Rebalancing: DAA in Disguise

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Agenda

- Quick background to rebalancing
- Interactive Case Study
  - ~50 years of data
  - Monthly Return Data
  - Dec 1969 to Sep 2019
  - 50% Equities / 50% Cash
  - Different rebalancing methodologies

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Rebalancing Policy

- A rebalancing policy should exist but rarely does
- Rebalancing is often taken for granted
  - Do we know what works, what doesn’t, why one method may be better or worse?
  - Often promoted as value-add but … what are the costs or benefits?

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DAA in Disguise

- What do we mean by DAA?
- If you rebalance, YOU ARE AN ACTIVE INVESTOR
- WE ARE ALL MARKET TIMERS
- In fact, if we rebalance, we are CONTRARIAN investors

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Why Rebalance?

- Risk (Profile) Management
  - Maintain Risk Profile/Risk Exposure
  - Maintain Strategic Asset Allocation through time
  - Maintain investment disclipine
- Improve Risk-adjusted Returns
  - Buy Low/Sell High

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Risks of Rebalancing

- Asset allocation drift
- Market timing risks
- Costs – transaction costs, taxes,
- Mistakes compound

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How do we Rebalance?

- Calendar based
  - E.g. Quarterly, Annual
- Tolerance Bands
  - E.g. +/-5%, +/-10%
- Other systematic
  - Triggered based on valuation, momentum, volatility, or some other regime indicator
- Ad-hoc
  - Discretionary, tactical
- Implementation using options/futures et al.

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Some current beliefs

- Opportunistic Rebalancing – Daryanani - Journal of Financial Planning (2007)
  - Optimal rebalancing was at a relative threshold of 20% of original weight
  - Look period was 1 to 10 days (so look constantly)
- Best practices for portfolio rebalancing – Vanguard (2015)
  - Concluded there are no optimal frequency or thresholds for rebalancing
  - Annual or semi-annual with 5% thresholds is likely to produce a reasonable balance between risk control and cost minimisation
  - Annual is preferred for high taxes or substantial time/cost involvement
- Portfolio Rebalancing - Ilmanen /Maloney (AQR)
  - Asset prices have exhibited trending behaviour so favour less-frequent rebalancing or wider tolerance bands

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Case Study – Australian data

- Monthly returns - 31/12/1969 to 30/9/2019
- Strategic weights
  - 50% MSCI Australia (or MSCI World)
  - 50% RBA 90-day Bank Bills
- Risk-adjusted returns of different methods
  - https://tinyurl.com/vejxr4n
- Time Series starting 31/12/1969 & 30/11/1974
  - https://tinyurl.com/ruz62gj
  - https://tinyurl.com/tsd6lrq

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Rebalancing Analysis

- Note on Rebalance Methods
  - 1%, 2%, …, 10% … rebalanced if outside +/-1%,…, +/-10%
    - So 7.5% rebalance means rebalance is triggered if equities or cash allocation is > 57.5% or < 42.5%
  - 1 month, 3 months, … , 24 months
    - Rebalanced automatically every 1 month, …, 24 months
  - 3 Year Val & 5 Year Val
    - Rebalanced if current PE ratio is above 3-year (or 5-year) average PE ratio and equities allocation > 50%
    - Rebalanced if current PE ratio is below 3-year (or 5-year) average PE ratio and equities allocation < 50%
  - 10% Tolerance and Momentum
    - Rebalanced to 60% if equities > 60% and current equities price < equities price 12 months prior (or negative momentum)
    - Rebalanced to 40% if equities < 40% and current equities price > equities price 12 months prior (or positive momentum)

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My Conclusions

- Have a rebalancing policy
- Rebalance at least annually
- Maximum threshold +/-20% per original weight
- Constantly look at portfolios
  - Be aware of when portfolios are out of “balance” and act accordingly
  - Have a rebalancing policy that deals with large market movements

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Thank you

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