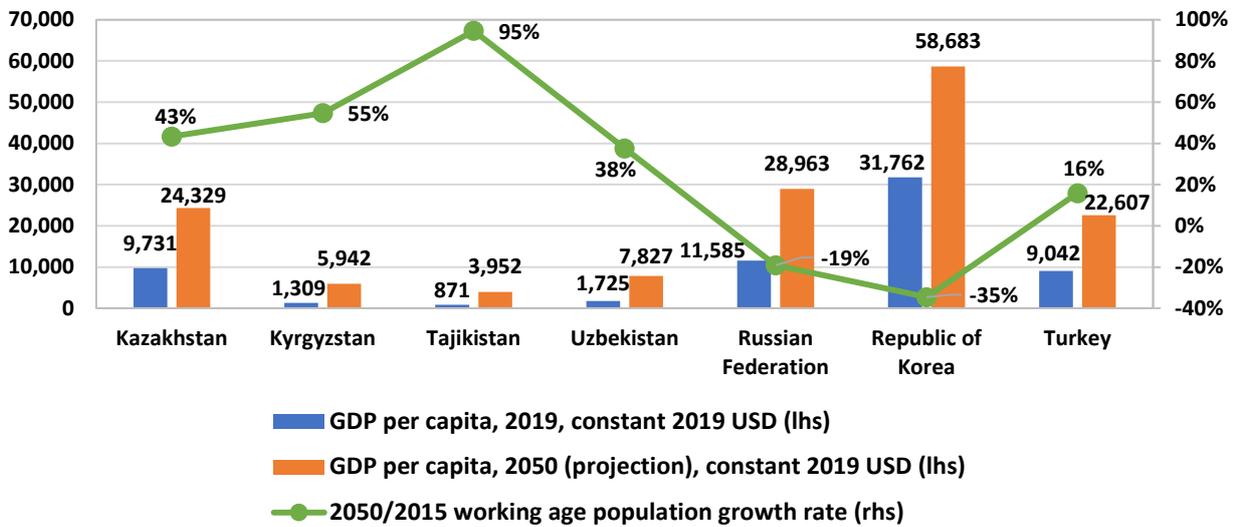
Note:　　The 2050 projections are based on the following assumptions of GDP per capita average growth rates by country:

Republic of Korea – 2% per annum, Kazakhstan, Russian Federation, Turkey – 3% per annum, Kyrgyzstan, Tajikistan and Uzbekistan – 4% per annum[15]

Sources: WDI, World Population Prospects 2019, author's estimates

2.5. Unemployment

There are varying unemployment measures in Central Asia. Government employment services operate with the numbers of the officially registered unemployed. Often, this regards is different from the unemployment status differently from that according to the ILO definition.[16] The main reason for this is that many unemployed (in an ILO sense) do not try registering with the government services mostly because they see no benefit in doing so – the government support for the registered unemployed is symbolical or absent (see section 4.1). The rate of officially registered unemployment is about 1-3% of the total labour force in Kazakhstan, Kyrgyzstan and Tajikistan which is well below the values reported by NSAs based on the ILO definition (Figure 12a). Uzbekistan used to have very low (<1%) official unemployment rate values until 2009 when it adopted the ILO definition for administrative purposes.

Available data (Figure 13) demonstrate a significant reduction in unemployment in all five countries in comparison to the early 2000s. In recent years, however, the trends are different. One can see a further reduction in unemployment in Kazakhstan and Kyrgyzstan, a stagnation in the unemployment rate in Afghanistan and Tajikistan or even its modest growth in Uzbekistan. The current unemployment rates are rather high in Afghanistan and Tajikistan (around 11% of the total labour force in 2019). Moreover, these two countries have the highest population growth

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15　　In no way do these growth rates pretend to be a long-term forecast. These values are based on a very simple but empirically grounded rule that the economic growth rates tend to be negatively correlated with the level of economic development, i.e. it is easier to grow from a low base.

16　　According to the ILO, unemployment implies that a person of working age (15+): (i) has no employment (worked for less than one hour for the reference week), (ii) is available to start working within two weeks and (iii) has actively looked for a job in the previous month.

rates in the region. In the other three countries, the unemployment rate values are relatively low (4.6-6.3% in 2019). Apparently, economic growth and labour migration were instrumental in reducing/containing unemployment.

