SPENT AT HOME, INVISIBLE IN THE DATA? REMITTANCE DEPENDENCE AND REGIONAL SECTORAL GROWTH IN UZBEKISTAN

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Abstract. *Foreign remittances supply up to a third of population income in some regions of Uzbekistan, and a common view holds that they finance household consumption without transforming local economies. This article tests whether that pattern is visible in official data for the country's 14 territorial units over 2018–2025. Two-way fixed-effects panel models with small-sample inference relate remittance dependence to real regional output growth and six sectoral indicators. Higher dependence is not followed by detectably different growth, nor by faster expansion of services, housing and construction relative to industry; trade services, if anything, grew more slowly. The shift towards services since 2010 is common to all regions, suggesting that any consumption bias linked to remittances operates nationally rather than regionally.*

Keywords: *remittances, labour migration, regional development, structural change, panel data, Uzbekistan.*

Аннотация. *Денежные переводы из-за рубежа обеспечивают до трети совокупных доходов населения в ряде регионов Узбекистана; принято считать, что они финансируют потребление домохозяйств, не меняя структуру местной экономики. В статье проверяется, отражается ли эта закономерность в официальных данных по 14 территориальным единицам страны за 2018–2025 годы. С помощью панельных моделей с двусторонними фиксированными эффектами и методов статистического вывода для малых выборок оценивается связь зависимости от переводов с ростом валового регионального продукта и шестью отраслевыми показателями. Более высокая зависимость не сопровождается статистически различимыми изменениями роста и не ведёт к опережающему развитию услуг, жилищного строительства и строительства по сравнению с промышленностью; рост торговых услуг, напротив, был ниже. Сдвиг в сторону услуг после 2010 года характерен для всех регионов, что указывает на национальный, а не региональный характер возможного потребительского эффекта переводов.*

Ключевые слова: *денежные переводы, трудовая миграция, региональное развитие, структурные изменения, панельные данные, Узбекистан.*

Annotatsiya. *Xorijdan kelayotgan pul o'tkazmalari O'zbekistonning ayrim hududlarida aholi jami daromadlarining uchdan biri va undan ko'prog'ini tashkil qiladi. Keng tarqalgan qarashlarga ko'ra, bu mablag'lar uy xo'jaliklarining iste'molini moliyalashtirsada, mahalliy iqtisodiyot tarkibini o'zgartirmaydi. Maqolada ushbu holat 2018–2025-yillar uchun mamlakatning 14 ta hududiy birligi bo'yicha rasmiy ma'lumotlarda namoyon bo'lish-bo'lmasligi tekshiriladi. Ikki tomonlama qat'iy effektli panel modellar va kichik tanlanmalar uchun mo'ljallangan statistik baholash usullari yordamida pul o'tkazmalariga bog'liqlik darajasi yalpi hududiy mahsulot o'sishi hamda oltita*

tarmoq ko‘rsatkichi bilan taqqoslanadi. Unga ko’ra, bog‘liqlikning yuqoriligi o‘sishdagi sezilarli farqlarga ham, xizmatlar, uy-joy va qurilishning sanoatga nisbatan jadal rivojlanishiga ham olib kelmagan; savdo xizmatlari esa, aksincha, sekinroq o‘sgan. 2010-yildan buyon xizmatlar tomon siljish barcha hududlarga xos bo‘lib, pul o‘tkazmalarining iste’molga ta’siri hududiy emas, balki makro darajada namoyon bo‘lishini ko‘rsatadi.

Kalit so‘zlar: *pul o‘tkazmalari, mehnat migratsiyasi, hududiy rivojlanish, tarkibiy o‘zgarishlar, panel ma’lumotlar, O‘zbekiston.*

Introduction

Labour migration is one of the defining features of Uzbekistan’s economy. About 1.2 million citizens work abroad [1], and recorded remittance inflows rose from about USD 8.1 billion in 2021 to roughly USD 17 billion in 2022 [2], standing at about USD 14.9 billion in 2024, three-quarters of it from Russia [3]. The flows are distributed very unevenly. In 2025 foreign transfers accounted for 32.5% of population income in Fergana, 31.1% in Khorezm and 30.0% in Andijan, but only 6.2% in Tashkent region and 5.3% in Navoi (Figure 1) [4]. The average monthly transfer per worker abroad ranges from about USD 1,850 in Fergana to below USD 400 in some other regions [5].

