

DEBT CAPITAL MARKETS

I. Opening Remarks

II. New Issuance

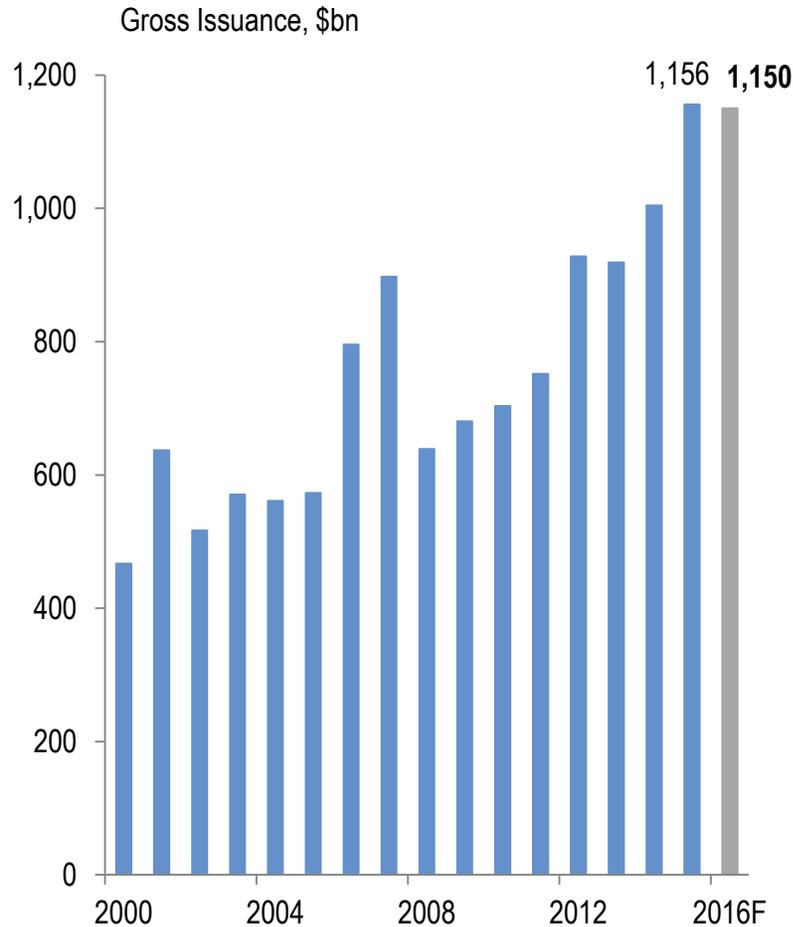
III. Spreads and Liquidity

IV. Credit Trends by Sector

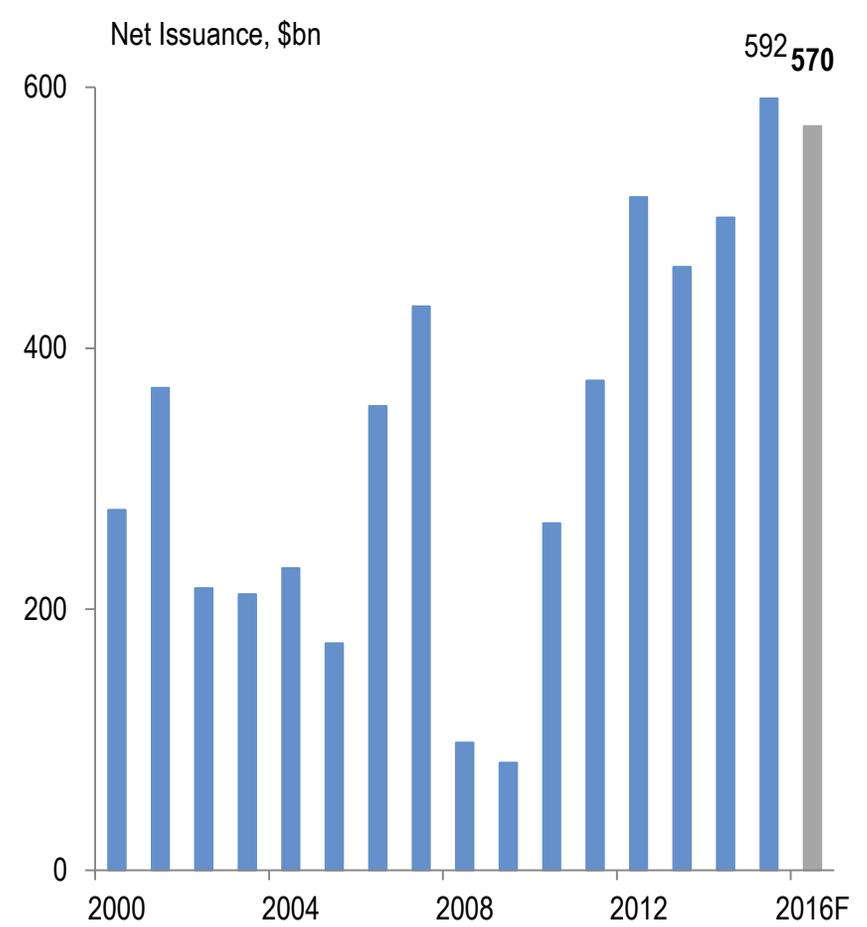
V. Impact on Banks and Financial Institutions