Figure 13. Unemployment rate, modelled ILO estimate

a) Total

b) By gender, 2019
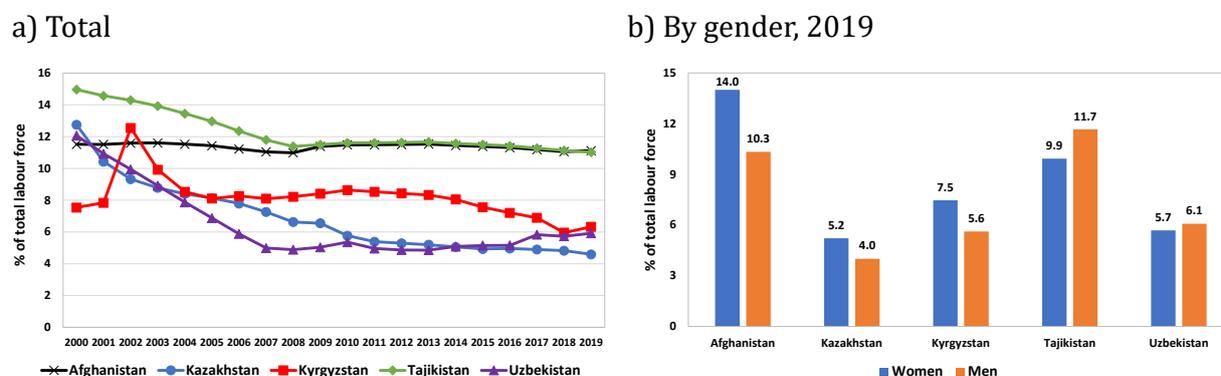
Source: WDI

The gender differences in the unemployment rates are significant in all countries of the region except Uzbekistan (Figure 12b). In Afghanistan, Kazakhstan and Kyrgyzstan, female unemployment is higher than male unemployment, while in Tajikistan and Uzbekistan men are more likely to be unemployed than women. One possible explanation is that in the latter countries unemployed women drop out from the labour force rather than continue looking for jobs.

Underemployment is another issue in the Central Asian labour markets. Underemployment means that a person has a job of sorts, but it keeps her/him busy less than the normal duration of the working day (in all countries of the region, the normal working week is 40 hours). Data in Table 2 provide information on significant underemployment (less than 30 working hours a week) for selected countries of the region which publish these kinds of statistics. The very large variation in the values may signal methodological differences in measurements. However, comparison of the Kazakh and Kyrgyz data seems to hint that the main group of underemployed workers is rural women: women have higher underemployment rates than men, and people with rural/agricultural employment are much more likely to be underemployed in comparison to people employed in urban/non-agricultural sectors. So, this is yet another side of low agricultural productivity which incentivizes rural women to spend part of their time on household work instead of full-time farm work.

Table 2. People working less than 30 hours a week, % of total employment

	Total	Women	Men	Urban	Rural
Kazakhstan, 2019	5.2	6.8	4.5	1.9*	26.3*
Kyrgyzstan, 2018	18.5	26.6	13.6	6.8	25.3
Tajikistan, 2016**	1.7	0.6	2.4	...	...

Notes: * for Kazakhstan, the shares for agriculture and non-agricultural sectors are provided for rural and urban, respectively

** for Tajikistan, the number of people working less than 40 hours a week is reported

Source: NSAs

3. Labour Market Issues

3.1. Informality in the Labour Market

As mentioned above, one of the key features of the labour markets in Central Asia is informality. There are many different definitions of informality ranging from almost euphemisms for a shadow/ black economy inclusive of some illicit activities to a fully legal activity which in some sense is less observable and regulated than the so-called formal economy. This paper uses the latter understanding of the term "informality." The statistical agencies of Kazakhstan and Kyrgyzstan systematically publishing data on the informal sector identify a lack of written labour contracts between employers and employees as a key feature of informal enterprise. Another key characteristic of informal enterprises is the small scale of their operations; in Central Asia, however, the threshold is set high enough[17] and in some government-supported sectors (e.g. agriculture in many countries of the region or the garment industry in Kyrgyzstan) even medium-size enterprises allowed to have the same legal regime as micro-enterprises. So, in this paper all informal enterprises are understood as micro-, small and medium enterprises (MSMEs); it is also correct to say that most, but not all, MSMEs are informal in the above sense. In the Central Asian context, informal enterprises rarely (if ever) provide any reporting on their actual location, output, employment and other key economic indicators,[18] are usually allowed to use simplified tax regimes (e.g. lump sum tax) and are hardly observable for any government organisations which are supposed to inspect the compliance of enterprises' business practices with legal requirements related to the job safety, fire safety, sanitary standards, etc. Even if these enterprises provide some reporting to any of the government agencies (e.g. the tax service), these data are very difficult to verify, so MSMEs are not really bound by these reports. The dominance of cash transactions also supports this informality.

The labour relationships in informal MSMEs are based on family ties, mutual trust and informal agreements. Enforcement of such agreements is not supposed to rely on legal tools (state bodies in charge of labour market regulation, courts, etc.); rather, it is usually done through the mechanisms of reputation, community pressure (in case both parties belong to the same community) and different risk-reducing arrangements. For example, external/insufficiently trusted hired workers are rarely allowed to have any access to essential technology knowledge (recipes in case of food production, design in the garment industry, etc.); wage payments are often organised with high frequency – weekly or even daily (unlike formal enterprises where payments are done on a bi-weekly or monthly basis).

Informal MSMEs including the self-employed and peasant farms are the main employers in all countries of the region except Kazakhstan.[19] Such enterprises have their advantages and disadvantages which are summarised in Table 3.

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17   The VAT registration threshold for turnover might be instrumental in assessing an enterprise's eligibility for staying away from the formal regime. In all countries of the region it is in the range of USD80,000-200,000 per annum. Considering the labour productivity estimates provided above, such an enterprise might have tens of workers.

18   This does not mean that official statistics do not cover them. In many cases the statistical agencies more or less accurately assess the scale of the informal sector activities using properly designed enterprise and household surveys.

