Tonga's Monetary Indicators 2025

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Abstract. *Tonga's economic structure is marked by a narrow production base, a reliance on imported goods, and a heavy dependence on remittances as a source of foreign exchange. Its exchange rate management is therefore crucial to its economic resilience and stability as it acts as a macroeconomic buffer stabilizing import costs and the economy's sensitivity towards external shocks. Several economic features such as Tonga's monetary policy stance, fiscal discipline, existing trade partners, history of inflation, and macroprudential policies are salient to an effective exchange rate policy. This paper attempts to capture Tonga's exchange rate policy stance and recommend strategies for future integration.*

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1. General Information

1.1. Introduction

The National Reserve Bank of Tonga (NRBT) oversees the maintenance of (internal and external) monetary stability; maintaining inflation at a low and stable level over the medium term and holding an adequate amount of foreign currencies (foreign reserves) to meet the country's foreign currency demands to pay for imports and other obligations. This, in conjunction with Fiscal terms, to which it conducts activities in such a manner that supports macroeconomic stability and economic growth.

1.2. NRBT's Monetary Policy Stance

In July 2025, the NRBT announced its transition to a neutral policy stance. What im hearing is a corridor mid rate, improved communication and transparency, a revised Exchange Rate Policy Framework, and measures to boost liquidity.

2. Tonga's Exchange Rate Regime

2.1. To peg or not to peg

Tonga's official currency is the *Tongan Pa'anga*. As per the IMF, the de jure exchange rate arrangement is a **pegged exchange rate - within horizontal bands** (*see Fig 1*). The external value of the pa'anga is determined on the basis of a weighted currency basket (comprising the US dollar, Australian dollar, New Zealand dollar, and Fijian dollar) - with the respective basket weights being determined by the proportions of trade with these partners.

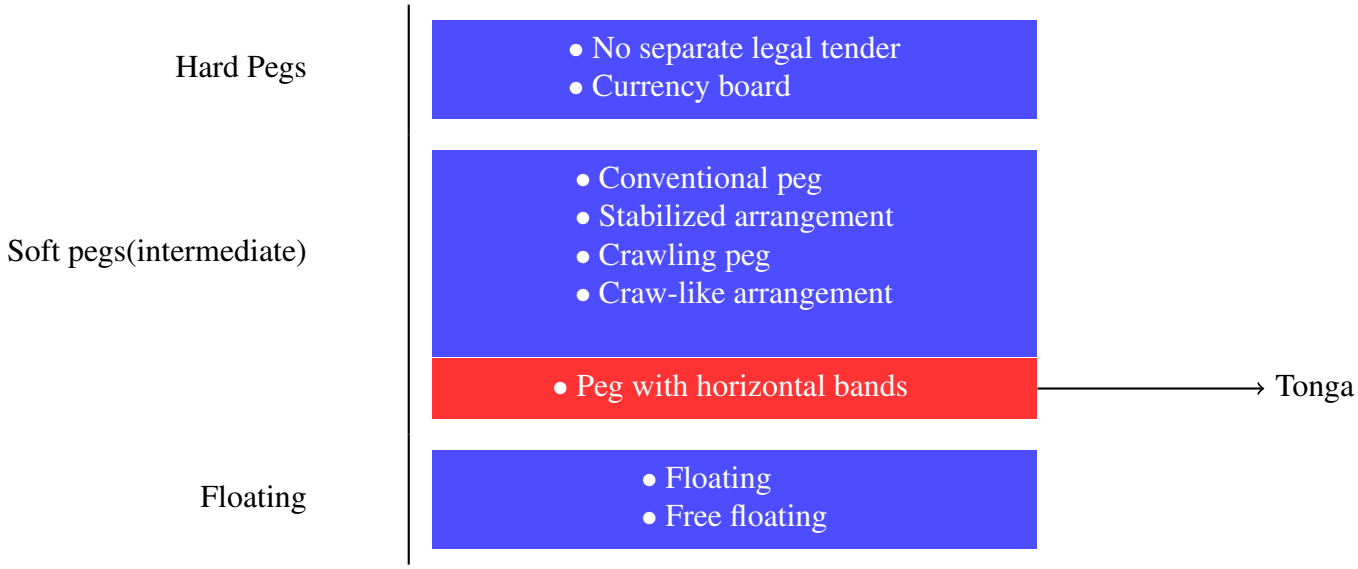


Figure 1. Exchange Rate Taxonomy

For Tonga, a soft peg offers the following benefits:

- Tonga is both a net importing and remittance-dependent country. A soft peg **stabilizes the exchange rate** and acts as a buffer for other forms of economic instability. For importers, it stabilizes the cost of essential goods. For families, it stabilizes the value of remittances sent home.
- Tonga has a very small and underdeveloped financial system. According to the AREAER (2024), there are no deep foreign exchange markets or sophisticated hedging instruments (like futures or options) that businesses could use to protect themselves against currency fluctuations.

