**Fiscal Responses to Disaster Management and Earthquake Recovery in Japan and Türkiye: A Comparative Study of Earthquake Preparedness**

Emerging markets face unique challenges in balancing fiscal resilience with economic stability, particularly in the aftermath of large-scale natural disasters. Türkiye's response to the catastrophic February 6, 2023 earthquake, which caused damages amounting to 103.6 billion USD—approximately 9% of the country's GDP [1]—highlights the complexities of disaster recovery in economies with constrained fiscal flexibility. This study examines Türkiye's fiscal and monetary strategies for disaster recovery within a broader comparative analysis of Japan's proactive approach to disaster preparedness. Focusing on these nations located in seismically active areas, the research underscores the interplay between fiscal planning, disaster resilience, and monetary stability, offering insights into policy frameworks that can support emerging markets in mitigating systemic shocks.

Both Japan and Türkiye are situated in regions of high seismic activity and face considerable earthquake risks. Japan, as an advanced economy located on the Pacific Ring of Fire, experiences frequent seismic events due to the convergence of four tectonic plates. Over decades, Japan has institutionalized a culture of disaster preparedness, supported by consistent fiscal investments. Its annual disaster prevention budget surpasses 3.8 trillion Yen (approximately 27 billion USD), funding robust infrastructure, advanced early warning systems, and comprehensive recovery planning. This proactive approach has significantly reduced economic disruptions caused by earthquakes. For example, the 2011 Tohoku earthquake (magnitude 9.1), despite causing extensive damage, benefited from pre-existing resilience measures that enabled organized evacuations and expedited recovery processes. In the fiscal year 2024, Japan further allocated 4.033 trillion Yen (approximately 27 billion USD) [2] to disaster prevention and national land resilience, underscoring its commitment to preemptive measures.

Conversely, Türkiye, as a prominent emerging market situated along the North Anatolian Fault, faces similar seismic challenges but operates within a more constrained fiscal and monetary environment. The February 6, 2023 earthquake devastated southeastern Türkiye, requiring an

[1] Republic of Türkiye Presidency of Strategy and Budget. (2023). *Türkiye Earthquakes Recovery and Reconstruction Assessment*. https://www.sbb.gov.tr/wp-content/uploads/2023/03/Turkiye-Recovery-and-Reconstruction-Assessment.pdf

[2] Japan Ministry of Finance. (2024). *Japanese Public Finance Fact Sheet*. https://www.mof.go.jp/english/policy/budget/budget/fy2024/02.pdf

immediate reallocation of financial resources to meet urgent recovery needs. Despite facing high inflation, currency volatility, and broader macroeconomic challenges, Türkiye mobilized significant resources to reconstruct infrastructure, support affected populations and stabilize its economy. The government's flexible response model, supported by regional partnerships—particularly with the European Union, played a vital role in financing recovery efforts. However, the reactive nature of Türkiye's disaster management also highlights the absence of a consistent, long-term disaster preparedness framework, which, if implemented, could reduce future economic disruptions.

By synthesizing lessons from Japan and Türkiye, this research offers actionable insights for policymakers in earthquake-prone nations, particularly in emerging markets. This study compares these two fiscal approaches—proactive versus reactive—and evaluates their implications for monetary stability in seismically active regions. While Japan's model demonstrates the advantages of sustained investment in disaster resilience, Turkey's experience illustrates the adaptability of emerging markets in addressing immediate post-disaster challenges. Both approaches underline the necessity of integrating disaster resilience into fiscal and monetary policies to ensure economic stability. For emerging markets like Turkey, this entails not only mobilizing financial resources efficiently during crises but also prioritizing preemptive investments to mitigate future risks. These insights contribute to ongoing global discussions on disaster recovery, fiscal policy, and economic resilience, offering a roadmap for countries seeking to strengthen their preparedness and recovery frameworks.

**Disclosure**

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