

Blood and Water:

Modeling Violence in the Middle East as Water Conflict

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Figure 1: Expected Violence over time

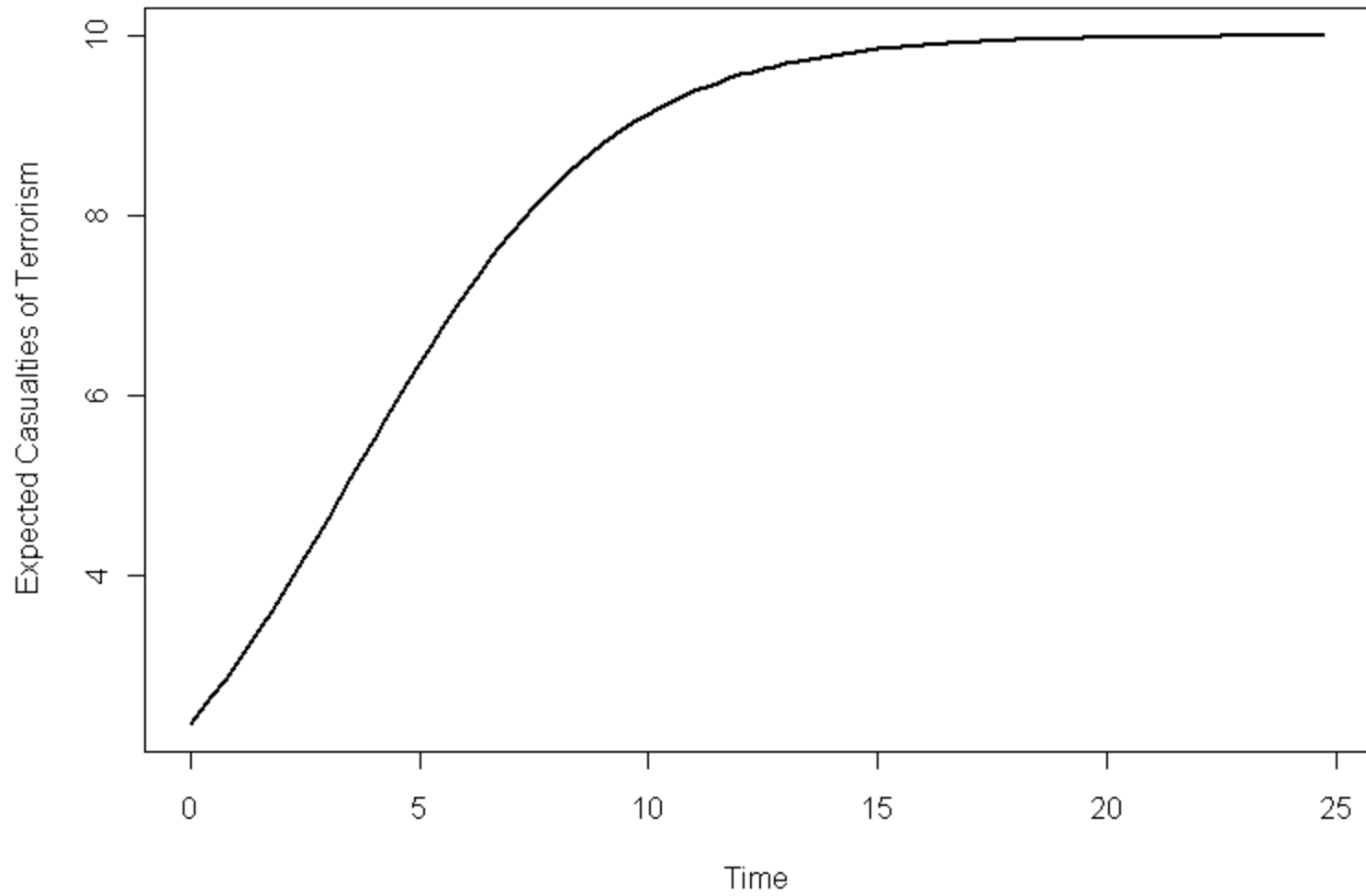
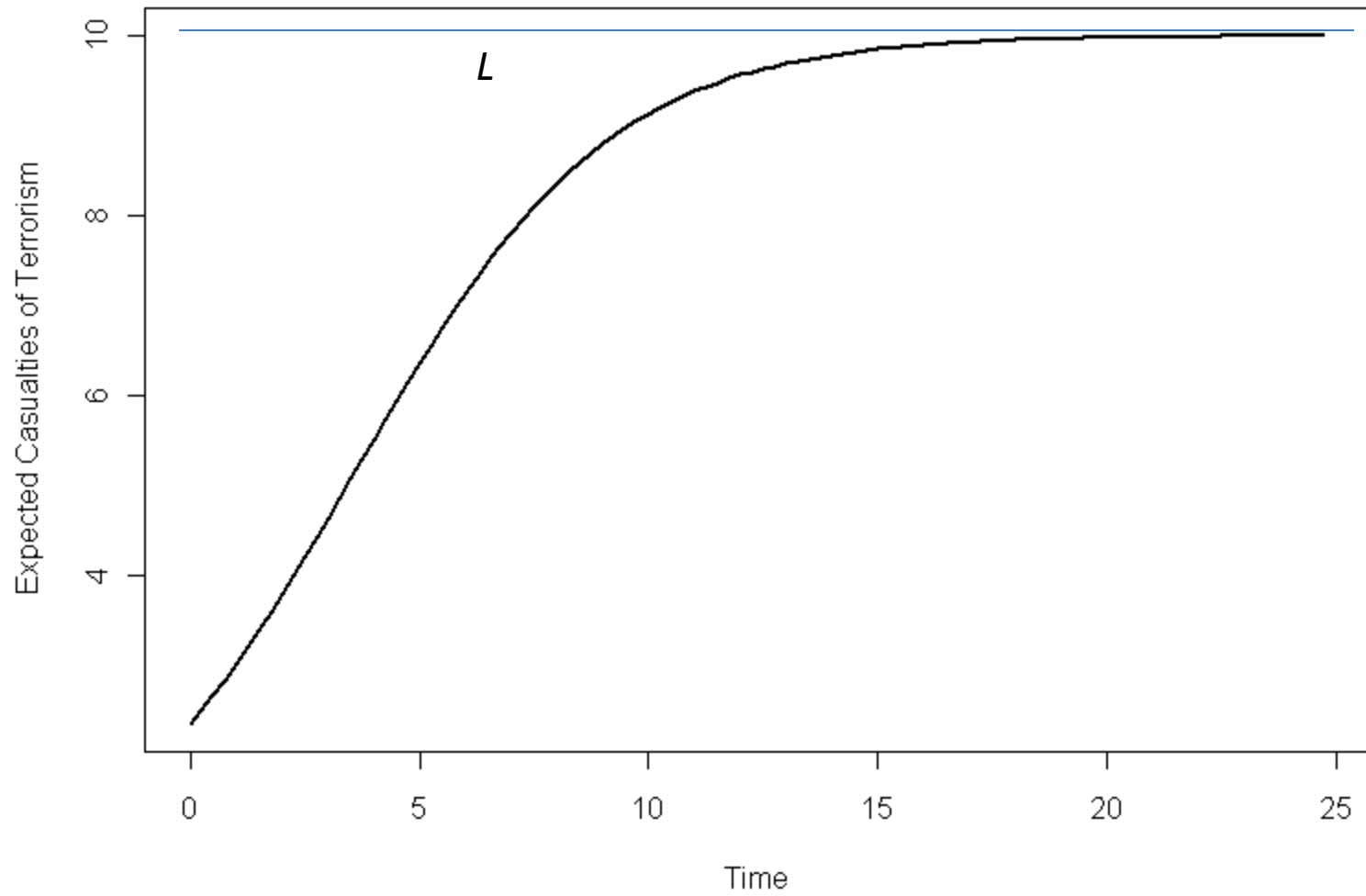


