

Are P/Book Ratios Predictable?

by

Magnus Erik Hvass Pedersen

What is a P/Book Ratio?

- P/Book measures the market price of a stock relative to its accounting value (aka. Book-value or equity-value):

$$P/Book = Price / Book$$

$$= Market Cap / Equity$$

$$= Share Price / Equity Per Share$$

- Useful for quick assessment whether a stock is cheap or expensive.

Common Assumptions

- People sometimes assume the P/Book is constant forever or it will equal its historical average P/Book in the future.
- Let's check if these notions are correct ...

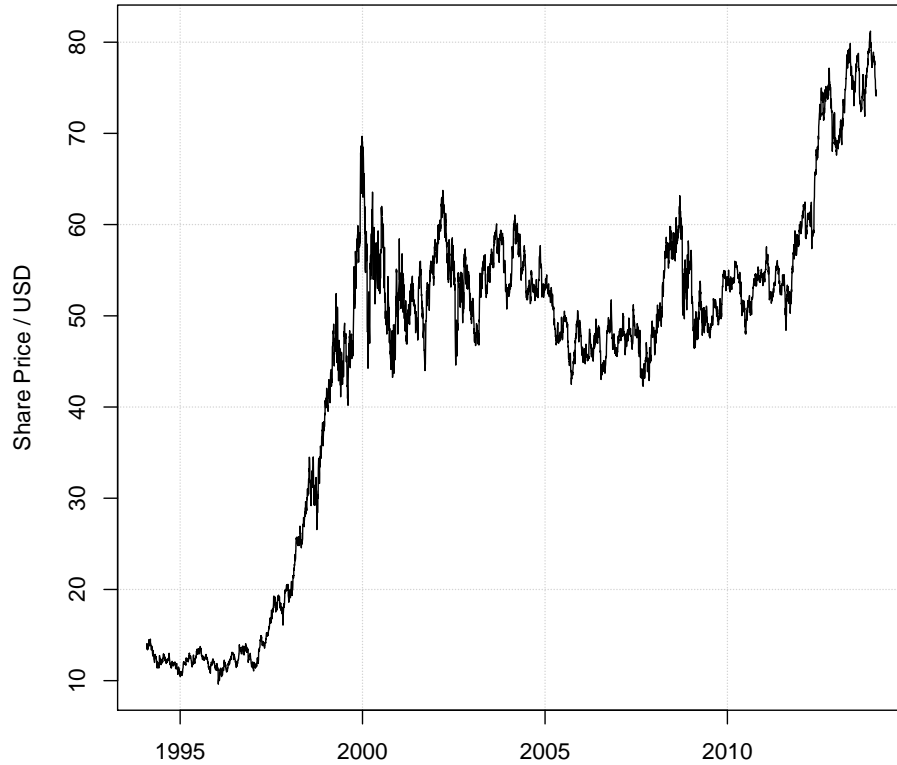
Wal-Mart (Financial Statistics)

Wal-Mart (1994-2014)	Mean	Stdev
ROA	9.1%	0.8%
ROE	22.6%	1.6%
Net Profit Margin	3.3%	0.3%
Equity / Assets	39.9%	1.9%
Earnings Retained	47.5%	29.2%
Dividend / Net Income	22.0%	7.1%
Net Share Buyback / Net Income	30.5%	24.7%

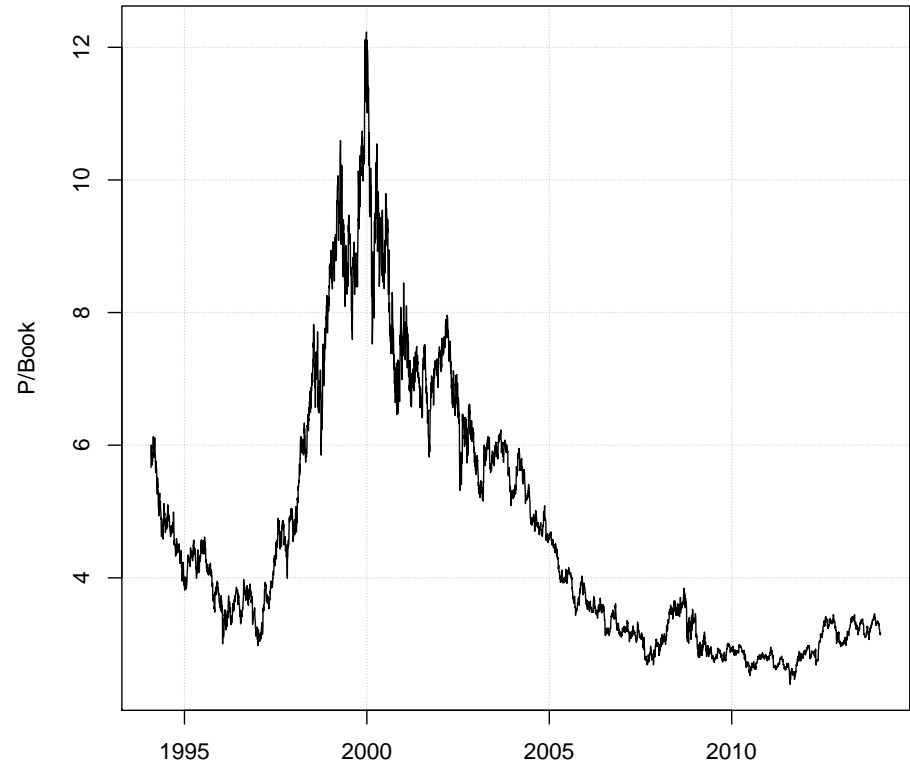
Wal-Mart has been a very stable company except for retained earnings.

