

Free Movement and Affordable Housing

Public Preferences for Reform in Uzbekistan

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WORLD BANK GROUP

Poverty and Equity Global Practice

January 2020

Abstract

Uzbekistan has one of the lowest rates of internal migration in the world, leading to persistent economic imbalances. Drawing from a unique monthly panel survey called Listening to the Citizens of Uzbekistan and a survey experiment, this paper focuses on two factors that prevent domestic mobility: (i) restrictive *propiska* registration policies, and (ii) the exceptionally high cost of urban housing. Registration rules prohibit migration to urban centers, and urban housing costs push up the cost of living to as much as 550 percent of the national average, levels severely unaffordable for almost all rural residents. But the proposed government reforms in 2019 to address these challenges are very popular.

The results show that about 90 percent of people support lifting all registration restrictions and over 80 percent favor increasing urban housing construction. The results of the experiment show that reform popularity increases when *propiska* rules and housing costs are referenced in randomly assigned vignettes. However, views may also be sensitive to perceptions of fairness. Recent high-profile involuntary demolitions coincided with a doubling of the share responding that policies are unfair. The increase was further associated with declining optimism and lower support for the wider government national development program, beyond urbanization issues.

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JEL: J61; J68; J83; O18; R21; R31

Keywords: Domestic migration, urbanization, propiska, housing, demolitions, housing affordability

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Contents

I – Introduction.....	4
II – Data	8
III – Domestic Migration	10
III.I – “Propiska” Registration.....	18
III.II – Housing and Cost-of-Living.....	22
IV – Reform Preferences.....	36
V – Views on Fairness and Support for Reform	40
VI – Conclusions	44
VII – References	45
Appendix A – Implementation of the Propiska System in Uzbekistan	48
Appendix B – Constructing Cost-of-Living Indexes	50
Appendix C – Cost-of-Living Indexes	54
Appendix D – Calculating Housing Demand Elasticity.....	55
Appendix E – Descriptive Statistics	56
Appendix F – Reweighting and Attrition.....	60
Appendix G – Policies and Announcements on Propiska Issued in 2017-2019.....	63

Tables

Table 1: Official Permanent Migration Flows, 2018.....	13
Table 2: Estimated of Non-permanent Registration Status Mahalla Records and Implied Population Totals.....	19
Table 3: Housing Units and Population by Province, 2018.....	23
Table 4: Uzbekistan Cities Median Multiple Affordability Measures vs. International Cities.....	28
Table 5: Description of Experiment Treatment and Control Arms.....	38
Table 6: Experiment Results.....	39
Table 7: Descriptive OLS Regression on Fairness of Policy for Current Homeowners.....	42
Table 8: Panel Regression with Random Effects on Fairness of Policy for Current Homeowners.....	43
Table 9: Estimated Food-based, Food + Rent-based, and Food + Standard Rent-based Indexes by Region and by Rural and Urban areas (National Average = 100%).....	54
Table 10: Distribution of Mahallas and Population in Rural and Urban Areas of Uzbekistan in 2018 (At Baseline).....	56
Table 11: Official Population Estimates by region and year, in 100,000s.....	57
Table 12: Descriptive Statistics of Random Sample of 200 Surveyed Mahallas.....	58
Table 13: Survey Sample and Descriptive Statistics.....	59
Table 14: Probit Regression on Refusal to Participate.....	61
Table 15: Reweighted Descriptive Statistics for the Last Round in Comparison to Baseline.....	61

Figures

Figure 1: World Development Indicators: Share of Agricultural Employment Out of Total Employment vs Log GDP for Select Countries.....	5
Figure 2: Urban Population Share of Select Countries.....	5
Figure 3: Small Area Estimates of Mean Consumption Per Capita in Districts of Uzbekistan (2011 \$PPP)....	11
Figure 4: Five-Year Raw Domestic (Internal) Migration Rates.....	15
Figure 5: Domestic Mobility as Measured by Current Residence Migration History.....	16
Figure 6: Place of Origin and the Primary Reason for Migration.....	17
Figure 7: Cost of Living by Region (100%=National Average).....	24
Figure 8: Rate of Housing Growth, in Sq. Meters.....	25
Figure 9: Imputed Rent Share of Total Consumption, 2018.....	27
Figure 10: Budget Share Allocated to Rent vs. Simulated Share using Average Urban Rent, the 25 th percentile of Urban Rent in Tashkent City, and the Median Rent in Tashkent City.....	30
Figure 11: Elasticity of Housing Demand to Per Capita Consumption/Income.....	32
Figure 12: Elasticity of Housing Demand to Per Capita Consumption for Rural and Urban Areas Separately.....	33
Figure 13: Elasticity of Housing Demand to Per Capita Income for Rural and Urban Areas Separately.....	33
Figure 14: Views on Free Movement in Uzbekistan.....	37
Figure 15: Views on Whether Current Urban Homeowners are Treated Fairly.....	41
Figure 16: Initial Refusal (First Round) and Panel Attrition.....	60
Figure 17: Support for Removing Propiska Limitations, Comparison of Weighted vs. Unweighted Results... ..	62

I – Introduction

With one of the lowest rates of internal migration in the world, Uzbekistan is a remarkable outlier. More people leave Uzbekistan than move within it, according to official estimates. In contrast, globally there are almost three times as many domestic as international migrants (IOM, 2018). These facts present a serious challenge for the economic future of the country. Structural economic pressure usually drives the flow of people: productivity growth is not geographically uniform, and workers are drawn to the places where wages and demand for their services are highest. Since the end of the first Industrial Revolution in the 1800s, these destinations have overwhelmingly been cities. Every country that has attained high-income status over the past century has experienced falling employment shares in rural agriculture, significant internal migration, and become much more urban (Figures 1 and 2).

An extensive literature finds that migration is instrumental for maintaining long-term economic expansion and to achieve balance between where workers live and where jobs are created (for instance, Hsieh and Klenow, 2009; Bryan and Morten, 2018). Especially in the presence of high rates of population growth (and even more important in the context of expected continued expansion of the labor force in Uzbekistan through 2050), the agricultural sector by itself rarely grows quickly enough to generate rising labor demand and increasing wages. But the manufacturing and service sectors can potentially grow more rapidly, at times generating demand for workers that keeps up with or overtakes population growth. Unlike agriculture, the services and manufacturing sectors disproportionately depend on scale economies and the concentrated infrastructure available in urban areas. Thus, cities tend to expand as countries become richer, drawing-in workers from the surrounding rural areas (Lucas, 2015). These trends hold around the world. Globally, more than 80 percent of economic activity is produced in cities by just over half of the world's population (World Bank, 2013). Urban areas feature higher-paying jobs, greater diversity of economic activities, and substantially higher average productivity. Alongside income, the higher quality of urban public services and infrastructure attract people from rural areas. Consequently, urbanization is strongly associated with higher non-monetary living standards, as well as monetary poverty reduction (Ravallion et. al., 2007; Ravallion, 2002; Adams and Page, 2005; and Acosta et al., 2007). In sum, there are compelling reasons to expect greater rural-to-urban migration in Uzbekistan would be both pro-growth and pro-poor.

Figure 1: World Development Indicators: Share of Agricultural Employment Out of Total Employment vs Log GDP for Select Countries²

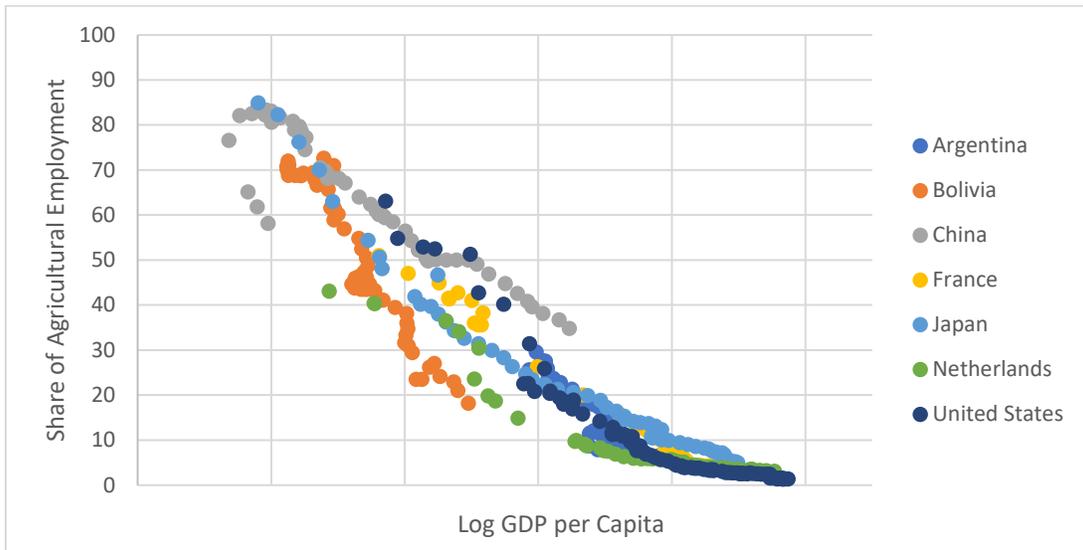
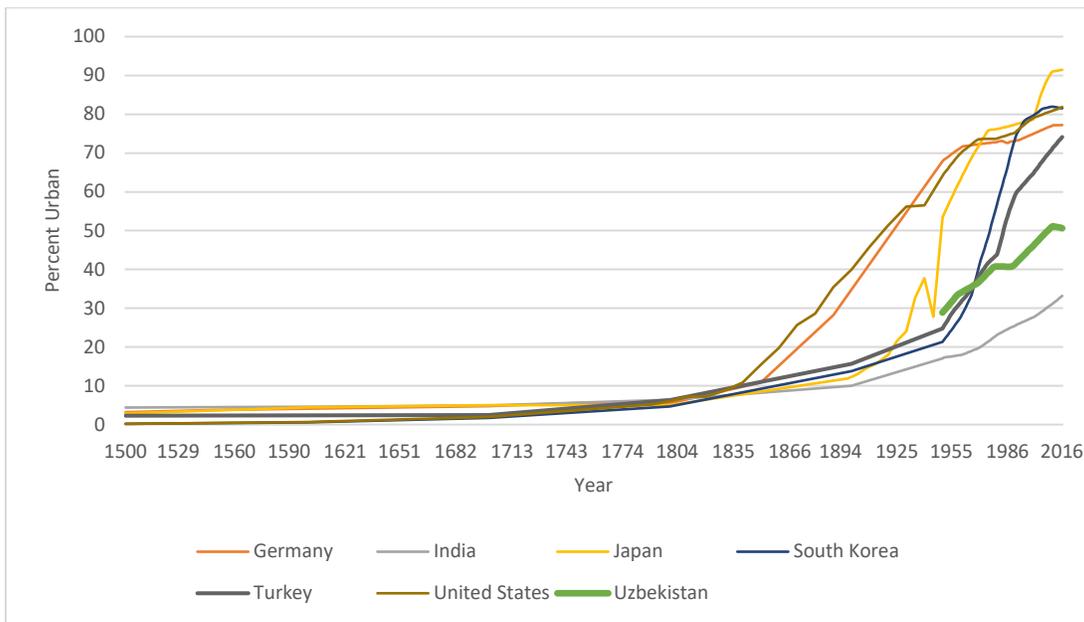


Figure 2: Urban Population Share of Select Countries³



² Notes: Courtesy of Our World in Data. Employment is defined as persons of working age who were engaged in any activity to produce goods or provide services for pay or profit, whether at work during the reference period or not at work due to temporary absence from a job, or to working-time arrangement. The agriculture sector consists of activities in agriculture, hunting, forestry and fishing, in accordance with division 1 (ISIC 2) or categories A-B (ISIC 3) or category A (ISIC 4).

³ Notes: World Development Indicators, courtesy of Our World in Data.

But beginning in the Soviet era and extending over nearly three decades following independence, policy has strongly resisted both migration and urbanization in Uzbekistan. As a Soviet Republic, Uzbekistan experienced a rapid fall in the urban population share, declining from 34 percent in 1959 to less than 26 percent in 1989. This eventually left the country as or less urbanized than Soviet Tajikistan or Kyrgyzia (at 25.7 and 37.5 percent in 1989, respectively).⁴ No population census has been completed in the intervening years, and the current urban population share is imprecisely measured.⁵ However, administrative records suggest that the pace of urbanization stagnated in 2009, leaving the country more than 50 percent rural (using new rural/urban classifications), and substantially less urbanized than otherwise comparable countries.

This paper focuses on two key impediments to achieving the urbanization and growth targets set out by the Government of Uzbekistan: legal limits on internal migration, and the high cost of housing in the most dynamic urban centers. Detailed information on the domestic registration system (commonly referred to as the *propiska* system), domestic migration, and housing costs are drawn from the Listening to the Citizens of Uzbekistan (L2CU) study, which began in 2018 and remains ongoing as of this writing. The discussion then moves to the views of citizens on how to resolve these challenges. Reform preferences of a nationally representative sample of households are described, and an embedded survey experiment provides additional validation.

This analysis comes in the context of comprehensive national economic reforms. Under new presidential leadership since September 2016, the government set out to transform the prevailing state-led growth model and rapidly become a high-income country. A central objective of these reforms is ensuring that the labor market opportunities generated under the new economic model are widely shared among the population. This paper describes key bottlenecks to these goals. Without action to address the forces slowing domestic migration, theory and international experience suggest that output and productivity growth will be muted, while incomes and employment will remain below potential.

The government has set about rolling back some of the impediments to urban growth. A presidential decree in January 2019 laid out a high-level vision for urban development over the coming years, including:

- Creating conditions for free movement of people from rural to urban areas
- Providing special measures to support investment in residential construction

⁴ Soviet Demographic Yearbook 1991.

⁵ No national population census has been conducted in Uzbekistan since independence from the Soviet Union in 1991.

- Privatizing non-agricultural land plots, from July 2019
- Guaranteeing the implementation of the right of ownership of land
- Promoting the full and productive employment of the population of large cities
- Applying international experience in managing medium cities, considering the use of the advantages of agglomerations
- Expanding the network of satellite towns, adjacent to a large city within convenient commuting distance

To guide and manage these changes, the decree also stated that a new *Concept for the Development of Urbanization in Uzbekistan until 2030* would be adopted, alongside a new Agency for Urbanization to be established under the Ministry of Economy and Industry. According to the decree, the mandate of the agency will be to implement a unified state policy in the sphere of urbanization regulation, long-term planning of rates, stages, and results of industrialization policy, and analysis of long-term demographic trends in cities and towns.

If successful, this constellation of reforms will enable a faster pace of urbanization than was previously permitted. But experience in other middle-income countries suggests that rapid urbanization often presents challenges for policy makers. Some segments of the population, especially longtime urban residents, do not always fully embrace sudden development in cities. New construction can also displace people if not accomplished in a fair and consultative manner. Thus, it is important to gauge the extent of any reluctance to support urban growth among the general population. However, the results of this study suggest the contrary is true in the present context: pro-growth urbanization policies are overwhelmingly popular within every major social group studied, and in rural and urban areas alike. However, the results do suggest that this support is vulnerable to concerns regarding fairness. In 2019, several high-profile incidents during which authorities demolished buildings against the wishes of owners were associated with falling enthusiasm for reform among the population, according to the results reported in section V of this paper.

The remainder of the paper is structured as follows: section II describes the data sources used in the analysis. Section III describes the setting, reviews relevant literature, and provides detailed statistics on domestic mobility rates, statistics on propiska registration, cost-of-living indexes, spatial earnings differentials, and measures of housing affordability in Uzbekistan. Section IV provides both descriptive and experimental results on citizens' preferences for reform. Section V describes the association between highly publicized involuntary demolitions and citizen support for reform. Section VI concludes.

II – Data

The primary data used for this study come from the Listening to the Citizens of Uzbekistan survey conducted by the World Bank together with the Development Strategy Center of Uzbekistan and with guidance from the State Statistics Committee for Uzbekistan and other government partners. The study collected information in four distinct modes:

- A comprehensive national survey conducted in-person with a representative sample of 4,010 households. Recipients of social protection benefits were oversampled using registration data maintained at the mahalla level, and sampling weights were adjusted for the inclusion of these household in the baseline results. Full data on household consumption, expenditure, income, remittances, and information on any current migrants were collected. A full module on well-being and views on local economic conditions were also included.
- Administrative data collected from mahalla officials in each of the selected PSUs of the national household survey. This included comprehensive data on all officially registered migrants, the demographic profile of migrants, the registered destination countries, local labor market information, social protection beneficiaries, and related data.
- A nationally representative panel survey conducted monthly over the phone with a randomly selected subsample of 1,503 households that participated in the baseline. The survey also collected comprehensive information on potential/intending/current and returning migrants.
- Qualitative data collected in key informant interviews and focus groups. These data include discussions regarding hurdles to migration and the administrative procedures surrounding migration decisions.

The primary sampling units (PSU) for the L2CU baseline survey were *mahallas*, the lowest-level administrative unit in Uzbekistan. A total of 200 PSUs were randomly selected proportionate to size by World Bank staff using a full official list of mahallas provided by the Mahalla Foundation of Uzbekistan. Descriptive statistics of the sample frame, selected sample, and other details are included in Appendix E.

An “omniscient” adult household member was interviewed for each household, preferably the individual with the most information about the household budget, and multiple people could contribute if the primary respondent did not have responses for questions about other household members (for instance, regarding incomes or work arrangements). The design closely followed protocols applied to Living Standards Monitoring Surveys (LSMS) type surveys. The national sample was stratified by region and by rural/urban areas. These data were cross-validated with data on

“settlements” provided by the State Statistics Committee (SSC), which yielded a nearly exact match at the province level. All data collection efforts were carried out within the framework of the mahallas randomly selected in the first stage. The SSC was consulted in the design of the study, including the questionnaires used and regarding the sample design. Review and design support were provided by a panel formed of local think tanks and government representatives. Survey data collection was conducted by a private firm under the supervision of World Bank staff.

The administrative data collection approach was simple data entry from official mahalla records in selected PSUs. Each mahalla in Uzbekistan is legally obligated to maintain such records for every person and family residing in that location. These data cover the total population size, demographics, social protection programs, local amenities, and migrant populations. Following the conclusion of the survey data collection fieldwork, the survey data design weights were adjusted on observed population totals in the administration records within the mahallas. These estimates were assumed to be more accurate as they had been updated within three months of the time of the survey fieldwork.

The second stage procedure was conducted using simple random selection of households with equal probability within selected mahallas. A separate stratification level for households that receive social assistance was included, totaling four households per mahalla. The final target sample included 20 households per mahalla, 800 of which were social protection recipients by design. The baseline survey included a full consumption and expenditure module using a list/recall approach. The resulting estimates are representative for 12 regions (referred to as provinces in Uzbekistan), 1 autonomous republic, and 1 independent city (Tashkent), crossed with their urban areas (except for the City of Tashkent, which is entirely urban). The baseline survey was conducted entirely on tablet devices (CAPI), enabling validation using cross-referencing, confirmation using geo-coordinates, and other techniques to ensure accuracy. The survey was conducted over the course of a 1.5-month period in May/June 2018.