Figure 1: Expected Violence over time

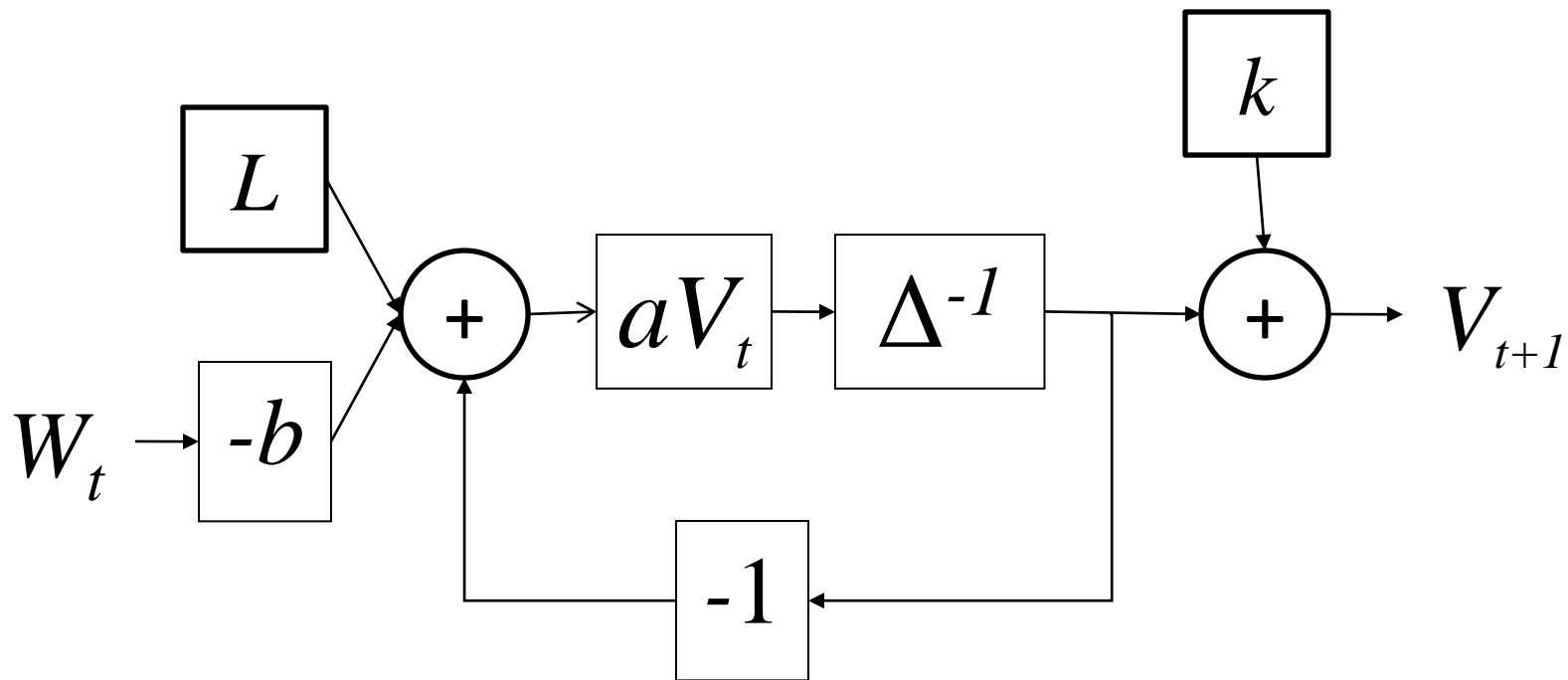


Input and Output

W_t – per capita Water Usage in the West Bank and Gaza Strip

L – upper limit of the amount of violence

V_{t+1} – count of the number of terrorism-related casualties in Israel, Gaza, and the West Bank