Wal-Mart (Share Price and P/Book)

Wal-Mart



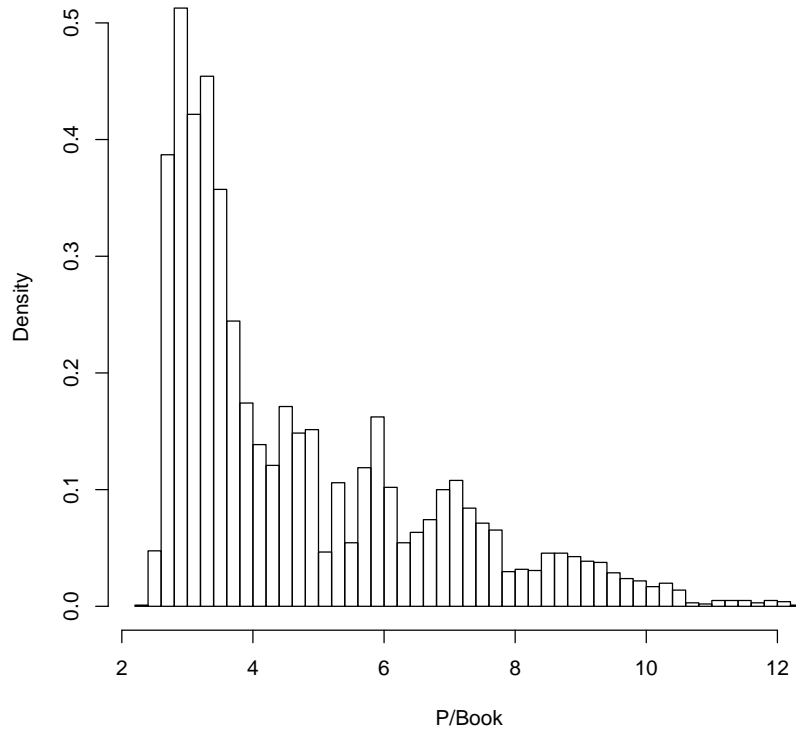
Wal-Mart (1994-2014)



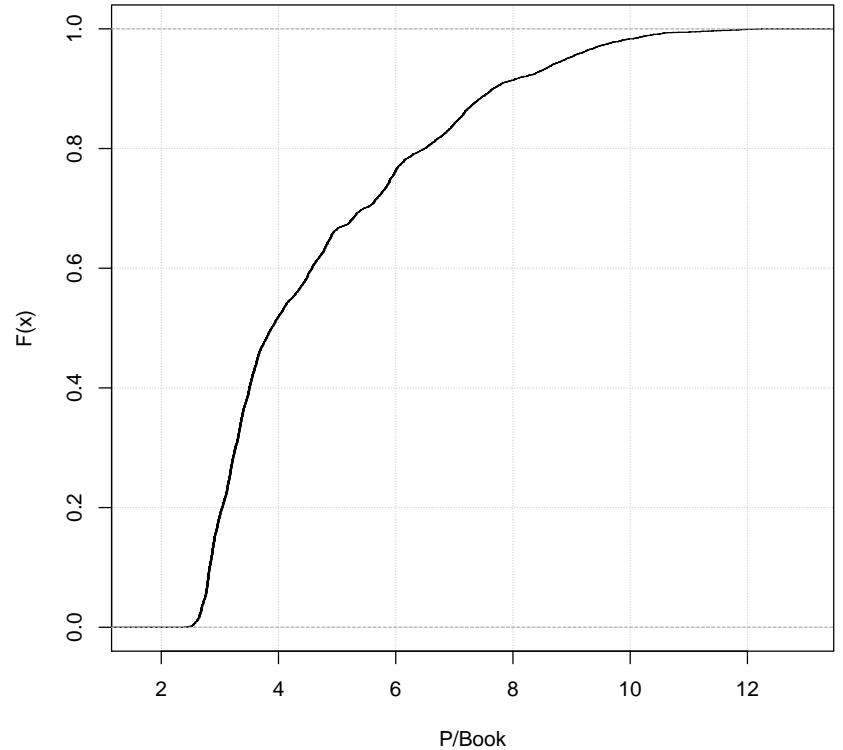
Wal-Mart (P/Book Statistics)

P/Book
Mean: 4.7
Stdev: 2.0
Min: 2.4
Max: 12.2

Wal-Mart (1994-2014)



Wal-Mart (1994-2014)



Conclusion

- P/Book is not constant and rarely equals its historical average.
- Even stable companies have volatile P/Book ratios.
- Future P/Book ratios are not easy to predict.

Further Reading

Plots are taken from the paper:

- [Portfolio Optimization and Monte Carlo Simulation](#)

Authored by Magnus Erik Hvass Pedersen.

Available on the internet:

www.Hvass-Labs.Org