19   No data on Uzbekistan.

Table 3. Benefits and costs of MSMEs' informality for the Central Asian economies

Benefits	Costs
Flexibility of production process	Lack of workers' rights
Low transaction costs, protection against corruption pressure	Difficulties in growing and retaining skilled workers
Low entry barriers for entrepreneurs – vertical mobility	Limited capacity to utilise modern technologies and best management practices
Almost perfect competition reduces consumer prices	Difficulties with quality certification of produce
Possibility to significantly save on taxes	Uneven taxation undermines the incentives for investments and growth

From an economic development point of view, the advantages/benefits of informal MSMEs include:

- Flexibility, ability to very quickly react to market signals and reorient its activities towards a different market segment (e.g. changing crops grown by farmers, a range of goods offered in retail trade, routes served by transport);

- Low transaction costs, minimum (and often no) paperwork and accounting; small size and informality help to keep the enterprises almost invisible and, in this way, protect the enterprises/entrepreneurs against possible pressure from corrupt officials and/or criminals;

- The simplicity of the management structure of these enterprises reduces requirements for education and experience of the owners/managers and makes micro- and small enterprises a viable option for many people in the country who would like to try themselves as entrepreneurs; this serves as a tool for vertical social mobility for those with entrepreneurial talent;

- The multiplicity of MSMEs provides for an almost perfect competition market structure in many product markets; this makes them all price-takers and results in lower prices for consumers;

- These enterprises are eligible to benefit from the simplest and lowest tax regime; this allows them to save on taxes and keep their prices competitive.

The disadvantages of informal MSMEs include:

- Near universal informality of labour arrangements, a lack of enforceable labour contracts, a practical absence of worker rights' guarantees formally provided by labour codes (e.g. paid annual, sick and maternity leaves, labour safety requirements); this reduces the labour costs for entrepreneurs, but at the same time it also reduces the workers' benefits from jobs created by these enterprises;

- Difficulties in growing and retaining a skilled labour force which may be looking for better pay and more safe and predictable labour conditions;

- Difficulties with technological upgrade due to insufficient access to knowledge, capital, and a skilled labour force, hence, an inability to compete in the markets that demand more of the quality of production (such as export markets or markets for higher-value-added products); inability/lack of preparedness to pay for business development services, especially consulting; this results in insufficient access to existing best practices and, in some cases, to cheap sources of capital;

- Inability to ensure and certify the quality of produce and its compliance with domestic and international technical regulations; again, this cuts off these enterprises from the most lucrative markets (exports, government procurement, etc.);

- Minor/only symbolic contribution of MSMEs to the government budget providing for a highly uneven taxation regime for large enterprises in comparison to MSMEs;[20] this adversely affects the general tax base of the government budgets, but it also undermines the incentives to grow and utilise modern technologies which are going to make these enterprises more productive, but also bigger, visible and ineligible for simplified taxation and regulatory regimes.

All these factors result in the inability/hesitation of MSMEs to scale up their operations above some, rather modest, level and to be effective in export and some domestic markets with potentially higher profit margins. Thus, the current environment for MSMEs is conducive for the creation of jobs, but these are mostly of low quality.[21] Informality is an effective survival mechanism, but it is not good for economic growth and development. So, economies aspiring economic upgrade, diversification and development based on technology-driven productivity growth may need to address the informality issues as a first-order task.

3.2. Labour Taxation and Pensions

All post-Soviet economies of Central Asia provide for near universal access of their population to old age pensions. This is an important social achievement and a major tool preventing those elderly who lose the ability to work from falling into poverty. However, this is the most expensive social programme in these countries. It is financed mostly through mandatory social contributions which are considered as taxes in some countries and as insurance payments in others. In any case, these contributions have salaries/wages as their tax base. For those in the formal economy, the contribution rates are high (24.5-27.25% of a worker's nominal wage). There is one more tax on payroll in formal enterprises – personal income tax. Even though the rates of this tax in Central Asia are low (8-13% of nominal wage), coupled with the social contributions it creates a heavy burden on the payroll (34.5-39% of nominal wage). Importantly, this applies only to formal enterprises; informal MSMEs manage to benefit from much smaller rates. Effectively, the system penalises enterprises for good (hence, formal) job creation and for the attempts to retain skilled workers expecting to receive high wages/salaries. This kind of labour taxation causes major distortions in all these economies and is one of the key reasons for many enterprises choosing to remain small and informal.

The social contribution rates for formal enterprises in the region are high because the tax base is narrow. To reduce these rates, one needs either to broaden the tax base, or change it. Broadening the tax base means formalising those currently informal enterprises; this requires a major consistent long-term reform programme. Implementation of any reform of this kind does not seem possible if there is such a big divide in taxation between formal and informal enterprises. Hence, it is necessary to disconnect the financing of the pension system from the taxation of labour income.

The way of financing pensions through workers' contributions proportional to their wages comes from the pension system's origin in the industrial societies of XIX-XX centuries. Central Asian economies still rely much on the Soviet Union heritage in this sphere. However, the current economic systems in Central Asia with only a minor part of the labour force employed in larger industrial

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20   See (Mogilevskii, 2020) for an extended discussion of the fiscal and growth aspects of MSMEs' privileged taxation.

