

# The Portfolio Balance Channel of Unconventional Monetary Policy: Evidence from Mutual Funds

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# Portfolio Balance Channel

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I see the evidence as most favorable to the view that such purchases work primarily through the so-called **portfolio balance channel**, which . . . relies on the presumption that different financial assets are not perfect substitutes in investors' portfolios. . . For example, some **investors who sold MBS to the Fed may have replaced them in their portfolios with longer-term, high-quality corporate bonds**, depressing the yields on those assets as well.

- **Ben Bernanke, Jackson Hole, August 27, 2010**

# Theory and evidence

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- 1. Absent frictions, “irrelevance” of QE purchases:** Wallace (1981); Krugman (1998); Eggertsson and Woodford (2003); Woodford (2012)
- 2. Bond supply may be relevant with preferred habitat investors:** Modigliani and Sutch (1966); Vayanos and Vila (2009); Greenwood and Vayanos (2014); Christensen and Krogstrup (2016a)
- 3. Reduced yields could be supportive of both portfolio balance and signalling:** Krishnamurthy and Vissing-Jorgensen (2011, 2012); D’Amico and King (2013); Gagnon et al (2011); Glick and Leduc (2011); Bauer and Rudebusch (2014)

# This study – micro study of QE

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1. Examine directly quantity effects rather than solely the price effects of QE.
2. Study the portfolio balance effects of QE on the individual security holdings of bond mutual funds by “following the money”.
3. Examine transmission of QE outside the banking sector.

# Questions

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1. Do mutual funds sell the assets that the Federal Reserve is purchasing?
2. Do mutual funds rebalance their portfolio into other assets (corporates, international, government)?

