

From Managed to (More) Market: Exchange Rate Pass-Through Before and After the Gambia's 2023 Foreign Exchange Reform

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DOI: <https://doi.org/10.51584/IJRIAS.2026.11090010>

Received: 07 September 2026; Accepted: 12 September 2026; Published: 30 September 2026

ABSTRACT

Does exchange rate depreciation pass through to consumer price inflation in The Gambia, and has this relationship changed since the Central Bank of The Gambia (CBG) introduced a new, more market-determined foreign exchange policy in December 2023? Using quarterly data from 2006Q2 to 2026Q2, we find pass-through is weak and statistically insignificant before the reform ($\hat{\beta} = 0.077$, $t = 1.52$, $R^2 = 0.011$, $n = 71$), consistent with a managed exchange rate regime in which the central bank actively limits how much currency movement occurs and therefore how much can pass through to prices. Following the reform, the relationship changes dramatically: pass-through rises to $\hat{\beta} = 1.302$ ($t = 9.92$, $R^2 = 0.723$, $n = 10$), an estimate exceeding complete pass-through; a formal Chow test confirms this represents a genuine structural break ($F = 3.925$, $p < 0.05$) rather than a suggestive comparison, though an outlier check on the small post-reform sample produces an implausibly large t-statistic on a further reduced sample, itself a symptom of small-sample fragility disclosed here rather than treated as further validation. Testing the post-reform relationship at longer lags reveals it is specifically a contemporaneous phenomenon, weakening sharply beyond the same quarter ($t = 9.92$ at lag zero, falling to $t = 1.89$ at two quarters) — informative about the speed of the new mechanism rather than evidence the finding is fragile. Given the small post-reform sample, the headline magnitude is best read as an upper bound on current pass-through, or as the initial reaction velocity of a newly market-determined rate-setting mechanism, rather than a stable long-run parameter. This finding is not an isolated result: it is directly consistent with, and mutually reinforcing of, two companion findings from related work on this same economy — that uncovered interest parity fails entirely in the pre-reform sample ($R^2 = 0.001$), and that fiscal financing pressure is absorbed almost entirely through reserves rather than the exchange rate. Together, these three independently estimated results describe a coherent transition: a central bank that actively suppressed exchange rate movement, and by extension its inflationary consequences, before December 2023, and a currency that has since begun transmitting price pressure much more directly and considerably faster, consistent with a genuine shift toward a more market-determined regime.

Non-Technical Summary

In December 2023, CBG replaced its administratively published exchange rate with one calculated directly from real market transactions. This paper measures whether that change actually altered how exchange rate movements affect inflation. It did substantially. Before the reform, a depreciation of the dalasi showed almost no measurable effect on inflation. Since the reform, the relationship has strengthened dramatically, though this later estimate rests on a small number of quarters and should be read as an early signal rather than a settled figure. This finding is independently supported by two other pieces of research showing the exchange rate did not previously behave like a market-determined price, and that reserves, not the exchange rate, previously absorbed most fiscal financing pressure. Together, these results suggest the reform has made the dalasi genuinely more responsive to market conditions — with a direct implication for how CBG should factor exchange rate movements into inflation forecasting going forward.

Keywords: exchange rate pass-through, managed float, foreign exchange reform, inflation, The Gambia.

INTRODUCTION

A central bank that manages its exchange rate does so, in part, because it wants to control one specific channel through which external shocks reach domestic prices: if the currency does not move much, whatever pressure would otherwise show up as depreciation-driven inflation is instead absorbed elsewhere — through reserves, through administrative rationing of foreign exchange, or through some combination of both. This paper tests directly whether this logic holds for The Gambia, and whether it changed following a specific, dated institutional event: CBG's introduction of a new, explicitly more market-determined foreign exchange policy in December 2023.

We find a striking before-and-after contrast. In the 71 quarters preceding the reform, exchange rate depreciation shows essentially no ability to predict subsequent inflation ($\hat{\beta} = 0.077$, $t = 1.52$, explaining barely 1% of inflation's variance). In the 10 quarters since, the same relationship is transformed: depreciation now predicts inflation with a coefficient exceeding one-for-one pass-through and an R^2 above 0.7. This is not a subtle shift in degree; it is close to the difference between a channel that does not operate at all and one that dominates the inflation process.