21   See the discussion on good/quality jobs in Central Asia in (ADB, 2019).

enterprises where it is easy to administer such contributions are very far from the industrial economy setup. So, from an administrative point of view, the economies based on small scale service and agricultural enterprises may not afford such a system of pension financing. Even now, the pension systems receive major transfers from the government budgets, i.e. they are financed not only by a dedicated revenue source (social contributions), but by general taxes. The disbalance of the current pension systems may become aggravated in the future with the forecasted fast growth of the share of people reaching pensionable age in the coming decades (see section 2.1).

There is a belief that the actual pensions received by people who reach pensionable age are proportional to their accumulated contributions; this serves as a justification for keeping the contributions proportional to wages/income. This is true only to a limited extent. Setting aside the discussion on fully-funded pension pillars,[22] all other pension pillars in the region do not provide for this proportionality. All pension systems in the region have a *base pension* (the pension component which is dependent on the pensioner's number of years in the system, but not on her/his contributions) and the so-called *notionally defined benefit* component related to the pre-pension-reform earnings (the pension component which is dependent on the historical wage level, but not on contributions[23]); the size of these pension components is completely unrelated to the pension contributions made under the current system. In addition to these components, Kyrgyzstan and Tajikistan also have another pillar based on the so-called *notionally defined contribution* system – this pension component is, indeed, supposed to be proportional to the contributions made to the pension system. In practice, however, the claimed proportionality between this part of the pension and the contributions made during the work period is persistently eroded by disproportional indexation of pension for inflation and real wage growth. Theoretically, this indexation should be proportional to the amount of accumulated notional pension capital. However, very often the governments decide to provide a higher indexation for smaller pensions thus reducing the difference in pensions received by those who made major contribution to the system and those who contributed little.[24] This approach is fine if the pension system is considered as a redistributive social assistance programme aimed at preventing the elderly from falling into poverty. But, as a matter of fact, the logic that "a pension is proportional to pensioner's cumulative contributions" is destroyed by such practices and the main losers of the system are officially better-paid workers who made significant contributions to the pension system. These losers are exactly those skilled workers, professionals, and managers who are only able to drive any productivity growth.

At the end of the day, it is important that the pension system ensures a decent income for pensioners. ILO Conventions demand that countries have replacement rates (the ratio of individual pension to a worker's pre-retirement income) of at least 40%/45%; many Western countries register rates of 60%+. In 2019, the ratios of average pension to average wage were 23% in Tajikistan, 30% in Uzbekistan, 31% in Kazakhstan and 34% in Kyrgyzstan. Thus, these economies fail to satisfy even the minimum requirements as per international standards. The average pensions are rather low. In 2019, only in Kazakhstan was it well above (by 90%) the country's subsistence minimum. Meanwhile, in Kyrgyzstan the average pension exceeded this minimum by 20%, in Tajikistan and Uzbekistan the average pensions were below the estimated subsistence minima in these economies. These values hint that there are many pensioners, most probably much more

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22 This is a major part of the pension system in Kazakhstan and a small component of the pension system in Kyrgyzstan. These fully-funded pillars were not really tested yet as tools for paying pensions and not only collecting contributions.

23 As there was no individual accounting for these contributions before reforms, i.e. in the period between the 1980s and 2010 depending on the country and some other pensioners' details.

24 For example, in 2019 the Government of Kyrgyzstan decided to increase the base pension only to those recipients whose total pension is less than the minimum subsistence level. Thus, this indexation affected only 38% of the total number of pensioners.

than 50% of their total number, with pensions insufficient to meet the basic needs of the recipients. So, the expensive and distortive way to finance pensions through payroll tax/social contributions in Central Asian context does not produce satisfactory outcomes.

The solution for this problem seems to be straightforward: one needs to fully abandon the social contributions having payroll as a tax base. Pensions should be financed by general taxes (VAT, excises, property taxes etc.) which might require some upwards adjustment of their rates and broadening of their tax bases. The remaining labour taxation (e.g. personal income tax and health insurance) should be made similar, if not identical, for workers of formal enterprises and informal MSMEs.

3.3. Inequalities on the Labour Market

Central Asian economies are characterised by significant labour market inequalities. Few examples of gender inequality were provided above. More systematic information on gender inequality is provided by (WEF, 2019), see Table 4. These data signal moderate gender inequality in Kazakhstan, significant inequality in Kyrgyzstan and very significant inequality in Tajikistan.

Table 4. Selected indicators of economic participation and opportunity of the Global Gender Gap Index

Indicator	Gender	Kazakhstan	Kyrgyzstan	Tajikistan
Labour force participation rate, %	Female	73.7	51.7	29.3
	Male	82.9	79.3	62.4
	Female/Male	0.89	0.65	0.47
Wage equality for similar work, 1-7 (best)25	Female/Male	5.04	4.74	5.62
Estimated earned income, 1,000 international dollars (PPP) per annum	Female	18.2	2.2	0.7
	Male	30.3	4.7	3.4
	Female/Male	0.60	0.47	0.20
Legislators, senior officials and managers, % of total	Female	37.1	37.8	14.8
	Male	62.9	62.2	85.2
	Female/Male	0.59	0.61	0.17
Professional and technical workers, % of total	Female	60.4	65.2	41.1
	Male	39.6	34.8	58.9
	Female/Male	1.53	1.87	0.70
Global rank on economic participation and opportunity component of the Index		37	88	134

Notes: 1) Data in this table are provided by the WEF; these may differ from the data reported by NSAs/WDI cited elsewhere in this paper.