After completion of the face-to-face baseline, interviewers began regularly calling a randomly selected panel of 1,503-1,550 households over the phone to conduct short interviews, following a set monthly schedule agreed to by the participating households. The questionnaire for these phone interviews was designed to monitor views on reform related topics, trends in migration, subjective well-being, measures of income, employment, service disruptions, and related indicators. Phone-based interviews began on September 5, 2018, and the first 12 rounds of the survey are used in the analysis that follows,

covering the entire period to the end of August 2019. A total of 18,224 unique panel observations are available for analysis, excluding the baseline data collected before the phone-based panel began.

Attrition is one potential concern using panel data of this type. To ensure that non-take-up in the first round (and attrition in subsequent rounds) did not seriously affect the required sample size for survey representativeness, households that refused to participate were replaced with other households drawn from the same sample cluster. However, any systematic difference in the household characteristics due to refusal to participate could lead to bias if the replacement households were different on average (with respect to observable characteristics) from the household that refused. Among the random sample of 1,500 households originally drawn from the baseline, about 25% refused to participate in the first round (i.e. initial take-up in the first phone round totaled 1,122 randomly sampled households, and 381 randomly selected replacement households to make up for those that refused or could not be contacted). Attrition rates (or nonresponse rates) have tended to be low and stable across rounds of the L2CU panel survey, ranging from 1 to 6 percent, and 72 percent of households that completed the first round completed all 12 used in the analysis reported here,⁶ comprising 85 percent of the total interviews completed. These results are particularly encouraging if compared to similar high-frequency surveys. Other examples World Bank high-frequency surveys in Africa have resulted in similar rates of attrition, or higher (Demombynes et al. 2013; Croke et al. 2012. A similar study in Tajikistan (Listening to Tajikistan) that began in 2015 met with similarly high rates of compliance.

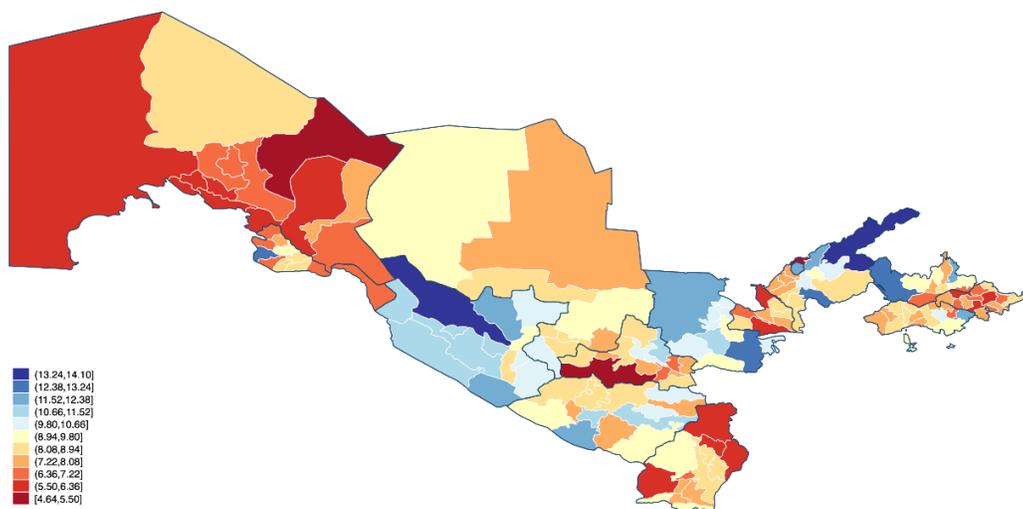
To take non-take-up and attrition into account, the participating sample is reweighted by developing a model using observable and relatively time-invariant characteristics from the baseline to predict the probability of dropping out for each household. Responses are then weighted to account not only for the sampling design but are also reweighted with respect to baseline characteristics in each round to partially account for any bias introduced due to households dropping out (if it is unaccounted for by sampling from the same PSUs). Appendix (F) provides additional detail on attrition and reweighting.

III – Domestic Migration

⁶ Note that it is possible for a replacement household to themselves be replaced.

Rural-to-urban migration and the resulting increase in urbanization has been studied extensively in the relevant literature. The classic model of rural-to-urban migration from Harris and Todaro (1970) starts from the assumption that expected income differentials between rural and urban areas determine a long-term equilibrium in which migration eventually equalizes agricultural wages and the expected urban wage rate. Empirically, this relationship has been demonstrated in a wide range of studies and country contexts, but with important nuances with respect to migrant characteristics, social networks, differences in the cost-of-living, and the quality of local amenities. A growing literature referred to as “new economic geography” popularized by Paul Krugman (Krugman, 1991; Krugman, 1998) complements the conclusions of the classic Harris and Todaro model by emphasizing the economies of scale and agglomeration benefits that larger cities tend to generate (Overman and Venables, 2010). Also consistent with this literature, Ferré, Ferreira, and Lanjouw (2012) find a strong inverse relationship between poverty and city size using small-area estimation techniques. Small-area estimates reported in Seitz (2019b) suggest the relationship holds true for the subregion of Central Asia, as well as specifically in Uzbekistan (Figure 3), where poverty rates are substantially lower in the most densely populated areas.

Figure 3: Small Area Estimates of Mean Consumption Per Capita in Districts of Uzbekistan (2011 \$PPP)



Notes: Small area estimates are derived from survey responses in the L2CU Baseline. Author's Calculations. For more details, see Seitz (2019b)

Additional drivers of urbanization besides differentials in expected earnings have been added to the list over time. For instance, Ferré, Ferreira, and Lanjouw (2012) find that the poverty in smaller towns is generally compounded by similarly greater deprivation in terms of access to basic infrastructure services, including electricity, heating gas, sewerage and solid waste disposal. The differentials in terms of the quality of services are a strong draw for migrants from less well-served rural areas. Christiaensen and Kanbur (2017) find strong returns to urbanization and argue that the development of secondary towns and cities can lead to even faster poverty reduction and service delivery than focusing solely on large cities.

Disparities in the quality of services and other dimensions of non-monetary wellbeing are driven in part by the greater cost effectiveness of providing public services in urban settings. In 2013, the global average cost of providing piped water was only \$0.70–\$0.80 per cubic meter in urban areas, compared to about \$2 in sparsely populated areas. Lucas (2015) provides a global overview of internal migration phenomena and their impacts and summarizes a broad scope of potential drivers noting that migration is a function of “differentials in opportunities across locations,” in addition to expected earnings.

One logical consequence of the process described in the classic Harris and Todaro model (hereafter: HT model) is that the movement of workers from low-productivity rural areas to high productivity urban ones will drive of regional “catch up” growth in lagging regions. A growing literature focusing on wage rate convergence, using models such as that proposed by Ganong and Shoag (2017), begin with the same proposition as the HT model: that wage premia in higher productivity geographic areas attract qualified workers. These approaches argue that over time, migration leads to an increasing supply of labor in areas with above average wages, while reducing the supply of labor in lower productivity areas. With more workers to choose from, employers would be expected to negotiate wages more aggressively in high productivity areas, while workers who remain in lower productivity locations would face less competition from other workers and negotiate for higher wages. Unhindered, most theoretical models suggest that this process would be expected to continue until wages roughly equalize across regions. One famous empirical example of this long-term effect comes from the United States. In that context, regional income convergence between 1880 and 1980 continued at a stable rate of about 1.8 percent per year. However, Ganong and Shoag (2017) show that exclusionary public policy in U.S. cities which lowered the rate of domestic migration beginning in 1980 led to 50 percent slowdown in the rate of regional wage convergence. Absent these impediments to mobility, the authors estimate that wage inequality would have been 8 percent smaller between 1980 and 2010.

In a related study, spatial misallocation is shown to have had similarly dramatic costs in terms of output in China and India. Hsieh and Klenow (2007) found that moving to “U.S. efficiency” in terms of the spatial allocation of economic activity would increase total factor productivity (TFP) by 30-50% in China, and 40-60% in India. The output gains would be roughly twice as large if capital accumulated in response to aggregate TFP gains. They further estimate that deteriorating allocative efficiency may have shaved 2% off Indian manufacturing TFP growth from 1987 to 1994, whereas China may have boosted its TFP 2% per year over 1998-2005 by addressing these distortions.

These studies reflect the consensus in the literature: migration and the spatial distribution of economic activity are crucial factors for economic development. For this reason, the very low rates of domestic migration in Uzbekistan – recorded both in official government statistics (Table 1) and the independent survey data used in this study – are cause for concern. The State Statistics Committee (SSC) of Uzbekistan estimates that the migration rate for the 2018 calendar year stood at about .5 percent of the population.

Table 1: Official Permanent Migration Flows, 2018

	Arrival	Departure	Net	Total	Arr. %	Dep. %	Net. %
National	160	176.2	-16.2	32,639	0.49%	0.54%	0.05%
Karakalpakstan	10.8	15	-4.2	1,874	0.58%	0.80%	0.22%
Andijan	6.6	8.5	-1.9	3,011	0.22%	0.28%	0.06%
Bukhara	6.1	9	-2.9	1,875	0.33%	0.48%	0.15%
Jizzakh	11.1	12.1	-1	1,330	0.83%	0.91%	0.08%
Kashkadarya	11	15.2	-4.2	3,130	0.35%	0.49%	0.13%
Navoi	13.1	14.3	-1.2	990	1.32%	1.45%	0.12%
Namangan	4.6	5.7	-1.1	2,651	0.17%	0.22%	0.04%
Samarkand	11.9	15.6	-3.7	3,748	0.32%	0.42%	0.10%
Surkhandarya	11.9	14.2	-2.3	2,517	0.47%	0.56%	0.09%
Syrdarya	8.6	9.3	-0.7	817	1.05%	1.14%	0.09%
Tashkent	19.2	24.8	-5.6	2,881	0.67%	0.86%	0.19%
Fergana	13.3	14.7	-1.4	3,522	0.38%	0.42%	0.04%
Khorezm	6.3	7.6	-1.3	1,818	0.35%	0.42%	0.07%
Tashkent city	25.5	10.2	15.3	2,476	1.03%	0.41%	0.62%

Source: Uzbekistan State Statistic Committee, figures reported in thousands. Note that the reported figures include both international and domestic migration flows.

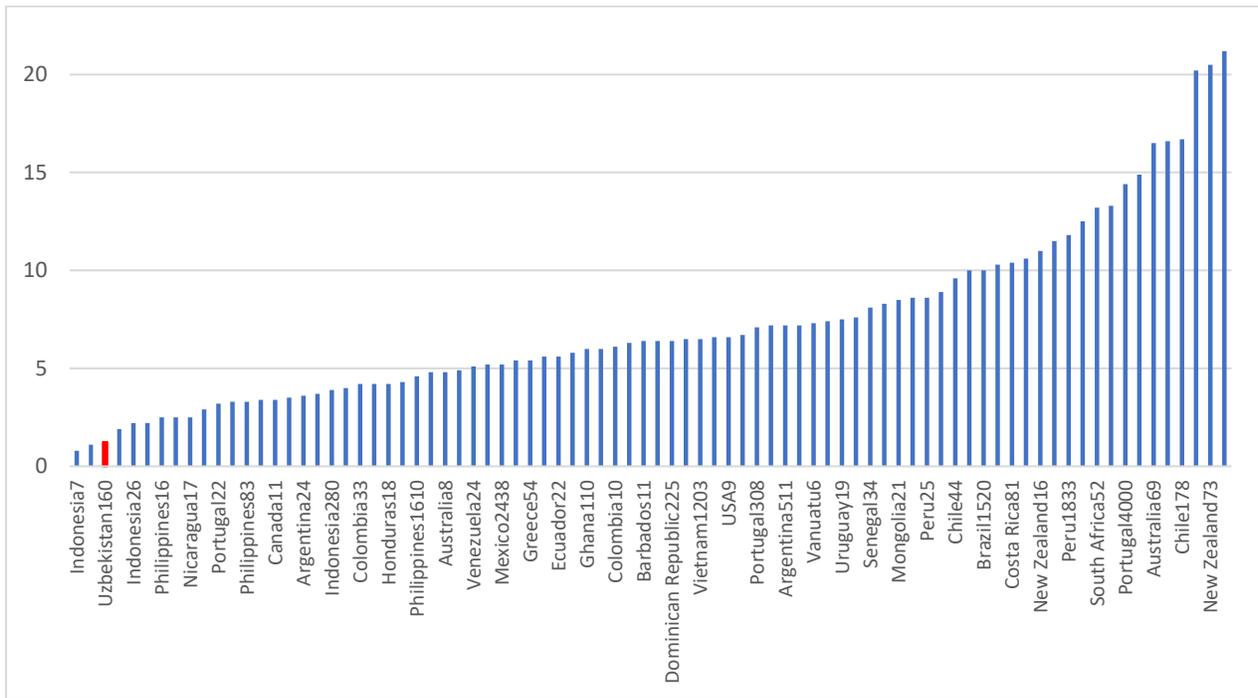
Data from L2CU paint a similar picture: respondents reported that about 5 percent of the population was currently living in a province other than where they were born. Only about .3 percent of the population reported moving in the preceding year. The 95 percent confidence interval of this estimate

overlaps with official SSC estimates of migration for that period. Given the rare nature of migration in many populations, a common method of measuring domestic migration flows in the literature is to average over a 5-year window for an individual (rather than focusing solely on the previous year). For Uzbekistan, this crude rate of migration⁷ between provinces over the 5-year window preceding baseline data collection in 2018 was approximately 1.24 percent of the population. This estimate is difficult to benchmark against rates in other countries due to differences in the definition, size, and population density of administrative units. However, by way of rough comparison, Bell and Muhidin (2009) find no case in their sample of 28 countries with five-year internal migration rates below 2 percent for the administrative territory equivalent of Uzbekistan's provinces. A later update from Bell and Charles-Edwards (2013) – covering 70 countries – also finds no instances with migration rates as low as Uzbekistan's when using territories analogous in size to Uzbekistan's provinces (Figure 4). In only for a handful of cases when focusing on large macro-regions (much larger than provinces) do the authors find 5-year migration rates below 2 percent, including for Indonesia, pre-reform China, and Portugal.⁸ Although low rates of domestic migration are generally more common in CIS countries (Seitz, 2018; OECD, 2017), in none of the cases for which data are available does the rate of domestic migration fall below 1 percent of the population per year.

⁷ Several alternative measures of domestic migration rates adjust for population size and geography of administrative units to increase international comparability.

⁸ Migration rates in each of these cases were higher than Uzbekistan when comparing similar-sized territories (3.4 percent in China, 2.9 percent in Indonesia, and 2.9 percent in Portugal.) Also notable is that migration rates have since risen post-reform in China to 6.7 percent, and that Indonesia's island geography leaves it a relatively peculiar case.

Figure 4: Five-Year Raw Domestic (Internal) Migration Rates



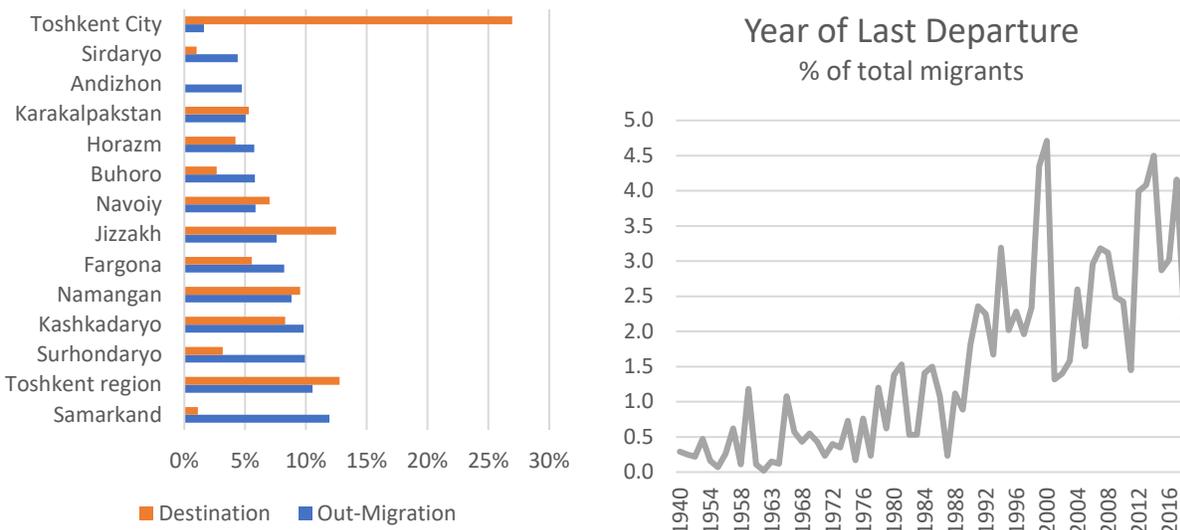
Source: Bell and Charles-Edwards(2013) and the L2CU baseline survey (2018).

Note: Migration rates for the circa 2000 round of Censuses. Values in country labels indicate the number of territorial units.

For the small amount of domestic migration present in Uzbekistan, the city of Tashkent has remained the dominant destination over the past several decades.⁹ Figure 5 (left) shows that according to L2CU baseline data, about 27 percent of all households that had moved within Uzbekistan at all resided in Tashkent city at the time of their interview. Samarkand and Tashkent region (excluding the city) are the most common “origin” provinces. There are several prominent migration “spikes” in migration flows (Figure 5 - right), including in 1999/2000 when Tashkent was declared a closed city (see following subsection for more detail). This was followed by a steep decline in self-reported migration in 2001.

⁹ There is also substantial international migration from Uzbekistan, described in detail in Seitz (2019).

Figure 5: Domestic Mobility as Measured by Current Residence Migration History



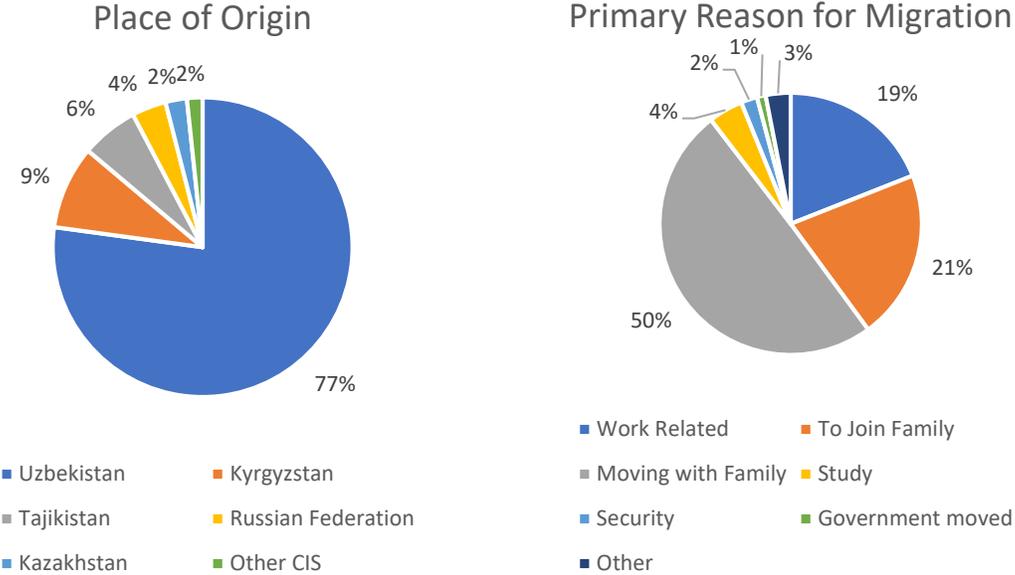
Notes: Mobility estimates are derived from survey responses in the L2CU Baseline. Author's Calculations. The left shows source/destinations as a share of all those people who report ever having moved (domestically). The right-hand graph reports the year that they report last having moved.