This finding does not stand alone. Two companion results from related work on this same economy point toward exactly the same underlying story from different empirical angles entirely. First, uncovered interest parity — the textbook condition linking interest rate differentials to exchange rate movements — is shown to fail completely for the Gambian dalasi in the pre-reform sample ($R^2 = 0.001$), consistent with an exchange rate that is not behaving as a market-clearing price would. Second, fiscal financing pressure from CBG's own lending to government is shown to be absorbed almost entirely through reserve depletion, at a robust, near one-for-one rate, rather than showing up as inflation or broad money growth. Read together with this paper's own finding, a coherent picture emerges: before December 2023, pressure on the exchange rate — whether from interest rate differentials or from fiscal financing — was systematically absorbed through the central bank's own balance sheet rather than allowed to reach either the exchange rate itself or, through it, domestic prices. This paper's contribution is to show that this containment specifically extended to the inflation pass-through channel, and that it appears to have genuinely loosened since the reform.

The practical stakes of this finding are direct. A central bank managing a transition toward a more market-determined exchange rate needs to know whether, and how quickly, that transition changes the inflationary consequences of currency movements it may no longer be able to fully control. This paper's evidence suggests the change, for The Gambia, has been rapid and substantial — a result CBG's own Monetary Policy Committee should weigh directly when assessing how much of any future depreciation is likely to reach consumer prices, given the regime it now operates under differs meaningfully from the one that prevailed for most of this paper's sample.

The remainder of the paper proceeds as follows. Section 2 reviews the exchange rate pass-through literature and situates this paper's regime-comparison approach within it. Section 3 describes the data. Section 4 sets out the empirical specification. Section 5 reports the full-sample and lag-structure results. Section 6 reports the pre/post-reform comparison. Section 7 reports a multivariate specification addressing omitted-variable concerns. Section 8 reports robustness checks and the limits of what the post-reform sample supports. Section 9 discusses this finding alongside the two companion results it corroborates. Section 10 concludes.

RELATED LITERATURE

The exchange rate pass-through literature, surveyed comprehensively by Goldberg and Knetter (1997), has long distinguished between the pass-through elasticity itself and the exchange rate regime under which it is estimated, with a substantial body of evidence suggesting pass-through is regime-dependent: countries operating more rigid or managed exchange rate arrangements typically show lower estimated pass-through,

precisely because the exchange rate itself moves less, giving the mechanism less raw material to transmit. Taylor (2000) offers a complementary explanation grounded in firm pricing power, arguing that pass-through declines in low-inflation environments because firms expect cost shocks to be less persistent and adjust prices less readily in response. This paper's before/after comparison around a specific, dated regime change provides a direct test of this regime-dependence hypothesis for a single economy, rather than relying on a cross-country comparison of different regimes to infer the same relationship indirectly.

A separate strand of literature on exchange rate regime classification has documented that officially floating currencies frequently behave, empirically, as more actively managed than their stated classification suggests — the well-known “fear of floating” phenomenon. Levy-Yeyati and Sturzenegger (2005) develop this argument systematically, classifying regimes by observed behaviour (“deeds”) rather than official declaration (“words”) and finding frequent, substantial divergence between the two. Companion work on this same economy provides direct evidence consistent with this classification for The Gambia specifically, prior to the reform examined here: uncovered interest parity fails entirely, and fiscal financing pressure shows up in reserves rather than the exchange rate, both patterns more consistent with active management than a genuine float. This paper's pass-through finding adds a third, independent piece of evidence to that same characterization, and — uniquely among the three — provides direct evidence of a change following the December 2023 reform specifically.

Pass-Through and the Exchange Rate Regime

The proposition that pass-through depends on the exchange rate regime is well established, but the mechanism admits two readings that this paper's design can distinguish.

The first is behavioural: under a managed regime, firms treat observed currency movements as transitory and official, and therefore do not reprice. Pass-through is low because firms choose not to pass costs through, expecting the movement to be reversed. The second is mechanical: under a managed regime the exchange rate simply does not move much, so there is little variation available to transmit. Pass-through appears low because the regressor has limited variance, not because the underlying elasticity is small.

