NOTES on: Hall, NBER 7180

Data

- Value of financial securities of non-farm, nonfinancial corporations

  = [market value of outstanding equities + financial liabilities − financial assets]/ consumption deflator

- Payouts to security holders

  = [flow of dividends

  + flow of purchases of equity by corporations

  + interest paid on debt

  − increase in real volume of net financial liabilities]

  / consumption deflator

Theory

- Lucas tree model: total cash to debt and shareholders is equal to "endowment flow"
- Real Returns approximately equal to $(1 + \phi)$ times risk-free rate + white noise.
- Model with capital:

  capital in units of output: v_t

  productivity index: z_t

  output: $z_t v_t$

  payouts: d_t

  divide output into payouts and investment: $z_t v_t = d_t + v_{t+1} - v_t$

  get z_t from data on d_t, v_t (=one-period return from stock with price v and dividend d)

  note: can interpret z_t net of depreciation

Facts

- Debt to equity in this sector maxed at .35 in 1981 and is .05 in 1998.
- Payouts to securities owners are very volatile, much moreso than dividends.
- Payouts relative to value are very volatile and sometimes negative.
- Total payouts relative to GDP has grown significantly since 1980.

- Net product of capital ($=(d_t + v_{t+1} - v_t)/v_t$) has been roughly constant around its mean of .098.
- Tobin's q – above 1 before 1974, lower than 1 until mid 90's.

Computations

- Regress payouts/GDP on miltary purchases/GDP; coefficient=.23 (different from 0).
- Regress T-bill rate on payouts/GDP; coefficient=.69 (different from 0).
- Regress equity returns on 1-year T-bill. Estimate of ϕ, the risk premium, is 0.085 (0.014).

Inference

- Concentration on dividends plus share repurchases gives an incomplete picture of buildup of shareholder value.
- Large amounts of capital built up in corporations after 1980.
- If Lucas model right, wouldn't see negative payouts.
- If Lucas model right, would see payouts invariant to government purchases.
- Big drop in Tobin's q explained by destruction of physical and intangible capital.