Most self-reported migrants came from other regions of Uzbekistan (Figure 6). However, about 23 percent moved from another country, most commonly the Kyrgyz Republic, Tajikistan, and the Russian Federation. About 71 percent report that the primary reason for their move was family-related (either moving with family, or to join family) followed by employment-related reasons at 19 percent. Relatively small shares of respondents reported moving due to government relocation or security concerns, and only about four percent for the purposes of studying.

There is imprecision associated with these population estimates, which is magnified by the lack of census data for Uzbekistan (no census has been conducted since independence, though one is planned for 2022). In particular, Tashkent's population has clearly increased since independence, but incentives around registration are such that administrative records are likely inaccurate to some degree. However, there is broad consistency between the last Soviet Census and current official population estimates. The 1989 Census estimated the population of Tashkent at 2.1 million people. Current official statistics estimate that the population of Tashkent city included 2.14 million people in the year 2000, rising to 2.5 million in 2019. This means that as a share of the total population, Tashkent has in fact become smaller, despite remaining the most popular destinations of the small number of domestic migrants recorded over this period. The city represented 8.7 percent of the total population of Uzbekistan in

2000, falling to 7.5 percent of the population by 2019. The share has also fallen if one includes the surrounding region of Tashkent together with the city: this figure totaled about 4.5 million in 2000 (18.3 percent of the total population) and 5.4 million in 2019 (16.3 percent).

Figure 6: Place of Origin and the Primary Reason for Migration



Notes: Derived from survey responses in the L2CU Baseline. Author’s Calculations. Migration is defined as moving from one district (or another country) to their present location in Uzbekistan. This information is presented for the set of people who report ever having moved in the nationally representative baseline survey (2018).

Thus, according to official estimates, the city of Tashkent was, by far, the slowest growing “region” in the country between 2000 and 2019. Tashkent’s population only grew by 17 percent, while the Tashkent region (surrounding the city) was the next slowest growing, at 23 percent. The total population of Uzbekistan grew by much more over this time; it was about 36 percent larger in 2019 than in 2000, more than double the increase recorded in Tashkent. This trend is driven by higher fertility rates in urban areas paired with very low rates of migration.

But despite these low rates of migration and urban population growth, labor markets are remarkably stronger in urban areas of Uzbekistan, and particularly in the city of Tashkent. In July 2018 when the L2CU baseline data were collected, the employment rate among people aged 15-65 stood at 41 percent in rural areas, at 46 percent in urban areas, and at 57 percent Tashkent city. The median wage in Tashkent city was 61% higher than the national average in 2018, and 88% higher than among those

employed in rural areas. Urban incomes are also much more stable over time in Uzbekistan. Only 17.5 percent of working-age people living in rural areas are employed continuously throughout the year, while more than 29 percent in urban areas are, rising to 44 percent in the city of Tashkent.

III.I – “Propiska” Registration

Uzbekistan inherited a residency permit and domestic passport system after gaining independence from the Soviet Union in 1991.¹⁰ The Soviet state used this system to direct economic development and social resources (Bukley, 1995).¹¹ Likewise, in its present form the system is primarily used to manage internal migration, to administer public services, and to distribute resources. Registration in a person’s place of residence is referred to as a *propiska*, which often also refers to a person’s domestic passport.¹² The system is implemented by the Ministry of Internal Affairs in Uzbekistan, and an additional motivation often cited by policy makers is to ensure security and public safety.

Unlike other Soviet Republics – such as Georgia, Moldova, and others – where the practice was largely eliminated following independence, Uzbekistan replaced the Soviet *propiska* with a stricter one.¹³ Tightening of *propiska* restrictions culminated in a presidential decree in 1999 when it was announced that the capital, Tashkent, would become a firmly “closed city” to which only previously registered families and certain government officials were permitted to move.¹⁴ Sales or purchases of housing in Tashkent were banned if the buyer did not already hold a permanent Tashkent *propiska*. Similar limits on registration were expanded in 2011 to include the surrounding region (oblast) outside of the city or Tashkent (Tukmadiyeva, 2016). Although Tashkent is the focus of several *propiska* regulations, there are also significant concentrations of people living without registration in other urban areas outside of the capital, most notably in the city of Samarkand (Table 2). It is important to note that though these estimates are derived from official records, they are likely affected by non-response and

¹⁰ The *propiska* system traces its origin to the administration of serfdom in the Russian Empire, and thus substantially pre-dates the Soviet Union.

¹¹ When the revitalized Soviet *propiska* system was introduced in 1932, the documents required to obtain permission to migrate were made available to citizens living in a city or workers’ settlement. Collective farmers, who represented most of the rural population were excluded (Bukley, 1995).

¹² Details regarding rules and administration of the *propiska* system are summarized in appendix A.

¹³ Ukraine is the latest example of a country from the former Soviet Union eliminating the practice. These reforms were completed in 2019.

¹⁴ This designation echoed the Soviet system’s list of closed cities, which included Tashkent starting in 1956.

the challenges posed by strategic reporting, given the sensitivity of registration status, and should not be viewed as precise measures. These are intended to summarize current official estimates of the non-registered and temporarily registered populations, and do not imply any judgment as to their accuracy.

Table 2: Estimated of Non-permanent Registration Status Mahalla Records and Implied Population Totals

	Estimated Share Illegal	Implied Population	Share of National total	Temporary/ Other Register	Implied Population	Share of National Total
Andijan	0.2%	2,716	0.6%	0.1%	1,824	0.4%
Bukhara	2.4%	45,011	9.9%	0.0%	41	0.0%
Fergana	0.6%	21,097	4.6%	0.1%	4,821	1.1%
Jizzakh	0.2%	3,274	0.7%	0.4%	5,664	1.3%
Namangan	0.3%	8,704	1.9%	0.4%	11,527	2.6%
Navoi	1.2%	11,952	2.6%	0.9%	8,596	2.0%
Karakalpakstan	0.9%	16,523	3.6%	0.1%	990	0.2%
Kashkadarya	0.3%	9,856	2.2%	1.0%	28,374	6.4%
Samarkand	6.4%	229,920	50.5%	0.1%	5,322	1.2%
Syrdarya	1.6%	13,215	2.9%	0.2%	1,759	0.4%
Surkhandarya	0.0%	-	0.0%	0.5%	12,923	2.9%
Tashkent city	2.8%	67,297	14.8%	9.4%	230,527	52.3%
Tashkent	0.7%	20,139	4.4%	1.2%	33,633	7.6%
Khorezm	0.3%	5,231	1.1%	5.3%	94,764	21.5%
Total	1.5%	454,936	100.0%	1.4%	440,764	100.0%

Notes: Author's Calculations. Reported estimates derived from mahalla records and adjusted using population weights for the selected L2CU Baseline locations. Estimates are subject to sampling and measurement error. The share of the population that is officially registered is imperfectly measured due to the combination of a lack of census data, and the illegality of non-registration status.

There have been several changes to the propiska system since 2017 (see Appendix G for more details), and temporary registration has become more accessible and less bureaucratic according to many qualitative interviews conducted as part of this study. However, as of this writing, a person without a local propiska (either permanent or temporary) in Uzbekistan is not permitted to apply for identification documents, register a marriage, obtain pensions or other social benefits, send their children to public schools, obtain legal employment, or register a business, among other restrictions.¹⁵ Purchasing housing in the city of Tashkent (with recent exceptions first for high-value newly constructed housing, later expanded to newly constructed housing more generally) is illegal for all

¹⁵ There is ambiguity about the use local hospitals or clinics for non-emergency purposes. Legally and according to most qualitative interviews, health care facilities are open to residents even if they are unregistered. However, some sources (including Tukmadiyeva, 2016) claim there are de facto many access restrictions.

people who do not hold a permanent Tashkent propiska; temporary registration does not suffice. Enforcement of propiska rules is conducted through several channels, the most important include local governments (called *mahallas*), and when individuals pass through checkpoints where domestic passports are reviewed (though this latter practice has become less common since 2017, qualitative interviews conducted as part of the L2CU project suggest that systematic checks of registration documents often precede major holidays).

In January 2019, several reforms of the propiska system were adopted in a presidential decree entitled: *On Measures to Fundamentally Improve the Processes of Urbanization*. Until that time, it was illegal in Uzbekistan for a person to apply for a job outside of the region in which they were registered. This was especially binding in the case of Tashkent. However, the new decree established that people may apply for formal work in urban areas (and especially Tashkent) without a propiska, and upon receiving a formal employment contract, apply for temporary status. Qualitative interviews completed as part of the L2CU study highlighted that since the decree was issued, it has become substantially easier to obtain and renew temporary status. However, there remains no official method to obtain permanent registration in Tashkent based on employment, outside of limited exceptions for certain government employees.¹⁶

Continued propiska restrictions on registering a business outside of one's place of permanent residence have downstream consequences on migration behavior and economic activity. As there has been less business registration in urban areas than there would have been absent any restrictions, physical and financial capital have also been much less mobile. This relationship is endogenous; less migration leads to less business formation, and less business formation leads to less migration. In a counterfactual scenario in which people were permitted to move, more businesses would likely move and/or start to serve a larger customer base. This suggests that propiska restrictions likely have efficiency costs stemming from effects on the spatial arrangement of capital and economic activity, beyond the direct costs associated with limited labor mobility.

Internal mobility restrictions are not unique to Uzbekistan, and the effects of similar limits have been studied in several cases. Research in this area consistently finds that barriers to internal migration come at very high costs, and that large welfare gains have resulted from dismantling them. One notable example comes from China, where a series of economic and social reforms paved the way for one of

¹⁶ For a more complete discussion of the de jure and de facto applications of the propiska system, please see the qualitative review that accompanies this paper.

the largest human migrations in history. Beginning in the 1950s, China implemented a registration system, referred to as *bukou*, which shares many features with the propiska system in Uzbekistan. In 2000, before reform, the ratio of the income per worker in China between provinces in the 90th and 10th percentile was 3.2, compared to around 1.5 in the United States. Tombe, and Zhu (2019) find that reforms to the *hukou* system played key role in quickly reducing this ratio by generating rapid income growth between 2000 and 2005. This growth contributed to the unprecedented poverty reduction achieved during this period. The findings suggest that over the relevant window, reforms allowing greater domestic mobility accounted for more economic growth than international trade liberalization. The authors estimate that registration changes alone increased aggregate productivity and welfare by 12.1 percent and 7.3 percent, respectively. Overall, reductions in domestic migration and trade costs likely account for close to half of China's aggregate labor productivity growth from 2000 to 2005 (Tombe, and Zhu, 2019).

Another relevant experience in managed migration comes from Vietnam. There, a system known as *ho khau* and patterned off the *bokou* example in China in the 1950s, was used both to register people and control migration flows. During the period of central planning until 1986, access to food rations, land, housing, education, health, and employment was managed through the *ho khau* system. In rural areas, farmers were registered to cooperatives through *ho khau* that linked workers' membership with access to food and rural employment. (Liu and Dang, 2019; Demombynes and Vu, 2016). Market reforms in the 1980s led to significant changes. Rationing and cooperative-membership were undone leading to an increased flow of rural-to-urban migration beginning in the early 1990s. A new land law in 1993 also contributed to the rate of migration by granting individuals and households the right to transfer, exchange, mortgage, lease, and inherit land.

The *ho khau* system was subsequently reformed twice to further relax restrictions on domestic migration (Liu and Dang, 2019; Demombynes and Vu, 2016). A series of empirical studies on the effects of these reforms find declining poverty rates and positive returns to migrants, their families, and host communities in urban areas (Coxhead, Cuong, and Vu, 2015; Liu and Dang, 2019; Demombynes and Vu, 2016). Also consistent with HT models and the new economic geography literature, the shares of the industrial and service sectors in Vietnam's GDP rose quickly following the introduction of market reforms in 1986. According to the World Bank's WDI database, the share of employment in agriculture stood at more than 66 percent in 1994, falling to less than 40 percent by 2018. At the same time, output per agricultural worker (in constant 2010 USD) rose from \$494 to

\$1,210. Value added in the agricultural sector grew on average by 3.5 percent per year over this period, but because other sectors were expanding rapidly and growing more productive, the agricultural sector fell from about 24.5 percent of GDP to only 14.5 percent in 2018 (GSO 2017; WDI 2010; Liu and Dang, 2019).

Furthermore, reform of migration limits was quite popular in Vietnam. A recent study found that about 70 percent of the population support making the system less restrictive (Demombynes and Vu, 2016). Qualitatively similar results for Uzbekistan are described in section IV of this paper, though reform is even more popular in Uzbekistan than it was in Vietnam.

III.II – Housing and Cost-of-Living

Outside these examples, registration restrictions on domestic migration are relatively uncommon, and housing costs are the most important binding constraint on internal mobility in many countries. The central role played by housing price differentials has been demonstrated in a wide range of contexts, including: Italy (Cannari, Nucci, & Sestito 2010), the Netherlands (Mulder, 2006), Sweden (Korpi, Clark, & Malmberg, 2010), Kazakhstan (Seitz, 2018), and the United States (for instance: Ganong & Shoag, 2017; Hsieh & Moretti, 2017; Gyourko, et al., 2006; Albouy, et al., 2016). In this respect, Uzbekistan shares many challenges with other countries in which economic and demographic trends exert pressure to urbanize. In 2018, there were slightly fewer housing units than households in Uzbekistan (with 943 units for every 1,000 households), however, the shortfall was concentrated in several regions (Table 3). This was especially the case for the City of Tashkent, with 862 dwellings for every 1,000 households.

Table 3: Housing Units and Population by Province, 2018

	Housing Units		Population		Households		Units per Household
	<i>thsnds</i>	%	<i>thsnds</i>	%	<i>thsnds</i>	%	
Karakalpakstan	327	5.4%	1874	5.7%	317	4.9%	1.031
Andijan	556	9.2%	3011	9.2%	533	8.3%	1.043
Bukhara	378	6.2%	1875	5.7%	400	6.2%	0.946
Jizzakh	208	3.4%	1330	4.1%	215	3.3%	0.967
Kashkadarya	575	9.5%	3130	9.6%	592	9.2%	0.972
Navoi	205	3.4%	990	3.0%	207	3.2%	0.987
Namangan	453	7.5%	2651	8.1%	519	8.1%	0.873
Samarkand	601	9.9%	3748	11.5%	689	10.7%	0.872
Surkhandarya	425	7.0%	2517	7.7%	451	7.0%	0.942
Syrdarya	155	2.5%	817	2.5%	152	2.4%	1.018
Tashkent	610	10.0%	2881	8.8%	608	9.4%	1.004
Fergana	650	10.7%	3522	10.8%	716	11.1%	0.908
Khorezm	328	5.4%	1818	5.6%	341	5.3%	0.964
Tashkent city	604	9.9%	2476	7.6%	701	10.9%	0.862
Total	6075		32639		6441		0.943

Notes: data from the State Statistics Committee and Author's calculations.

Such a gap would be expected to put upward pressure on housing prices. However, confirming the relationship is complicated by the current lack of official public records of housing prices in Uzbekistan. To fill this gap, self-reported home values and imputed rents¹⁷ are estimated using data from the L2CU baseline survey,¹⁸ combined with food cost differentials, and reported in figure (7) as a paasche-type cost-of-living index. It is important to note that these estimates are not based on market values of homes, which is especially important in this context of very high home ownership rates (more than 95 percent of people in Uzbekistan own their housing). To address these challenges to the greatest extent possible, there are three values reported in figure (7): one is based solely on the difference in the *reported* value of housing (in orange), while the another standardizes the cost of housing using a *hedonic* approach, based on the cost of a housing unit with a fixed set of characteristics in each region (in gray). Spatial differences in the cost of food are included in the index and reported separately for comparison (in blue).

¹⁷ Self-reported information may be somewhat overestimated with respect to market prices. Ceriani, Olivieri & Ranzani (2019) find that the average homeowner in Lima, Peru overestimates the market rent of her dwelling by between 8 and 15 percent. With respect to the impact on migration decisions, however, the perceived cost of housing is likely the more relevant statistic than the market value, especially in contexts such as Uzbekistan in which the secondary market is thin.

¹⁸ For details on the methods used to calculate the cost-of-living index, please see Appendix B.

Figure 7: Cost of Living by Region (100%=National Average)



Notes: Cost of Living estimates are derived from survey responses in the L2CU Baseline. For detailed methods, see appendix C. Author's Calculations.

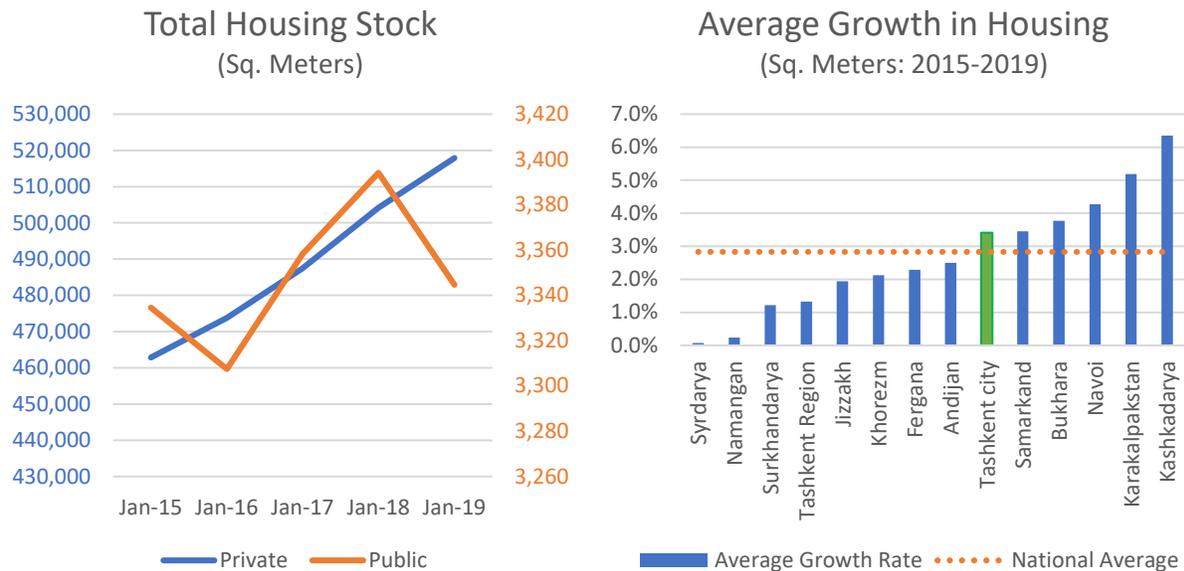
For either method of assessing the differences in the cost of housing, the differences are stark. In 2018, imputed rent was on average 2.5 times higher in urban areas than in rural areas.¹⁹ But the cost-of-living is most dramatically higher in the city of Tashkent. Imputed rents in regions with the lowest average costs (such as Syrdaryia) were as low as 5 percent of imputed rent in the capital. After adjusting for housing characteristics, the cost-of-living in Andijon was 181 percent, Samarkand was 226 percent, and the city of Tashkent was 550 percent of the national average. These results are quite similar if one uses an alternative approach based on the reported value of the home, instead of imputed rents.