# Data

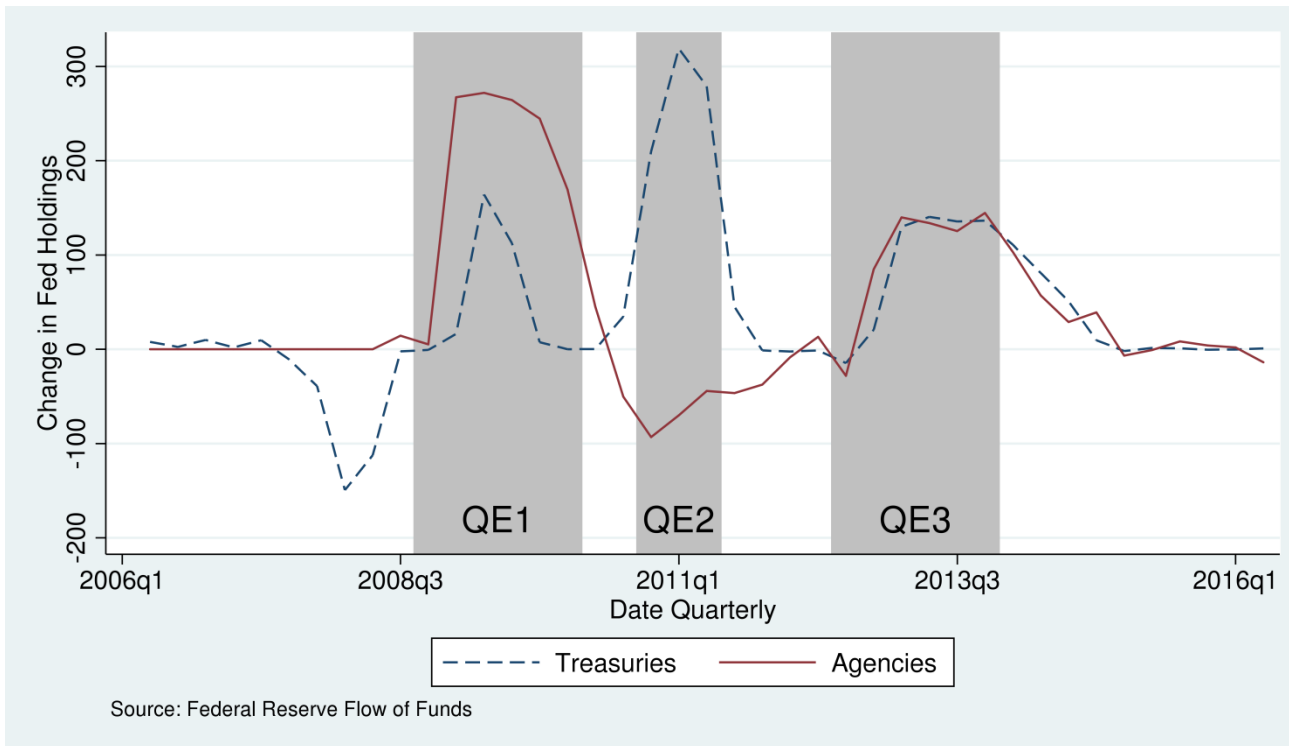
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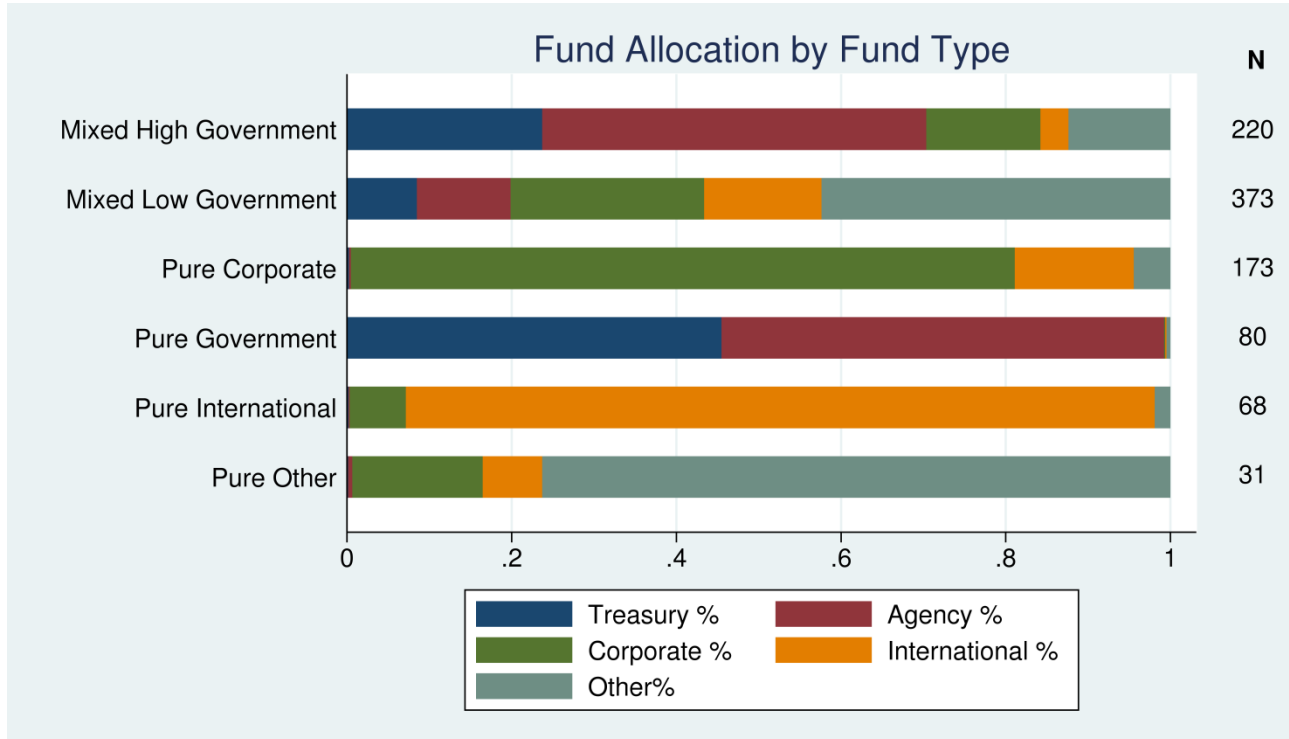
Morningstar  
quarterly  
bond fund  
holdings data  
(2006-2014)