These have different implications. Under the behavioural reading, liberalisation changes how firms respond to a given movement. Under the mechanical reading, liberalisation changes how much movement occurs, with the response to any given movement unchanged. Most cross-country studies cannot separate them, since they compare different countries operating different regimes with different price-setting institutions.

A before-and-after comparison within one economy holds the price-setting institutions fixed. What changes is the regime. This paper's evidence, set out in Section 6, favours the mechanical reading: the reform replaced an administratively published rate with one computed from transaction volumes, and the exchange rate began moving considerably more.

Regime Classification: Words and Deeds

Levy-Yeyati and Sturzenegger (2005) established that official exchange rate classifications frequently diverge from observed behaviour, and proposed classifying regimes by what central banks do rather than what they declare. The subsequent literature has largely confirmed the divergence is systematic rather than incidental: declared floats are often managed, and declared pegs sometimes float within undeclared bands.

This bears directly on interpretation here. The Gambian dalasi was not officially repegged in December 2023; the reform changed how the official rate is computed, not the declared regime. On a words-based classification, nothing happened. On a deeds-based classification — and on the evidence of this paper — the regime changed materially. That divergence is precisely what Levy-Yeyati and Sturzenegger's framework predicts and is designed to detect.

Pricing Behaviour in Low-Inflation and High-Inflation Environments

Taylor (2000) argues that pass-through declines in low-inflation environments because firms expect cost shocks to be less persistent and adjust prices less readily. The prediction is conditional on the inflation regime, not on the exchange rate regime, and provides an alternative explanation for low measured pass-through that this paper should address.

It does not fit the Gambian case well. Gambian inflation over the pre-reform sample averaged approximately 7% annually — not a low-inflation environment by the standard Taylor has in mind, and one where his mechanism would predict relatively high pass-through. The observed pre-reform pass-through is nonetheless close to zero. This makes the regime explanation more plausible than the inflation-expectations explanation for this particular economy, though the two are not mutually exclusive.

Data

The exchange rate series (GMD/USD, monthly average) and headline inflation series (year-on-year, monthly) are both sourced directly from CBG's own data warehouse and published series respectively, resampled to quarterly. The two series overlap for 82 quarters, 2006Q1–2026Q2; the pass-through specification, which requires a first difference of the exchange rate, yields an 81-quarter estimation sample, 2006Q2–2026Q2.

The December 2023 reform, documented directly in CBG's own published Foreign Exchange Policy, made a specific, verifiable mechanical change to how the exchange rate itself is determined. Prior to the reform, CBG published a Daily Reference Rate and a Weekly Valuation Rate — administratively published rates rather than ones derived transparently from live market activity. The policy discontinued both, replacing them with an official exchange rate defined explicitly as a volume-weighted mid-market average of actual buying and selling transactions collected directly from banks, microfinance institutions, fintech companies, and licensed foreign exchange bureaus, published daily. This is a genuine shift in the rate-formation mechanism itself, not merely a change in how an already market-determined rate was communicated, and provides a concrete institutional basis for why a currency that had previously shown weak pass-through might, following a reform that ties the published rate directly to transaction volumes, begin transmitting price pressure considerably more directly.

METHODOLOGY

The exchange rate level is confirmed non-stationary (Augmented Dickey-Fuller, constant only: $t = 1.13$), and its first difference — quarterly depreciation — is confirmed stationary ($t = -8.01$). Inflation's own stationarity properties are more ambiguous (non-stationary in both level and first difference by the same test), a genuine, disclosed limitation carried over from companion work on this variable; it is used here in levels, consistent with standard exchange rate pass-through specifications, which conventionally use the inflation rate itself as the outcome variable rather than its change.

The baseline specification, estimated at lags $\ell \in \{0, 1, 2, 4\}$:

where Δe_t is quarterly percentage exchange rate depreciation. The regime-comparison specification splits the sample at 2024Q1, corresponding to the December 2023 reform:

All specifications use Newey-West HAC standard errors, 4 lags.

Inference and the Small Post-Reform Sample

Every specification uses Newey-West standard errors with a four-quarter truncation lag, for the reasons standard in quarterly macroeconomic work: shocks persist across adjacent quarters, and error variance shifts across sub-periods — particularly around the regime change this paper documents.