3. Foreign Reserves Adequacy

Foreign reserves (FX) are assets held by the Reserve bank in foreign currency (i.e USD, AUD, FJD, NZD or gold, SDR from IMF). They serve as a macroeconomic buffer; stabilizing a country's exchange rates, servicing external debt obligations, funding current account deficits or influencing investor confidence. As of november 2025, Tonga has accumulated 940 million (TOP) in foreign reserves equivalent to 10.9 months of imports - well above the IMF's prescribed level of 7.5 months of import cover (and the NRBT's minimum level of 3 months of import).

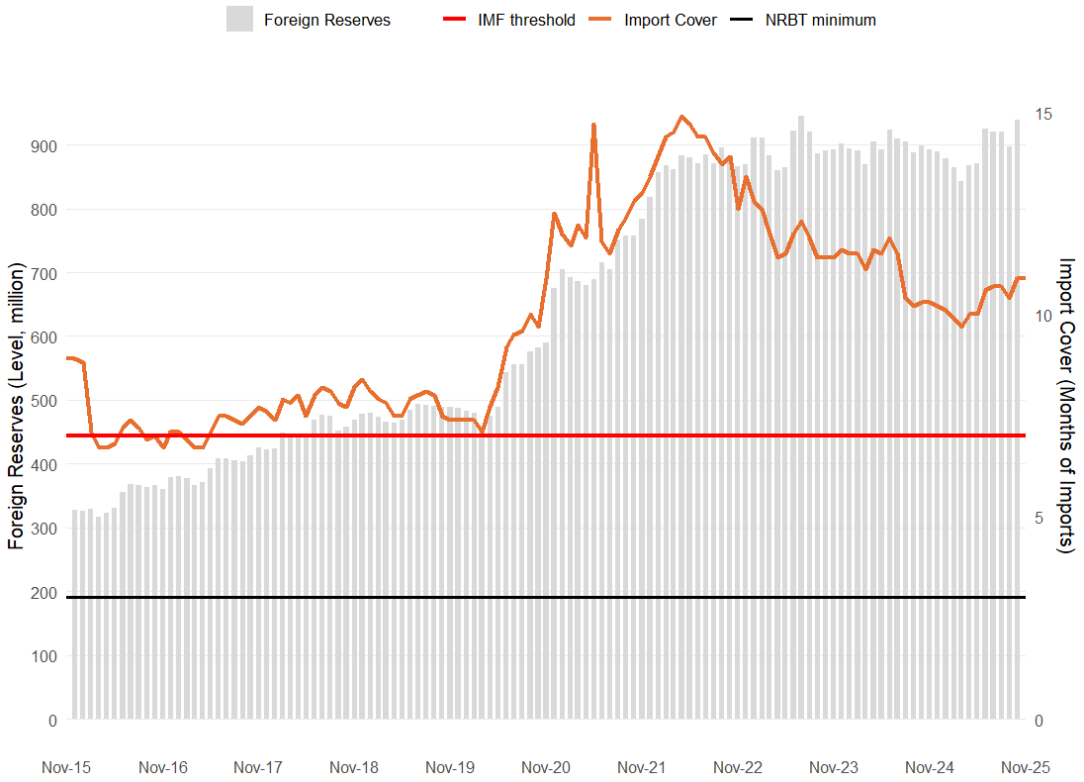


Figure 2. Foreign Reserves levels by month

Historically, the growth of Tonga's foreign reserves has been quite rapid - accumulating from 290 million in 2015 to 940 million in 2025. The driver for this amass of foreign currency is from the increased inflow of remittances from labor mobility schemes and grants from Tonga's global partners. Although, since 2023 FX levels have persisted around 850-950 million with marked declines being attributed to higher import payments, offshore investments, and repayments of external debts. Why has FX level growth stagnated?

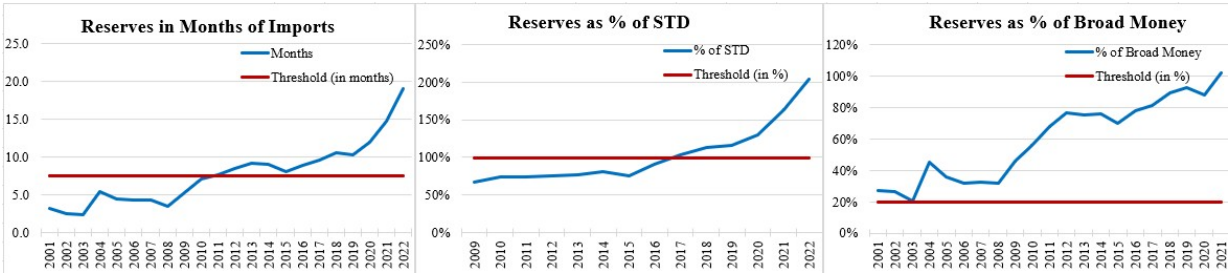


Figure 3. Traditional metrics of FX adequacy

Against the *traditional metrics* of foreign reserve adequacy, Tonga's financial ability to navigate economic crises seems to be strong as it noted that:

- FX covers *at least* 7 months worth of **imports**
- FX covers 100% of **short-term debts** (external)
- FX covers $> 20\%$ of **broad money** (M2 or liquidity)

Yet, the current level of FX reserves seems to be under pressure - hence its persistence since 2023. A deeper pressure comes from the concentration of liquidity within domestic banks - where lending and return rates are too high or too low to retain local financial markets.

Liquidity concentration due to (low deposit rates/high lending rates) which puts pressure on FX reserves due to currency devaluation and offshore investments. People w extra savings return is too low (deposit is too low thus people prefer to invest their money overseas)

4. Identification Model for Financial Crisis

4.1. Constructing the Exchange Market Pressure index

Financial crises (currency, banking, or debt) are costly. The Early Warning System acts as a surveillance tool to identify vulnerabilities (in country fundamentals) and triggers (econonmic shocks) that could lead to crises episodes. This system utilizes regression analysis to predict crises, but first requires the construction of a binary dependent variable that signals (1) for a crisis and (0) otherwise.

The **Exchange Market Pressure (EMP)** index will be used for this dependent variable construction:

$$EMP = \frac{\Delta e}{e} - \frac{\sigma_e}{\sigma_{fx}} \left(\frac{\Delta fxr}{fxr} \right),$$

which notes $\frac{\Delta e}{e}$ as the percentage change in nominal exchange rate (e) , $\left(\frac{\Delta fxr}{fxr} \right)$ as the percentage change in foreign exchange reserves (fxr), with σ_e and σ_{fxr} as the respective volatility of (e) and (fxr).

This EMP index is converted to a crisis indicator (c) - equal to 1 for a crisis, and 0 for a tranquil period - considering the movements of the EMP index with respect to the historical mean and standard deviation. Mathematically, this is represented as:

$$c \to \begin{cases} 1, & EMP > \mu_{EMP} + \varphi \sigma_{EMP} \\ 0, & EMP \leq \mu_{EMP} + \varphi \sigma_{EMP} \end{cases}$$

where μ_{EMP} is the sample mean and σ_{EMP} is the sample standard deviation. The φ is chosen arbitrarily ($1.5 < \varphi < 3$), keeping in mind not to set it too high (as to incur type 2 errors and miss crisis episodes) or to set it too low (and to incur type 1 errors and issue false alarms).