      2) Afghanistan and Uzbekistan are not covered by this report.

Source: (WEF, 2019)

Another inequality dimension is the differences in labour market outcomes between the regions/oblasts of these countries. For example, the 2018 LFPR in the regions of Uzbekistan varied from 68.3% to 84.1%; the 2018 unemployment rate in Kyrgyzstan was in the range from 2.5% to 9.0%; the ratio of the highest to the lowest average wage in the regions of Kazakhstan in 2019 was 2.5. Usually the regions with low LFPR, s high unemployment rate and low wages are agrarian regions

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25   Based on an expert survey, see (WEF, 2019) for details.

while country capitals or large cities or regions with a concentration of extractive industries register high LFPR, relatively low unemployment and higher wages. These regional differences are behind the internal migration – people move from the regions with limited work opportunities to other parts of their countries in order to gain access to better work and income. And, of course, there is inequality related to a worker's age; as in almost any other economy, mature workers have better chances to attain quality jobs than young workers.

These inequalities result in underutilisation of human potential available in these countries, e.g. many educated and talented women might not contribute to the economy and society in full because of gender stereotypes and the economic structure discouraging them from participation in the labour market – when child care services are of insufficient quality or very expensive, it is often more economical for married women to remain housewives and take proper care of their children than look for job on the labour market. The need to migrate to other parts of their country or abroad increases the material costs of migrant workers (e.g. the need to rent a house/apartment in the place of destination which might not be affordable for low-skilled migrant workers) and the social costs (life outside family/personal networks, insufficient child care, divorces etc.). Such inequalities are felt by the governments and societies in Central Asia as a major issue. Thus, labour market inequality seems to be one of the factors reducing the chances to increase labour productivity; inequality is counterproductive in the direct sense of the word.

The root causes of this inequality seem to be directly related to access to markets and production factors. It is much easier and cheaper to be productive and achieve good economic outcomes (translating into those on the labour market) if there is easy access to production output and input markets, financial capital (credit), skilled labour (education), technological and management knowledge, etc. This is partially addressed by the governments through infrastructure development programmes (e.g. secondary roads), financial support to MSMEs located in less developed regions and some other policies. Other essential resources are not sufficiently supported or are unavailable in many parts of Central Asia, e.g. technological expertise, skilled labour,[26] etc. The underprovision of such essential public goods as education, health, and social assistance has an obvious gender dimension as women constitute the majority of workers in these sectors. Low/insufficient salaries or wages and professional development opportunities in these sectors seem to be a major source of gender inequality and insufficient productivity in Central Asia. Apparently, the national/regional/local economic development agenda should be expanded to properly incorporate the issues of human capital accumulation and access to knowledge.

4. Labour Market Policies for Technological Development

4.1. Current Labour Market Policies

All countries of the region have labour codes/laws in place. These codes establish rules governing the relationships between employers and employees and include all key workers' rights (40-hour work week, paid, sick and maternity leaves, job safety standards, etc.). These laws are mostly enforced in formal sector enterprises and are almost entirely ignored in informal ones.

26　For example, one of the lessons already taught by the ongoing COVID19 pandemic is that while it is important to have physical facilities for hospitals, medicines and equipment in stock, it is key to have a sufficient number of well-prepared doctors, nurses and other health personnel without whom all the material resources are not going to help.

Most governments also have policy documents summarising their goals, objectives and policy measures on labour market. For example, the Government of Kazakhstan has the *Programme of Productive Employment and Mass Entrepreneurship Development for 2017-2021 "Enbek."* The Government of Tajikistan implements the *State Strategy of Labour Market Development till 2020*. The policy discussions in Uzbekistan are concentrated around the new version of the Law "*On Employment of the Population*" which is about to be adopted (as of August 2020).

Content-wise, all these policies concentrate around several key elements:
- Facilitation of job search for the unemployed (labour exchanges);
- Professional training/retraining of the unemployed, often with a focus on entrepreneurship skills;
- Development of entrepreneurship including through the issuance of micro-loans and, in Kazakhstan, grants to unemployed;
- Supporting the employment of some vulnerable groups of the population (e.g. youth or people with special needs);
- Guaranteed minimum wage;
- Unemployment benefits.

The scale of these programmes is dependent on the availability of resources. Kazakhstan, of course, has more generous and more developed programmes than the other countries under review. In all these countries, however, the typical coverage rates are not very high. For example, the professional training programme in Kazakhstan in 2019 covered 78,000 people, i.e. less than 20% of all the unemployed in the country. For the same year in Kyrgyzstan, 7,700 or some 5% of the total number of unemployed were directed to professional training programmes (sources of data: ministries of labour of these countries).