Absent legal and other restrictions,²⁰ such a large disparity housing prices would be expected to drive new construction in the most in-demand areas (Glaeser & Gyourko (2018) provide a detailed discussion). In the long-run, these additional housing units would be expected to put downward pressure on housing prices, making housing comparatively more affordable for a larger number of people. However, the pace of housing construction in the City of Tashkent, and in the regions of Samarkand and Andijon are either lower than or only slightly above the national average (Figure 8).

¹⁹ Please see appendix C for average imputed rental values and hedonic rent estimates for housing by region.

²⁰ For a relevant example instance, China's deregulation experience is described in detail Chow & Niu, 2015.

Figure 8: Rate of Housing Growth, in Sq. Meters



Notes: State Statistics Committee and Author's calculations.

How affordable is housing in Uzbekistan?

There are several customary approaches to measure the affordability of housing. The L2CU data allow two of the most common: one based on monthly consumption/expenditure, and another based on the estimated value of an occupied dwelling. Both approaches suggest that in addition to being legally inaccessible, Tashkent and a few other cities are not affordable for most of Uzbekistan's citizens.

The first approach to measuring affordability, based on monthly consumption or expenditure, is usually benchmarked to thresholds first calibrated on data from the United States. The first such definition was applied in the 1920s and set at monthly expenditure at 25 percent of income (see Pelletiere (2008) for a detailed history). In later years, the threshold rose to 30 percent of income, which remains a popular standard, and has been officially adopted by the U.S. Department of Housing and Urban Development.²¹ This standard is commonly used in international analyses of housing affordability.

The second approach measures the affordability of housing by comparing the median home value in each locality with the median income in the same locality. The resulting indicator is expressed as a

²¹ For instance, Feldman (2002).

multiple of annual income or consumption. A common series of thresholds uses a multiple of 3 or less to indicate “affordable” housing, 3.1 to 4.0 as “moderately unaffordable,” and 4.1 to 5.0 as “seriously unaffordable. Any estimate above 5 is often considered to indicate that the locality is “severely unaffordable.”

Both affordability measures are variations of income and consumption thresholds. Although these are commonly used in the literature, there are limits to their reliability. One important challenge is that the value of housing may reflect differences in quality that are unaccounted for in raw housing cost comparisons. This limitation is partially addressed by using hedonic models of imputed rental values by locality (as applied for the estimates described in figure (7) and used in the second approach outlined here). However, this is not a complete solution. For instance, more robust approaches have been suggested by Glaeser and Gyourko (2003), who use the cost of housing construction to partially account for differences in quality.²² While including supply side prices and quality adjustments in this way would be technically ideal, the available data in this study do not permit the approach.

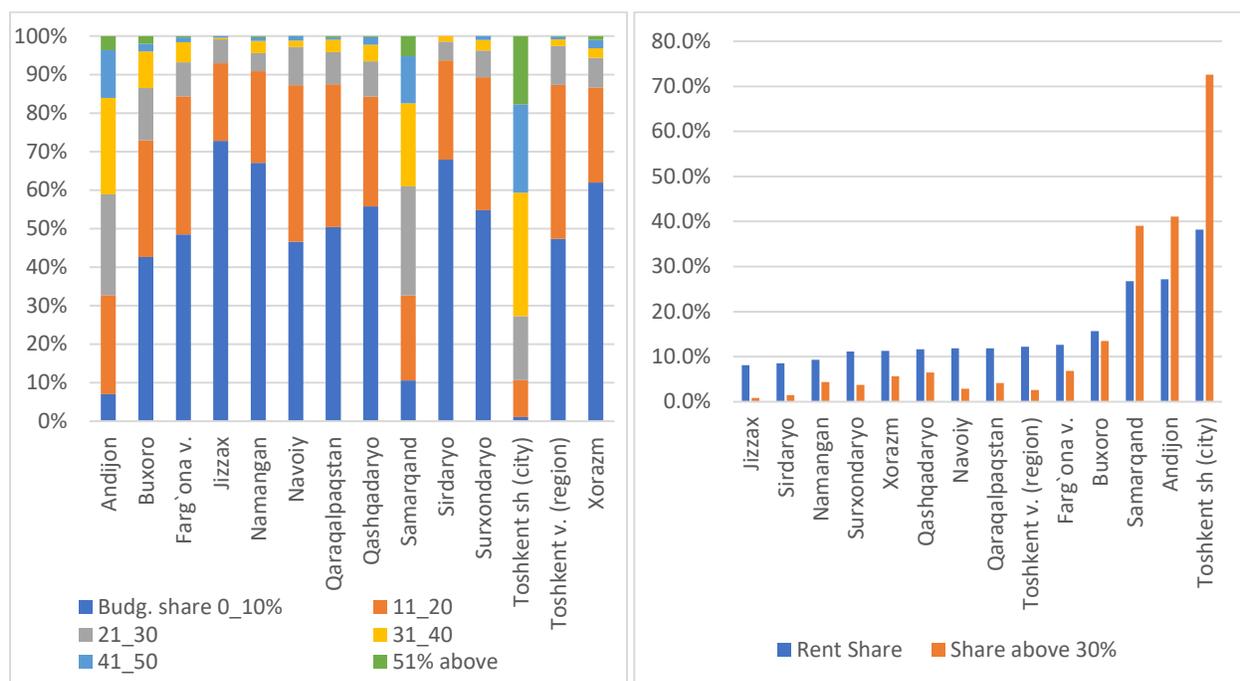
Despite their drawbacks, threshold methods are popular for practical reasons, and even have some theoretical advantages. They are more easily generalizable to counties and contexts with constraints on data availability, and the resulting indicators are often easier to compare across countries. Threshold indicators are also conceptually simple, and easy to communicate. While they may not entirely reflect all dimensions of the value of housing, it has also been repeatedly shown that household expenditure surpassing commonly used thresholds is often correlated with other deprivations. For instance, Newman and Holupka (2014) find an inflexion point on expenditure for childhood enrichment activities when housing costs are about 30 percent of a household’s budget, indicating that the threshold may coincide with important welfare dimensions commonly associated with “affordability.”

Figure (9) reports household consumption shares to apply the simple threshold definition. Housing in rural areas of Uzbekistan is usually affordable: in 2018, in virtually no rural areas did housing account for more than 30 percent of total expenditure on average. Housing accounted for only about 13 percent of total consumption in rural Uzbekistan, and even less in the most rural parts of the country including Jizzax, Namangan, Syrdarya and Khorezm. In contrast, imputed rent in 2018 on average accounted for more than 28 percent of consumption in urban areas, and about 45 percent of urban households allocated more than 30 percent of their budget to housing in 2018. In the most expensive

²² Glaeser and Gyourko (2003) find that this moderates some affordability concerns in the U.S. context.

urban market of Tashkent, imputed rent accounted for more than 47 percent of total average consumption in 2018. More than 72 percent of households in Tashkent could not afford to live in their housing if they did not own it, despite enjoying the highest average incomes in the country.

Figure 9: Imputed Rent Share of Total Consumption, 2018²³



Notes: L2CU Baseline, the right-hand graph presents the share of households that allocate more than 30 percent of their budget to housing, a commonly adopted measure of un-affordability.

For urban homeowners, this dynamic does not suggest an immediate budgetary crisis, but does mean that they have very little diversity in the form of their wealth, and that they could achieve higher living standards on other dimensions of well-being if such a large share of their wealth was not tied to housing. For potential migrants however, these high prices are very exclusionary. Currently, very few households outside Tashkent could afford housing there, if it were legal for them to buy it. Thus, the high cost of moving – especially to the capital but also to regional cities – will tend to slow the pace of urbanization if not met by increased affordable housing supply.

²³ Total consumption per capita is used for the measures adopted here.

Measuring the affordability of housing using the second approach – based on home values rather than imputed rent – yields qualitatively similar results, though the income/consumption multiples are structurally higher in Uzbekistan than in most countries, even in rural areas. Few areas meet the standard criterion according to which housing is “affordable” with a multiple of 3 or less. By the home value measure, most rural areas fall into the category of moderately unaffordable (with a multiple of between 3.1 to 4.0), while all urban areas fall into the severely unaffordable classification (with multiples above 4.1). At the extreme, Tashkent city was measured at 14.8 times annual household consumption in 2018, and 10.8 times annual household income. Per the home value-based measure, the city of Tashkent is more unaffordable than many famously exclusive metro areas, such as San Francisco in the United States and Vancouver in Canada (Table 4).

Table 4: Uzbekistan Cities Median Multiple Affordability Measures vs. International Cities

Affordability Rank	Country	City	Median Multiple
1	China	Hong Kong	18.1
*	<i>Uzbekistan</i>	<i>Tashkent (Consumption)</i>	<i>14.8</i>
2	Australia	Sydney, NSW	12.2
*	<i>Kazakhstan</i>	<i>Astana City (Consumption)</i>	<i>11.8</i>
3	Canada	Vancouver, BC	11.8
*	<i>Kazakhstan</i>	<i>Almaty City (Consumption)</i>	<i>10.6</i>
*	<i>Uzbekistan</i>	<i>Tashkent (Income)</i>	<i>10.5</i>
4	N.Z.	Auckland	10.0
5	U.S.	San Jose, CA	9.6
6	Australia	Melbourne, VIC	9.5
7	U.S.	Honolulu, HI	9.4
8	U.S.	Los Angeles, CA	9.3
9	U.S.	San Francisco, CA	9.2
10	U.K.	Bournemouth & Dorset	8.9

Source: 13th Annual Demographia International Housing Affordability Survey: 2017; the 2015 Household Budget Survey of Kazakhstan, and the L2CU Baseline Survey, Author’s Calculations.

The housing market in Uzbekistan has several relatively distinct characteristics, many of which result from the legacy of Soviet policies. Most notable among these is home ownership which – at more than 95 percent – is very high. In the Soviet Union, central planning reduced the salience of spatial price differentials because official prices for labor, land, housing, and consumer goods did not reflect relative scarcity. For instance, official rents for apartments in Moscow were not significantly higher

than rents in small villages during the Soviet period (Bukley 1995).²⁴ In the absence of market exchanges, individual preferences were not embedded in the formal price system. Rather, the Soviet economy relied on differential allocation in contrast to a market system of fluctuating relative prices.

Following independence in the early 1990s, Uzbekistan largely privatized the dwellings (but not land) that were formerly publicly owned by allowing people who occupied dwellings to purchase them at a low cost. Between 1991-1993, the privatization of the state housing fund allowed almost 5 million citizens to become proprietors of the housing units (Shukurov, Maitah, & Smutka, 2016). The event particularly benefited urban homeowners, as rural dwellings had been predominately “occupier-owned” even in the Soviet era (Yemtsov, 2007). On average, the cost of this privatized housing was a fraction of the median wage, and in fixed nominal payments quickly reduced the cost of housing even further due to high rates of inflation prevalent at that time. Take-up of the privatization was near universal, driving the high homeownership rate which prevails today. Relative prices for desirable housing updated following the period of privatization to more closely reflect supply of and demand for housing in the country, with prices rising most quickly in Tashkent city and other urban areas.

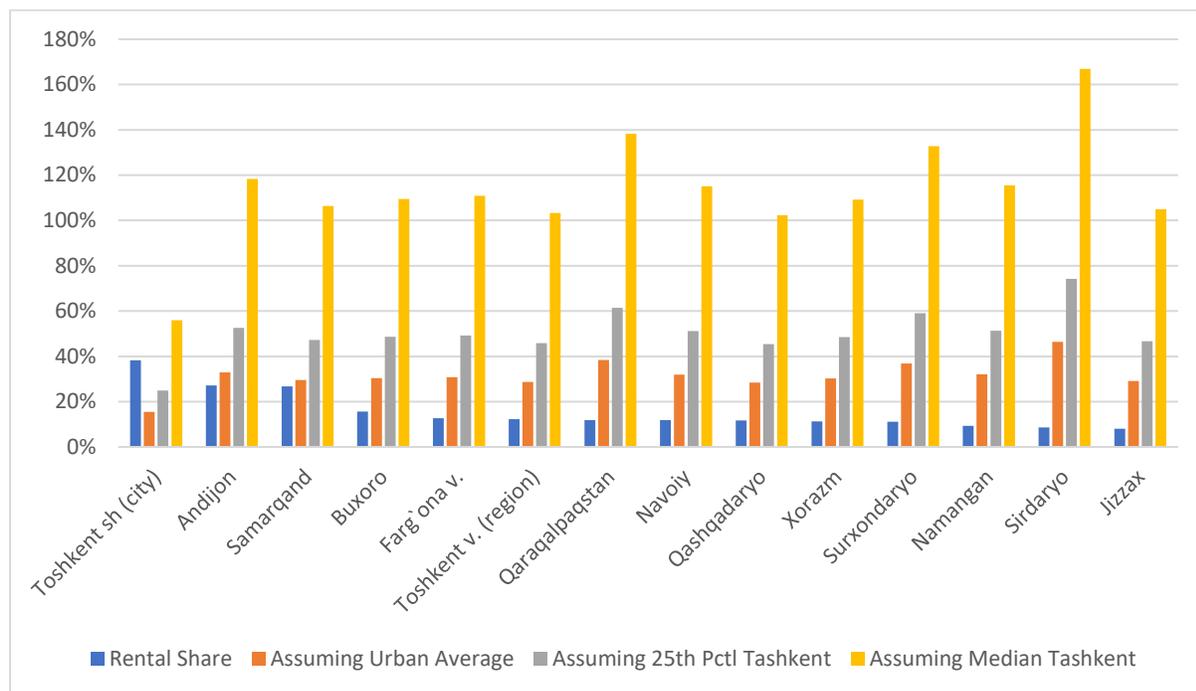
Is it affordable for people to move into urban areas, and particularly the city of Tashkent?

One approach to gauging potential housing demand among rural-to-urban migrants is to simulate a scenario in which a household in another province or a rural area moves to a high-demand urban area. If one assumes that in such a scenario, households would pay the median monthly cost of urban housing following their move, the likely budget share of housing in an urban area for previously rural households can be estimated. The results of this exercise for Uzbekistan are presented graphically in Figure (10). On average, if rural households relocated to the median urban area and rented/purchased housing at the median cost, they would be expected to spend about 20 percent more of their current total budget on housing, even before taking differences in the cost of other goods and services into account. In about half of Uzbekistan’s regions, this would equate to more than doubling of the share of consumption allocated to housing. In every region other than Tashkent the imputed rent share would be higher than the 30 percent affordability threshold on average. The regions of Sirdario and Karakalpakstan do very poorly by this measure: such a choice to migrate from these areas to the

²⁴ Some of the first examples came in 1931, when decrees limiting in-migration and new construction in Moscow and Leningrad were implemented, with the aim of alleviating part of the stress placed on these two cities and encouraging the development of other urban areas.

median urban area would equate to households spending more than half of their current total budget, on average.

Figure 10: Budget Share Allocated to Rent vs. Simulated Share using Average Urban Rent, the 25th percentile of Urban Rent in Tashkent City, and the Median Rent in Tashkent City



Source: the L2CU Baseline Survey, Author's Calculations.

Notes: The bars present the cost of housing at different reference points with respect to the current household budget in each province. Values above 100% indicate that the cost of housing referenced is greater than the total current household budget in that province, on average.

But the city of Tashkent is much more expensive than the median urban area. If instead one looks at scenarios in which the cost of housing in Tashkent city is considered as the reference, there is no other location in the country for which even the 25th percentile of housing costs in Tashkent is affordable on average (Figure 10). If one instead assumes the median cost of housing in Tashkent, housing costs are equivalent to more than the average total budget in every other region of the country.

How much would higher incomes affect urban housing demand?

The future trajectory of demand in urban housing markets is hard to estimate given current restrictions on who is legally permitted to purchase urban housing. However, housing costs and the rate of increase in incomes will play a decisive role determining the urbanization rate of the country.²⁵ Thus, measures of the elasticity of housing demand to income are valuable to forecast trends in urbanization and to formulate related policies. There are also important distributional implications of demand elasticities. Demand for housing usually rises with income, and in Uzbekistan, following long-term real average income growth, greater demand for housing is a natural expectation. On the other hand, housing's status as a necessity good means that one would expect housing demand to be relatively inelastic to price and income. Although poor people are often especially sensitive to price changes, if housing demand is on average inelastic to price, as prices rise the poor may become more budget constrained rather than consume less housing, and housing would effectively displace other consumption. Conversely, if households are relatively responsive to price, they may be reluctant to move to areas experiencing rapid price appreciation, or more likely to move away in favor of lower cost areas. Depending on market trends, price and income effects can work either in tandem or in opposite directions. However, it is common for incomes to rise while housing prices increase (and vice versa). Thus, with respect to the net change in demand due to these factors, either the income or the price effect could dominate.

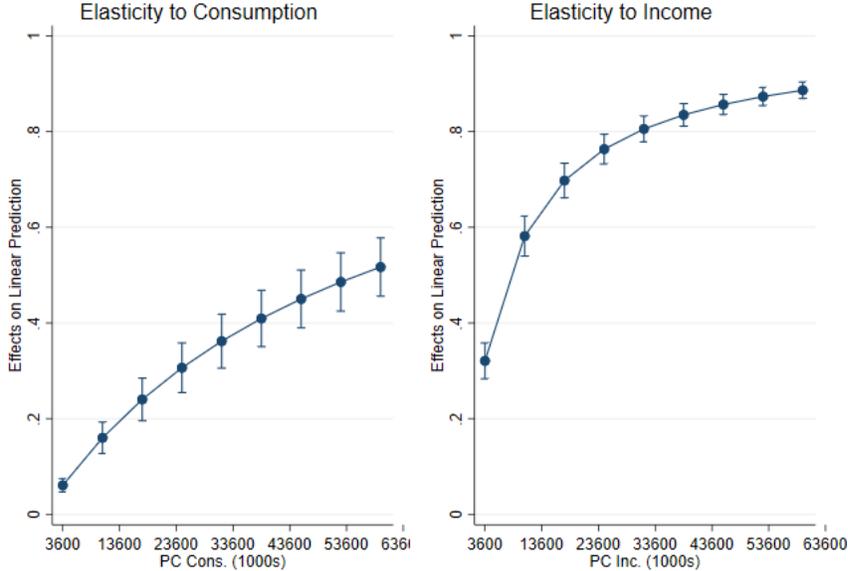
The analysis described in this section provides housing demand elasticity estimates for income. The elasticity of housing demand to per capita consumption (a proxy for permanent income) according the L2CU baseline is .30 at the mean level of consumption per capita. Using monetary income instead, the elasticity of housing demand is .36 at the mean. Put differently, these estimates suggest a 10 percent increase in total per capita consumption is associated with a 3 percent increase in housing consumption, and a 10 percent increase in income is associated with a 3.6 percent increase in housing consumption. These results suggest that demand in Uzbekistan is relatively unresponsive to changes in income (or consumption) in comparison to other countries.

It is important to note that these estimates vary substantially at different points of the welfare distribution (in other words, the rank of a household in terms of either consumption or income). The

²⁵ A second approach is to estimate what share of households could afford housing in urban areas at their current level of consumption/income. This simulation is described in Appendix F and suggests that incomes are much too low for most rural areas to afford urban housing.

