



Turkish Compulsory Earthquake Insurance (TCIP)

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Through a World Bank project a government-sponsored Turkish Catastrophic Insurance Pool (TCIP) is created in 2000 with the essential aim of transferring the government's financial burden of replacing earthquake-damaged housing to international reinsurance and capital markets. Providing coverage to about 2.9 Million homeowners TCIP is the largest insurance program in the country with about 0.5 Billion USD in its own reserves and about 2.3 Billion USD in total claims paying capacity. The total payment for earthquake damage since 2000 (mostly small, 226 earthquakes) amounts to about 13 Million USD. The country-wide penetration rate is about 22%, highest in the Marmara region (30%) and lowest in the south-east Turkey (9%). TCIP is the sole-source provider of earthquake loss coverage up to 90,000 USD per house. The annual premium, categorized on the basis of earthquake zones type of structure, is about US\$90 for a 100 square meter reinforced concrete building in the most hazardous zone with 2% deductible.

The earthquake engineering related shortcomings of the TCIP is exemplified by fact that the average rate of 0.13% (for reinforced concrete buildings) with only 2% deductible is rather low compared to countries with similar earthquake exposure. From an earthquake engineering point of view the risk underwriting (Typification of housing units to be insured, earthquake intensity zonation and the sum insured) of the TCIP needs to be overhauled. Especially for large cities, models can be developed where its expected earthquake performance (and consequently the insurance premium) can be assessed on the basis of the location of the unit (microzoned earthquake hazard) and basic structural attributes (earthquake vulnerability relationships). With such an approach, in the future the TCIP can contribute to the control of construction through differentiation of premia on the basis of earthquake vulnerability.