Are leverage ratios the panacea?

Patricia Jackson July 2018

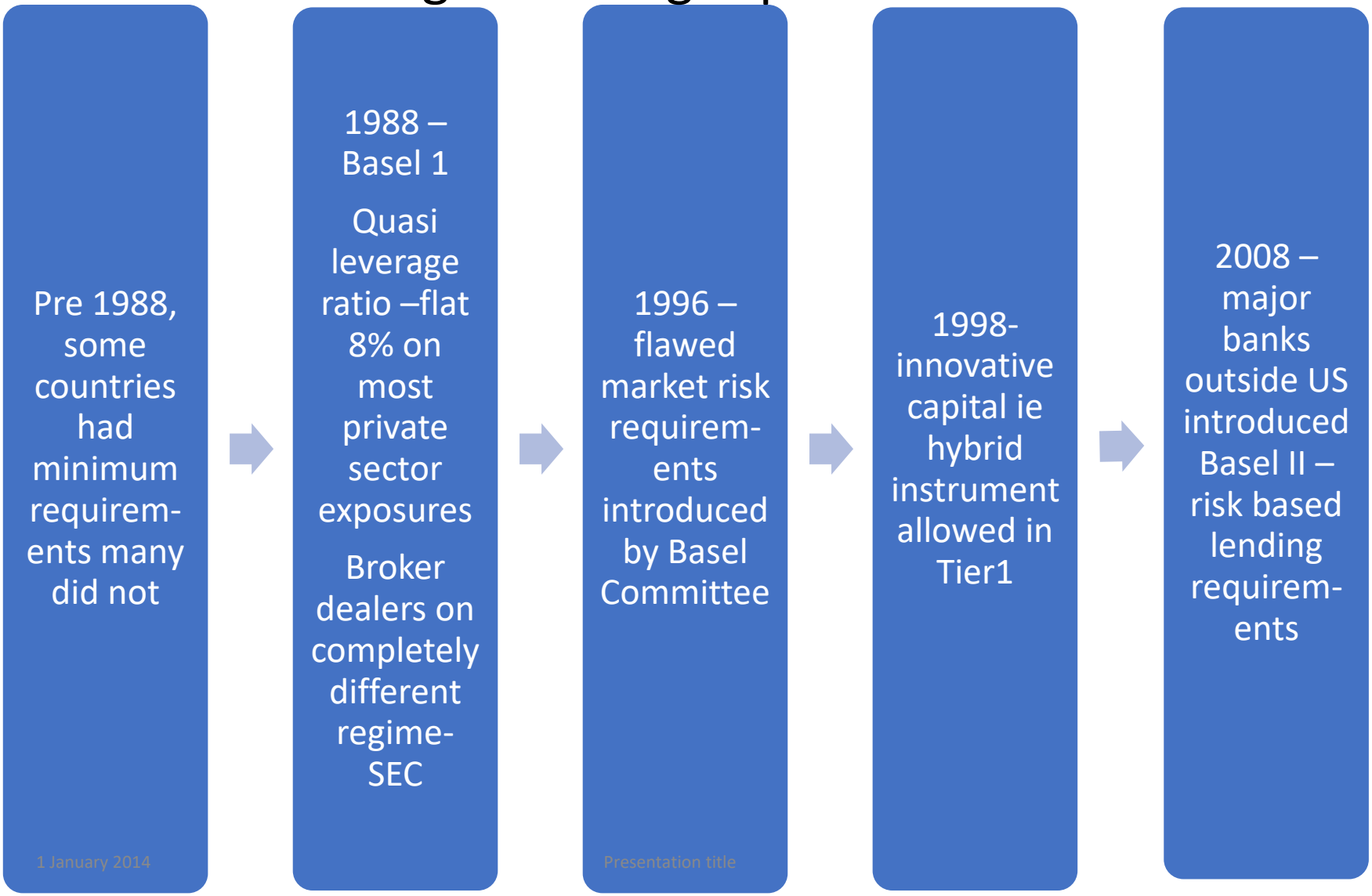
Following the different papers on bank risk asset ratios v the leverage ratio – the belief is that leverage ratios should be higher and also that the leverage is a more important and comparable measure of bank risk

- Barth et al 2017 suggest the leverage ratio should be increased from 4% to 14% moving away from risk based requirements.

- Important that the difficulties in assessing the leverage ratio v risk based requirements are understood
- Pros and cons of different methods of research
- And the pros and cons of risk insensitive requirements are fully understood.