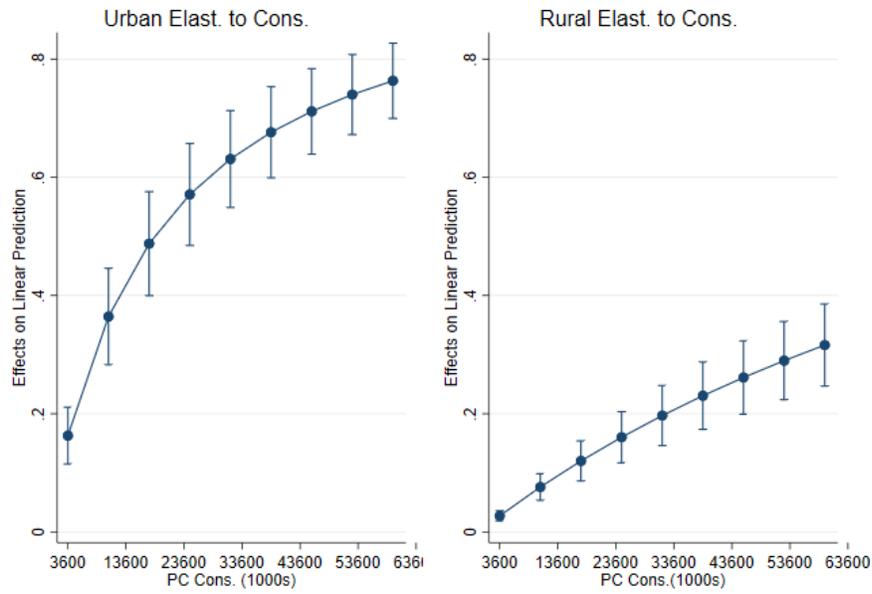
elasticity is especially close to zero among low-income people. For per capita consumption, the values range from as low as .07 at the bottom of the distribution to .51 at the top (Figure 11). This suggests that poorer people are comparatively less likely allocate more of their budget to housing if their budget were to expand. However, households with high levels of consumption per capita are likely to increase housing consumption by much more. Comparing across distributions also highlights the important difference between consumption and income. There is an even larger divide in the elasticity of housing demand to income. For higher levels of income, the elasticity of housing to income rises substantially, to as high as .89 at the top of the distribution. This suggests that higher income people tend to allocate a much larger share of their budget to housing as their incomes rise.

Figure 11: Elasticity of Housing Demand to Per Capita Consumption/Income



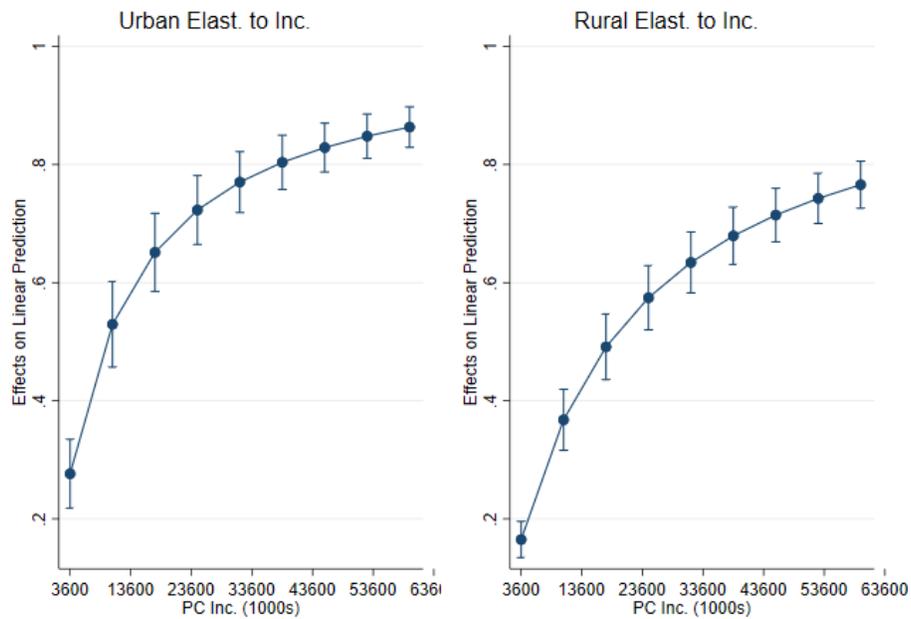
Source: L2CU, Author's Calculations.

Figure 12: Elasticity of Housing Demand to Per Capita Consumption for Rural and Urban Areas Separately



Source: L2CU, Author's Calculations.

Figure 13: Elasticity of Housing Demand to Per Capita Income for Rural and Urban Areas Separately



Source: L2CU, Author's Calculations.

There are also stark differences between rural and urban markets (Figures 12 and 13). The elasticity of housing demand to per capita consumption rises from .16 at the bottom to .78 at the top in urban areas. In contrast, differences in elasticity are much more compressed in rural areas, from nearly 0 at the bottom, to on .32 at the top. Even rural households with high consumption per capita thus allocate a relatively low share of their budget to housing. However, these differences are less dramatic when comparing housing demand elasticity to income. This suggests that there is relatively little unmet housing demand in rural areas. This also suggests that housing elasticity to income is always greater in urban areas than in rural areas, but the difference between urban and rural areas is usually less than .1 at similar points of the distribution.

With the current high prices in urban areas and low elasticity to income at the bottom of the distribution, high housing prices in urban areas are a clear bottleneck. They substantially reduce demand for housing in urban areas on net (except among the highest-income people), and in turn, discourage urbanization. By way of comparison, Malpezzi and Mayo (1985) provide income elasticities across eight countries with a range of between 0.4 to 0.6. Another study from Malpezzi (1999) also reports income elasticities across many studies falling within this range. The national estimate for Uzbekistan is thus at the lower end of the standard range found in the literature, except for the top of the income distribution who have demand elasticities that exceed this range. This low average propensity to consume more housing at the low end of the income and consumption distributions suggests exclusion of vulnerable populations from urban housing markets. For them, theory would predict that high price levels of urban housing are a strong disincentive to live in the largest cities, stifling potential growth.

What are the implications for Uzbekistan?

These trends have large social implications for Uzbekistan's future economic growth. Ganong and Shoag (2017) show that disproportionate increases in housing prices in high-income places, rendering those places unaffordable for new entrants, can lead to a dramatic decline in the rate of spatial income convergence and reduce population flows to high-income places. The growing inaccessibility of Tashkent also echoes the literature on affordability and the dangers of what Gyourko, et al. (2006) refer to as the "superstar city" phenomenon. Their conclusion that "living in a superstar city is like owning a scarce luxury good" aptly describes the state of the housing market in the city of Tashkent. Albouy et al. (2016) find that for many countries, such exclusive cities are much more expensive for

the poor, and that the current trend of rising rents over time has been one of the primary drivers of increased real-income inequality in the United States.

These effects can be enough to translate to large effects on aggregate economic performance. Hsieh & Moretti (2017) find that spatial misallocation of labor in the United States lowered aggregate U.S. growth by more than 50% from 1964 to 2009. Parkhomenko (2017) finds that regulations limiting new housing construction accounted for approximately 23 percent of the wage dispersion, and 85 percent of housing price dispersion in metro areas between 1980 and 2007 in the United States. The analysis also indicated that had regulations not increased over this time, U.S. output in metro areas would have been 2 percent higher. In most such studies, policies and regulations, alongside social preferences, are particularly important determinants of the cost of housing (Rubaszeka and Rubio, 2017).

Urbanization and avoiding the emergence of slums

If the restrictions placed on migration in Uzbekistan have been effective, as the data presented in the previous section suggest is the case, there likely exists a large amount of pent-up demand to move to cities. Removing these restrictions may lead to much higher rural-to-urban migration flows. Although this trend would potentially bring the benefits of agglomeration and raise incomes, the process may also be also challenging to accommodate. A key issue is the pace of housing construction and affordability. If the housing supply response is unable to keep up with increasing demand from new migrants (particularly at the low end of the current income distribution among Tashkent's residents), housing prices may rise further, and exacerbate the affordability challenge urban areas already face. The combination of these factors may contribute to the expansion of informal and unplanned settlements or "slums."

However, the expansion of slums is avoidable with supportive policy and careful city planning. In particular, growth in the housing supply is the most commonly identified necessary ingredient to successfully navigating high rates of urban population growth (Hammam, 2014). Many examples of urbanization have further demonstrated the importance of the following factors that contribute to the health of the housing market, and its ability to accommodate large migration flows:

- A large and flexible rental housing market, and the absence of rent control, is important for providing a "first rung in the ladder" for migrants, as such markets reduce the need for potential migrants to purchase housing upfront. The inability to do so for the large majority of the population in Uzbekistan could lead to conditions for slums to emerge, in the absence of strong rental markets. Large-scale construction

of affordable rental housing is relatively uncommon; however, successful examples include Singapore; Hong Kong SAR, China; and Mainland China.

- Security of land tenure is essential for market-driven housing construction, as tenure insecurity strongly reduces investment De Soto (2000).
- Targeted subsidies for both the demand and supply side of the market for low-income housing are common in high- and middle-income countries. The track record of such interventions is mixed, though in areas with highly unaffordable housing, no country has resolved the slum issue without some form of public intervention on the housing supply side (Hammam, 2014).
- Expanding housing finance has improved housing affordability in a number of countries, particularly for middle-income groups. The Chilean case and similar programs in Costa Rica highlight the importance of finance in stimulating private housing supply for middle- and lower middle-income groups (Hammam, 2014). Bertaud (2010) credits Thailand's housing finance system with facilitating a rapid increase in affordable housing production by the private sector in the 1980s.
- Increasing the supply of serviced land is commonly needed in the case of rapidly growing cities, as in-fill development is often limited in scope and costly.

Complementary policy is also an important consideration in avoiding the creation of slum conditions. Absent migration restrictions, expanding public services would be required in Uzbekistan to accommodate rapid urbanization. Without careful urban planning, schools, hospitals, and other important services may become overburdened. However, it is important to consider that the UN projects Uzbekistan's population will continue growing for the next 30 years regardless of potential domestic migration flows. In such a context, it is likely that most places, both rural and urban, will continue growing in terms of population for some time, and the key question for policy makers is how to balance these long-term investments to match the future patterns of population movement and economic activity. Another important note is that providing quality public services is much less costly per capita in urban areas than in rural areas.

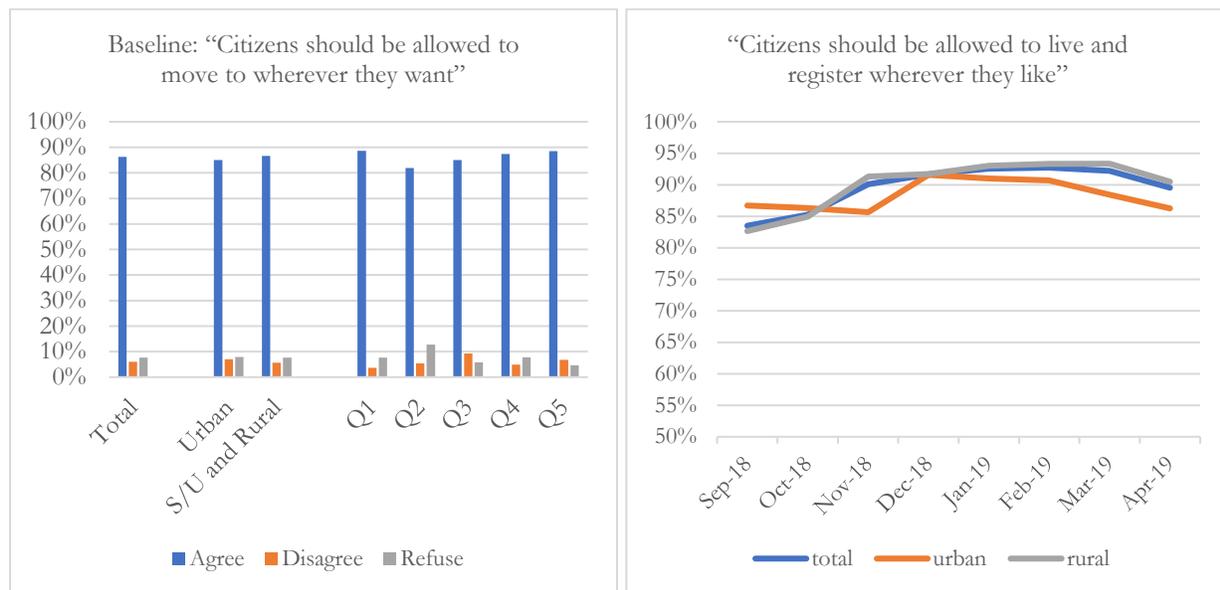
IV – Reform Preferences

A large majority of L2CU respondents support both removing propiska limits and increasing the pace urban housing construction. In the 2018 baseline when the question was first asked, about 86 percent of respondents said that they believed “Citizens should be allowed to move to wherever they want in Uzbekistan.” Support was similarly high in both rural and urban areas and across welfare quintiles (figure 14 - left). The question was worded slightly differently in the monthly panel component of L2CU. The later version read: “Do you strongly agree, agree, disagree or strongly disagree with the

following statement: Citizens should be allowed to live *and register* wherever they like.” Similar levels of support were recorded for this question through August 2019, rising to a maximum of 91 percent of the population who support free movement within the country in February 2019 (figure 14 - right).

These facts are important context in the ongoing discussion of whether to adopt reforms to the propiska system in Uzbekistan. But in the broader context, this degree of popularity is perhaps not very surprising. The Soviet propiska system was thought to be very unpopular even before Uzbekistan’s independence (Kerblay, 1983), and in a similar circumstance, reform of the *ho kbau* system was also very popular in Vietnam (Demombynes and Vu, 2016).

Figure 14: Views on Free Movement in Uzbekistan



Source: L2CU, Author’s Calculations.

Most citizens also support constructing more urban housing. More than 80 percent of respondents would prefer to see more urban housing construction, and only 4 percent would like to see less.²⁶ Like with free movement, faster construction is popular in urban and rural areas alike. In addition, about 93 percent of residents believe that individuals should be allowed to own urban land, and 77 percent believe that agricultural land should be privately owned. At the time of this writing, there is no private

²⁶ The remaining 15 percent would prefer to see about the same amount.

ownership of land in Uzbekistan, though privatization plans have also been announced by the government.

The L2CU study included a survey experiment to further establish the degree of popular support for reform of urban housing policy and domestic migration limits. The objective of the experiment was to examine the differences between four “treatments” in which the wording of a short vignette varied slightly. In each vignette, the introduction and the outcome were the same: “I would like to ask you to imagine you read about this fictional scenario in a newspaper: More than 2,000 workers moving to Tashkent struggle to find housing”. However, for each treatment arm, a different impediment to mobility was mentioned. These impediments are listed in table (5). In each round, respondents were randomly assigned to one of four treatment groups, or the control group. In the control group, no impediment to mobility was mentioned. Participants were then asked a question as to what they think the government response should be. There were four options: i) do nothing, ii) restrict the number of workers allowed to relocate, iii) modify government regulations or procedures to help workers relocate (propiska), iv) directly provide subsidized housing.

Table 5: Description of Experiment Treatment and Control Arms

Treatment Group		Target Sample
T1= Registration	due to...official registration difficulties	300
T2= Rent	due to...lack of available rental apartments	300
T3= High prices	due to...high prices of either renting or buying apartments	300
T4= Construction	due to...pace of housing construction	300
C= Control	“More than 2000 workers move to Tashkent”	300
Total		1500

The results can be interpreted by comparing the responses of the treatment arms to those of the control group in Table (6). They suggest that respondents become more supportive of removing propiska limitations and providing more subsidized urban housing specifically when registration difficulties or the pace of housing construction are mentioned. Further restricting migration was already unpopular in the control arm and becomes even less popular when either propiska limits or the slow pace of urban construction was mentioned. Column (6) shows that support for propiska reform rose by 6 percentage points when registration difficulties were mentioned. Column (8) shows that support for additional subsidized housing in urban areas rose by a similar amount when the pace

of construction was cited as the reason (and was also slightly more popular when high prices and a lack of rental housing were cited).

Table 6: Experiment Results

	Do Nothing		Restrict Migration		Change Propiska		Subsidized Housing	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Marginal		Marginal		Marginal		Marginal	
	Mean	Change	Mean	Change	Mean	Change	Mean	Change
Control	0.06*** (0.008)		0.22*** (0.014)		0.38*** (0.016)		0.35*** (0.016)	
High Prices	0.06*** (0.008)	0.00 (0.011)	0.21*** (0.014)	-0.01 (0.019)	0.34*** (0.016)	-0.03 (0.022)	0.39*** (0.017)	0.04* (0.023)
Pace Construction	0.06*** (0.008)	0.00 (0.011)	0.17*** (0.013)	-0.04** (0.019)	0.35*** (0.016)	-0.02 (0.022)	0.41*** (0.017)	0.06*** (0.023)
Propiska	0.05*** (0.008)	-0.00 (0.011)	0.18*** (0.013)	-0.04** (0.018)	0.44*** (0.017)	0.06*** (0.022)	0.33*** (0.016)	-0.02 (0.022)
Rent Scarcity	0.06*** (0.009)	0.01 (0.012)	0.20*** (0.014)	-0.01 (0.019)	0.34*** (0.017)	-0.04* (0.022)	0.39*** (0.017)	0.04* (0.023)
Observations	4,568	4,568	4,568	4,568	4,568	4,568	4,568	4,568

Notes: Estimates from logistic regression. Standard errors in parenthesis, clustered at the household level. Constant term included. In columns 1 and 2, the dependent variable is equal to one if the respondent believes that the government should do nothing, and zero otherwise. In columns 3 and 4, the dependent variable is equal to one if the respondent believes that the government should respond by restricting migration, and zero otherwise. In columns 5 and 6, the dependent variable is equal to one if the respondent believes that the government should loosen propiska requirements, and zero otherwise. In columns 7 and 8, the dependent variable is equal to one if the respondent believes that government should provide subsidized housing, and zero otherwise. Estimates in columns 2, 4, 6 and 8 should be interpreted as marginal changes relative to the base category.

*** p<0.01, ** p<0.05, * p<0.1

The results can also be broken down by population subgroups. For instance, respondents are much less likely to support restrictions on migration if they think that the reason for current problems is due to propiska restrictions, and households with fewer workers are much less supportive of restrictions. If forced to choose between them, households with unemployed people are slightly less likely to support changing registration rules, and slightly more supportive of government subsidies for affordable housing. Households with more unemployed people are much less likely to support the view that the government should “do nothing” about the plight of the vignette’s fictional 2,000 workers looking for work in Tashkent.

There are also significant differences between rural/urban households, and between those with and without migrant members. Households in rural areas are more supportive of the government “doing something” i.e., they are much less likely to respond that the government should “do nothing” about challenges faced people moving to Tashkent, in the vignette. Likewise, households with international migrants are much less likely to prefer the government do nothing. When forced to choose between the two options, households already located in urban areas are less likely to support subsidized housing and are much more likely to support removing propiska registration limits.

