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Turkish Catastrophe Insurance Pool

Providing Affordable Earthquake Risk Insurance

DISASTER RISK FINANCING & INSURANCE CASE STUDY

Background

Turkey is one of the most exposed countries in the world to earthquakes. Around 70% of Turkey's population and 75% of its industrial facilities are exposed to large-scale earthquakes. Since 1984, direct property and infrastructure losses due to earthquakes in Turkey have frequently exceeded US$5 billion (in current US$ terms). The last major earthquake in the Marmara region in 1999 resulted in the loss of 15,000 lives and placed an enormous financial burden on the economy and the government.

Earthquake insurance uptake was relatively low in Turkey (at around 3% of residential buildings), as households traditionally relied on the government to finance the reconstruction of private property after major natural disasters. This presented massive challenges to government budgets. In the aftermath of the Marmara earthquake, the government decided to develop a property catastrophe risk insurance mechanism to reduce its fiscal exposure to natural disasters arising from government-funded reconstruction of private property. In 2000, the Turkish Government created a compulsory earthquake insurance system for all residential buildings on registered land in urban areas. The World Bank provided financial and technical assistance for the creation of the Turkish Catastrophe Insurance Pool (TCIP). The TCIP has become the first national catastrophe insurance pool in World Bank client countries that provides a standalone earthquake insurance coverage to homeowners and small and medium enterprises.

Objectives

The main objectives of the TCIP are to:

- Ensure that all property tax-paying dwellings have affordable earthquake insurance cover;
- Reduce citizens' dependence on the government to fund the reconstruction of private property after a devastating earthquake;
- Reduce government's fiscal exposure to earthquakes by transferring excess catastrophe risk to the international reinsurance markets;
- Encourage physical risk mitigation and safer construction practices.

Highlights

- Turkey is regularly affected by natural disasters, especially earthquakes and floods.
- Impacts of such disasters and low levels of property insurance coverage led the government to support the establishment of a widespread and effective earthquake property insurance system.
- The World Bank helped the Turkish Government develop the Turkish Catastrophe Insurance Pool (TCIP) to limit the financial burden earthquakes place on the government budget, focus government relief funds on low income residents, and access international reinsurance capacity in a cost effective manner.

Structure and Description

The TCIP is a legal public entity that provides compulsory property earthquake insurance for owners of private dwellings built legally on registered land. Premium rates are actuarially sound, not subsidized, and vary with construction type and property location. Covered risks include earthquakes and fire.

The catastrophe risk financing strategy of the TCIP relies on both risk retention and reinsurance. The TCIP retains the first US$80 million of losses through its reserves (initially complemented by a US$100 million World Bank contingent loan facility) and transfers excess losses to the international reinsurance markets. The Turkish Government covers losses that would exceed the overall claims paying capacity of the TCIP, which is currently sufficient to withstand a 1-in-350 year earthquake. Economies of scale are obtained through country-wide pooling of the risk, which results in more affordable premium rates.

Lessons Learned

1. The TCIP public-private partnership has facilitated the growth of the catastrophe insurance market in Turkey. The number of earthquake policies sold increased six times from 600,000 in 1999 (the year before the TCIP's establishment) to 3.5 million in 2010.

The TCIP enables around 30 insurers to sell stand-alone earthquake insurance policies, developing their capacity in catastrophe insurance and significantly increasing the availability and affordability of earthquake insurance in Turkey.

2. Although the TCIP has been a success, it will take time to achieve deeper market penetration in Turkey. Today, the TCIP provides insurance coverage to 23% of dwellings country-wide and about 40% in particularly disaster prone areas. There has been the expectation that the government will pay for damages to households regardless of the insurance program. A program like TCIP relies on a strong communication strategy to ensure that residents are aware of earthquake risk, mandatory insurance laws, and the program's excellent claim-paying record. The TCIP has invested heavily in public education and marketing, initiating many projects to increase public awareness and understanding of its presence.

3. The provision of property catastrophe insurance requires both technical capacity and financial capacity. Catastrophe insurance requires highly technical catastrophe risk modeling techniques to price premiums that accurately reflect the underlying risk. Ensuring financial viability also requires a balance between increasing claims-paying capacity and the cost of financing this capacity. At its inception, TCIP had sufficient claims-paying to withstand a 1-in-100-year event. Since then, it has increased its reserves and strengthened its reinsurance capacity to sustain an earthquake with a return period of 350 years.

Main Terms and Conditions: Compulsory Earthquake Insurance Scheme

Annual premium	Around US$62/homeowner on average, depending on construction type and location.
Deductible	2%
Covered perils	Earthquakes, fires following earthquakes
Covered buildings	Residential buildings that fall within municipal boundaries
Maximum coverage	Approximately US$92,000 per policy (as of Jan. 1, 2009)
Policy distribution	Through around 30 insurance companies

Glossary

Deductible: The dollar amount or percentage of an insured loss that the policyholder must cover before any claims are paid by the insurer.

Insurance pool: Collective pool of risk from multiple insurance companies. Pooling facilitates the development of insurance markets by spreading risk across insurers who would otherwise lack financial capacity to participate in the market. It enables insurers to provide affordable coverage for high-risk events.

Reinsurance: Purchase of insurance by an insurer from another specialty insurance company (the reinsurer) for the purpose of spreading risk and reducing the insurer's own losses from large insurance claims.

Further Reading

Gurenko, E., Lester, R., Mahul, O., & Gonulal, S. O. (2006). *Earthquake Insurance in Turkey: History of the Turkish Catastrophe Insurance Pool.* Washington, DC: World Bank, 2006.

Turkish Catastrophe Insurance Pool: www.tcip.gov.tr

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