Federal  
Reserve asset  
purchases

# Focus on QE transactions

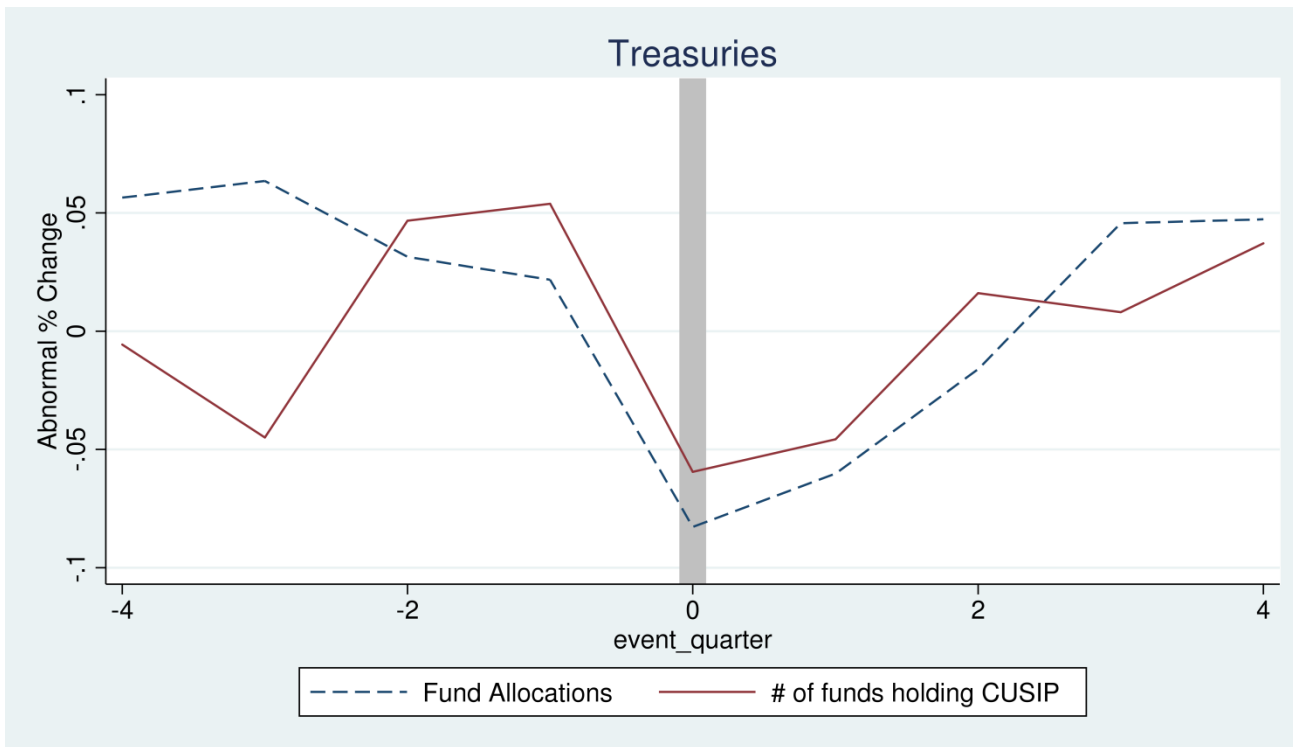


# Constrained and less constrained