2015 was a record year for HG bond supply, and we expect a repeat in 2016 with \$1.15tr of issuance, driven by M&A, buybacks

Annual HG Bond Gross Issuance



Annual HG Bond Net Issuance



Source: SDC Thomson Financial.

Historical corporate spreads

INVESTMENT GRADE



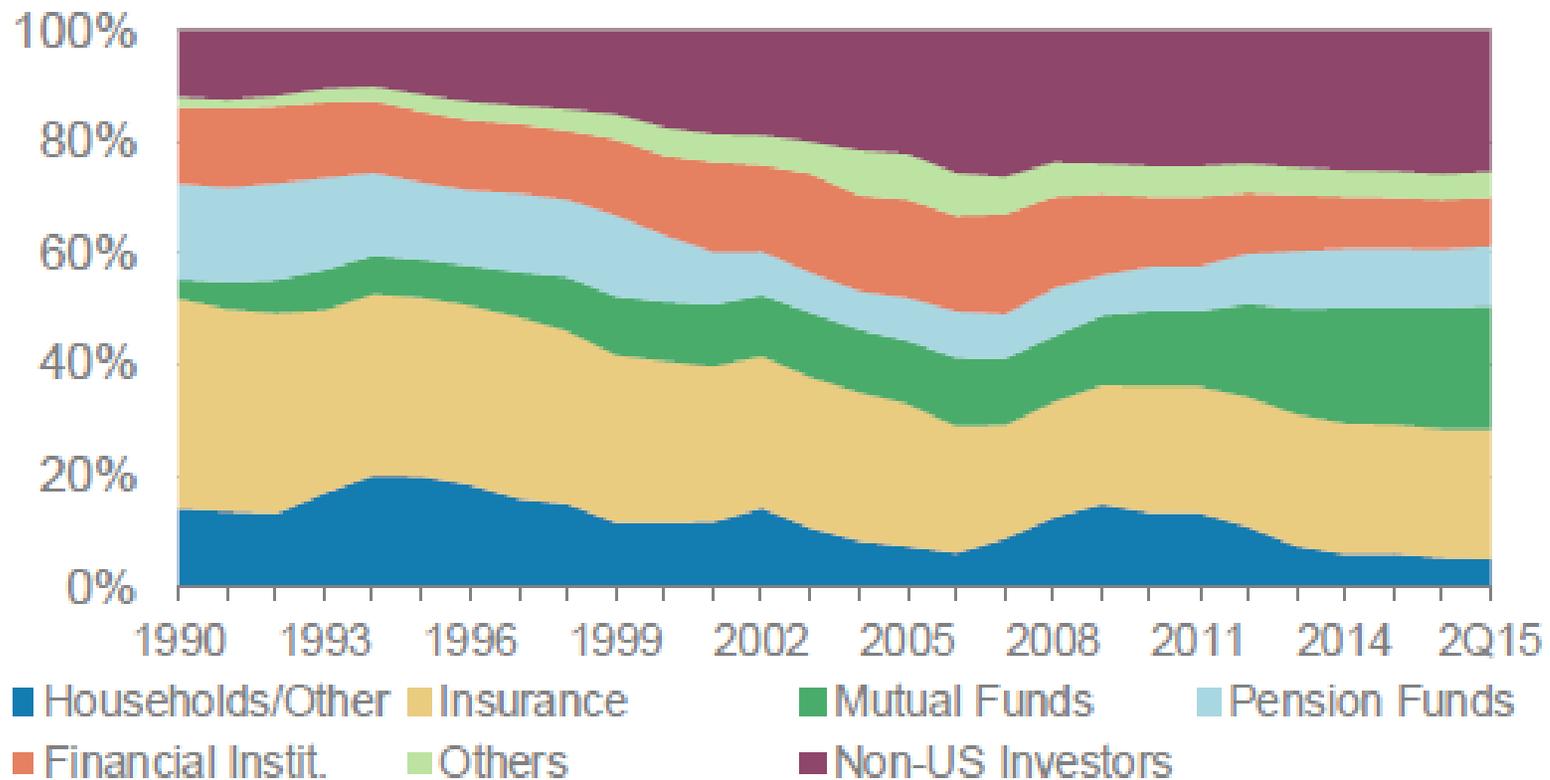
HIGH YIELD



Source: Bloomberg, Barclays

Changing market structure

