2024: Tonga's Exchange Rate Policy stance

Antonio Moeaki (EFPD MOF)

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Abstract. *Tonga's economic structure is marked by a narrow production base, reliance on imported goods, and a heavy dependence on remittances as a source of foreign exchange. Its economic resilience and stability thereby relies on its exchange rate regime which interacts with several economic features such as their monetary policy stance, fiscal discipline, existing trade partners, history of inflation, and macroprudential policies to name a few. This paper attempts to capture Tonga's current exchange rate policy stance and recommend strategies for future integration.*

Contents

1. General Information

1.1. Introduction

The National Reserve Bank of Tonga (NRBT) oversees the

The National Reserve Bank of Tonga (Amendment) Act, 2014, Section 4, sets out the principal objectives of the Bank. It states: The principal objectives of the Bank shall be to maintain internal and external monetary stability. Without prejudice to its principal objective, the Bank shall - promote financial stability,

and promote a sound and efficient financial system. Subject to subsections (1) and (2), the Bank shall conduct its activities in a manner that supports macroeconomic stability and economic growth. Maintaining internal monetary stability is pursued by the Reserve Bank through promoting low and stable inflation over the medium term. The Reserve Bank's reference inflation rate is to be maintained below 5Maintenance of external monetary stability is pursued through maintaining an adequate amount of foreign currencies (foreign reserves) to meet the country's foreign currency demands to pay for imports and other obligations. As such, the Reserve Bank's monetary policies aim to ensure that Tonga always has foreign reserve holdings of at least three to four months of import cover.

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.

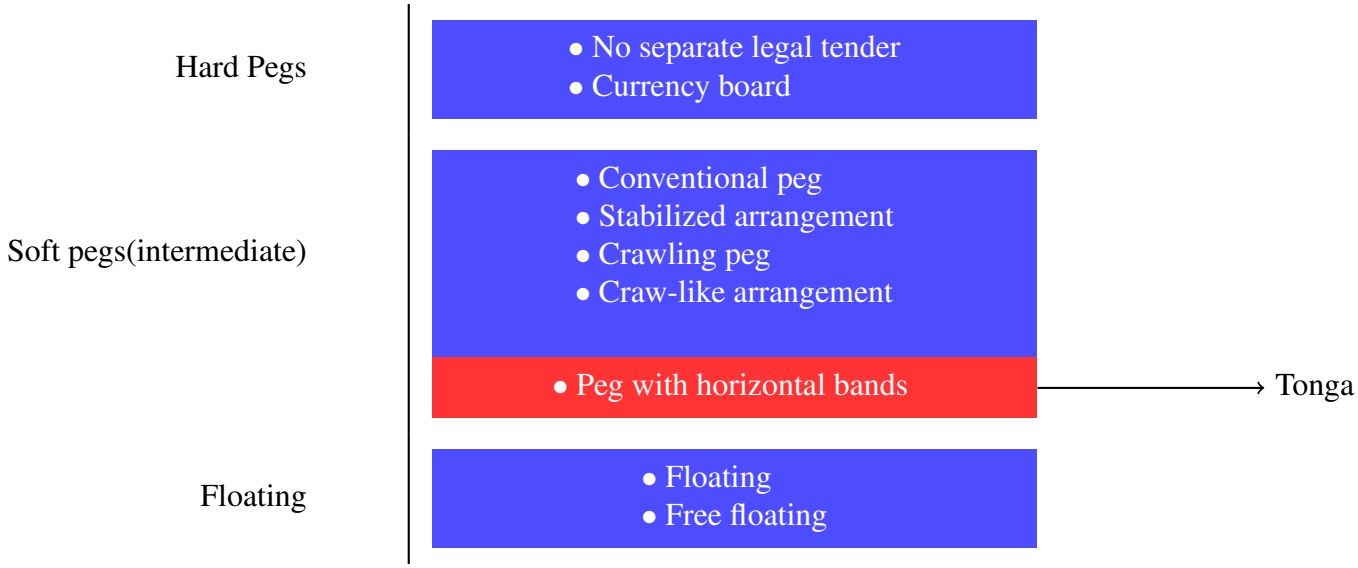


Figure 1. Exchange Rate Taxonomy

The bipolar view on XR regime choice, prevalent in the late 1900s, argued that only hard pegs or free floats were viable. This was reinforced by evidence during emerging market crises (such as in Asia 1997-98, Russia 1998, Argentina 2001), which found intermediate regimes (or soft pegs) were easily vulnerable to speculative attacks and capital mobility.