funds

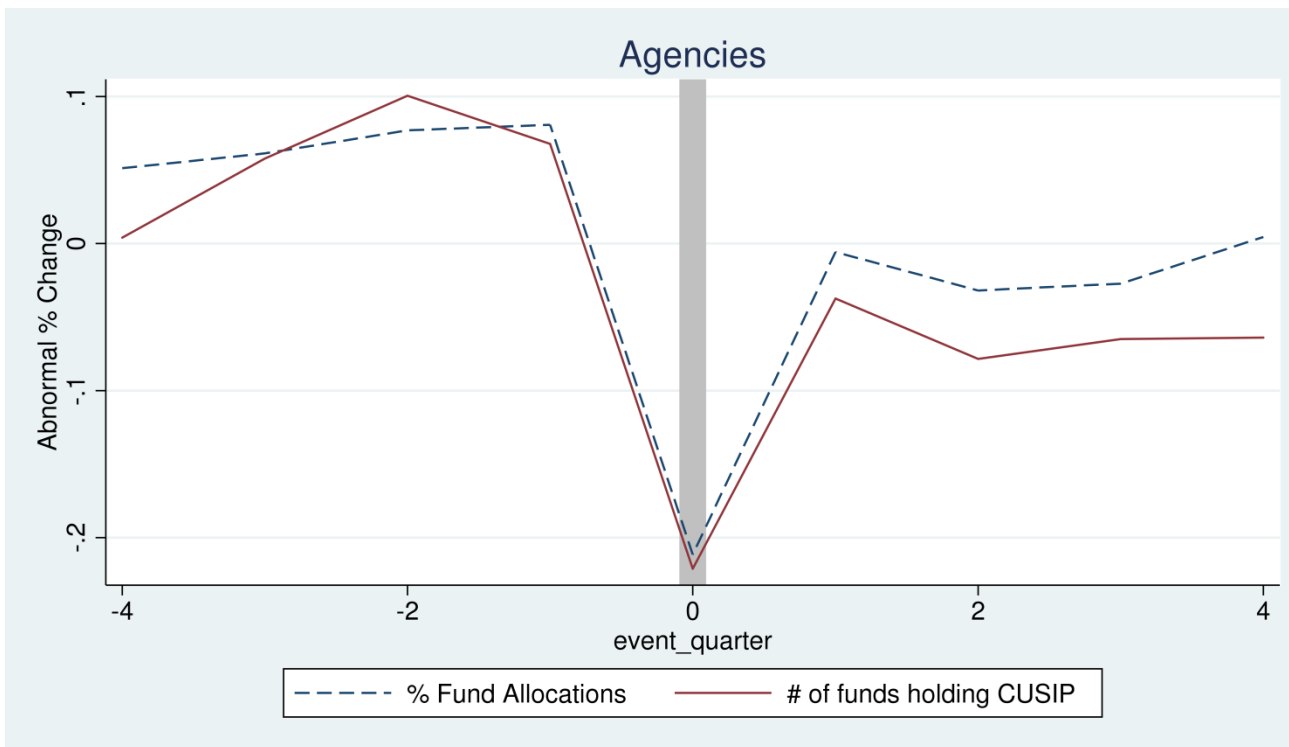




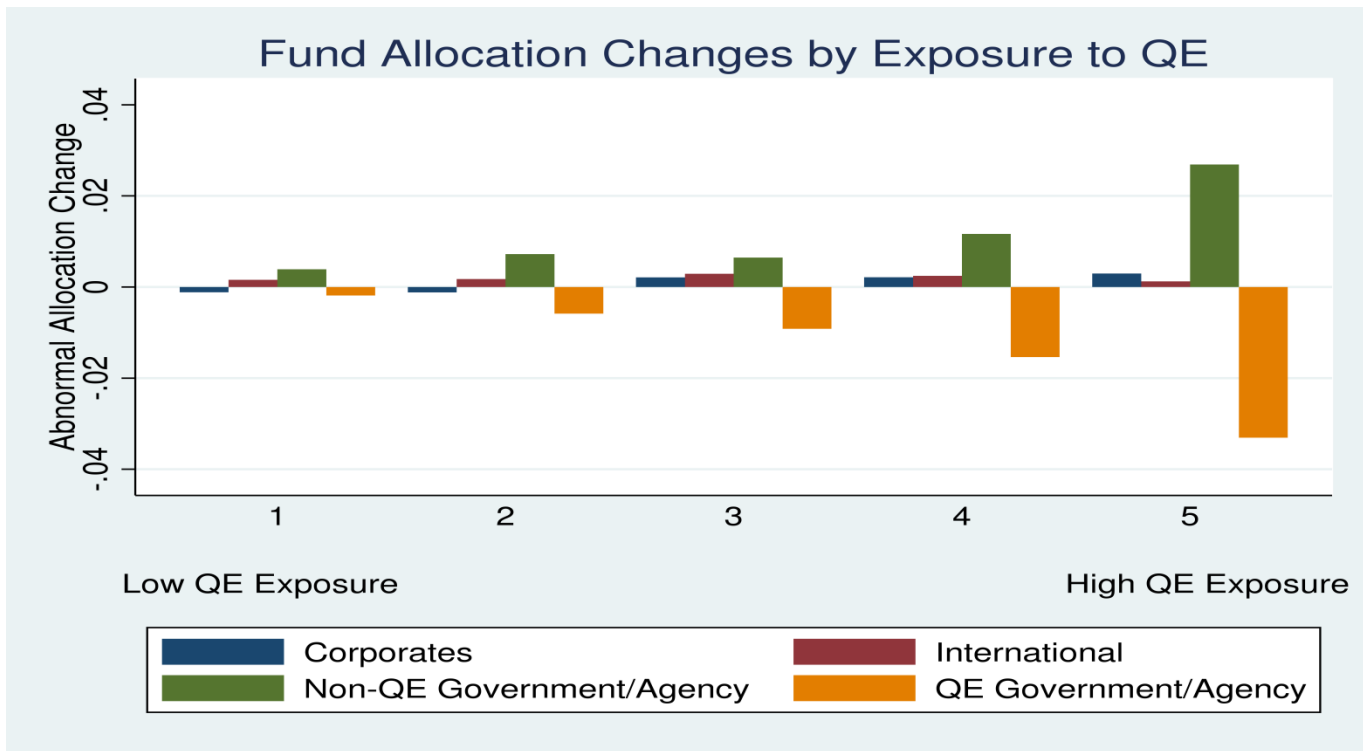
# Do funds sell Treasuries when Fed is buying?