V – Views on Fairness and Support for Reform

On July 20, 2019 the deputy Khokim²⁷ of the Yakkabag district in Uzbekistan attempted to personally participate in an involuntary demolition of a building. A businessman and resident of the building poured gasoline over the deputy and set him on fire.²⁸ These events were followed by additional high-profile instances of involuntary demolitions across the country, including cases in which compensation was long delayed. In some cases, demolitions sparked protests, the largest in Urgench, a small town in the Khorezm region. Protests and profiles of affected people were widely shared on social media and covered in national news in Uzbekistan over the following weeks.

These cases would be significant news in any country. However, the historical context in Uzbekistan may leave the population particularly sensitive to questions of land and housing tenure. Struyk (2000) recounts:

A cardinal attribute of the Soviet housing system was the extraordinary occupancy rights enjoyed by tenants. Families lingered for years on waiting lists (8 to 10 years was common) before they were allocated a unit by a municipality or the enterprise where a family member worked, or, for those somewhat more affluent and working in the right sector (and country), before they were admitted to a group forming a cooperative. But once they occupied their unit, it was almost certainly theirs for life; indeed, it could be passed on to successive generations of occupants as long as the successors were

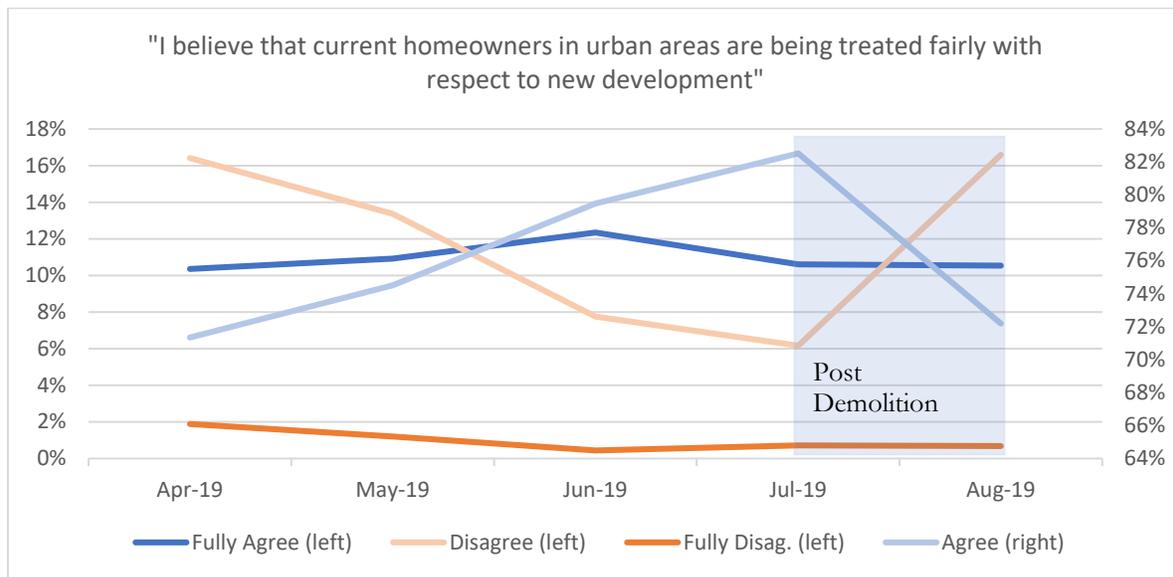
²⁷ The local executive authority.

²⁸ Following an investigation ordered by the President, the deputy and the district prosecutor were dismissed, and the resident was arrested, and a criminal prosecution begun.

registered as living there before the prior occupants died or moved away. This security of tenure was and is highly prized.

These events are especially important in the context of new urban housing construction to address shortages in high demand areas. Responses to the L2CU survey show that public perceptions of demolitions were salient for many respondents. Monthly panel data collected during this time suggest that despite high overall levels of support for free movement, housing construction, and the overall reform agenda, popular sentiment is quite sensitive to perceptions of fairness. Before demolitions reached the center stage, results from L2CU showed a steadily improving trend: a falling share of respondents believed that homeowners were being treated unfairly with respect to new development in cities. However, the trend went sharply in reverse after the demolitions described above, and the protests and media coverage that followed. In August 2019 the share of respondents who felt that urban homeowners were being treated unfairly more than doubled to 18 percent (Figure 15).

Figure 15: Views on Whether Current Urban Homeowners are Treated Fairly



Source: L2CU, Author's Calculations.

But beyond directly affecting views regarding the fairness of how urban development policies are implemented, backlash from involuntary demolitions could also potentially diminish support for the government's larger reform agenda. One way to describe the relationship between sentiment regarding economic reform and the state of the economy is to use simple correlations between views on the fairness of urban development policy on the one hand, and a person's wider reform views on the

other. The results from regressions of this type are reported in Table 7. Column (1) suggests that there is a negative association on average between the belief that treatment of homeowners is unfair and agreeing with the statement that the country is going in the “right direction” on reform related issues. Column (2) suggests a strong negative correlation between the view that homeowners are treated unfairly, and that the government is engaging in open dialogue and including citizens in the reform process. Column (3) suggests a strong positive correlation between holding the view that homeowners are treated unfairly and that the respondent is “worse off financially than two years ago”, and even larger that the government is not doing enough on corruption (column 4). Columns (5) and (6) suggest a strong negative correlation between holding the view that homeowners are treated unfairly and feeling that it is either a good time to find a job or a good time to start a business. Thus, holding a view that homeowners are treated unfairly is strongly correlated with negative views on the reform program and pessimism about economic conditions.

Table 7: Descriptive OLS Regression on Fairness of Policy for Current Homeowners

	Country going in right direction	Gov. engages citizens in reform	Finances worse than 2 years ago	Gov. not doing enough on corruption	Good time to find job	Good time to start business
	(1)	(2)	(3)	(4)	(5)	(6)
Unfair Treatment	-0.01** (0.003)	-0.10*** (0.015)	0.08*** (0.017)	0.09*** (0.017)	-0.19*** (0.022)	-0.11*** (0.019)
Constant	1.00*** (0.001)	0.95*** (0.004)	0.14*** (0.007)	0.05*** (0.004)	0.68*** (0.010)	0.81*** (0.008)
Observations	7,583	7,583	7,583	7,583	7,583	7,583
R-squared	0.00	0.02	0.01	0.02	0.02	0.01

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

This analysis can be strengthened by moving to an investigation of *changes* in views, rather than focusing on descriptive regressions in terms of levels. Table (8) provides the results of such panel regressions, and more clearly establishes the association between views on reform and the fairness of urban development policy. The approach accounts for both “observed” characteristics that are enumerated in the survey, as well as “unobserved” sources of heterogeneity. However, it is important to note that these analyses do not rule out alternative explanations for the relationships found. For instance, omitted variable bias may be present if there exist time-varying factors that can affect both views on the fairness of urban development policies and the other L2CU questions described. However, given the events that precipitated the change in views on fairness, in the opinion of the

author the most likely explanation is an effect emanating from the negative press around involuntary demolitions occurring during this time.

Table 8 is structured to mirror the simple OLS associations reported in table (7). For instance, column (1) corresponds to column (1) in table (7) and focuses on whether there is any association between views on the fairness of policies and a belief that the country is going in the “right direction” on economic and social issues. As in the case of table (8), there is a negative and statistically significant correlation, signifying that people who changed their view to believing the policies are unfair were also more likely to change their view and feel that the country was not on the “right track.” Similar relationships are present for each of the variables described, including whether the government is engaging citizens in reform (negative), whether a household’s finances are worse than 2 years ago (positive), if the government is not doing enough on corruption (positive), and whether now is a good time to find a job or start a business (negative).

Table 8: Panel Regression with Random Effects on Fairness of Policy for Current Homeowners

	Country going in right direction	Gov. engages citizens in reform	Finances worse than 2 years ago	Gov. not doing enough on corruption	Good time to find job	Good time to start business
	(1)	(2)	(3)	(4)	(5)	(6)
Unfair Treatment	-0.01** (0.003)	-0.06*** (0.012)	0.04*** (0.013)	0.05*** (0.011)	-0.06*** (0.016)	-0.06*** (0.015)
Constant	1.00*** (0.001)	0.94*** (0.004)	0.14*** (0.006)	0.06*** (0.004)	0.65*** (0.010)	0.78*** (0.008)
Observations	7,583	7,583	7,583	7,583	7,583	7,583
Number of hhid	1,584	1,584	1,584	1,584	1,584	1,584

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

These results are consistent with the view that involuntary demolitions and the publicity around them had a negative effect on support for the reform agenda, and aggregate measures of “citizen sentiment.” It is important to note that the shift in views was not large enough to leave the popularity of the reform agenda in question, nor did these changes have any meaningful impact on support for free movement and more urban housing construction. However, the results suggest that the treatment of citizens in these efforts matter a great deal to citizens, and that perceived unfairness could undermine support for the national reform program beyond the specific areas of housing and urban development.

VI – Conclusions

As Uzbekistan seeks to reform its economic model and become a high-income country, the structure of economic activity will change. Factors that contribute to economic output will increasingly flow to where they are scarce, mediated by a price system that more closely reflects the marginal contribution of additional resources. This includes workers, who will increasingly be drawn into the most productive and fastest growing sectors of the economy. But if there are impediments which prevent people from moving to where their services are in most high-demand, both workers and employers will be made worse off, and Uzbekistan will be poorer in aggregate. This study highlights two such bottlenecks, the propiska system of restrictions on internal mobility, and high costs of housing in urban areas.

Referring to the Soviet system, Buckley (1995) remarked that “in any large-scale socio-political transition, the institutions of the previous regime are not always compatible with the process of change and reform. The system of administrative restrictions on migration in the former Soviet Union is one such institution.” This observation remains true in today’s Uzbekistan. The propiska system comes at a very high cost in terms of welfare and economic output and reforming it to allow people to live wherever they wish is overwhelmingly popular. The costs of continuing these restrictions clearly outweigh the benefits.

But registration is only part of the challenge. The current high cost-of-living in urban areas puts cities out of reach for most people who presently live in rural parts of the country. There are housing shortages in several of Uzbekistan’s most in-demand urban areas, and prices have adjusted to reflect this constrained supply. Estimates of housing demand reported in this study suggest these high costs are especially restrictive for low-income people and among potential rural-to-urban migrants.

Adopting reforms to address both impediments is very popular. Removing all propiska restrictions is supported by about 90 percent of people and increasing urban housing construction is supported by about 80 percent of people. But the public is also sensitive to perceptions of the treatment of people affected by reform. Recent high-profile examples of involuntary demolitions are a powerful reminder that citizens desire reform that is both transformative and fair.

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Appendix A – Implementation of the Propiska System in Uzbekistan

For more details, please see the qualitative review of the propiska system that accompanies this paper.

Local requirements for registration in Uzbekistan

Permanent or temporary registration (“постоянная или временная прописка”) in Uzbekistan is regulated by the Presidential Decree on Additional Measures for Passport System Development in the Republic of Uzbekistan No. UP-4262²⁹ dated 5 January 2011. The registration of citizens at the place of residence is carried out by the internal affairs bodies (IAB). All citizens are required to have a permanent place of registration.

The registration requirement for citizens to stay temporarily in Tashkent city is regulated in Annex 1 of Resolution of the Cabinet of Ministers No. PKM-41³⁰ dated 16 February 2012. According to the Resolution if this city is Tashkent and the length of stay in it does not exceed 5 days, then the citizen is not obliged to obtain a temporary residence permit. To obtain a temporary residence permit, a citizen must submit documents to the appropriate authorities within 5 days from the date of arrival in Tashkent. A temporary residence permit in the city of Tashkent can be obtained for a period of 5 days to up to 6 months.³¹ In some cases, temporary registration can be granted up to one year at the discretion of the reviewing officer.

There are two methods of getting a residence permit at the time of this writing: the traditional in-person application, and the new electronic application that is open to temporary residents of Tashkent on a trial basis.

The traditional method

Under the traditional method, one must apply to the Department of Migration and Citizenship Registration (DMCR) for a specific area in the city of Tashkent. The list of documents required may include:

- a statement in the form established by the Ministry of Internal Affairs;
- passport;
- the identity card of the soldier under the contract or the identity card of the officer of the Armed Forces of the Republic of Uzbekistan (for servicemen residing outside the barracks and ships);

²⁹ <http://www.lex.uz/docs/1729274>

³⁰ <http://www.lex.uz/docs/1960398>

³¹ <https://kun.uz/ru/news/2018/10/03/eksperty-rasskazali-kak-polucit-vremennuu-propisku-v-taskente-za-24-casa>

- a birth certificate and two photographs of 35 x 45 mm in size - for persons under the age of 16;
- statement (consent) of the owner (owners) of housing for the provision of living space;
- copies of documents for housing;
- a receipt for the payment of state duty for accounting in the amount established by the Cabinet of Ministers of the Republic of Uzbekistan (in accordance with the Resolution of the Cabinet of Ministers No. 533³² dated 3 November 1944). The cost of state duty is 2 percent of the minimum wage;
- a copy of a notarized rental (lease) of a dwelling, or a part of it, or a contract of free use of a dwelling, or a part of it.

Electronic form

According to the Resolution of the President of the Republic of Uzbekistan dated 11 July 2017 No. PP-3126 "On measures to fundamentally improve the activities of the internal affairs bodies in the field of migration processes and citizenship registration"³³ an electronic service was launched in test mode "Accounting at the place of stay in the city of Tashkent and the Tashkent region", where, conditionally, a person can apply for a temporary residence permit in the city of Tashkent and the Tashkent region and attach the necessary documents. The electronic form of the sheet is a legal document, equivalent to the traditional method. The authenticity of the document can be checked using a special QR-code located on the bottom of the document.

³² <http://www.lex.uz/docs/699301>

³³ <http://lex.uz/docs/3266581>

Appendix B – Constructing Cost-of-Living Indexes

The Paasche index is calculated for the b -th household, and defined as:

$$P_h = \frac{\sum_j p_j^h Q_j^h}{\sum_j p_j^0 Q_j^h}$$

Equation 1

where p_j^0 is the price of commodity j for the reference group 0 (in this case, the national average). The index is estimated as the ratio between the cost of a bundle of goods purchased by the b -th household, and the cost of the same bundle as paid by a reference household (the “average household”, indexed by 0). From Equation 1 we obtain:

$$P_h = \left[\sum_j \left(\frac{p_j^h}{p_j^0} \right)^{-1} w_j^h \right]^{-1}$$

Equation 2

where w_j^h is the budget share of household b for commodity j , and p_j^h/p_j^0 is the relative price of the j -th item.

In practice, however, prices are not recorded in the HBS, and unit values are estimated instead. Another limitation is that most budget surveys do not commonly gather information on the expenditure and quantity of all items, instead gathering this level of detail for food items only. Thus, in most countries where spatial deflation is applied, the indicator is derived from the unit values of food expenditure observed in the survey.

This is the case the Kazakhstan as well, and the calculation proceeds by first obtaining unit values of the food items observed at the household level in the HBS. Unit values are achieved by dividing expenditure on good by quantity.

Equation 3

$$uv_j^h = \frac{x_j^h}{Q_j^h(pur)}$$

where x_j^h is the expenditure of household h on food item j . Before estimating unit values, outliers in the distribution of unit values are removed if they are five times above or below the national value. Based on the resulting cleaned unit values, the ratio of price relativities p_j^h/p_j^0 is estimated as:

Equation 4

$$\left(\frac{p_j^h}{p_j^0}\right) = \frac{uv_j^h}{uv_j^0}$$

where uv_j^0 is the national average unit value of commodity j .

The j -th unit value uv_j^h can be missing even if the actual consumption of commodity j is strictly positive (self-production, running down the stocks, gifts received, etc. can lead to such cases). In these instances, missing values are imputed per the following hierarchical procedure:

$$uv_j^h = \begin{cases} uv_j^h & \text{if } uv_j^h \text{ is not missing} \\ E[uv_j^h | quarter, district, rural/urban] & \text{if } uv_j^h \text{ is missing} \\ E[uv_j^h | quarter, region, rural/urban] & \text{if } uv_j^h \text{ is still missing} \\ E[uv_j^h | quarter, rural/urban] & \text{if } uv_j^h \text{ is still missing} \end{cases}$$

The budget shares w_j^h needed to estimate the spatial-price index are calculated as:

Equation 5

$$w_j^h = \frac{\widehat{THE}_h^j}{\sum_j \widehat{THE}_h^j}$$

where $\sum_j \widehat{THE}_h^j$ is the total household expenditure on all food items j included in the index. The index is first averaged for each quarter, region, and area combination, and then normalized for each stratum by the national average.

Equation 6

$$P = \frac{AVG(P_h | ruraluban)}{AVG(P_h)}$$

Housing costs can be analyzed in the same index framework by including imputed rent as a component of the Paache index. Including the cost of rent into Equation 1 as an additional consumption item proceeds by assuming the “quantity” of rent is one (i.e., that the household pays imputed rent on only a single dwelling) and including the resulting unit value as a separate expenditure item for the household. This is conceptually different from most reported food expenditure in the sense that although something of value was consumed (use of the dwelling) no financial transaction took place. The first uses imputed rent directly as reported in the L2CU baseline. This method implicitly assumes that housing is the same “good” for all consumers, regardless of the type of dwelling, and compares the overall differences in the resulting cost-of-living as a partial function of the unmodified imputed housing cost. A second alternative is to use a hedonic housing price measure. The second approach is more common in the literature on measuring the cost-of-living and imposes the requirement that the spatial deflator for housing be based on consumption of a similar “type” of housing, in terms of size and construction. In both cases, the housing costs are included alongside the other components of the Paache index.

There is no estimation for the first option, as self-reported values are included directly. However, the hedonic option is implemented using a separate imputation technique. The process proceeds by imputing the cost of renting the same “standard” dwelling in each locality and including this value in the overall cost-of-living index. The first step involved estimating a simple ordinary least squares (OLS) regression of reported rental values:

$$y_h = \beta_0 + \beta_{1h}x_{1h} + \beta_{...}x_{...} + \varepsilon_i$$

Where y_h is reported rental value of the home, and the x_h term include housing characteristics of interest, including dummies variables indicating location. Based on the resulting coefficients, a predicted rental value by locality is generated by holding constant a set of housing characteristics. Included in the application described here were variables for the living space of the dwelling (assumed to be 42 M Sq. for “standard” housing), the number of rooms (assumed to be 3 for “standard” housing), a dummy variable for whether the location is rural or urban, and the type of dwelling (assumed to be an apartment for “standard” housing). The results of the estimation procedure were then included as a component of the price index described above (instead of imputed rent for the housing that households report having consumed).

Appendix C – Cost-of-Living Indexes

Table 9: Estimated Food-based, Food + Rent-based, and Food + Standard Rent-based Indexes by Region and by Rural and Urban areas (National Average = 100%)

	<u>Total</u>		<u>Urban</u>		<u>Rural</u>	
	Rent (1000s)	Price (1000s)	Rent (1000s)	Price (1000s)	Rent (1000s)	Price (1000s)
Andijon	4800	110000	7800	130000	4800	100000
Buxoro	3600	180000	7200	170000	2400	180000
Farg`ona v.	2400	120000	4800	140000	1800	120000
Jizzax	1200	100000	4800	120000	1200	85000
Namangan	1800	110000	3600	110000	1200	100000
Navoiy	1800	110000	3000	100000	1800	120000
Qaraqalpaqstan	1800	100000	3000	150000	1440	100000
Qashqadaryo	2400	150000	6000	200000	1800	150000
Samarqand	6000	150000	9600	200000	6000	120000
Sirdaryo	1200	100000	2400	300000	960	100000
Surxondaryo	1560	80000	3600	100000	1440	80000
Toshkent sh (city)	18000	420000	18000	420000		
Toshkent v. (region)	2400	120000	3000	70000	2400	150000
Xorazm	1500	200000	3600	200000	1440	200000

Source: L2CU Baseline, Author's Calculations.