However, recent studies show the evolution of exchange rate regimes has disrupted the consensus and acknowledges the choice of regime is based on a country's level of financial development, credibility and exposure to shock. 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. External Balance Assessment

3.1. 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

4. Early Warning Crises

4.1. Exchange Market Pressure

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:

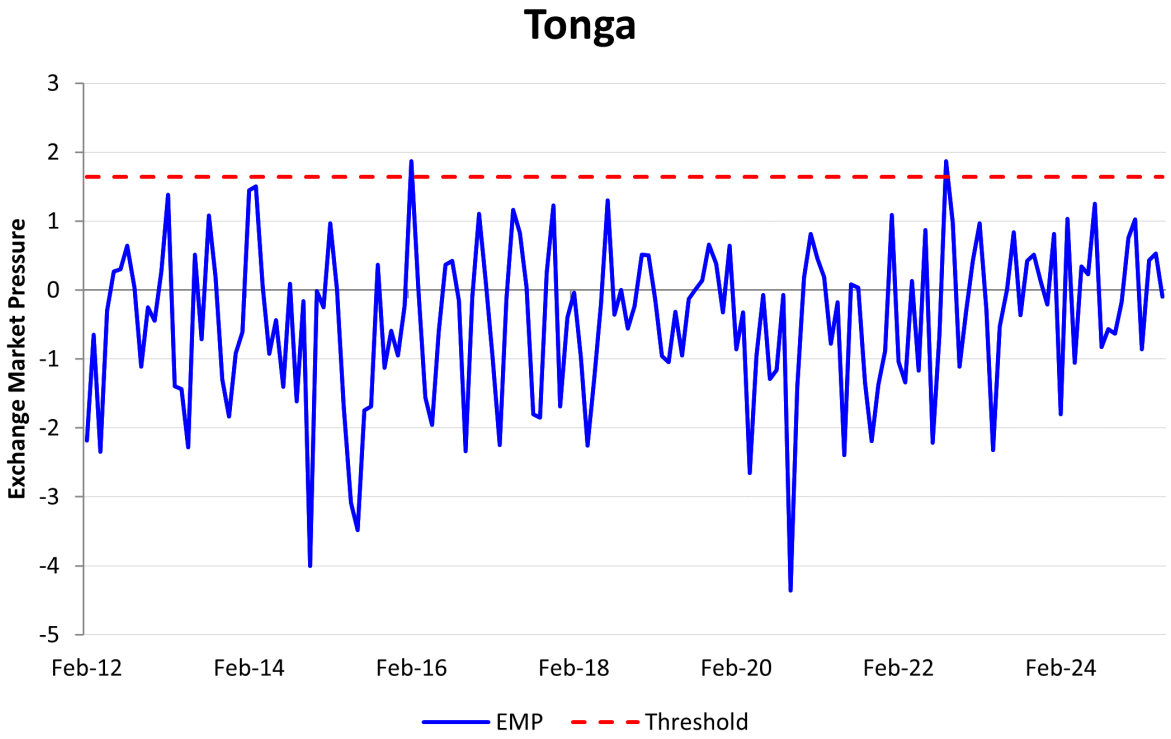
$$c \rightarrow \begin{cases} 1 & EMP > \mu_{EMP} + \varphi\sigma_{EMP} \\ 0 & EMP \leq \mu_{EMP} + \varphi\sigma_{EMP} \end{cases}$$

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. Foreign Exchange Rate Adequacy

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