With the job search function, the governments can help only in finding jobs in formal enterprises. The jobs posted on the labour exchanges are usually low-paid and unattractive, so many unemployed choose to use their informal networks to find jobs in the formal or, more frequently, in the informal sector.

The policy supporting mass entrepreneurship (entrepreneurship training programmes, micro-loans, etc.) seems to be based on the assumptions that Central Asian economies need even more micro-entrepreneurs or self-employed and that those currently unemployed are mostly well-suited to become entrepreneurs. This looks like fuelling the development of the informal sector which, as discussed above, is not the way to create productive quality jobs. The efficiency of these programmes is not clear. In the micro-loan business, government agencies are to compete with private micro-finance institutions which are well developed in some countries of the region (e.g., Kyrgyzstan, Tajikistan). The parallel existence of subsidised (government programmes) and commercial micro-finance systems requires very strong administrative systems in place to make sure that government resources are used by the unemployed to start their businesses and not for re-selling these cheap resources to the commercial borrowers. In this situation, the Government of Kyrgyzstan stopped financing such micro-credit programmes for the unemployed.

Minimum wages set by governments vary greatly in Central Asia; in 2019, these wages were in the range from KGS1,750/month (USD25/month) in Kyrgyzstan to KZT42,500 (USD111/month) in Kazakhstan. There is no direct correlation between the sizes of minimum wages and average wages (the average wage in Kyrgyzstan is higher than in Tajikistan and at the same level as in Uzbekistan despite the latter countries having higher minimum wages). This may signal that this instrument does not really affect the wage setting in the private sector; enterprise managers pay the market price for workers' time which is much higher than the minimum wage even if there is no legal requirement to do so.

The unemployment benefit is not a popular instrument in these countries. At best, its size is at the minimum wage level (Kazakhstan, Uzbekistan) or is set as low as 300 Kyrgyz soms (USD4/month). In any case, this amount is about (Kazakhstan) or well below (other countries) the subsistence minimum in these economies. The low level of benefits makes them unpopular among potential recipients. In Kyrgyzstan, as reported by the media, less than 200 people were receiving the unemployment benefit in early 2020. In Kazakhstan, 42,300 people (some 10% of the total number of the unemployed) received these benefits in January-June 2020. The values for Tajikistan and Uzbekistan are also rather low.

As follows from the above discussion, the active and passive labour market policies are not central in the policy agenda of Central Asian governments. Neither do migration policies occupy a significant place in the government agenda. None of the major migrant-sending countries have a clearly articulated programme of action regarding labour emigration. There are some training programmes (e.g. in Kyrgyzstan and Tajikistan) aimed at potential migrants in order to provide them with professional skills in demand on both domestic and foreign labour markets. Most of these programmes are sponsored by international organisations; these programmes are essentially pilots with limited coverage of the target group of the population. Otherwise, the migrant-sending country governments concentrate on maintaining relationships with the governments of receiving countries (primarily the Russian Federation) in order to provide an acceptable environment for their migrants in these receiving countries. When Kyrgyzstan was discussing the accession to the Eurasian Economic Union (EAEU) in 2014-2015, the perspective of legal status improvement[27] of Kyrgyz migrants in Russia was one of the key considerations in the accession process. These expectations immediately materialised; during the 2014-2015 crisis related to the fall of international oil prices the economy of Russia was hit hard with major negative spillovers to its labour market and the ability of Central Asian migrants to earn and remit money home. The Kyrgyz migrants appeared much less affected by this crisis compared to their Tajik and Uzbek peers (Figure 14) –remittances to Kyrgyzstan fell less and recovered faster than for the two other countries. Further improvement is expected upon ratification and the entering into force of the EAEU pension agreement signed at the end of 2019; this agreement allows for old age pension rights in every EAEU country in which labour migrant worked and contributed to the pension system and not only in the country of their citizenship.

Figure 14. Individuals' remittances sent from Russia by country
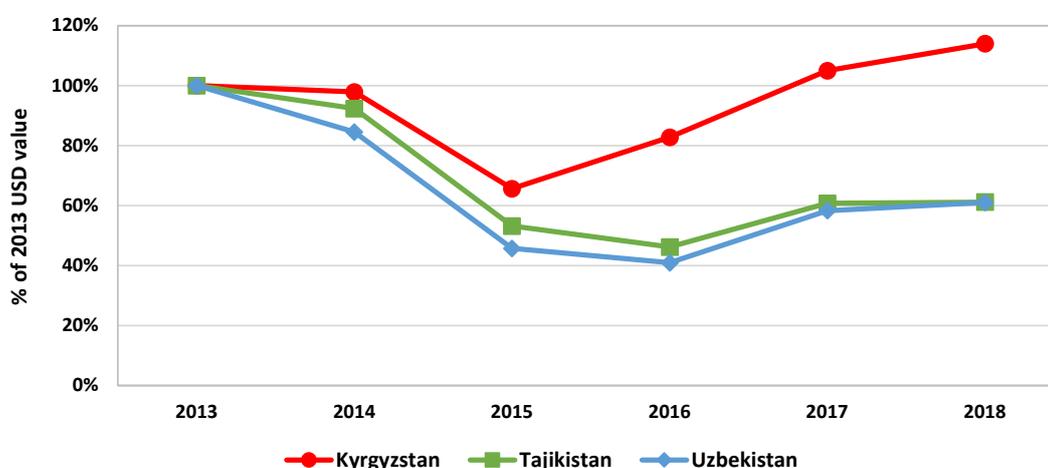
Source: Central Bank of Russia

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27   Citizens of the EAEU member states have the same legal status in the labour market as the receiving country citizens.