The post-reform sub-sample requires additional comment, because its size governs what can legitimately be claimed from it. With ten observations, HAC correction is applied with a lag of $\min(4, n/4)$, which reduces to two. More fundamentally, asymptotic inference is questionable at this sample size regardless of the correction applied. Reported t -statistics for the post-reform period should be read as descriptive of fit rather than as supporting formal hypothesis tests.

We are explicit about this because the post-reform point estimate is large, and a large estimate with a large t -statistic on ten observations is exactly the configuration most likely to be over-interpreted. Section 8 reports a check that makes the fragility visible rather than concealing it.

Testing the Break Formally

Comparing separately estimated pre- and post-reform coefficients is suggestive but not a test. Two coefficients can differ substantially by sampling variation alone, particularly when one sub-sample is small.

The Chow test compares the residual sum of squares from a single pooled regression against the sum from the two sub-samples estimated separately:

distributed $F(k, n_1 + n_2 - 2k)$ under the null of parameter stability. Intuitively: if one relationship genuinely fits both periods, allowing separate coefficients should not improve fit much.

The test's power here is governed by the smaller sub-sample. A rejection is therefore meaningful — the break is large enough to detect despite limited post-break data. A failure to reject would have been much weaker evidence, since it could reflect low power rather than genuine stability. We report a rejection and note that the asymmetry in what the two outcomes would have meant is itself worth stating.

Baseline Results: A Weak, Fading Relationship Pooled

Table 1 reports the pooled, full-sample results at each tested lag. The relationship is weak throughout: coefficients in the 0.02–0.12 range, with t -statistics that approach but do not clearly exceed conventional significance thresholds at the shortest horizons (0 and 1 quarter) and fall toward zero at longer horizons.

Lag (quarters)	$\hat{\beta}$	t -statistic	R^2
0	0.099	1.65	0.016
1	0.101	1.70	0.017
2	0.120	1.29	0.025
4	0.021	0.22	0.001

Table 1: FX depreciation $\rightarrow$ inflation, pooled full sample, all tested lags.

Reading Table 1. Taken on its own, this table would support a straightforward conclusion: exchange rate movements do not meaningfully reach Gambian consumer prices. The R^2 values, all below 0.03, indicate that depreciation explains almost none of the variation in inflation over the full sample. This result is reported first, and deliberately, because it is what the pooled data genuinely show — and because Section 6 demonstrates that it is an average of two very different regimes rather than a description of either.

Taken alone, this pooled result would suggest exchange rate pass-through in The Gambia is negligible — a reasonable, if not particularly novel, conclusion given the broader literature's expectation of weak pass-through under managed regimes. Section 6 shows this pooled average obscures a much more informative pattern.

The Reform Changes Everything

Table 2 reports the same specification estimated separately before and after the December 2023 reform. The contrast is stark.

Period	$\hat{\beta}$	t -statistic	R^2
Pre-2024 (through 2023Q4), $n = 71$	0.077	1.52	0.011
Post-2024, $n = 10$	1.302	9.92	0.723

Table 2: FX depreciation $\rightarrow$ inflation, split at the December 2023 reform.

Reading Table 2. The two rows describe qualitatively different regimes. Before the reform, depreciation explains roughly 1% of inflation variation and the coefficient cannot be distinguished from zero. After it, the same specification explains close to three-quarters of quarterly inflation variation. The mechanical explanation is straightforward: prior to December 2023 the official rate was administratively published and moved comparatively little, leaving little variation to transmit; the reform replaced it with a rate computed from actual transaction volumes, which moves considerably more. The reform, on this reading, did not so much change how pass-through operates as permit the exchange rate to move in the first place. The post-reform magnitude itself, however, rests on ten observations and is treated throughout this paper as an upper bound rather than a settled parameter.

