Financial Constraints, Growth Transitions, and Market Efficiency: Evidence from Japan, 1924-2024

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Japan's modern financial history provides an unusually rich setting in which to study the evolution of market efficiency. From 1924 to 2024, the Japanese equity market experienced interwar instability, wartime controls, postwar reconstruction and inflation, rapid growth, financial liberalization, the asset-price boom and collapse, banking distress, and unconventional monetary policy. These regime changes make it inappropriate to treat return predictability as a fixed characteristic of the market.

We construct monthly series for Japanese equity total returns, inflation, and real short-term interest rates over this century. The equity series connects a newly reconstructed capitalization-weighted total-return index for the prewar, wartime, and immediate postwar periods with postwar benchmark indices. Drawing on exchange statistics, newspaper quotations, company reports, and issue-level information, the dataset places major institutional discontinuities within a single empirical framework.

A generalized-least-squares time-varying vector autoregression shows a broad long-run decline in return predictability, consistent with improving market efficiency as Japan's economy and financial institutions matured. The decline, however, was not monotonic. Predictability rose markedly in the interwar, wartime, and immediate postwar periods and increased more moderately around postwar changes in financing and monetary regimes, including the mid-1950s, mid-1980s, 2000s, and early 2010s. These movements need not share a single cause, but they show that measured efficiency varies with historical institutions and macro financial transitions.

To interpret one such channel, we develop a monetary endogenous-growth model with financial intermediation, working-capital finance, and a binding collateral constraint. An unexpected relaxation of the constraint shifts the balanced-growth path and generates transitional movements in equity values, dividends, production, research employment, and real interest rates. During adjustment, equilibrium returns contain a predictable transition component; applying the historical procedure to model-generated data yields a temporary increase in measured predictability followed by decline. The paper thus links a new century-long Japanese return series to a broader historical interpretation: institutional maturation tends to improve market efficiency, while structural changes in finance can temporarily make equilibrium returns more predictable.