$$V_t + k + aV_t[L - bW_t - V_t] = V_{t+1}$$

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Previous
Violence

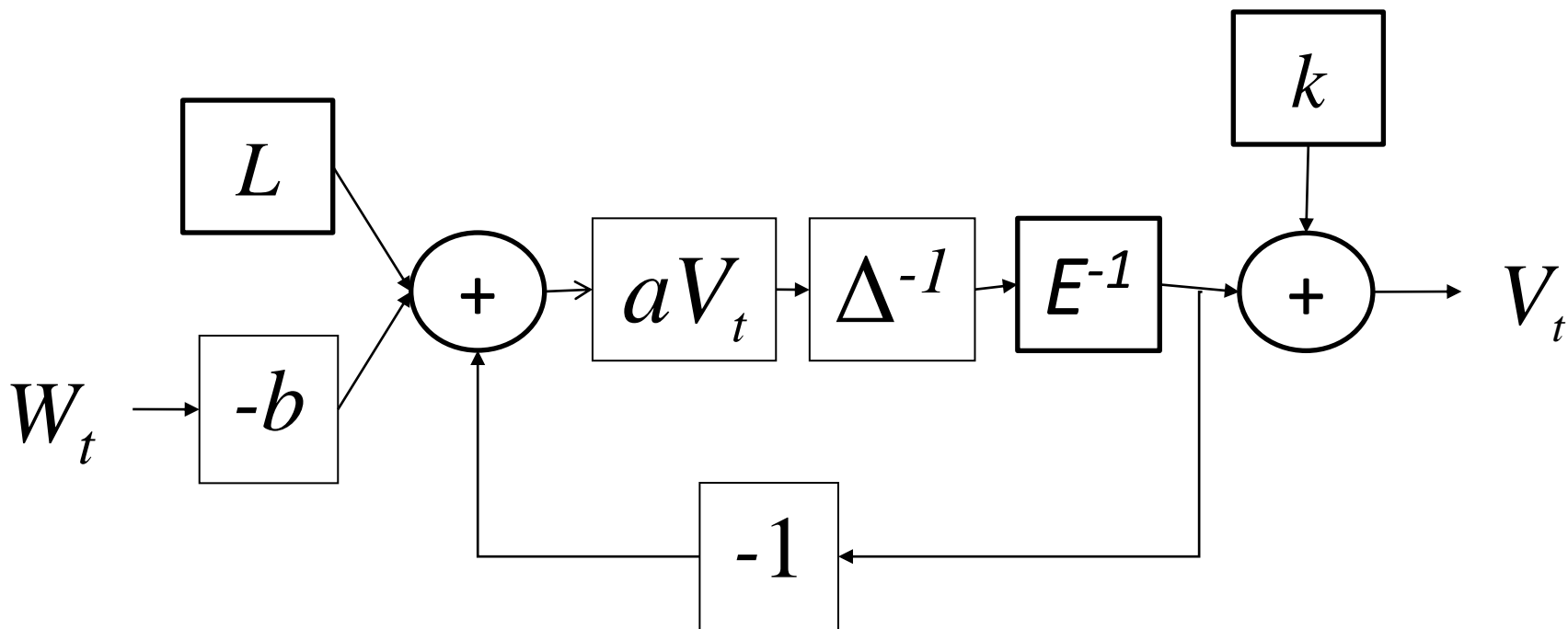
Most Violence
Possible

Tensions relieved by
Previous Violence

Account for
