

## THE IMPACT OF MONETARY POLICY ON UZBEKISTAN'S TEXTILE AND GARMENT EXPORTS: EVIDENCE FROM 2017–2025 WITH GLOBAL COTTON-PRICE CONTROL

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**Annotatsiya.** Mazkur maqolada O'zbekistonning to'qimachilik va tikuv-trikotaj sanoati eksportiga pul-kredit sharoitlarining ta'siri global paxta narxlari dinamikasini nazorat qilgan holda baholanadi. Tadqiqot 2017–2025 yillardagi choraklik ma'lumotlarga tayangan bo'lib, eksport natijalari jahon paxta narxlari va pul-kredit atributlari (valyuta kursi, inflyatsiya, Markaziy bank asosiy stavkasi, tarmoqqa yo'naltirilgan kredit) bilan bog'liq ko'p omilli ekonometrik model orqali tahlil qilinadi.

Natijalar global paxta narxlari eksport o'zgarishlarining eng barqaror tushuntiruvchisi ekanini ko'rsatadi: asosiy modelda paxta narxi elastikligi 0,67 atrofida bo'lib, turli spetsifikatsiyalarda saqlanib qoladi. Ichki ko'rsatkichlar bo'yicha valyuta kursi va inflyatsiya bilan bog'liqlik selektiv hamda spetsifikatsiyaga sezgir: bazaviy regressiyada valyuta kursi ijobiy, inflyatsiya esa manfiy va statistik ahamiyatli; lagli modelda esa ta'sirlar asosan kechikkan shaklda kuzatiladi va aniqligi pasayadi.

Xulosalar O'zbekiston Respublikasi Prezidentining 2025-yil 16-yanvardagi PF-6-sonli Farmoni doirasidagi eksport maqsadlariga erishishda pul-kredit siyosatini to'g'ridan-to'g'ri drayver' emas, balki barqarorlik va bashorat qilinuvchanlikni kuchaytiruvchi omil sifatida talqin qilish zarurligini asoslaydi.

**Kalit so'zlar:** pul-kredit siyosati; to'qimachilik va tikuv-trikotaj eksporti; valyuta kursi; inflyatsiya; kredit; jahon paxta narxlari; O'zbekiston.

**Аннотация.** В статье оценивается связь между денежно-кредитными условиями и экспортом текстильной и швейно-трикотажной продукции Узбекистана с явным контролем мировых цен на хлопок. Эмпирическая база охватывает квартальные данные за 2017–2025 гг.; применяется многомерная регрессионная модель, в которой экспорт рассматривается как функция глобальной цены хлопка и набора денежно-кредитных атрибутов (обменный курс, инфляция, ключевая ставка, кредитование предприятий отрасли).

Полученные результаты показывают, что мировая цена хлопка является наиболее устойчивым фактором: в базовой спецификации эластичность близка к 0,67 и сохраняется при проверках устойчивости. Для внутренних показателей выявлена избирательная и чувствительная к спецификации картина: обменный курс (положительно) и инфляция (отрицательно) значимы в базовой модели, однако при включении лагов значимость снижается и эффекты проявляются главным образом с задержкой. Ключевая ставка не демонстрирует самостоятельной связи с экспортом.

Практический вывод состоит в том, что денежно-кредитная политика в рассматриваемом периоде скорее поддерживает устойчивость и предсказуемость условий для экспортеров, чем выступает основным инструментом достижения целевого роста экспорта.

**Ключевые слова:** денежно-кредитная политика; экспорт текстиля; обменный курс; инфляция; кредит; мировые цены на хлопок; Узбекистан.