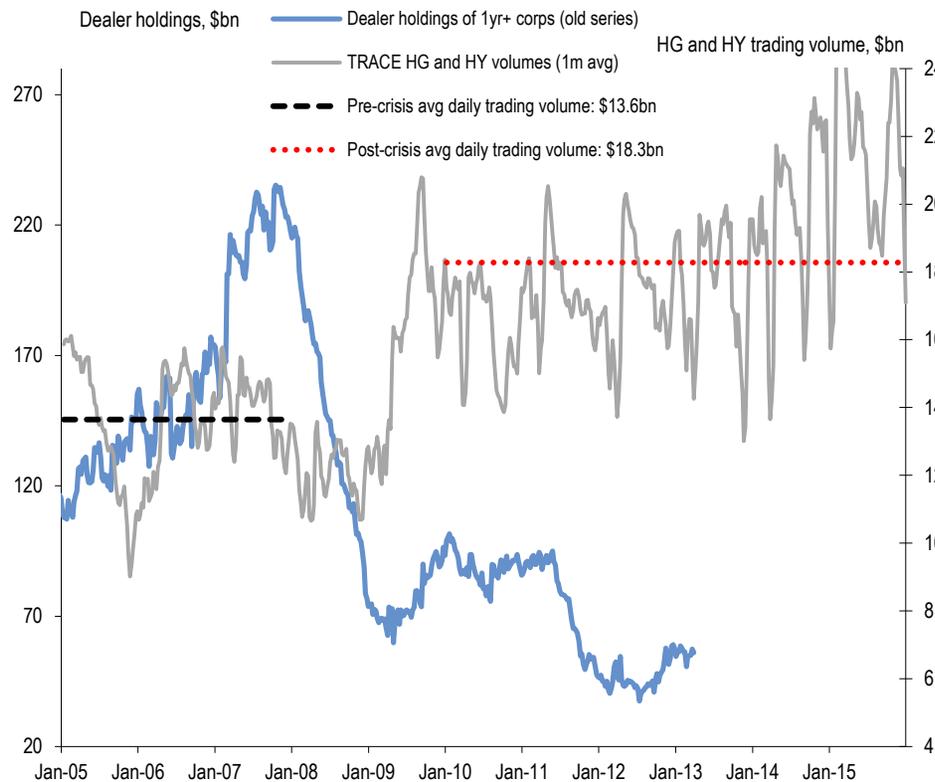
US CORPORATE BOND MARKET OWNERSHIP



Source: Morgan Stanley, Fed Flow of Funds Note: Includes IG and HY bonds

Corporate Bond Liquidity: Overall trading volumes have been stable for several years, despite declines in dealer positions

HG and HY bond trading volumes have remained stable despite the drop in Dealer Positions