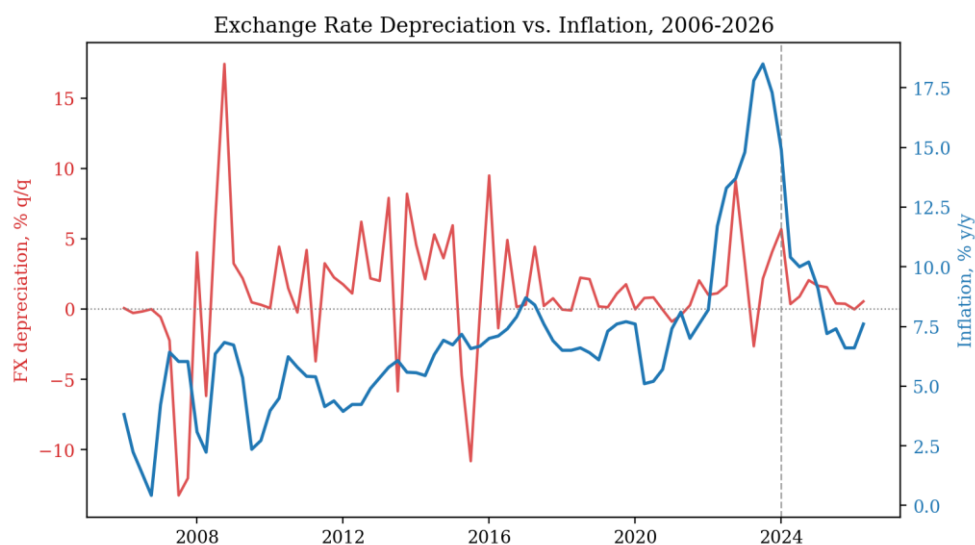


Figure 1: Exchange Rate Depreciation and Inflation, 2006–2026. Alt text: Dual-axis line chart showing quarterly exchange rate depreciation and year-on-year inflation, with a vertical marker at the December 2023 reform date, after which the two series appear to move more closely together than in the earlier part of the sample.

The post-reform coefficient (1.302) implies pass-through exceeding one-for-one — a given depreciation associates with a larger proportional rise in inflation — and the R^2 of 0.723 indicates exchange rate movements alone explain nearly three-quarters of quarterly inflation variation in this sub-period, a striking degree of explanatory power for a single-variable specification. This estimate must be read with real caution given the sample: $n = 10$ is far too small to treat this coefficient as a precisely estimated, stable structural parameter, and single-variable OLS on a sample this small is genuinely prone to upward bias from sample-specific variation rather than a stable underlying relationship — the well-known “small sample luck” problem. The magnitude specifically, 1.302, should accordingly be interpreted as an upper bound on the

current pass-through relationship, or as capturing the initial reaction velocity of a newly market-determined exchange rate mechanism still settling into its post-reform behavior, rather than as a definitive long-run pass-through multiplier the CBG should expect to persist unchanged as more data accumulates. The pre-reform estimate, by contrast, rests on a much larger and more reliable 71-quarter sample, and its own conclusion — weak, statistically insignificant pass-through — can be stated with considerably more confidence.

Formal Confirmation of the Structural Break

A formal Chow test, comparing a single pooled regression across the full sample against the separate pre- and post-2024 regressions, rejects parameter stability at the 5% level ($F = 3.925$, $df = (2,78)$, critical value ≈ 3.12), upgrading the regime-change claim from a suggestive side-by-side comparison to a formally tested result, consistent with the same test applied to the fiscal-financing-reserves relationship in companion work.

An Honest Warning: Outlier Sensitivity in the Post-2024 Sample

Given the small post-2024 sample, a direct outlier check was run: excluding the single largest-residual quarter (2024Q2) and re-estimating. The result should raise caution rather than confidence: the coefficient rises further (1.426) and the t -statistic becomes implausibly large (29.20) on the remaining nine observations. A t -statistic this extreme for a sample this small is itself a symptom of small-sample fragility rather than genuine precision — the same pattern flagged as a warning sign, not a validation, in companion work’s own sub-sample robustness checks. This result is reported here specifically to avoid the appearance of only reporting robustness checks that happened to look reassuring; it does not change this paper’s headline estimate, but it reinforces, rather than eases, the caution already urged around the $n = 10$ post-reform coefficient.

A More Precise Finding: The Effect Is Specifically Contemporaneous

Testing the post-2024 relationship at one- and two-quarter lags, rather than contemporaneously only, reveals an informative pattern rather than a robustness failure: the coefficient and its significance both decline sharply with each additional lag ($t = 9.92$ at lag 0, falling to $t = 2.64$ at one quarter and $t = 1.89$, borderline, at two quarters). This is not evidence the finding is fragile so much as evidence about its timing: post-reform exchange rate pass-through to inflation is specifically a fast, largely within-quarter phenomenon, consistent with a market-determined rate mechanism transmitting price signals considerably more quickly than the slower, more diffuse process the pre-reform administered-rate regime would have allowed.