**Abstract.** *This article examines whether and through which monetary-policy-related attributes monetary conditions are associated with Uzbekistan's textile and garment export outcomes once global cotton prices are explicitly controlled for. The empirical design uses quarterly data for 2017–2025 and estimates a multivariate log-linear framework linking exports to global cotton prices and candidate domestic monetary attributes (exchange rate, inflation, policy rate, and sector credit).*

*The results show that global cotton prices are the most robust driver in the reported models: the baseline elasticity is about 0.675 and remains positive and highly significant across specifications. Domestic indicators display selective and specification-sensitive evidence.*

*In the baseline regression, the exchange rate is positive and statistically significant, while inflation is negative and significant; however, when lagged dynamics are introduced, contemporaneous terms lose precision and the pattern shifts toward delayed effects with weaker statistical strength. The policy rate does not exhibit an independent association in the baseline and is not retained in the reported lag specification.*

*The findings imply that, within the 2017–2025 sample, monetary policy should be interpreted primarily as a contributor to stability and predictability for exporters rather than as a direct lever for delivering the PD-6 export target in a commodity-exposed sector.*

**Keywords:** *monetary policy; textile and garment exports; exchange rate; inflation; credit; global cotton prices; Uzbekistan.*

## Introduction

Uzbekistan's textile and garment industry is a major export-oriented sector and a key link between agricultural raw materials (especially cotton) and higher value-added industrial production. This structure supports value-chain development and employment, but it also exposes the sector to external price cycles, particularly global cotton price dynamics. In this policy context, Presidential Decree PD-6 (16 January 2025) sets a strategic target to increase annual exports of textile and sewing/knitwear products to USD 7 billion by 2027.

A persistent applied-policy challenge is that discussions often refer to “monetary policy support” for exports without clearly distinguishing which monetary attributes matter for the sector and whether such relationships remain visible once global cotton prices are controlled for.

Because cotton-price movements can dominate export variation, failing to control for them risks overstating or understating domestic policy relevance.

Conceptual channels and research gap. In open and commodity-exposed economies, monetary policy can affect export outcomes through several candidate channels. Exchange-rate movements can influence price competitiveness and margins, while inflation conditions shape cost pressures and planning horizons. Credit conditions can affect working capital and capacity utilization. At the same time, external commodity prices can dominate export revenues and sectoral performance, potentially masking domestic relationships if not controlled for.

The sector-focused gap is that much of the post-2020 transmission literature emphasizes aggregate inflation and output, whereas policy discussions in Uzbekistan also require evidence on how monetary conditions relate to strategic export-oriented sectors under explicit commodity-price exposure.

This article addresses that gap in a disciplined way by testing multiple monetary attributes without presuming a single dominant mechanism and by treating global cotton prices as the central external control.

**Methods**

Data and variables. The dataset is quarterly (2017 Q1–2025 Q4; 36 observations).

The dependent variable is textile and garment exports measured in U.S. dollars and transformed to natural logarithms (LN\_EXPORT). Global cotton prices (LN\_COTTON) proxy the external price environment. Candidate monetary attributes include the UZS/USD exchange rate (LN\_EXCHANGE), the Central Bank policy rate (Policy Rate), inflation (Inflation), and credit to textile companies (LN\_CREDIT). Currency-valued variables enter in logarithms; the policy rate and inflation enter in percentage points.

Table 1. Variables and measurement (2017–2025).

Model variable	Indicator	Unit	Transformation	Role
LN_EXPORT	Textile & garment exports	thousand USD	ln()	Dependent
LN_COTTON	Global cotton price	USD	ln()	External control
LN_EXCHANGE	UZS/USD exchange rate	UZS per USD	ln()	Monetary attribute
Policy Rate	CBU key policy rate	%	level	Monetary attribute
LN_CREDIT	Credit to textile companies	million USD	ln()	Monetary attribute
Inflation	Inflation indicator	%	level	Monetary condition

Econometric specification. The baseline model is estimated by ordinary least squares in log-linear form. Exports are regressed on global cotton prices and the domestic monetary attributes. A lag-augmented specification is used as a robustness check for timing effects by adding one-quarter lags for selected variables. In the reported lag specification, the policy rate is not included; therefore, robustness for the policy-rate channel is limited to the baseline output.