The governments of the region are much more active in promoting labour demand through different business development programmes. These programmes include subsidised loans for MSMEs and, in some cases, for larger enterprises in priority sectors/geographical areas, providing special/privileged taxation regimes for MSMEs, and a lightened regulatory regime (e.g. simplification of enterprises' interface with government agencies through the mechanisms of a "single window," reduced reporting requirements, introduction of risk-based methods of tax and other checks of enterprises and sometimes moratoria/limitations on such checks by different government agencies[28]). The key justification for many of these programmes is creation of new jobs; however, often resources go not to labour-intensive, but rather to capital-intensive sectors (e.g. mining, machine building, etc.) or to sectors not hiring, but shedding labour (agriculture).

Labour supply policies focus on education and training programmes. Education sectors in Central Asia are traditionally large and expensive; all of them include manifold vocational education and training and tertiary professional education systems. These education systems also have many issues; however, a detailed analysis of these issues is beyond the scope of this paper.[29] For labour market discussions, it seems that the most important issues are the mismatch between the professions demanded on the market and those supplied by the education system as well as the insufficient quality of education.

The above discussion seems to suggest that the labour market, employment generation and job quality issues are not among the top policy priorities of the governments of Central Asia. One possible explanation for this relative passivity is a sober understanding of the mismatch between the scale of labour market issues and the resources available to address such issues. If a government would like to proceed with more generous programmes (e.g. increase unemployment benefits to a more attractive level), the demand may be overwhelming making the contrast between the supply of resources and demand for them even more acute than it is now. In addition, there should be, of course, some other explanations, e.g. related to the political economy of these post-socialist states. In any case, unlike in developed economies, unemployment/underemployment is not the main issue on the policy agenda, and the unemployment rate is not a real policy variable[30] even for technical reasons. In Kyrgyzstan, the unemployment rate based on the ILO definition is available almost two years later (e.g. the value for 2018 became known at the end of 2019); in Tajikistan, the latest available ILO-definition-based unemployment rate value is for 2016 (as of August 2020). Such unemployment data are still useful for analysis, but not for operative decision making.

4.2. Labour Market Policies for Technology-Based Productivity Growth

As mentioned earlier, technology-based productivity growth could be driven only by skilled managers and workers who are masters of these technologies. Therefore, growing and retaining these professionals should be an integral part of the economic policies of the Central Asian governments aspiring to economic development through productivity growth and diversification. Government policies on the labour market directly dealing with current and potential workers are to be aligned

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28   These moratoria are often explained by considerations that the main actual reason for and the result of these checks is not the detection and correction of different law violations at the enterprise level, but, instead, the extraction of bribes from MSME management/owners. These are, indeed, empirically grounded claims; but this radical policy of entrepreneurship protection against corrupt officials simultaneously means weakening/abandoning the job safety and other requirements standard for modern production systems.

29   Discussion on some of these issues in the Central Asian context could be found in (Krawchenko, 2020) and (Sabzalieva, 2019).

30   Except Kazakhstan which, for obvious reasons, stands alone in this discussion.

with this general economic policy. These labour market policies could be grouped into those affecting (i) labour supply, (ii) labour demand and (iii) labour market institutions.

Labour Supply. Required improvements in the labour supply could be achieved, first of all, through the means of education policy. The modern education system has to provide people with strong fundamental knowledge and skills which are in demand regardless of a person's current occupation. The system is to be flexible so that it can swiftly and effectively react to the constantly changing labour demand. Therefore, it is necessary to continue education reforms aimed at:

- development of general education (preschool, primary, basic secondary and general secondary) which lays the foundation for professional education, shapes key knowledge and social skills in demand in the labour market, and develops labour morale;

- development of educational institutions at all levels and especially in initial and secondary professional education, and various flexible and innovative forms of professional education (public-private partnerships, shared use of resources, organisation of short-term retraining courses for workers in the framework of life-long learning agenda and so on);

- improvement to the quality of education in both general and professional education systems through careful quality measuring and monitoring, analysis and adjustment of education programmes, implementation of effective appraisal and retraining of teachers and instructors, creation of incentives for concentration on quality for both teachers/instructors (including, for example, introduction of salary increases for better performing teachers) and students, encouraging competition between educational establishments etc.

Many of these policy measures will simultaneously contribute to a reduction in labour market inequalities. For example, the measures on improvement of education quality are to include such integral elements as an increase in salaries for education system workers (mostly women); this will help to reduce the pay gap between women and men. Preschool education development will allow a larger number of young women to join the labour force. Support to preschool establishments and schools in rural and less developed parts of the country is to contribute to a reduction in regional inequality. Another necessary policy is the implementation of advocacy campaigns for female employment as a social norm targeting rural and more conservative communities.