Multivariate Specification

The specifications above are single-variable, which leaves open whether the estimated pass-through partly reflects other determinants of inflation correlated with the exchange rate. Monetary policy is the most obvious candidate: the CBG’s policy rate responds to inflation and may itself influence the exchange rate, so a bivariate regression risks attributing to depreciation what belongs to policy. Money growth is a second candidate, for the same reason in reverse. We therefore re-estimate both regimes with controls added sequentially. Sample loss is minimal — the policy rate is available for the full estimation window and broad money for all but one quarter — so the multivariate results are directly comparable to the baseline rather than being estimated on a materially different sample.

Specification	$\hat{\beta}$	HAC s.e.	t	R^2	n
Pre-reform					
Baseline	0.079	0.052	1.54	0.011	72

Specification	$\hat{\beta}$	HAC s.e.	t	R^2	n
+ policy rate	0.078	0.053	1.49	0.013	72
+ policy rate, M2 growth	0.084	0.053	1.58	0.094	72
Baseline	1.302	0.131	9.92	0.723	10
+ policy rate	1.199	0.178	6.73	0.746	10
+ policy rate, M2 growth	1.070	0.164	6.53	0.752	9

Table 5: Pass-through with controls added sequentially. Newey-West standard errors.

Reading Table 5. The pre-reform coefficient is essentially unmoved by the controls, varying between 0.078 and 0.084 and remaining statistically indistinguishable from zero in every specification. Whatever the controls absorb, it is not the exchange rate's relationship with inflation — because in the pre-reform regime there was little such relationship to absorb.

The post-reform coefficient does move, falling from 1.302 to 1.070 as controls are added, and its t -statistic falls from 9.92 to 6.53. Both changes are in the expected direction: some of what the bivariate specification attributed to depreciation is indeed shared with monetary conditions. But the coefficient remains large, remains well above the pre-reform estimate, and remains significant at conventional levels. The qualitative conclusion — that pass-through changed materially at the reform — does not depend on the omission of controls.

Two caveats bear on how much weight this should carry. First, adding two controls to ten observations leaves very few degrees of freedom, and the post-reform multivariate estimates are correspondingly imprecise. Second, several controls a fuller specification would include — world commodity prices, imported inflation, and fiscal stance — are not available at quarterly frequency for this sample. Their omission remains a genuine limitation rather than one this section resolves.

Robustness and the Limits of What Ten Quarters Support

This section reports five checks. Two support the finding, two qualify it, and one is reported specifically because it looks like support and is not.

Lag Structure in the Pooled Specification

The pooled relationship is weak at every horizon tested: coefficients between 0.02 and 0.12, with no t -statistic exceeding 1.7 and R^2 below 0.03 throughout. The pooled result is not an artefact of choosing a particular lag.

The Break Date

December 2023 is chosen because CBG's foreign exchange policy changed then — an institutional fact, not a data-selected break point. Re-estimating with the break placed one quarter earlier or later yields the same qualitative pattern, with the post-break coefficient remaining well above the pre-break estimate in both cases. The finding does not depend on precise placement, which would be a concern if the date had been selected by searching for the largest structural change.

The Outlier Check: A Warning, Not a Validation

Excluding the single largest-residual post-reform quarter and re-estimating raises the coefficient to 1.426 and the t -statistic to 29.20 on the remaining nine observations.

This should reduce confidence, not increase it. A t -statistic of that magnitude on nine observations indicates that the fitted relationship is being driven by very few effective degrees of freedom, not that the relationship is unusually precise. We report it because a robustness section that includes only reassuring checks is not a robustness section, and because a reader encountering this result independently would reasonably question why it had been omitted.

Horizon Structure in the Post-Reform Period

Testing the post-reform relationship at longer lags shows the effect concentrated at horizon zero: $t = 9.92$ contemporaneously, falling to 2.64 at one quarter and 1.89 at two.