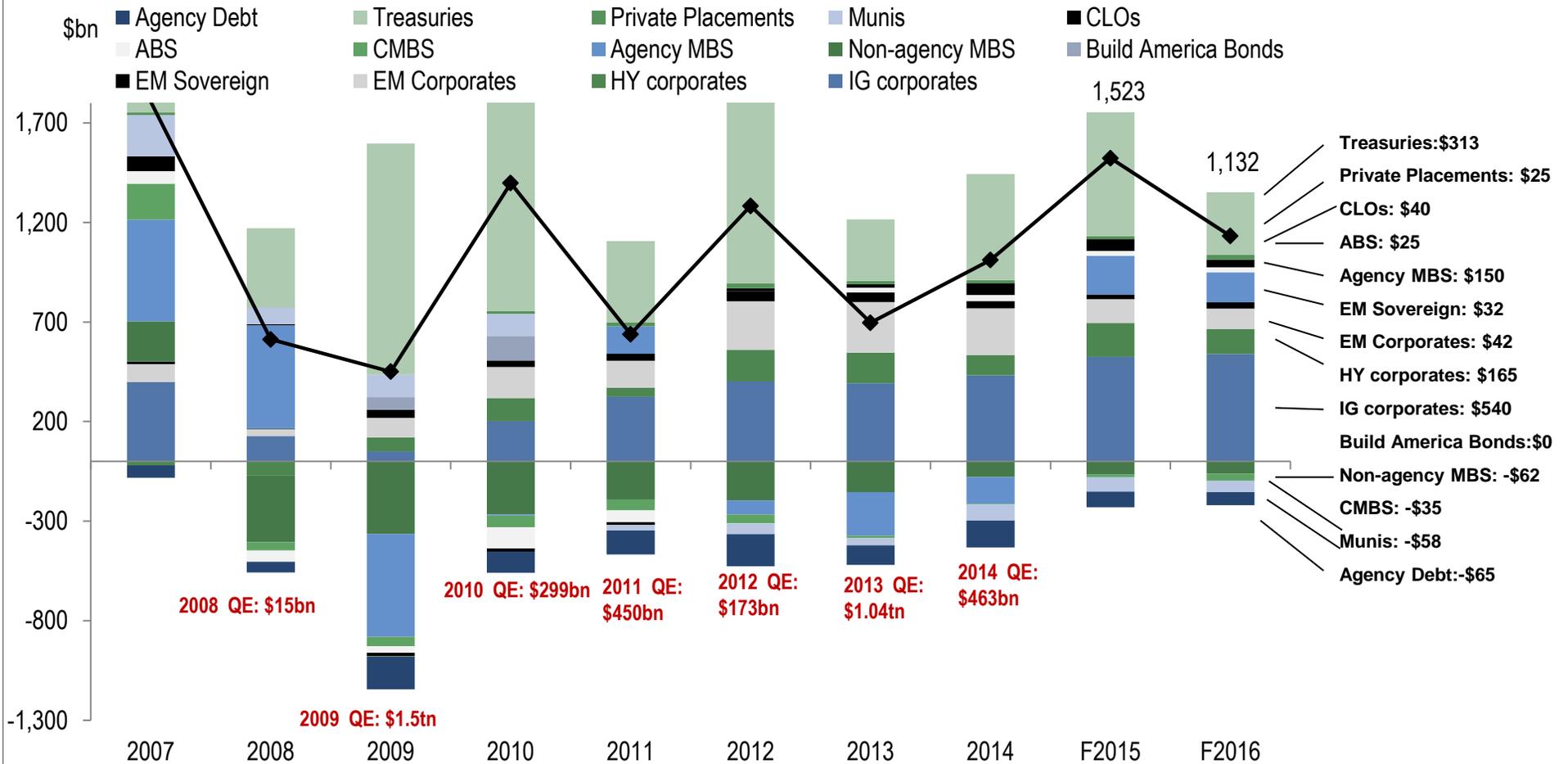


- The Fed used to provide one figure for dealer positions which included corporates, CMOs and other securities. This data series ended in April, 2013
- HG and HY bond trading volumes have been stable since 2010, though with significant seasonal volatility
- More bonds actually trade now than traded pre-crisis, according to TRACE

Source: TRACE and Federal Reserve Bank of NY, as collected from the 18 primary dealers. Corporate securities include bonds, notes, and debentures. It includes CMOs and REICs (including residuals) issued by entities other than federal agencies and GSEs. (CMO – Collateralized Mortgage Obligations. REICs – Real estate investment corporation). It includes stripped securities (both IO and PO components) issued by entities other than the federal agencies and GSEs. Data as of Jan 2016.

