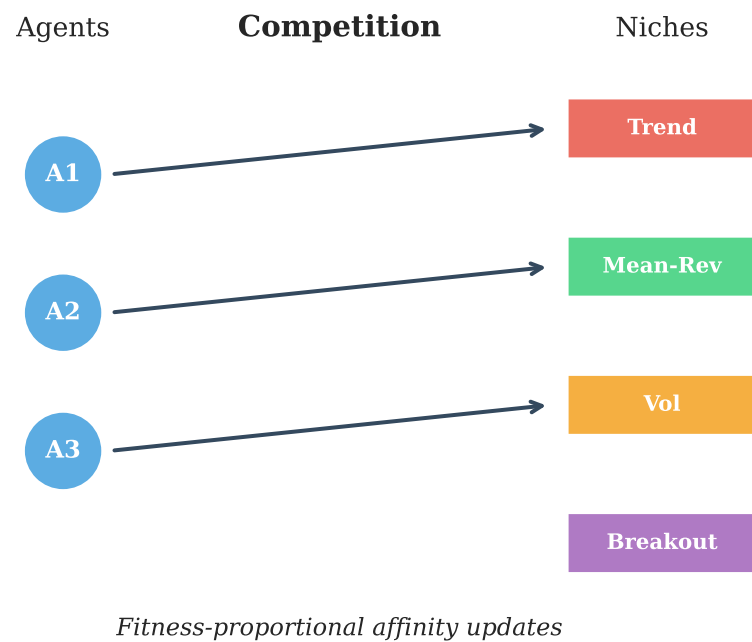
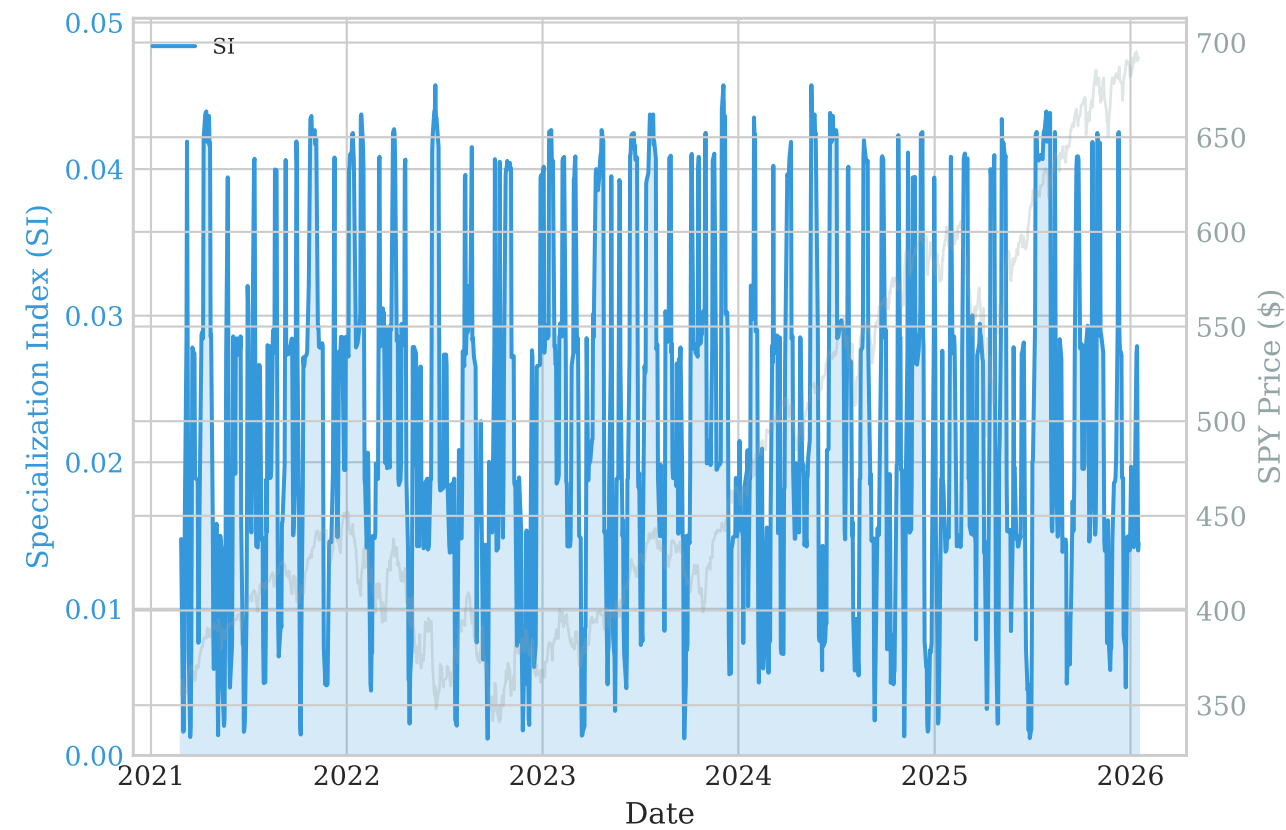