Note: provides a comparison of average imputed rent (left) with hedonic rent estimate (right). Appendix (B) includes the OLS regression model and coefficients used for the imputation procedure.

Appendix D – Calculating Housing Demand Elasticity

Using imputed rent, cross-sectional demand elasticities can be estimated using a standard utility maximization approach:³⁴

$$\text{Equation 7} \quad U = U(H, Z)$$

Where a household's utility (U) is a function of the consumption of housing (H) and other goods (Z). Households maximize utility subject to a budget constraint.

$$\text{Equation 8} \quad Y = p_h H + p_z Z$$

The term Y is total income (here, approximated in the following using total consumption, p_h is the unit price of housing, and p_z is a price index for all non-housing goods. Maximization yields a demand function for housing:

$$\text{Equation 9} \quad H = h(Y, p_h)$$

The estimation proceeds using a log-log method to estimate the elasticities associated with each term, such that:

$$\text{Equation 10} \quad \ln(p_h H) = \alpha + e_y \ln(Y) + \text{Controls}$$

Where the term $p_h H$ is the log of imputed rent, and $\ln(Y)$ is the log of household income. The elasticity associated with household income is the term e_y .

³⁴The description here draws from the approach outlined in Grootaert and Dubois (1988).

Appendix E – Descriptive Statistics

Table (10) provides descriptive statistics about the distribution of mahallas in Uzbekistan at the time of the baseline survey in 2018.

Table 10: Distribution of Mahallas and Population in Rural and Urban Areas of Uzbekistan in 2018 (At Baseline)

Province	Total Mahallas	Urban	%	Village/Rural	%	Population
Karakalpakstan	412	163	39.56	249	60.44	1,873,629
Andijan	876	383	43.72	493	56.28	3,010,957
Bukhara	540	205	37.96	335	62.04	1,874,534
Jizzakh	287	138	48.08	149	51.92	1,329,838
Kashkadarya	726	329	45.32	397	54.68	3,130,222
Navoi	304	136	44.74	168	55.26	989,509
Namangan	770	416	54.03	354	45.97	2,651,005
Samarkand	1089	405	37.19	684	62.81	3,747,573
Syrdarya	222	94	42.34	128	57.66	817,071
Surkhandarya	712	238	33.43	474	66.57	2,516,636
Tashkent	998	440	44.09	558	55.91	2,881,180
Fergana	993	453	45.62	540	54.38	3,522,087
Khorezm	499	171	34.27	328	65.73	1,818,182
City of Tashkent	505	505	100.00	.	0.00	2,476,280
National	8933	4076	45.63	4857	54.37	32,638,703

Source: Uzbekistan State Statistic Committee and the National Mahalla Committee. Note that the reported figures are based on administrative data, in the absence of a national population census, and use different definitions of rural/urban from the standard previously applied in the Soviet period.

The definition of “rural” and “urban,” as well as the boundaries of Tashkent, have not remained fixed over the relevant period. According to UNFPA, from 2005 to 2009, a list of rural communities with at least 2,000 residents was compiled reclassified as urban settlements. On March 13, 2009, the Cabinet of Ministers adopted Resolution No. 68 “On Additional Measures to Improve the Administrative and Territorial Structure of Communities in the Republic of Uzbekistan,” which granted 965 rural settlements – with a total population of 4.4 million people – the status of urban settlements. Official records indicate that there were 15,364 mahallas in 2009, but that by 2018 these had been consolidated to a total of 8,933. The number of urban mahallas fell slightly from 4268 to 4130, while for rural areas it declined by much more (from 11,096 to 4,803). Tashkent city was one of the few places that added mahallas over this time, going from 474 to 505.

Table 11: Official Population Estimates by region and year, in 100,000s

	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19
National	244.9	248.1	251.2	254.3	257.1	260.2	263.1	266.6	270.7	275.3	280.0	291.2	295.6	299.9	304.9	310.2	315.8	321.2	326.6	332.6
Karakal.	15.0	15.3	15.4	15.5	15.6	15.7	15.7	15.8	16.0	16.2	16.3	16.8	16.9	17.1	17.4	17.6	17.9	18.2	18.4	18.7
Andijan	21.9	22.2	22.5	22.8	23.1	23.4	23.8	24.1	24.5	25.0	25.5	26.7	27.1	27.6	28.1	28.6	29.1	29.6	30.1	30.7
Bukhara	14.2	14.4	14.6	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.8	17.1	17.3	17.6	17.9	18.2	18.4	18.7	18.9
Jizzakh	9.7	9.9	10.1	10.2	10.3	10.4	10.5	10.6	10.8	11.0	11.2	11.7	11.9	12.1	12.3	12.5	12.8	13.0	13.3	13.5
Kashk.	21.7	22.1	22.5	22.9	23.4	23.8	24.2	24.6	25.1	25.6	26.2	27.2	27.8	28.3	29.0	29.6	30.3	30.9	31.5	32.1
Navoi	7.8	7.9	8.0	8.0	8.0	8.1	8.1	8.2	8.3	8.4	8.5	8.7	8.8	8.9	9.0	9.1	9.3	9.4	9.6	9.8
Namangan	19.2	19.5	19.8	20.1	20.4	20.7	21.0	21.3	21.7	22.2	22.6	23.8	24.2	24.6	25.0	25.5	26.0	26.5	27.0	27.5
Samarkand	26.7	27.1	27.5	27.9	28.3	28.7	29.1	29.6	30.0	30.6	31.2	32.7	33.3	33.8	34.5	35.1	35.8	36.5	37.2	38.0
Surkh.	17.4	17.7	18.0	18.3	18.6	18.9	19.3	19.6	19.9	20.3	20.8	21.8	22.2	22.6	23.1	23.6	24.1	24.6	25.1	25.7
Syrdarya	6.4	6.5	6.6	6.6	6.7	6.7	6.8	6.8	6.9	7.0	7.1	7.3	7.4	7.5	7.6	7.8	7.9	8.0	8.2	8.3
Tashkent	23.5	23.7	23.9	24.1	24.3	24.5	24.7	24.9	25.2	25.5	25.9	26.4	26.7	27.0	27.3	27.6	27.9	28.3	28.6	29.0
Fergana	26.6	27.0	27.3	27.7	28.0	28.4	28.8	29.2	29.7	30.2	30.7	32.3	32.8	33.3	33.9	34.4	35.1	35.6	36.2	36.8
Khorezm	13.2	13.5	13.7	13.9	14.1	14.3	14.5	14.8	15.0	15.3	15.6	16.0	16.3	16.5	16.8	17.2	17.5	17.8	18.1	18.4
Tashkent city	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.6	21.8	22.1	22.3	23.0	23.1	23.4	23.5	23.7	23.9	24.2	24.6	25.1

Source: Uzbekistan State Statistic Committee. Note that the reported figures are based on administrative data, in the absence of a national population census

Table (12) provides descriptive statistics from the administrative records digitized in the L2CU PSUs.

Table 12: Descriptive Statistics of Random Sample of 200 Surveyed Mahallas

	Total	Urban	Not Urban	Min	Max
Mahalla Population	4381	5318	4106	653	17767
Mahalla Number of Families	1150	1628	1010	148	4749
Private Houses	684	586	713	0	3219
Multi-Story Family Houses	6	20	2	0	104
Apartments (in Buildings)	210	812	31	0	2965
Registered Citizens	4005	4509	3852	32	17767
Registered but Non-Resident	132	240	98	0	5791
Permanent Registration in Tashkent	31	114	5	0	932
Temporary Registration in Tashkent	26	82	9	0	1500
Resident without Registration	40	145	6	0	1238
Resident Foreign/Stateless Citizens	9	21	6	0	123
Residents Currently Traveling	122	145	115	0	638
Empty Dwelling with Owner	6	14	4	0	156
Empty Dwelling without Owner	0	1	0	0	23
Rental Homes	22	90	1	0	1250
Illegal Rental Homes	8	33	1	0	1000
Residents in Rental Housing	53	206	4	0	1810
Labor Migrants Abroad	120	137	115	1	554

Notes: The figures in the table provide average values weighted by population by mahalla, the smallest administrative unit in Uzbekistan. Author's Calculations.

Survey descriptive statistics from the baseline and from the first wave of the panel survey are included in table (13).

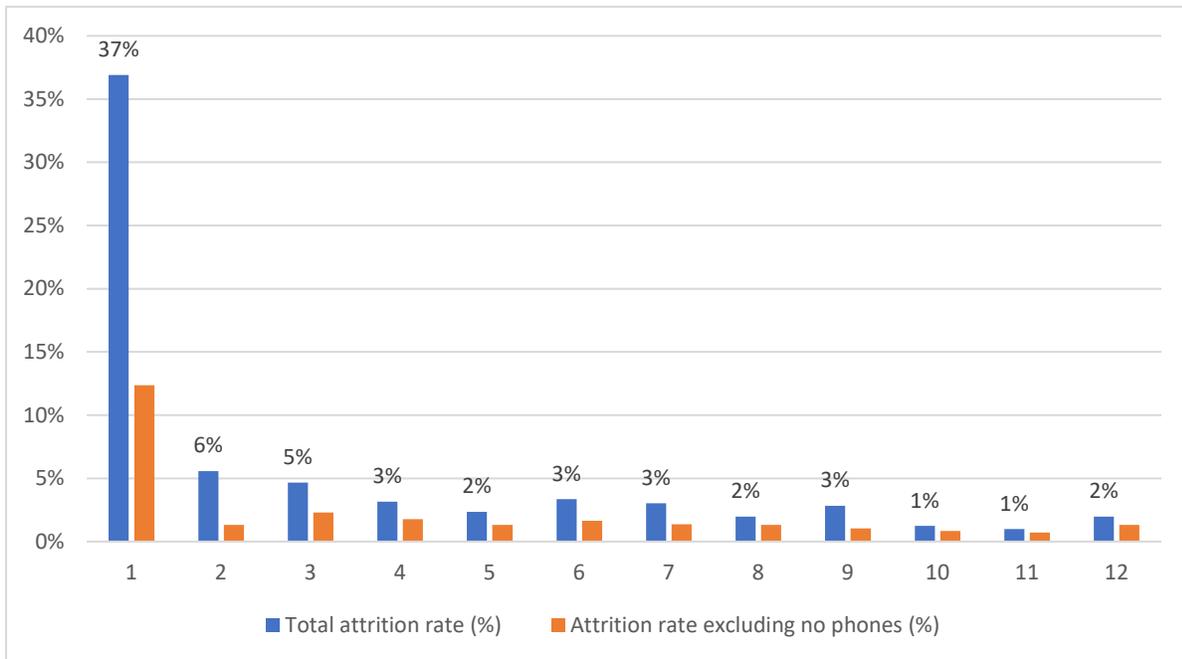
Table 13: Survey Sample and Descriptive Statistics

	Baseline	Share of Sample	Avg. Cons Per Capita	Med. Cons. Per Capita	Panel	Share of Sample
	<i>N</i>	<i>%</i>	<i>1000s Som</i>	<i>1000s Som</i>	<i>N</i>	<i>%</i>
Andijon	304	7.6%	3395.5	2396.8	1,402	7.7%
Buxoro	361	9.0%	4568.9	3511.2	1,572	8.6%
Fargona	360	9.0%	4325.8	3354.8	1,619	8.9%
Jizzax	162	4.0%	5108.5	4384.3	708	3.9%
Namangan	320	8.0%	4694.1	3569.8	1,470	8.1%
Navoiy	201	5.0%	4584.7	3428.8	924	5.1%
Qaraqalpaqstan	440	11.0%	3145.2	2681.2	1,973	10.8%
Qashqadaryo	384	9.6%	4966.9	3851.3	1,771	9.7%
Samarqand	321	8.0%	4139.8	3096.3	1,440	7.9%
Sirdaryo	100	2.5%	3398.1	2811.6	456	2.5%
Surxondaryo	203	5.1%	3642.5	2877.4	899	4.9%
Toshkent	300	7.5%	4835.3	3958.3	1,342	7.4%
Toshkent_city	281	7.0%	5918.0	5045.5	1,368	7.5%
Xorazm	280	7.0%	4056.2	3091.5	1,280	7.0%
Total	4,017	100.0%	4373.8	3396.9	18,224	100.0%

Appendix F – Reweighting and Attrition

Attrition is a crucial aspect to consider in any panel survey. Attrition introduces a bias in survey estimates if respondents who choose to withdraw from the survey are systematically different from the other ones that remain in the survey in the subsequent rounds (Fitzgerald et al. 1998). This issue is particularly relevant in high frequency phone panel surveys because of the large number of times that respondents are asked to undertake an interview.

Figure 16: Initial Refusal (First Round) and Panel Attrition



Note: the total participation rate of randomly selected households was approximately 75 percent in the first round. However, initially selected replacements also occasionally refused, leading to a total refusal rate of 37% of attempted interviews in the first round.

In the L2CU survey, attrition rates (or nonresponse rates) tend to be low and stable across rounds, ranging from 1 and 6 percent (Figure 16). The households that stop participating are replaced after each round from the same neighborhood as the household that left the sample. As attrition might be selective in terms of observable households' characteristics, a set of probit models is estimate for the probability of attrition in comparison to the baseline characteristics of the sample frame. This indicates whether some variables predict attrition and to use the predicted likelihood of a given household dropping out to reweight the households that remain in the survey. The results show that for L2CU there are some differences in participation rates by location (Tashkent City has higher than average attrition, Ferghana and Qaraqalpaqstan lower than average). Attrition is also slightly (but significantly) more likely for households with higher total consumption per capita (as well as food consumption per capita).

Table 14: Probit Regression on Refusal to Participate

Refused = 1	Coef.	Std. Err.	P>z	[95% Conf. Interval]	
Household Cons.	0.000	0.000	0.001	0.000	0.000
Household Size	-0.068	0.007	0.000	-0.082	-0.054
Food Consumption	0.000	0.000	0.459	0.000	0.000
Ferghana Region	-0.221	0.061	0.000	-0.340	-0.101
Qaraqalpaqstan	-0.339	0.060	0.000	-0.457	-0.221
City of Tashkent	0.533	0.053	0.000	0.430	0.636
Urban	0.102	0.040	0.012	0.023	0.181
Constant	-1.253	0.055	0.000	-1.360	-1.146

To verify that the reweighting scheme is successful and preserve the representativeness of the sample, the approach tests the difference in means between each round and the sample frame of 3,000 households (baseline) using the estimated probability of attrition to reweight the households in each round. If attrition and replacement are not well accounted for through reweighting, one would expect statistically significant differences from one round to another, as well as in comparison to the baseline. However, table (15) clearly shows that most of the differences are indeed absorbed.

Table 15: Reweighted Descriptive Statistics for the Last Round in Comparison to Baseline

	Respondents (Last Round)			Baseline		
	mean	variance	skewness	mean	variance	skewness
ln(Houshold Cons.)	15.45	31.46	17.83	15.45	31.33	19.30
Household Size	5.28	4.70	1.04	5.28	4.68	1.03
ln(Food Cons.)	14.58	28.29	8.64	14.58	27.98	2.04
Ferghana Region	0.09	0.08	2.88	0.09	0.08	2.88
Qaraqalpaqstan	0.11	0.09	2.58	0.11	0.09	2.58
City of Tashkent	0.08	0.07	3.10	0.08	0.07	3.10
Urban	0.23	0.18	1.25	0.23	0.18	1.25

An additional method of testing the robustness of the results is to compare the weighted and unweighted results to assess the sensitive of the results to the weighting strategy. Figure 17 clearly demonstrates that the effect of weighting the results is trivial. Thus, the core observations of the paper with respect to the popularity of ending propiska limits (the primary application of the monthly panel in this application) is not affected by attrition in a material way.

Figure 17: Support for Removing Propiska Limitations, Comparison of Weighted vs. Unweighted Results



Appendix G – Policies and Announcements on Propiska Issued in 2017-2019

Policies, announcements and operational documents issued in 2017-2019, related to permanent or temporary registration in Uzbekistan (propiska) and in Particular Tashkent city and region.