Even with Treasuries the supply of \$US fixed income available to the private market is still below the pre-crisis level.

NET issuance across spread products



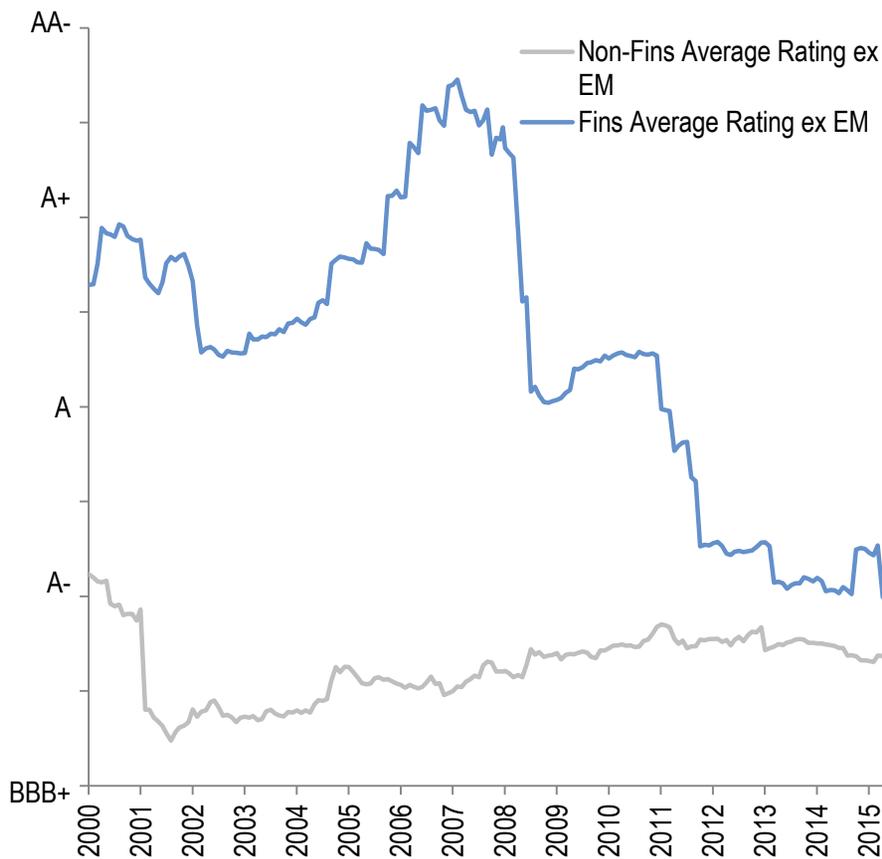
Source: J.P. Morgan

Note: ABS includes Card, Auto, Student Loan and MH ABS. bar charts are adjusted for the double counting of EM Corporates in the HG numbers.