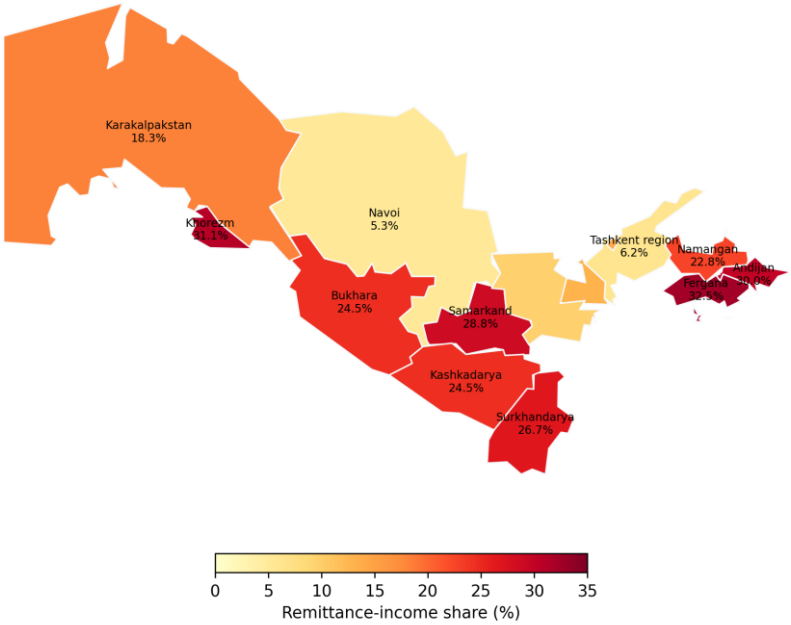

Figure 1. Foreign remittances as a share of total population income by region, 2025, %

Source: author’s elaboration based on Uzbekistan National Statistics Agency data [4]

A widely held view is that this money is spent at home on consumption, housing and family ceremonies, producing *prosperity without transformation*: households become better off while local production stands still. If so, more dependent regions should show faster growth in services, housing and construction and no comparable gains in industry or business formation. This article tests whether that regional signature exists, using official data for all 14 territorial units of Uzbekistan in 2018–2025.

Literature review

The international literature agrees that remittances raise household welfare but disagrees about their aggregate effects. Chami, Fullenkamp and Jahjah [6] treat remittances as compensatory transfers and find a negative association with growth across countries. Acosta, Lartey and Mandelman [7]

show that inflows can shift demand towards non-traded goods and draw labour away from traded sectors, a mechanism similar to Dutch disease. Giuliano and Ruiz-Arranz [8] find that remittances support growth mainly where financial systems are weak. Clemens and McKenzie [9] argue that aggregate studies often detect nothing because of measurement problems, low statistical power and the loss of migrants' labour, so an insignificant coefficient should not be read as proof of no effect.

Evidence from Uzbekistan supports parts of the consumption narrative and contradicts others. Remittance-receiving households spend smaller budget shares on food and health and larger shares on non-food goods [10], but a smaller share on weddings than non-recipients [11]. Remittances support household businesses mainly when combined with other savings or income [12]. Whether these household patterns add up to distinct regional economies has not been tested; this is the gap addressed here.