Date /No.	Name of document	Summary of document
<p>Resolution of the Cabinet of Ministers No.527 of 19.07.2017</p> <p>Also,</p> <p>Order of the Minister of Justice No.2090-15 of 22.08.2017</p>		<p>Resolution of the Cabinet of Ministers No.527 of 19.07.2017 introduced a condition for sale of real estate in the capital to citizens of Uzbekistan that do not have permanent registration (propiska) in Tashkent, foreigners and persons without citizenship.</p> <p>Main condition for purchase is type and value of the real estate.</p> <p>Citizens of Uzbekistan that does not have permanent registration in Tashkent city or region can purchase real estate in new building in Tashkent city or region and obtain permanent propiska. The property should not cost less than 2500 national minimum wages (approximately 150 000 USD). The purchase should be conducted via bank transfers. State registration fee for notarial certificate of the purchase is 5 %. In the case of purchase of the real estate in the new building in Tashkent city or region, the person is granted permanent registration.</p> <p>Persons who acquired the permanent registration based on this law can register the following members of family at the purchased property in the capital: husband, wife and their children and mutual minor children or children from previous marriages or adopted children.</p> <p>Link: https://www.norma.uz/novoe_v_zakonodatelstve/kupil_kvartiru_v_novostroyke - dadut tashkentskuyu propisku</p> <p>https://www.norma.uz/novoe_v_zakonodatelstve/jile_v_tashkente_smogut_kupit_inogorodhie_i_inostrancy</p> <p>https://www.norma.uz/novoe_v_zakonodatelstve/k_ipoteke_v_novostroyke_tashkentskaya_propiska_prilagaetsya</p> <p>https://uz.sputniknews.ru/Uzbekistan/20190418/11271735/GUVD-Uzbekistana-obyasnili-pravila-propiski-v-novostroykakh.html</p>
<p>25.10.2018</p>		<p>New resolution lifts restrictions on the amount of purchase of the real estate in the new building in the capital for citizens of Uzbekistan residing in other regions. The amount of purchase can be as low as 1 000 000 UZS, i.e. there is no price limitation.</p> <p>The cost of real estate in new buildings for foreigners or stateless persons residing in other regions of Uzbekistan should not be less than 3300 national minimum wages. However, the law still prohibits purchasing the real estate on the secondary market without permanent registration.</p> <p>Link:</p> <p>https://uz.sputniknews.ru/society/20181025/9797010/Propiska-v-Tashkente-za-odin-sum-ili-Kak-stat-stolichnym-zhitelem.html</p>

<p>Resolution of the Cabinet of Ministers No.413 of 22.06. 2017</p>	<p>“On making amendments to the Regulation to the state – owned housing stock”</p>	<p>Citizens having registration and residing in dormitories that acquired status of the house in Tashkent city or region based on the resolution issued before the Law “On the list of persons – citizens of Uzbekistan considered for the permanent registration in the Tashkent city and region” and have right to privatize this real estate.</p> <p>The privatization was due to 1.07.2018. The owners of these housing have right to acquire permanent registration in Tashkent city or Tashkent region.</p> <p>Link: https://www.norma.uz/novoe_v_zakonodatelstve/s_orderom_na_byvshee_obshejtie_dadut_tashkentskuyu_propisku</p>
<p>11.07.2017 Presidential Decree No 3126</p>	<p>“On measures to fundamentally improve the activities of internal affairs bodies in the field of migration and citizenship registration”.</p>	<p>The decree introduces electronic state services and applications of citizen’s on issues related to passport system in non – personal form of interaction. Department for electronic data system was established at the Main directorate for Migration and Citizenship Registration under the Ministry of Internal Affairs.</p> <p>Link: https://www.norma.uz/novoe_v_zakonodatelstve/poluchit_pasport_i_oformit_vizu_stanet_proshche</p>
<p>05.10.2017</p>	<p>“Resolution of the Cabinet of Ministers No 769 “On measures to further improve qualification of health personnel”</p>	<p>According to the resolution the students who received state scholarships to pursuer their education at medical faculty at the universities upon completion of their studies should be required to work at the rural outpatient units or rural (urban) family health centers. They are further required to work according to the place of their permanent residence.</p> <p>Link: https://www.norma.uz/novoe_v_zakonodatelstve/medikov_raspredelyat_po_propiske_v_selskuyu_mestnost</p>
<p>Resolution of the Cabinet of Ministries No. 1001 of 20.12.2017</p>	<p>“On making additions or changes to some decisions of the Government of the Republic of Uzbekistan (Presidents Resolution of 14</p>	<p>Resolution of the Cabinet of Ministries No. 1001 of 20.12.2017 foresees the simplification of the order to obtain permanent or temporary registration in Tashkent city and Tashkent region</p> <p>Mahalla Committee and sub-district police officer should provide certificate that spouses that do not have common children resided together not less than one year.</p> <p>Earlier, foreign spouse or spouse from different region of Uzbekistan in Tashkent city or Tashkent region and was required to obtain this certificate and submit along with other documents to the department of entry/exit and citizenship. This was requirement to obtain propiska by spouse that did not have propiska in Tashkent city or region.</p>

	March 2017 No. PR – 2833 “On measures to further improvement of the system of combating crime”	<p>Certificate of civil marriage and dates in the passport will be enough to confirm if spouses resided together not less than 1 year. There is no need to submit notarized copies of documents as before.</p> <p>However the requirement that spouses should reside together no less than one year in order to obtain permanent registration in Tashkent city and region is still in power. Tashkent propiska is terminated immediately in case if spouses divorce within one year after one of the spouses received it.</p> <p>Link: https://www.norma.uz/novoe_v_zakonodatelstve/postoyannaya_propiska_supruga_v_g_tashkente_-_bez_spravki_mahalli_i_inspektora_profilaktiki</p>
13.02.2018 Addition to the Cabinet of Ministers Resolution of 16.02.2012	“Law on permanent propiska regulation and accounting at the place of stay of citizens of the Republic of Uzbekistan in Tashkent city and Tashkent region”	<p>According to the p.14 of the “law on permanent propiska regulation and accounting at the place of stay of citizens of the Republic of Uzbekistan in Tashkent city and Tashkent region” the documents for temporary registration should be submitted within 5 days upon arrival. It is proposed to require temporary registration of citizens in Tashkent city and Tashkent region if their stay exceeds 10 days. Temporary registration should be provided to citizen for the duration of their stay for the period of 10 days – 1 year.</p> <p>Seasonal workers (construction, agriculture etc) do not require to be registered at the place of stay upon arrival. It is proposed to record them in a separate book by a police officer (inspector profilaktiki). The police officer will stamp a registration in the labor contract of the worker. The worker is required to present contract and passport as well as its copy. Seasonal workers can obtain their temporary registration without rent agreement.</p> <p>https://www.norma.uz/proekty_npa/poryadok_vremennoy_propiski_predlagaetsya_maksimalno_uprostit</p>
5 April 2017, Resolution of the Cabinet of Ministries No - 179	On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees	<p>On making a change or amendments to the list of public authorities, economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region.</p> <p>Pursuant to Presidential decree of the Republic of Uzbekistan No – 4951 of 8 February 2017 the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 60 to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“No 60. Institute of Strategic and Interregional Research under the President of Republic of Uzbekistan”.</p> <p>Link: https://www.norma.uz/qonunchilikda_yangi_yana_bitta_tashkilot_hodimlarini_poytahtda_propiska_qilishi_mumkin</p>
11 October 2017	On making amendment to the list of the state authorities and institutions	<p>Pursuant to Presidential decree of the Republic of Uzbekistan No PD – 3138 of 18 July 2017 the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 61 to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p>

Resolution of the Cabinet of Ministries No 26 813	that are allowed to apply for permanent registration of their employees	<p>“No 61. Youth Union of Uzbekistan”.</p> <p>Link: http://www.lex.uz/docs/3375730</p>
2 June 2018 Resolution of the Cabinet of Ministries No – 419	“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”	<p>Pursuant to Presidential decree of the Republic of Uzbekistan No PD – 5041 “On establishment of state committee of forestry of the Republic of Uzbekistan ” of 11 May 2017 the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 36 (3) to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“No. 36 (3) State Committee of forestry of the Republic of Uzbekistan”.</p> <p>Link: http://www.lex.uz/docs/3763147</p>
23.01.2018		<p>Ban on employment of persons without permanent or temporary was lifted by the President’s decree of the 22 of January 2018. The decree also adopts the state program for implementation of the action strategy on five priority development areas 2017- 2021 in the year of active entrepreneurship, innovation and technologies (2018).</p> <p>This law will allow citizens to work in any region they want, especially in Tashkent city and Tashkent region. Qualified employees can work in the capital despite permanent or temporary propiska or accounting at the place of state. The employer will not be fined in case if he/she recruits citizen without temporary or permanent propiska or accounting at the place of stay.</p> <p>Additionally, according to state program 2018, it is planned to allow residents without permanent Tashkent propiska to purchase real estate in the secondary market. It is also intended to extend the duration of stay without the requirement to obtain temporary registration in regions of Uzbekistan. State program consists of 231 paragraphs. 37 laws should be adopted according to the document.</p> <p>Links: https://www.gazeta.uz/ru/2018/01/22/propiska/ http://uza.uz/ru/documents/o-gosudarstvennoy-programme-po-realizatsii-strategii-deystvi-23-01-2018</p>
18 July 2018 Resolution of the Cabinet of Ministries No – 552	“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent	<p>Pursuant to Presidential decree of the Republic of Uzbekistan No Decree of President – 5198 “On measures for improvement of management of preschool education system” of 30 September 2017 and the Presidents Decision – 3305 “On measures for improvement of management of early childhood education system” of 30 September 2017, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 19 to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p>

	registration of their employees”	<p>“No. 19 Ministry of Pre-school education”.</p> <p>Link: http://www.lex.uz/docs/3828805</p>
26 October 2018 Resolution of the Cabinet of Ministries No – 871	“On making amendment to the list of the hokimat institutions, state authorities and institutions that are allowed to apply for permanent registration of their employees”	<p>Pursuant to Presidential decree of the Republic of Uzbekistan No Decree of President – 5067 “On measures for improvement of management of preschool education system” of 1 June 2017 “On measures to improve management of State Veterinary Service of Uzbekistan”, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 36(4) to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“No. 36(4) State Veterinary Committee of the Republic of Uzbekistan”.</p> <p>Link: http://www.lex.uz/docs/4023923</p>
November 01, 2018 Resolution of the Cabinet of Ministries No – 900	“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”	<p>Pursuant to Presidential decree of the Republic of Uzbekistan Decree of President No– 2909 “On measures for further development of higher education” of 20 April 2017”, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 46 (1) to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“46(1) State inspection for education quality control under the Cabinet of Ministries”</p> <p>Link: http://www.lex.uz/docs/4033947</p>
22.10.2018 Annex 1 to the Resolution of the Cabinet of Ministries No 845 of 22.10.2018	Provision “On the Order of permanent and temporary registration of citizens of the Republic of Uzbekistan”.	<ol style="list-style-type: none"> 1. The provisions identify the process of obtaining permanent and temporary registration in the regions of Uzbekistan and Republic of Karakalpakstan. The regulation to obtain permanent or temporary registration in Tashkent city or Tashkent region is regulated by other laws. 2. Citizens are obliged to register in the place of permanent residence and/or register in the place of (temporary) residence. The absence of propiska at their place of temporary stay cannot be a ground for refusing in provision of services to these citizens. Citizens have to apply within 5 days upon arrival to the new place of residence for permanent or temporary registration. Permanent or temporary registration of persons below 16 y.o. is voluntary. 3. Internal affairs agencies are in charge of permanent and temporary registration of citizens. The agencies should certify temporary or permanent residence in order to ensure public safety, combat crime and manage migration. Citizens can apply for permanent registration through electronic system, which simplifies procedures of the public service delivery.

		Link: http://www.lex.uz/acts/4015759
25.10.2018	“On making amendments and changes to some legislative acts in the Republic of Uzbekistan” proposed by the Ministry of Justice in cooperation with other relevant ministries and state agencies	<p>There are many legislative acts that limit rights of citizens of Uzbekistan who do not have permanent registration (propiska) in Tashkent city or Tashkent region. These limitations are related to residence and employment in the abovementioned territories. Citizens and juridical persons are fined for violation of these laws.</p> <p>The new law will guarantee constitutional rights of citizens to freedom of employment, freedom of movement and other rights related to passport, education and employment. The parliamentarians have considered and adopted the law. This is the first stage of the process. The law should be adopted by Senate and President, and published in mass media.</p> <p>Link: https://www.norma.uz/nashi_obzori/zakon_o_trudoustroystve_bez_propiski_utverdili_1_zakonoproekt_otklonen_esheche_2_nujno_dorabotat</p>
10.01.2019		<p>Labor Code and Code of Administrative Liability had recently been amended. According to these change the employer will not be liable for recruitment of the worker without propiska.</p> <p>Article 223 – 2 KoAO (of the Code of Administrative Liability) has expired. According to this article employers who recruited the employees without permanent or temporary propiska could be fined with an amount equal to 15 times minimum wage.</p> <p>Besides absence of permanent or temporary propiska or accounting at the place of stay is no longer adequate justification for refusing to hire the worker. Corresponding amendments were introduced to article 80 of the Labor Code.</p> <p>Links: http://xs.uz/uzkr/post/ozbekiston-respublikasining-ajrim-qonun-huzhhatlariga-zhamoat-tartibini-taminlash-mekhanizmlarini-takomillashtirishga-qaratilgan-ozgartish-va-qoshimchalar-kiritish-togrisida https://www.norma.uz/novoe_v_zakonodatelstve/na_rabotu_-_bez_propiski</p>
11.06.2019		“Yuksalish” movement presented the results of public opinion survey and provided their recommendations to simplify the procedures of temporary and permanent registration in Tashkent city and region. According to paragraph 56 of the State program on implementation of an action strategy for the year of private entrepreneurship and innovative technologies these measures were intended to be implemented before the 1 of April 2018.

	<p>In pursuance of this paragraph the Cabinet of Ministries issued a resolution no 845 of 22.10.2018. It states that accounting of the citizen at the place of stay in Tashkent city and Tashkent region can be allowed to the period of 5 days till 1 year without discharge from the permanent place of residence.</p> <p>The registration of citizens from other regions who would like to be engaged in seasonal work (construction, agriculture and other) in Tashkent region and Tashkent is simplified.</p> <p>According to the resolution citizens who do not have a permanent propiska in Tashkent city and Tashkent region can purchase property (house or apartment) only in new buildings through bank transactions. At the same time these buyers (who do not have permanent registration in Tashkent city and region) have to pay a state fee equal to 5% of the amount of the agreement but not less than 10 minimum wages (2 027 300 UZS). The same tax for residents of Tashkent city and region who have permanent propiska is 202 700 UZS.</p> <p>Administrative responsibility for recruitment of citizens without permanent or temporary registration in Tashkent city and Tashkent region as well as regulation justifying employers to refuse in employment in case if the candidate does not have permanent or temporary registration is abolished.</p> <p>Despite these changes the issue related to purchase of housing at the secondary market by persons without permanent or temporary registration is not solved. This leads dissatisfaction of citizens.</p> <p>Through its telegram channel called “Jamoatchilik Fikri” or “Public Opinion”, “Yuksalish” movement conducted a survey on issues of permanent propiska in Tashkent and Tashkent region from June 3 – 11 2019. Around 17 600 citizens took part in the survey and almost half of them, i.e. 49%, responded that regulation related to permanent propiska in Tashkent city and Tashkent region contradicts constitutional rights of the citizens.</p> <p>The findings of the survey show that implementation of this paragraph of the State programme that was approved by the President is crucial. If the paragraph had been implemented timely and in full it would not have become a reason of dissatisfaction of citizens. It would contribute to the profile and prestige of Uzbekistan worldwide, increase rapid urbanization in the country, social development and hider brain drain.</p> <p>Taking into consideration all these factors, “Yuksalish” proposes the following:</p> <ul style="list-style-type: none"> • To replace the system of permanent registration in Tashkent city and Tashkent region by system of accounting at the place of stay. The procedure should be simplified and completed through state services centers or Single interactive state services portal; • To recognize the right of ownership of the citizens who do not have permanent or temporary registration in Tashkent city and Tashkent region not only in the primary real estate market but also in the secondary market (it is also offered to additionally include agreements such as presenting the immovable property).
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<p>January 11, 2019 Resolution of the Cabinet of Ministries No - 21</p>	<p>“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”</p>	<p>Pursuant to Presidential decree of the Republic of Uzbekistan Presidential Resolution No– 3751 “On additional measures to improve the efficiency of mechanized services and services to agricultural producers” of 29 May 2019, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 63 (1) to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“63(1). Joint Stock company “Uzagroservice””</p> <p>Link: http://www.lex.uz/docs/4155640</p>
<p>January 28, 2019 Resolution of the Cabinet of Ministries No – 62</p>	<p>“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”</p>	<p>Pursuant to Presidential decree of the Republic of Uzbekistan Presidential Resolution No– 2640 “On measures to improve plant protection and agrochemical services” of 24 October 2016 and Presidential Resolution of 30 August 2017 No 3249 “On state inspection on quarantine of plants” under the Cabinet of Ministries of Uzbekistan”, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 63(1) to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“No. 65 State inspection on quarantine of plants under the Cabinet of Ministries”</p> <p>“No.66 Stock Company “Uzagrokimehimoya””</p> <p>Link: http://www.lex.uz/docs/4182069</p>
<p>March 05, 2019 Resolution of the Cabinet of Ministries No - 191</p>	<p>“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”</p>	<p>In order to create an enabling environment and attract highly skilled experts from other regions of the country to work in the State Testing Center under the Cabinet of Ministries of the Republic of Uzbekistan, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 67 to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region, approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“67. State Testing Center under the Cabinet of Ministries of the Republic of Uzbekistan”</p> <p>Link: http://www.lex.uz/docs/4228642</p>

<p>March 26, 2019 Resolution of the Cabinet of Ministries No - 249</p>	<p>“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”</p>	<p>Pursuant to Presidential decree of the Republic of Uzbekistan Presidential Resolution No– 4056 “On improving the activities of the National Human Rights Centre of the Republic of Uzbekistan” of 10 December 2018, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 69 to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“69. National Centre for Human Rights of the Republic of Uzbekistan”</p> <p>Link: http://www.lex.uz/docs/4254419</p>
<p>June 8, 2019 Resolution of the Cabinet of Ministries No - 475</p>	<p>“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”</p>	<p>Pursuant to Presidential Resolution of the Republic of Uzbekistan No– 5700 “On measures to strengthen the role of makhalla institute in dealing with the problems of residents” of 2 April 2019, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 70 to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“70. Republican Council for Coordination of Citizen’s Self-Government Bodies”</p> <p>Link: http://www.lex.uz/docs/4369871</p>
<p>June 12, 2019</p>		<p>According to the head of the main Department of Migration, Mr. Badriddin Shorihsiev, during the visit of other regions residents of Tashkent city and Tashkent region do not have to obtain temporary registration at place of their temporary registration.</p> <p>According to the article 223 of the Administrative Liability Code (violation of the passport system laws) residing without passport and/or propiska is punishable by the fine of up to 5 times the minimum wage. This regulation is applicable only to residents of other regions of Uzbekistan who reside in Tashkent city or Tashkent region. If they reside in Tashkent city of Tashkent region more than 5 days, they have to apply for temporary registration.</p> <p>Only Tashkent has a status of a special region and has this issue. In other regions one does not have to register at the place of stay. “Yuksalish” movement proposed to replace Tashkent “propiska” with simple registration.</p> <p>Link: https://www.gazeta.uz/ru/2019/06/12/registration/</p>
<p>July 22, 2019</p>	<p>“On making amendment to the list of the state authorities</p>	<p>Pursuant to Presidential Resolution of the Republic of Uzbekistan No– 5087 “On measures for improvement of the system of state protection of legal interests of business and further development of entrepreneurial activities” of 19 June April 2017 and Presidential Order No – 3068 “On</p>

<p>Resolution of the Cabinet of Ministries No - 618</p>	<p>and institutions that are allowed to apply for permanent registration of their employees”</p>	<p>improving the activity of the Chamber of Commerce and Industries of the Republic of Uzbekistan” of 19 June 2017, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 61(1) to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“61(1). Chamber of Commerce and Industries of the Republic of Uzbekistan”</p> <p>Link: http://www.lex.uz/docs/4434432</p>
<p>August 16, 2019 Resolution of the Cabinet of Ministries No - 675</p>	<p>“On making amendment to the list of the state authorities and institutions that are allowed to apply for permanent registration of their employees”</p>	<p>Pursuant to Presidential Resolution of the Republic of Uzbekistan No– 4307 “On additional measures for increasing the efficiency of spiritual and educational work” of 3 May 2019, the Cabinet of Ministries decides:</p> <p>To make an addition by paragraph No 61(2) to the list of the of public authorities, state and economic management bodies, other public institutions of republican significance, whose senior officials may apply for provision of permanent registration for their employees in Tashkent city and Tashkent region approved under the decision of the Cabinet of Ministries No 336 of 7 October 2016:</p> <p>“61(2). Centre of Spirituality and Enlightenment”</p> <p>Link: http://www.lex.uz/docs/4476612</p>
<p>July 2019 Public opinion survey of kun.uz related to propiska legislation</p>		<p>Kun.uz through their channel in telegram conducted a survey of around 4 000 respondents. Respondents were asked to provide their opinion if its time to abolish the system of propiska in Tashkent city and region. 69 % of respondents are against propiska. Majority (31%) consider that propiska hinders the development of the country. For instance it is very hard to open business in Tashkent if a person does not have Tashkent propiska. 26% of respondents indicated that propiska is violation of human rights and freedom. 12 % of respondents are convinced that propiska became a business as a citizen of Uzbekistan that does not have Tashkent propiska by simply purchasing a house/apartment in new building in Tashkent.</p> <p>Link: https://repost.uz/che-tam-po-hatam</p>