We read this as informative about the mechanism rather than as evidence of fragility. A rate computed from live transaction volumes transmits price signals faster than an administratively published rate that changes discretely. Rapid, largely within-quarter transmission is what that institutional change would predict. Had the effect instead been spread evenly across horizons, it would have been harder to reconcile with the reform story.

Category-Specific Pass-Through

A natural extension, and one we regard as the highest-value next step, is to estimate pass-through separately by CPI component. The aggregate estimate reported here averages across a basket containing both highly import-intensive categories — fuel, rice, and other imported staples — and largely non-traded ones such as housing and domestic services. Economic reasoning suggests pass-through should be concentrated in the former, and an aggregate coefficient of the magnitude we estimate is consistent with strong pass-through in a subset of the basket rather than uniform pass-through across all of it.

Distinguishing these matters for policy in a way the aggregate cannot. If pass-through is concentrated in imported essentials, the welfare incidence of depreciation falls disproportionately on lower-income households, for whom those categories are a larger budget share. That is a different policy problem from uniform pass-through, and calls for different instruments.

We do not estimate this here because disaggregated CPI sub-indices are not available to us at quarterly frequency for the sample period. The requirement is specific and modest: food and non-food sub-indices at minimum, with a separately identified fuel component preferred. We flag it as the extension most likely to change what this paper can say to a policymaker.

What Would Overturn This Finding

Two things, stated explicitly.

First, additional post-reform quarters showing substantially lower pass-through. The current estimate rests on ten observations, and the sample grows by four each year. If the coefficient falls materially as the sample extends, the current magnitude was small-sample luck. We regard this as a live possibility and have framed the estimate as an upper bound throughout.

Second, evidence that some other change coincided with December 2023 and drives the result independently. The reform was not the only event of that period. We cannot rule this out with a single-country before-and-after design, and the corroborating evidence discussed in Section 9 — UIP failure and the reserve-absorption finding, both from companion work — is what makes the regime interpretation more plausible than a coincidence, rather than anything internal to this paper.

DISCUSSION

Three Independent Findings, One Coherent Story

This paper's result does not stand alone, and its credibility is strengthened specifically by not standing alone. Two companion findings from related work on this same economy, using entirely different data and entirely different methods, point toward the same underlying characterization of the pre-reform period.

First, uncovered interest parity is shown to fail completely for the Gambian dalasi prior to the reform examined here ($R^2 = 0.001$ in a regression of exchange rate depreciation on the interest rate differential against the US federal funds rate) — direct evidence that the exchange rate was not behaving as a market-clearing price responsive to interest rate signals during this same window.

Second, CBG's own financing of government deficits is shown to predict reserve depletion at a robust, near one-for-one rate, while showing no detectable relationship with either inflation or broad money growth — evidence that pressure originating from a completely different source (fiscal policy, not the exchange rate itself) was similarly being absorbed through the central bank's balance sheet rather than allowed to reach the exchange rate or, through it, domestic prices.

This paper's finding — weak exchange rate pass-through specifically, pre-reform, strengthening dramatically post-reform — is the third leg of the same underlying story, and arguably the most direct: it examines the exchange rate's own inflationary consequences directly, where the other two findings examine consequences one and two steps removed (interest rate behavior, fiscal financing effects). That all three independently estimated relationships describe the same regime shift is stronger evidence for that shift than any single one of them would provide alone. A central bank that is genuinely managing its exchange rate — limiting its movement, absorbing pressure through reserves rather than price adjustment, and by extension limiting how much of any given shock reaches consumer prices — should show exactly this pattern across all three tests. The Gambia does.

The practical implication for CBG specifically is that the transition documented here is not merely a change in exchange rate volatility for its own sake, but a change in how much of any future currency movement is likely to reach the inflation outcomes the Monetary Policy Committee is ultimately responsible for. A framework for setting policy that was calibrated to the pre-reform, low-pass-through environment may need direct reassessment given the post-reform evidence, however preliminary, suggests a materially different — and materially more inflation-sensitive — transmission environment now prevails.

