

# Understanding Momentum and Reversal\*

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## Abstract

We show that the momentum and long-term reversal effects are explained by a conditional factor pricing model. We use instrumented principal components analysis to construct an improved conditional model in which dynamic loadings are functions of observable firm characteristics. Model-based expected returns, which are solely determined by exposures to systematic risk factors, provide much stronger predictive power for future realized returns than momentum or long-term reversal. We show that these return trend variables “work” because they are imperfect proxies for time-varying beta compensation, and that properly measured conditional betas render the effects of momentum and long-term reversal small and insignificant. In contrast, the short-term reversal phenomenon is distinct from the conditional pricing model, consistent with a pure liquidity effect.

**Keywords:** momentum, factor model, conditional betas, conditional expected returns, IPCA

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