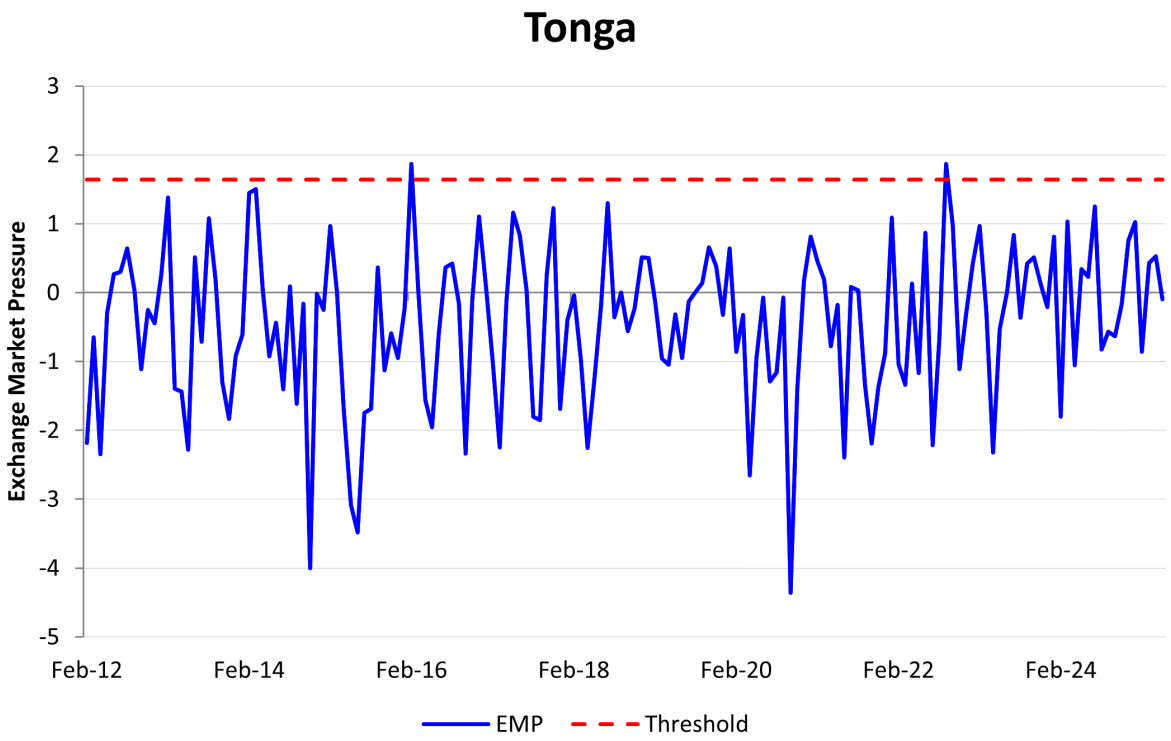
4.2. Historical financial Crises

For Tonga, data from January 2012 to May 2025 has been collected for both nominal exchange rates (e) (in USD) and foreign reserves (fxr), which yielded the following calculations:

σ_e	σ_{fxr}	μ_{emp}	μ_{emp}	φ
1.05	3.16	-0.43	1.12	1.85

The historical data marks **February 2016** and **September 2022** as two periods where Tonga's nominal exchange rates (e) and foreign reserves (fxr) fluctated abnormally as to indicate a crisis. For february 2016, i gather there was a large-scale non-performing loan cancellation from the bank for the agricultural sector due to the failure in exports for the squash sector.

For September 2022,



5. External Balance Assessment

5.1. EBA-Lite model

	CA model
CA-Actual	**-7.1**
Cyclical Contributions (from model) (-)	-0.1
Additional temporary/Statistical factors (-) 1/	0.0
Natural disasters and conflicts	0.7
Adjusted CA	**-8.0**
CA Norm (from model) 2/	**-8.0**
Adjustment to the norm	0.0
Adjusted CA Norm	**-8.0**
CA Gap	**0.0**
o/w Policy gap	4.2
Elasticity	-0.3
REER Gap (in percent)	**-0.1**

Source: IMF staff estimates.

The EBA-lite CA model estimates the adjusted CA balance at -8.0 percent of GDP and the adjusted CA norm at -8.0 percent of GDP. With a gap close to 0 percent of GDP, the external position in FY2024 is assessed to be broadly in line with medium-term fundamentals and desirable policies (text table). The policy gap (4.2 percent of GDP) primarily reflects the relatively looser fiscal policy in the rest of the world

6. Tonga Under Covid Conditions

7. Workshops

Workshop 1: Choice of exchange rate regime

Group 1 presented on a hypothetical country (Country Durian) which exhibits the following features: Strong fiscal discipline with a GDP growth of 1-3% consistently, a diversifiable export base,
Workshop 2: Transition from fixed to flexible exchange rate regime
Workshop 3: External Balance Assessment

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Doing an EBA analysis of country Poland, we evaluate their REER gap is -7.3% which was in alignment with IMF's article IV EBA results for 2024. This implied their currency was undervalued and needed to appreciate by 7.3% in real terms to close the CA_gap of 1.5% - which came from the cyclical components of trade_openness
Workshop 4: Early Warning Crises

Workshop 5: Foreign Exchange Reserve Adequacy
Workshop 6: Covid-19 Case study

7.1. ST25.36 Exchange Rate Policy

For ST25.36, the course focused on key exchange rate rate concepts (real, nominal, bilateral, multilateral, spot, forward) and arbitrage conditions (UIP, law of one price, PPP, relative PPP); its role in achieving

internal and external balance (adjustment to overall equilibrium under floating and fixed exchange rate regimes); its role in economic growth (undervaluation, Washington Consensus, the Balassa-Samuelson effect).

Exchange rate policy and regimes (taxonomy, impossible trinity) and associated policy mix (monetary policy independence, financial stability, fiscal policy, capital controls).

Practical Problems of Exchange Rate Policy in Developing and Emerging Market Economies (concerns of excessive volatility; de jure vs. de facto regimes; competitiveness, price stability; exchange-rate pass-through; targets and instruments).

Transitions from rigid to flexible exchange rates regimes (motives; speed of transition; deep and liquid domestic FX markets, derivatives markets, coherent intervention policy, nominal anchor; transition sequence). FX interventions (sterilized or non-sterilized; motivations, channels, effectiveness, instruments, tactics, policy communication).

The learnings of this paper will be applied in the context of **Tonga**.

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References