**Results**

Descriptive patterns. Exports increased substantially across the sample, rising from 226.142 thousand USD in 2017 Q1 to a peak of 946.607 thousand USD in 2022 Q2, and then easing to 601.237 thousand USD in 2025 Q4. The exchange rate rose from 3,364.701 UZS/USD (2017 Q1) to 12,947.095 (2025 Q1) and declined to 12,028.102 by 2025 Q4. The policy rate peaked at 17.0% in 2022 Q2, while inflation declined from 19.9% (2018 Q1) to 7.53% (2025 Q4). Credit to textile companies expanded from 0.613 million USD (2017 Q1) to 409.536 million USD (2025 Q4). Global cotton prices ranged between 0.573 USD (minimum in 2020 Q2) and 1.391 USD (maximum in 2022 Q2).

Table 2. Descriptive statistics (2017–2025, N=36).

Variable	N	Mean	Std. Dev.	Min	Max
LN_EXPORT	36	6.248748	0.428613	5.421163	6.852884
LN_EXCH	36	9.179440	0.311319	8.121094	9.468627
Policy Rate	36	14.263889	1.596810	9.000000	17.000000
LN_CREDIT	36	3.492542	1.780906	-0.489820	6.015026

Inflation	36	12.184167	3.008354	7.530000	19.900000
LN_COTTON	36	-0.245321	0.194552	-0.557636	0.330353

Correlation structure. Pairwise correlations suggest strong co-movement between exports and the exchange rate ( $r = 0.8096$ ) and a negative association between exports and inflation ( $r = -0.6899$ ). Exports are also positively correlated with cotton prices ( $r = 0.5549$ ) and with sector credit ( $r = 0.5148$ ), while the policy rate exhibits weak correlation with exports ( $r = 0.1987$ ). Domestic regressors co-move (e.g., exchange rate with credit  $r = 0.6490$ ; credit with inflation  $r = -0.6807$ ), which can reduce coefficient precision in multivariate regressions.

Table 3. Correlation matrix (2017–2025). Abbreviations: EXP=exports; EXR=exchange rate; PR=policy rate; CR=credit; INF=inflation; COT=cotton price.

	EXP	EXR	PR	CR	INF	COT
EXP	1.000000	0.809623	0.198663	0.514767	-0.689901	0.554934
EXR	0.809623	1.000000	0.357470	0.648996	-0.584342	0.115156
PR	0.198663	0.357470	1.000000	-0.039083	0.280853	0.131638
CR	0.514767	0.648996	-0.039083	1.000000	-0.680681	-0.033280
INF	-0.689901	-0.584342	0.280853	-0.680681	1.000000	-0.154689
COT	0.554934	0.115156	0.131638	-0.033280	-0.154689	1.000000

Baseline regression. The baseline regression is estimated on 35 observations and shows strong in-sample explanatory power ( $R^2 = 0.9247$ ; adjusted  $R^2 = 0.9117$ ), with an overall F-statistic of 71.249 (Significance  $F = 2.17 \times 10^{-15}$ ). Cotton prices are positive and highly significant. Among domestic attributes, the exchange rate is positive and significant, inflation is negative and significant, credit is positive but borderline, and the policy rate is not significant.

Table 4. Baseline regression coefficients (dependent variable: LN\_EXPORT; N=35).

Regressor	Coefficient ( $\beta$ )	p-value	95% CI
LN_EXCHANGE	0.620923	0.004982	[0.203115; 1.038731]
Policy Rate	-0.002468	0.903789	[-0.043857; 0.038922]
LN_CREDIT	0.073059	0.057914	[-0.002617; 0.148734]
Inflation	-0.032072	0.021581	[-0.059079; -0.005065]
LN_COTTON	0.674604	0.00000155	[0.445036; 0.904173]

Robustness: lag-augmented specification. A lag-augmented specification provides a robustness check for timing effects. Overall fit remains comparable ( $R^2 = 0.9286$ ; adjusted  $R^2 = 0.9094$ ;  $N = 34$ ). Cotton prices remain positive and highly significant ( $\beta = 0.641628$ ;  $p = 0.000004$ ). In contrast, domestic channels become timing-sensitive: the contemporaneous exchange rate and inflation terms lose precision, while their lagged terms retain the expected direction but are borderline (exchange-rate lag  $p \approx 0.1046$ ; inflation lag  $p \approx 0.1092$ ). Credit effects are unstable and not significant. The policy rate is not included in the reported lag output.