J.P.Morgan

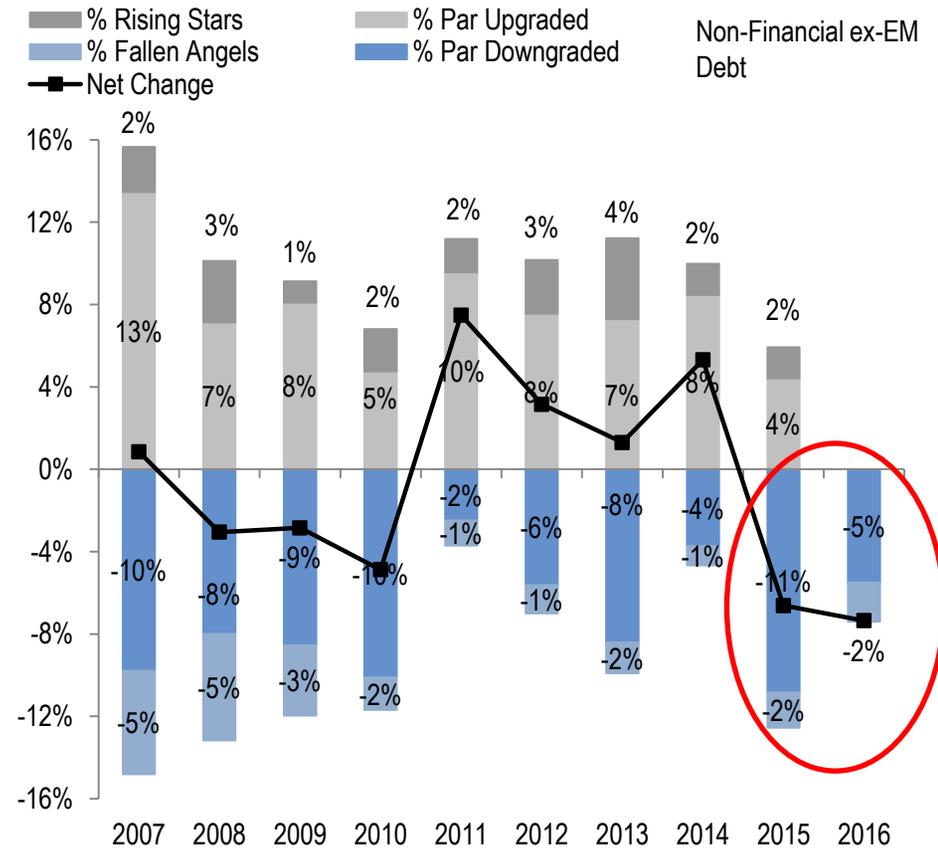
Financial bond ratings have declined for 5 years. In 2015 Non-Financial downgrades exceeded upgrades.

Average Rating of Financial and Non-Financial issuers



Source: J.P. Morgan as of February 2016.

