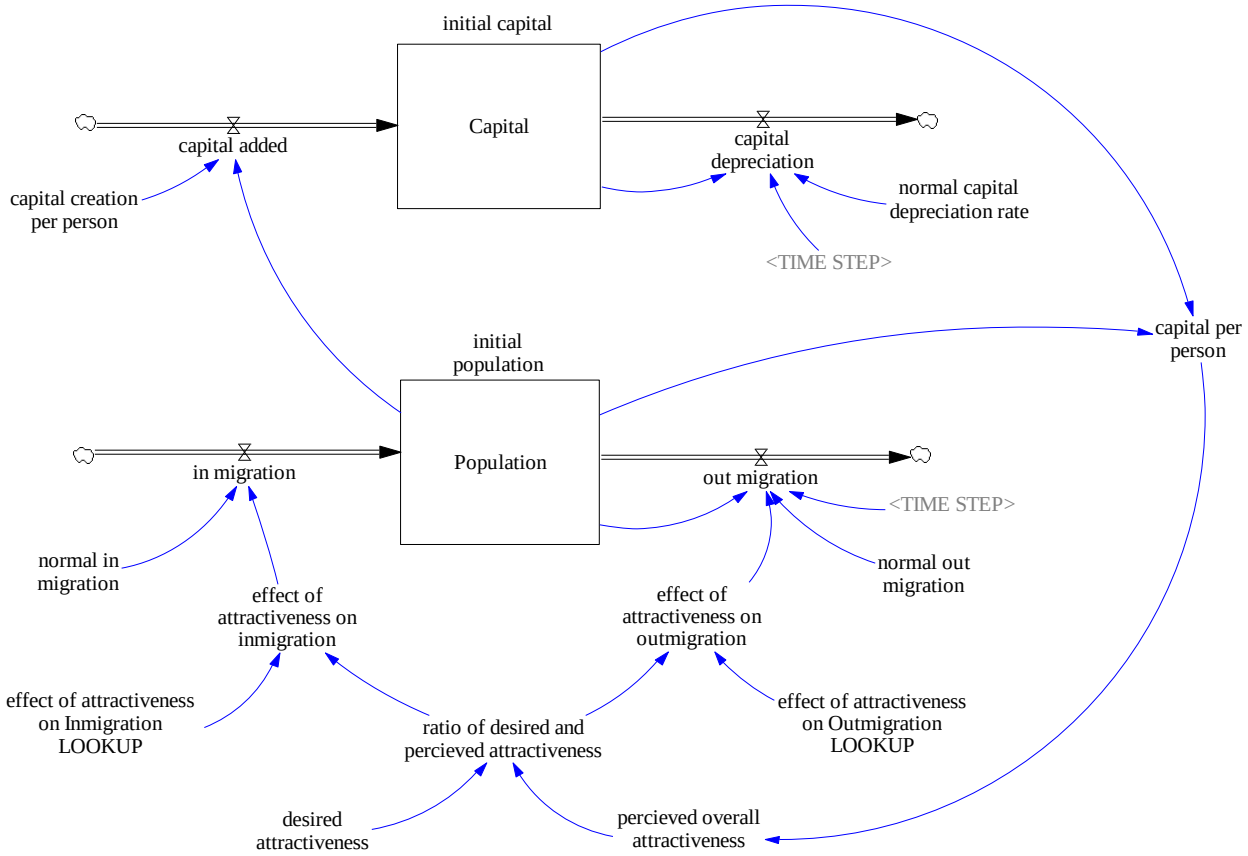Model Phase 1: Relationship between capital and population