Designing tests for capital ratios v leverage

Must allow for regime changes pre crisis



Examples of papers to date

Author	Time period	Basel ratio tested	Findings
Estrella et al -2000	US- 1988-1992 All insured banks	Basel I v leverage	Both related to later failure
Demirguc-Kant et al 2010	Q! 2005-Q12009	Basel I v leverage	Basel ratio related to later stock market returns
Haldane 2012	116 large global banks End 2006 -including broker dealers	Basel 1 v leverage	Leverage not Basel I related to subsequent failure
Blundell –Wignall et al 2013	94 US and EU global banks and broker dealers -2004-2011	Basel I and Basel II	Leverage ratio more predictive of distance to default
Åikman et al 2014	116 banks -end 2006	Basel I	Leverage ratio outperformed in predicting failure except for US banks (which were under a leverage ratio)

Issues with drawing conclusions re risk based requirements v leverage

- Using capital ratios pre crisis as a predictor of failure in the crisis doesn't work as a test of risk based requirements v leverage. Basel I in force until 2008 was a quasi leverage ratio.
- The Basel ratio (Tier1/RWAs) cannot be used without adjusting for introduction of hybrids
- The impact of securities activity –broker dealers under different regime- and large bank securities players needs to be considered –Haldane and Blundell Wignall include broker dealers. Haldane's results are dominated by the effects of the large securities players- does highlight backstop benefits of leverage ratio.
- Relying on samples dominated by small banks may severely affect the result –small bank dynamics are different
- Relying on US samples distorts the results – US didn't introduce Basel II

Can other tests be utilised rather than survival in 2007/8 crisis

- The crisis stressed banks balance sheets and exposures with consequences for P&L and capital

- If one could simulate a crisis and look at effects on bank survival….

- Taking the 2014 EBA stress test on EU banks combined with the AQR exercise of cleaning up the balance sheets as a simulated crisis, with failure being a fail against the stress test, for 104 banks the Core Tier1 ratio was significant at 1% level, leverage was not significant.

- Alternatively using spreads on 5 year CDS for panel of 30 global banks (but excluding US banks) as the measure of default risk in the period 2008 to 2015 (using the yield on 10 year Greek government bonds as the measure of the crisis) the lagged Tier1 ratio was significant at 5% level.
- CDS spread in Q2 f Tier1,leverage, loan loss reserve/gross loans, ROE, Greek sovereign Yield average in Q1 –financials all for end of previous year

Costs versus benefits of increasing the leverage ratio

- The benefits have been estimated in a number of studies by considering the costs of banking crises – although Barth shows this is highly dependent on whether effects on GDP are permanent or temporary
- The costs in Miles et al are calculated assuming Modigliani Miller holds although Barth can find no relationship between estimated bank betas and book leverage. And currently there is no evidence investors are accepting lower ROEs.
- The distortionary effect on activity is not considered –nor the transition costs of moving to higher capital

Potential distortionary effects

- BCBS study 1996 found the risk insensitivity of Basel I was driving substantial distortions in activity – banks were using securitisation to increase risk taking relative to capital
- The exiting or reduction in areas of activity also need to be considered as potential costs. The introduction of higher Basel III capital requirements > risk has hit some types of activity. It is important that the leverage ratio is a backstop to risk-based requirements, not a front stop.
    - Longer dated swaps – no longer available
    - Project finance
- Banks are exiting various markets.
- Banks with high quality mortgage books are struggling with business model.
- Some business is shifting to shadow banking but not all
- Market trading is falling

The full effects will take time to come through as banks reorganise activity and close business lines

- Banks are continuing to evaluate areas of activity post Basel III
- Operations have to be closed
- Redundancies made

Transition costs

- Pressure from investors for banks to deleverage to meet higher capital

Widespread belief that leverage ratios more comparable than risk- based requirements

- European banks are criticized because they have less capital to total assets than US banks.
- But composition of balancesheet quite different
  - Around 13% of balancesheet is in high quality mortgages, in the US these are securitized
  - Lending to large corporates still on balancesheet of European banks

A simple comparison without adjusting for structural portfolio differences is likely to be misleading

Main papers referenced

- Benefits and Costs of a Higher Bank Leverage Ratio – James R Barth and Stephan Matteo Miller – MERCATUS Working Paper 2017
- Optimal Bank Capital -David Miles, Jing Yang and Gilberto Marcheggiano, 2013
- The Dog and the Frisbee, Andrew Haldane, 2012
- .The Impact of the Basel Accord, Jackson et al BCBS working paper 1997
- Simpler Capital Requirements versus Risk Based – the evidence . Patricia Jackson SUERF proceedings 2015.

Thank you