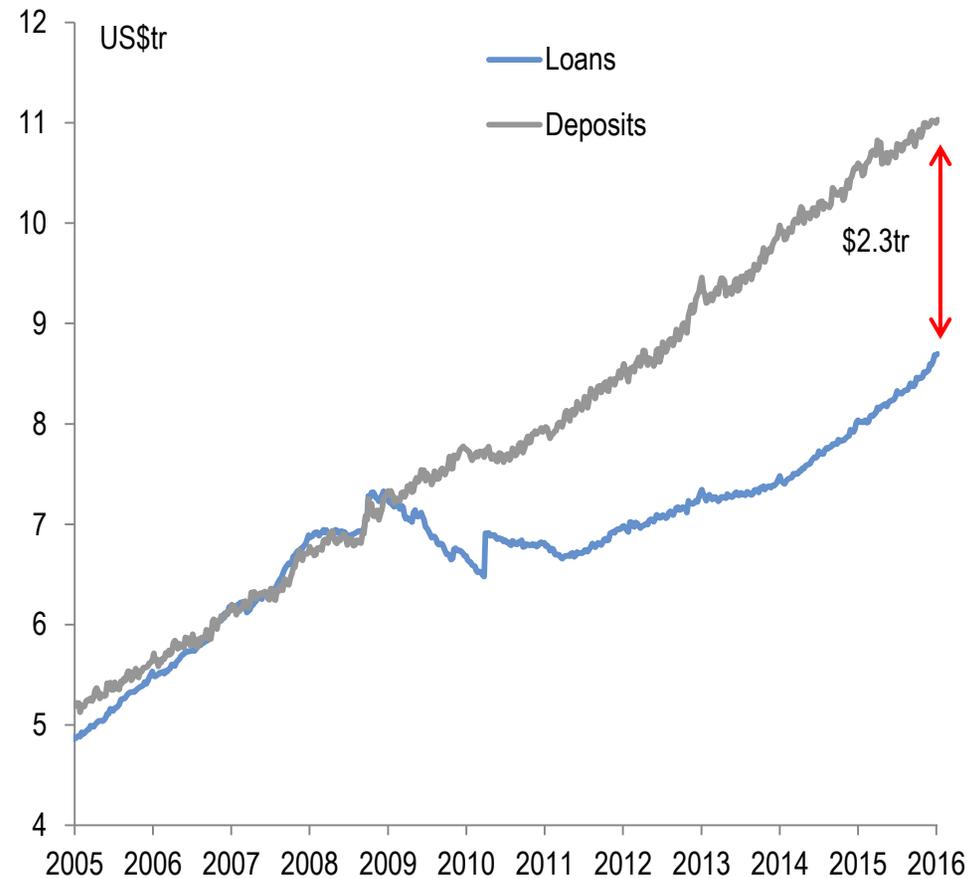
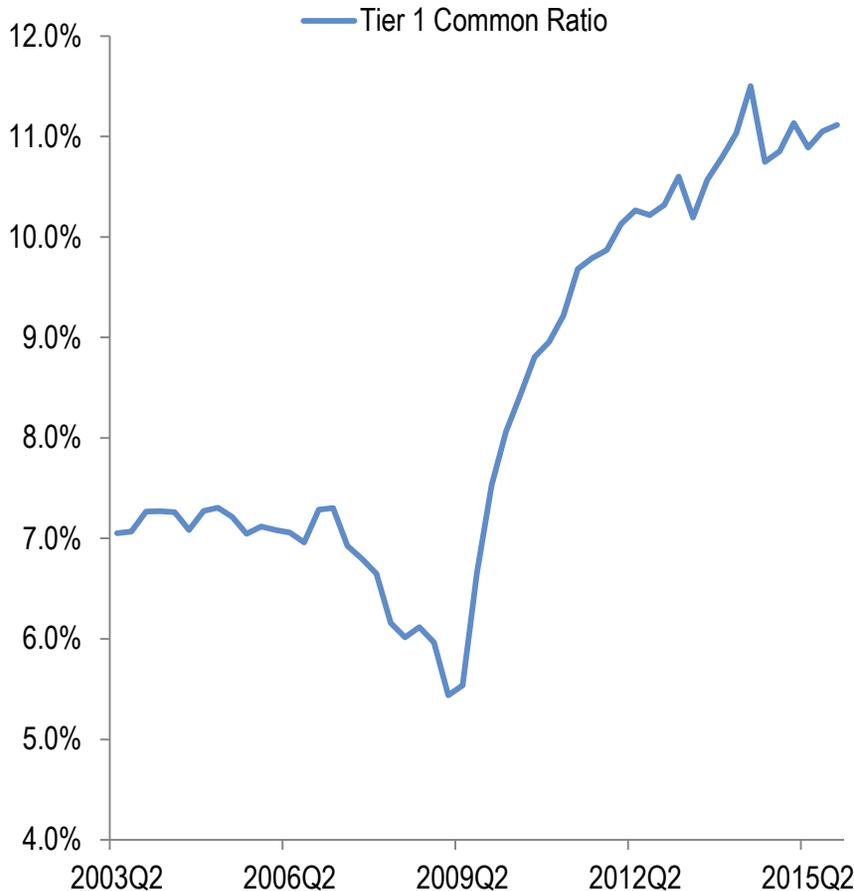
Downgrades and Upgrades in the JULI, (% of Non-Financial ex EM debt each year)



Banks, unlike Non-Financials, are deleveraging. They should benefit from higher US rates as earnings on deposits grow.

US bank Tier 1 capital has risen— i.e., banks are deleveraging

Deposit growth has outpaced loan growth since the crisis, with a current gap of +US\$2.3tn



Source: Federal Reserve and J.P. Morgan, as of January-2016.

Note:

- 1.The increase in US loans and leases in October 2008 is due to WAMU being reclassified from a thrift to a bank.
- 2.The sharp increase in US loans and leases in March 2010 is due to the impact of FAS 167, which requires the consolidation of variable interest entities that had previously been reported off balance-sheet.
- 3.European data reflects loans to and deposits from non-banks, excluding government sector, denominated in Euro.