

The Impact of Pharmaceutical Pricing Policies on Health Expenditures in Turkey: Analysis for the Period 2015–2024

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INTRODUCTION

Pharmaceutical pricing policies in Turkey were restructured after 2003, in conjunction with the Health Transformation Program, to ensure the sustainability of the healthcare budget. These policies include International Reference Pricing, a fixed Euro conversion rate (DEC), global budget limitations, and margin regulations. However, these policies have complex impacts on manufacturer profitability, drug availability, and access to innovative treatments in the pharmaceutical sector. Pharmaceutical expenditures in Turkey are sensitive to Euro FX due to import dependence and reference pricing.

OBJECTIVE

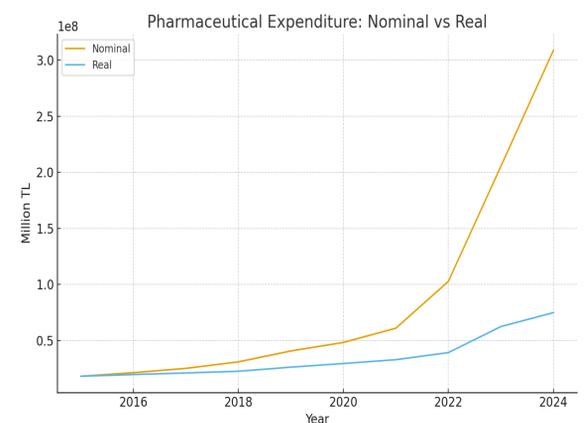
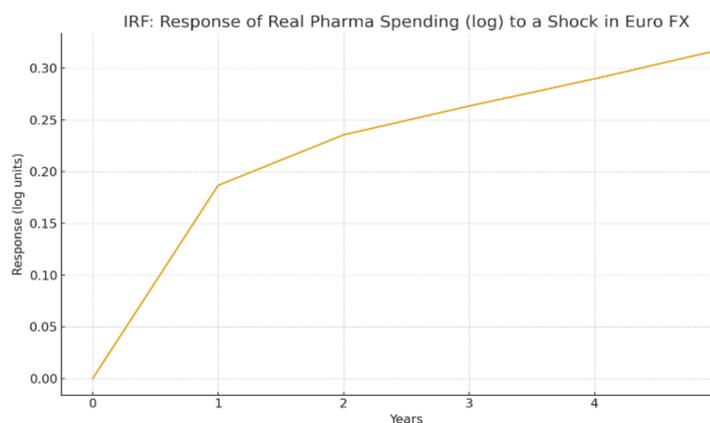
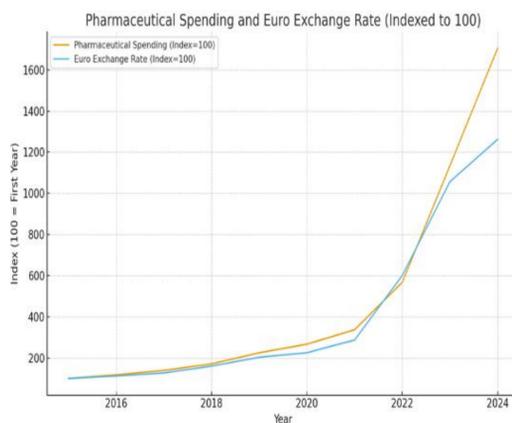
The purpose of this research is to investigate how pharmaceutical spending is affected by the pricing policies that have been put in place in Turkey from 2015 to 2024. The primary policy change points were identified, and their effects on spending trends were assessed, through time series analyses of annual nominal and CPI-adjusted real pharmaceutical expenditures, pharmaceutical ratios in total healthcare expenditures, and correlation with the reference Euro exchange rate. Analyze the 2015–2024 relationship between FX and pharmaceutical spending using nominal and CPI-adjusted real values.

METHOD

The study analyzed nominal and real pharmaceutical expenditure series for the 2015–2024 period using data from TurkStat, SGK, OECD, IQVIA, and the Central Bank of the Republic of Turkey (CBRT). The pharmaceutical expenditure was calculated, and correlation analysis was conducted with the Periodic Euro Value (DAD).

RESULTS

The nominal correlation between pharmaceutical spending and the Euro exchange rate was found to be quite strong at $r \approx 0.98$. The real correlation between pharmaceutical spending and the Euro exchange rate, adjusted using TurkStat inflation data (adjusted with the Consumer Price Index), was also found to be very strong at $r \approx 0.89$. On the other hand, VAR(1): Shocks in the Euro exchange rate increase real pharmaceutical spending with a lag of approximately 1 year. According to Granger causality analysis, the FX → Expenditure direction was found to be statistically significant ($p < 0.05$).



CONCLUSION

The findings indicate that exchange rate fluctuations have structural and persistent effects on pharmaceutical budgets. Dependence on imported intermediate inputs and finished goods strengthens exchange rate pass-through. The pricing/reimbursement literature indicates that tools such as external reference pricing (ERP), differentiated pricing, and value-based reimbursement (VBR) can play a critical role in managing spending growth. The impact of exchange rate shocks on spending in real terms in Turkey suggests a fiscal burden that cannot be explained solely by general inflation. Therefore, exchange rate risk management, domestication/import substitution, and value-based payment mechanisms should be considered together.

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