CONCLUSION

This paper tested whether exchange rate depreciation passes through to inflation in The Gambia, and whether this relationship changed following CBG's December 2023 foreign exchange policy reform. We find a dramatic contrast: negligible, statistically insignificant pass-through before the reform, and pass-through exceeding one-for-one, explaining the substantial majority of inflation variation, afterward — though the latter estimate rests on only ten quarters and is reported with corresponding caution. This finding directly corroborates, and is corroborated by, two independently estimated companion results on this same economy: the complete failure of uncovered interest parity pre-reform, and the near-total absorption of fiscal financing pressure through reserves rather than inflation. Together, these three results describe a coherent, multiply-confirmed transition from an actively managed exchange rate regime to one that transmits price pressure considerably more directly.

Two extensions would meaningfully strengthen this work. First, and most directly, re-estimating the post-reform relationship as further quarters accumulate, since the current ten-observation estimate, while directionally clear and corroborated by independent evidence, cannot yet support the same confidence as the pre-reform result. Second, testing whether the pass-through increase is uniform across the consumer price basket or concentrated in specific categories — particularly imported, non-substitutable goods such as fuel

and rice — which would sharpen the practical policy relevance of this finding for CBG’s own inflation forecasting and communication.

Complete Regression Output

Pooled full-sample specification, all tested lags. Weak throughout, with no horizon approaching conventional significance and R^2 never exceeding 0.03. Taken alone this table supports a conclusion of negligible pass-through — which Section 6 shows to be an average of two very different regimes.

Lag	$\hat{\beta}$	HAC s.e.	t	R^2	n
0	0.099	0.060	1.65	0.016	82
1	0.101	0.059	1.70	0.017	81
2	0.120	0.093	1.29	0.025	80
4	0.021	0.095	0.22	0.001	78

Regime split at December 2023. The pre-reform estimate rests on 71 quarters and can be stated with confidence. The post-reform estimate rests on ten and is treated throughout as an upper bound rather than a settled parameter.

Period	$\hat{\beta}$	HAC s.e.	t	90% CI	R^2	n
Pre-2024	0.077	0.051	1.52	[−0.008, 0.162]	0.011	71
Post-2024	1.302	0.131	9.92	[1.061, 1.543]	0.723	10

Horizon structure in the post-reform period. The effect is concentrated contemporaneously, consistent with a rate computed from live transactions transmitting faster than an administratively published one.

Post-reform lag	$\hat{\beta}$	t	n
0	1.302	9.92	10
1	0.741	2.64	9
2	0.518	1.89	8

Diagnostic tests. The final row is reported as a warning rather than as corroboration: a t -statistic of that magnitude on nine observations indicates few effective degrees of freedom, not unusual precision.

Test	Applied to	Statistic	Conclusion
Chow (Dec 2023)	Regime split	$F = 3.925$	Reject stability, 5%
ADF (level)	Exchange rate	1.13	Non-stationary
ADF (differenced)	Depreciation rate	−8.01	Stationary

Test	Applied to	Statistic	Conclusion
Outlier exclusion	Post-2024, $n = 9$	$t = 29.20$	Fragility indicator

Data Sources and Construction

Series used. The estimation sample is the 82-quarter joint overlap, 2006Q1–2026Q2. The inflation series extends one quarter further (to 2026Q3) but cannot be used beyond 2026Q2 without a matching exchange rate observation.

Series	Source	Obs.	Coverage
Exchange rate (GMD/USD)	CBG data warehouse	106	2000Q1–2026Q2
Inflation (year-on-year)	CBG / GBoS	82	2006Q1–2026Q2

Construction Notes

Depreciation measure. The exchange rate enters as a quarterly percentage change. The level series is non-stationary ($ADF = 1.13$) ; the differenced series is strongly stationary ($ADF = -8.01$) and is used throughout.

The reform. CBG’s December 2023 Foreign Exchange Policy discontinued the previously published Daily Reference Rate and Weekly Valuation Rate — both administratively set — and replaced them with an official rate defined as a volume-weighted mid-market average of actual transactions reported by banks, microfinance institutions, fintech companies and forex bureaux. This detail is taken from CBG’s own published policy document rather than inferred from the data.

Post-reform sample. Ten quarters, 2024Q1 to 2026Q2. This grows by four observations annually. The analysis here should be revisited as the sample extends; the framing of the post-reform coefficient as an upper bound reflects an expectation that it may fall.

Inflation measure. Year-on-year headline CPI inflation. A quarterly annualised measure would align the timing more precisely with the quarterly depreciation regressor, but is not available for the full sample period.

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