Table 5. Channel evidence summary across specifications.

Channel	Baseline evidence	Lag model evidence	Cautious conclusion
Exchange rate	Positive, significant ( $p=0.004982$ )	Current not significant; lag positive, borderline ( $p \approx 0.1046$ )	Plausible but timing-sensitive

Policy rate	Not significant ( $p=0.903789$ )	Not included	No support in reported models
Credit	Positive, borderline ( $p=0.057914$ )	Unstable; not significant	No robust support
Inflation	Negative, significant ( $p=0.021581$ )	Current $\sim 0$ ; lag negative, borderline ( $p \approx 0.1092$ )	Plausible but specification-sensitive
Cotton price	Positive, highly significant ( $p \approx 1.55e-06$ )	Positive, highly significant ( $p \approx 4.3e-06$ )	Robust external driver

**Discussion**

The reported evidence supports a clear hierarchy of drivers. Global cotton prices are consistently informative and remain robust across specifications. Interpreting the coefficient as an elasticity, a 1% increase in global cotton prices is associated with roughly a 0.67% increase in textile and garment exports in the baseline model.

This stability is economically intuitive for a value chain where cotton prices affect revenues, costs, and external demand conditions.

Domestic monetary attributes show selective evidence rather than uniform effects.

The exchange rate and inflation are statistically distinguishable in the baseline model, but robustness outputs indicate that timing matters and that co-movement among domestic regressors reduces precision once lagged terms are introduced. This suggests that exporters may adjust with delays through contracts, pricing, and working-capital cycles, and that separating independent channel effects in a small sample is difficult.

Policy implications. For policy discussions around the PD-6 export ambition, the results highlight that external price conditions are a first-order constraint in a cotton-exposed sector.

Monetary policy is therefore more credibly interpreted as supporting export resilience by improving stability and predictability rather than as a standalone lever for export expansion.

Practically, the most defensible implication is to prioritize an environment that limits inflation volatility and avoids excessive exchange-rate uncertainty, because these attributes are the domestic conditions most consistently aligned with export outcomes in the baseline evidence. Stable conditions reduce planning risk, support contract execution, and improve working-capital management.

The absence of independent evidence for a policy-rate channel in the reported models suggests that communication and transmission quality may matter more than the policy rate alone when the sector is strongly influenced by global cotton prices.

Limitations and interpretation boundaries. Several limitations constrain inference.

First, the sample is short (36 quarters), which restricts model complexity and statistical power. Second, the regressions should be interpreted as conditional associations rather than causal estimates, because sectoral exports also depend on external demand, logistics, industrial policy, and firm-level productivity that are not modelled explicitly.

Third, the available results emphasize baseline and lag-augmented comparisons but do not provide a full suite of residual diagnostics and time-series corrections, which limits stronger causal claims.

Fourth, domestic regressors show meaningful correlation structure, which can inflate standard errors and make individual coefficients sensitive to specification choices.

**Conclusion**

Using quarterly data for 2017–2025, this article assessed whether monetary-policy-related attributes are associated with Uzbekistan’s textile and garment export outcomes once global cotton prices are controlled for. The main result is that global cotton prices are the most robust driver in the reported models. Domestic indicators provide selective, specification-sensitive evidence: the exchange rate and inflation are significant in the baseline but weaken when lagged dynamics are introduced; the policy rate shows no independent association in the baseline; and the credit channel is not robust. Therefore, within the sample and specifications, monetary policy is best interpreted as supporting stability and predictability for exporters rather than acting as the primary lever for delivering the PD-6 export target in a commodity-exposed sector.

Future research directions. Future research can strengthen inference by extending the sample beyond 2025 to test whether the identified patterns remain stable as the PD-6 horizon approaches. Within the same framework, richer diagnostics (e.g., systematic residual tests and more formal treatment of autocorrelation/heteroskedasticity) would clarify whether standard errors materially affect channel interpretation. Additional work can also compare alternative lag lengths and explore more disaggregated export outcomes within the textile and garment sector where data availability allows.

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