Labour Demand. As quality and productive jobs are created mostly in the formal economy, it is necessary to implement a set of policy measures on the gradual "formalisation" of the economy and labour market; this will stimulate demand for more productive, skilled and better paid labour. These measures could include:

- levelling the tax burden for all enterprises regardless of their size; this could be achieved through the maximum expansion of the tax base and the provision of a tax regime for large enterprises (except those possessing market power) comparable to that created for MSMEs;

- reduction in the taxation of labour via the elimination of payroll tax/social contributions; the resources for the financing of pension and other social security programmes are to be replaced by general taxes, preferably by those which are also paid by those involved in the informal economy; this will dramatically improve the economic situation of formal enterprises which currently bear a disproportionally heavy burden of pension system financing;

- reduction in regulatory and corruption pressure on businesses which mostly falls on larger and more transparent enterprises;

- preferential treatment of and support to formal MSMEs through the facilitation of their access to credit, infrastructure, inputs, and simplification of regulatory regime; this should create incentives for the use of skilled labour and abidance to the labour legislation;

- increase in the flexibility of labour legislation aimed at the expanded use of a flexible working regime, reduction in workers' hire and fire costs; at the same time, those labour guarantees which are affordable at the current level of the economic development of the country, especially related to job safety, are to be preserved, strengthened and extended to informal enterprises.

These policies will also contribute to the reduction in labour market inequalities. For example, support to flexible forms of employment and improvements in job safety would contribute to an increase in the labour force participation of women and youth.

Institutions. Currently, the institutions in charge of labour migration regulation require a lot of attention. These institutions should account for the long-term nature of labour migration and aim at the maximisation of benefits for migrants and their families and the minimisation of migration-related costs. Policies in this area could aim at:

- reduction in transaction costs for Central Asian migrants abroad; this includes the provision of necessary legal protection, information support for migrants on available jobs, employment rules and cultural norms in the destination countries, support for language and professional training programs for migrants, etc.;

- provision of social insurance for migrants including concluding agreements on their pension insurance and access to health services with the governments of the destination countries;

- facilitation and regulation of intermediaries organising the hiring and sending of workers from Central Asian economies abroad;

- preservation of the migrants' ties with their homeland and eventual return to their countries of origin including the acceptance of migrants' second citizenship, retention of land ownership and other property rights etc.; from a purely economic perspective this would support imports of advanced business practices, technologies, know-how from the migrants' destination to their origin countries.

This set of labour-market-related policy measures should facilitate the creation of quality jobs in Central Asia and support the transition of these economies to a productivity-driven inclusive growth path.

5. Conclusions

Central Asian labour markets face multiple challenges related to demographic trends and the ongoing rapid growth of the labour supply, the complex dynamics of labour force participation, the decline in agricultural employment and the growth of employment in services, massive labour emigration to more developed and better paying economies, gender and many other inequalities in the labour markets.

A key feature of the labour relationships in countries of Central Asia (with the only possible exemption of Kazakhstan) is pervasive informality. There are many reasons for informality to be so widespread and some important benefits of this include job creation and the vertical mobility of entrepreneurs. This explains the tacit (and sometimes explicit) support of the governments for the informal arrangements in these economies by means of tax, credit, regulatory and other policies. At the same time, informality is perpetuating technologically and organisationally simple types of production and is not conducive to the reorientation of economies towards productivity-driven growth which requires reliance on skilled labour, and the accumulation of their own and the attraction of external technological and managerial expertise, etc.

The widespread use of payroll tax to finance pensions and some other social security programmes in Central Asia seems to be an anachronism, i.e. there is an attempt to apply the policy tools developed for completely different types of economies to modern Central Asian ecoonmies dominated by MSMEs and the service sector. Financing pensions through the taxation of wages penalises formal enterprises which hire skilled workers and pay them decent salaries thus undermining their efforts to switch to a technology-driven path of development. The systems pretend to ensure that future pension size would be decent and proportional. At the same time, the current pension systems fail to deliver meaningful levels of pensions. The pensions are generally disproportional to the amount of contributions made by workers during their employment history and have typical replacement rates at around 30% level and many pensioners receive amounts well below the subsistence minimum estimated for their economies. So, it seems a high priority to eliminate the distortive taxation of wages/salaries earmarked to financing of the pension system and to replace this with general taxes.

The existing inequalities on labour market (gender, regional, age etc.) may need to be considered not only from a social, but also from a purely economic point of view. Inequality in access to productive and well-paid jobs means the underutilisation of human capital of Central Asian economies. Any labour market reforms should include measures on inequality reduction as an integral part of the policy package.

Current labour market policies of the governments in the region do not seem to be of high priority. While the entire spectrum of usual active and passive labour market policies is employed by the governments, these are only moderately financed, and their effectiveness is limited. Instead, the governments focus on boosting labour demand through the implementation of different business support programmes.

It seems that many changes in labour market policies should be introduced in order to facilitate the transition of Central Asian economies towards a technology- and productivity-driven growth path. The recommended policy changes are summarised in section 4.2 and could be grouped into reforms related to labour supply, labour demand and labour market institutions.

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