Exogenous Shocks

Violence deterred
by Water

Expected
Violence



$$V_t + k + aV_{t-1}[L - bW_t - V_t] = V_t$$

Figure 2: Water Availability

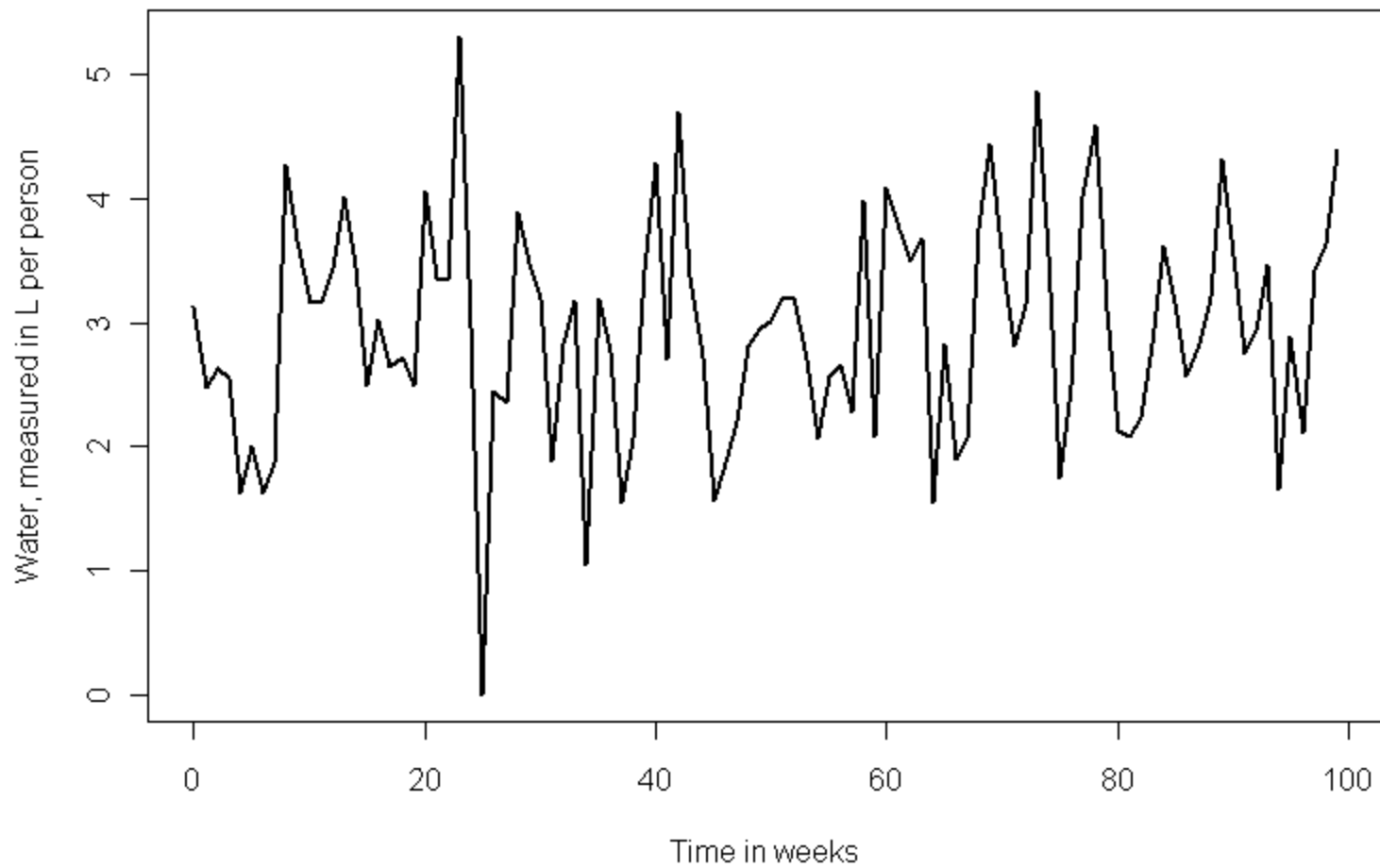


Figure 3: Violence moderated by Water Availability over time