Research methodology

The exposure variable is the annual share of foreign transfers in total regional population income for 2018–2025, taken from the Statistics Agency's income releases [4]; 107 of 112 region-year values are available. The outcomes, drawn from the SIAT statistical system [13], are real GRP growth and six sectoral indicators: growth of market services and of trade services, residential floor area completed per 1,000 people, construction per person, growth of industrial output per person and the number of new small businesses. The baseline model is:

$$Y_{rt} = \beta R_{r,t-1} + \alpha_r + \gamma_t + \varepsilon_{rt}, \qquad (1)$$

where Y is the outcome in region r and year t, R is the previous year's remittance share, and α and γ are region and year fixed effects. The model compares each region with itself over time, net of changes common to the whole country. Standard errors are clustered by region, 95% confidence intervals use $t(13)$ critical values, and p-values are confirmed with a wild cluster bootstrap using Webb weights and 9,999 replications [14]. Results are expressed for a region whose remittance share is five percentage points higher. The estimates are associations, not causal effects.

Analysis and results

Table 1 summarises the estimates. For aggregate output the coefficient is −0.024: a region with a five-point higher share grew 0.12 percentage points more slowly, with a 95% interval from −1.07 to +0.83 points. The data therefore *show no detectable association*, although effects of about one point in either direction cannot be excluded. The result holds even when Tashkent city is excluded and when remittances are measured per person.

Table 1

Remittance dependence and regional outcomes (two-way fixed effects, lagged share)

Outcome	β (SE)	95% CI	Wild p	+5 pp share
Real GRP growth, pp	−0.024 (0.088)	[−0.215; 0.166]	0.777	−0.12 pp
Market services growth, pp	−0.108 (0.201)	[−0.542; 0.326]	0.584	−0.54 pp
Trade services growth, pp	−0.767 (0.366)	[−1.557; 0.024]	0.010	−3.83 pp
New housing per 1,000 people, log	0.033 (0.031)	[−0.034; 0.100]	0.265	+16%

Outcome	β (SE)	95% CI	Wild p	+5 pp share
Construction per person, log	−0.003 (0.011)	[−0.027; 0.022]	0.838	−1%
Industrial output growth per person, pp	0.025 (0.355)	[−0.741; 0.792]	0.945	+0.13 pp
New small businesses, log	0.006 (0.012)	[−0.020; 0.033]	0.607	+3%

Note: 14 region clusters; N = 93 (79 for housing, construction and industry, which end in 2024).
Source: author's estimates based on [4, 13].

None of the sectoral outcomes behaves as the consumption narrative predicts. Market services growth and construction per person are slightly lower in more dependent regions; housing completions are 16% higher, but with an interval from −17% to +50%. Industrial growth and business formation show no association. The difference between services and industrial growth does not widen with dependence (−0.92 points; interval −5.94 to +4.11). Trade services show the only clear pattern, and it runs the other way: growth was 3.8 points slower where dependence was five points higher, although three unusual region-years in Samarkand and Surkhandarya drive much of this result.

A longer view confirms the picture. Between 2010 and 2025 market services grew several times faster than industrial output per person in every region, *yet the size of this gap is unrelated to remittance dependence* (rank correlation −0.02). Khorezm and Namangan, both highly dependent, more than tripled their industrial output per person.

CONCLUSION AND RECOMMENDATIONS

The regional data *do not show the signature of prosperity without transformation*. More dependent regions did not grow differently, did not tilt further towards services, housing or construction, and did not fall behind in industry or business formation. Two explanations remain open: remittance-financed demand may travel *through imports and markets concentrated in Tashkent*, so that money spent at home in household budgets is realised as output elsewhere; or local effects may exist but be *too small to detect* in a panel of 14 units. In either case, any consumption bias associated with remittances operates at the national rather than the regional level. Three practical recommendations follow.

First, the effects of expanding organised labour migration should be assessed against national indicators, such as investment, the real exchange rate and the sectoral structure of the economy, rather than by presuming that dependent regions are falling behind or will be transformed by larger inflows. ***Second,*** because remittance-financed demand appears to diffuse through national markets, policy should strengthen the channels that turn household savings into productive investment, including deposit and microcredit instruments for migrant families [8]. **Third,** the National Statistics Agency and the Central Bank should publish annual regional series of transfer volumes by sending country and regional GRP by sector, which would allow destination-specific shocks and structural change to be tested directly.

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