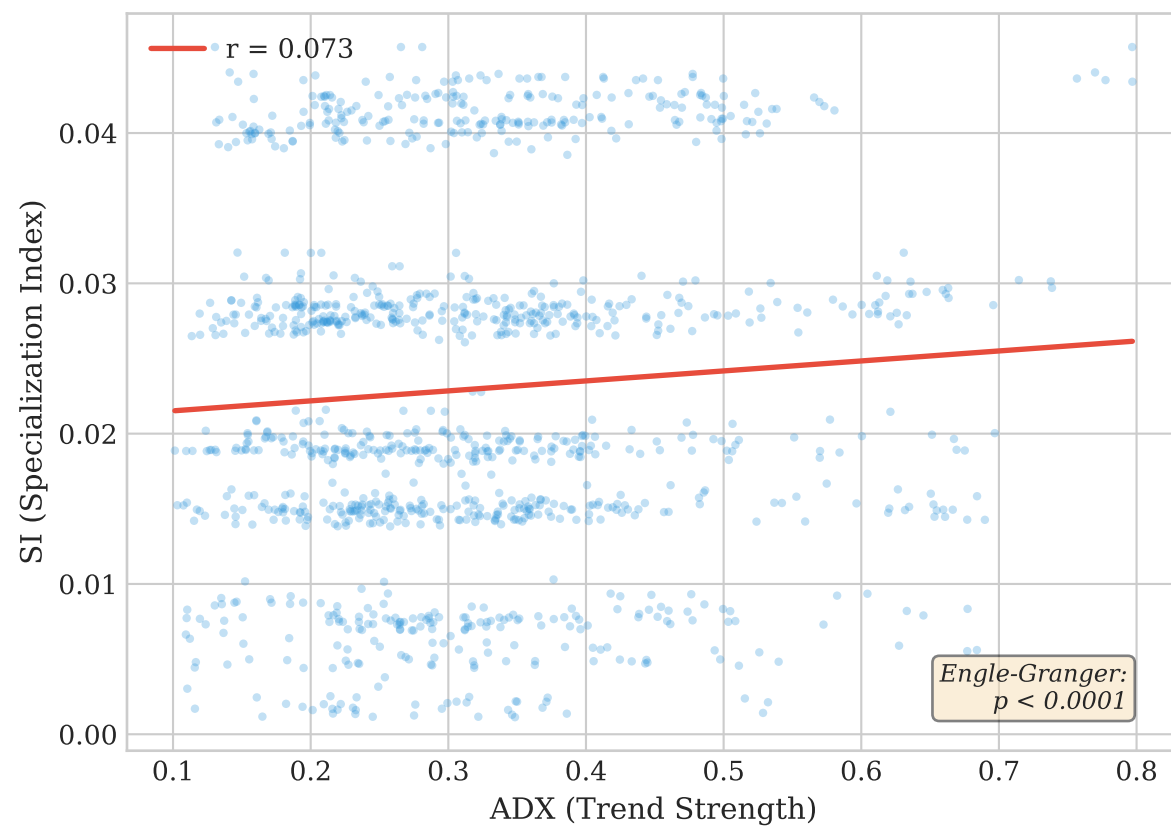
(a) NichePopulation Mechanism



(b) SI Emergence: Specialization Tracks Market Structure



(c) SI-ADX Cointegration ($p < 0.0001$)



(d) Phase Transition: Short-term Negative → Long-term Positive