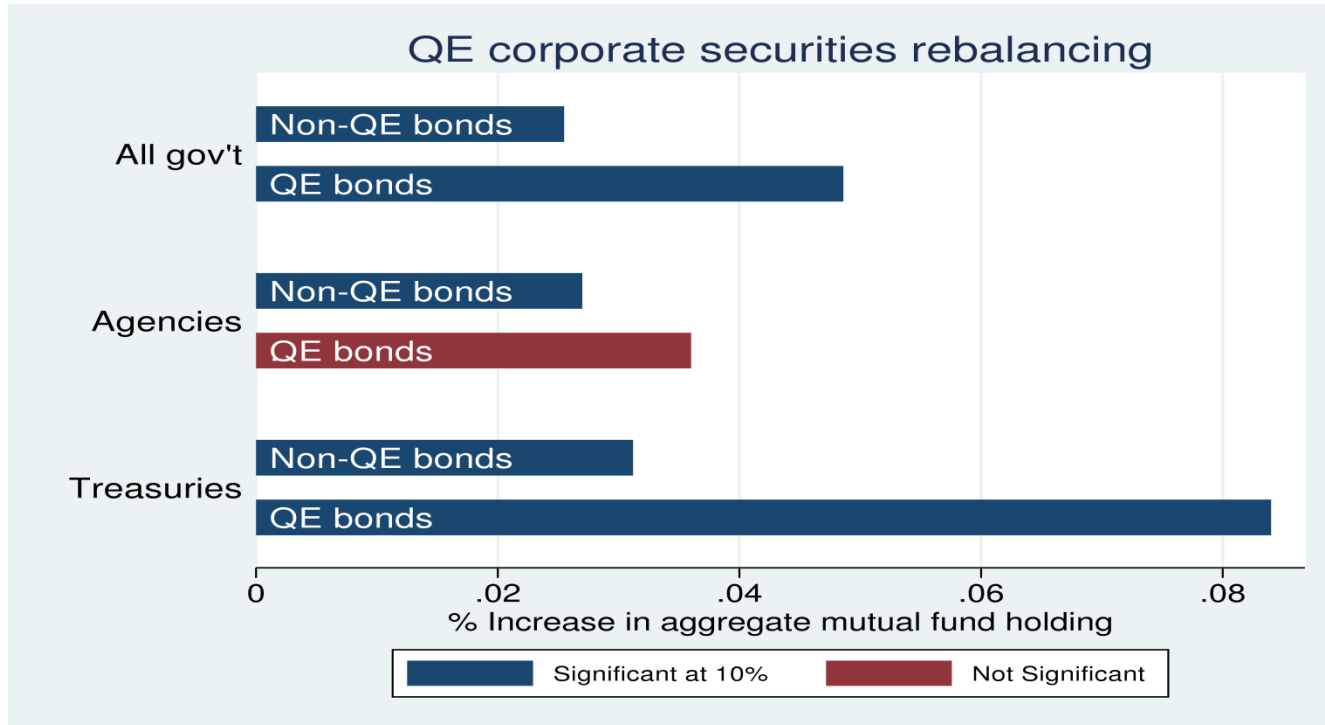
# Do funds sell Agencies when Fed is buying?



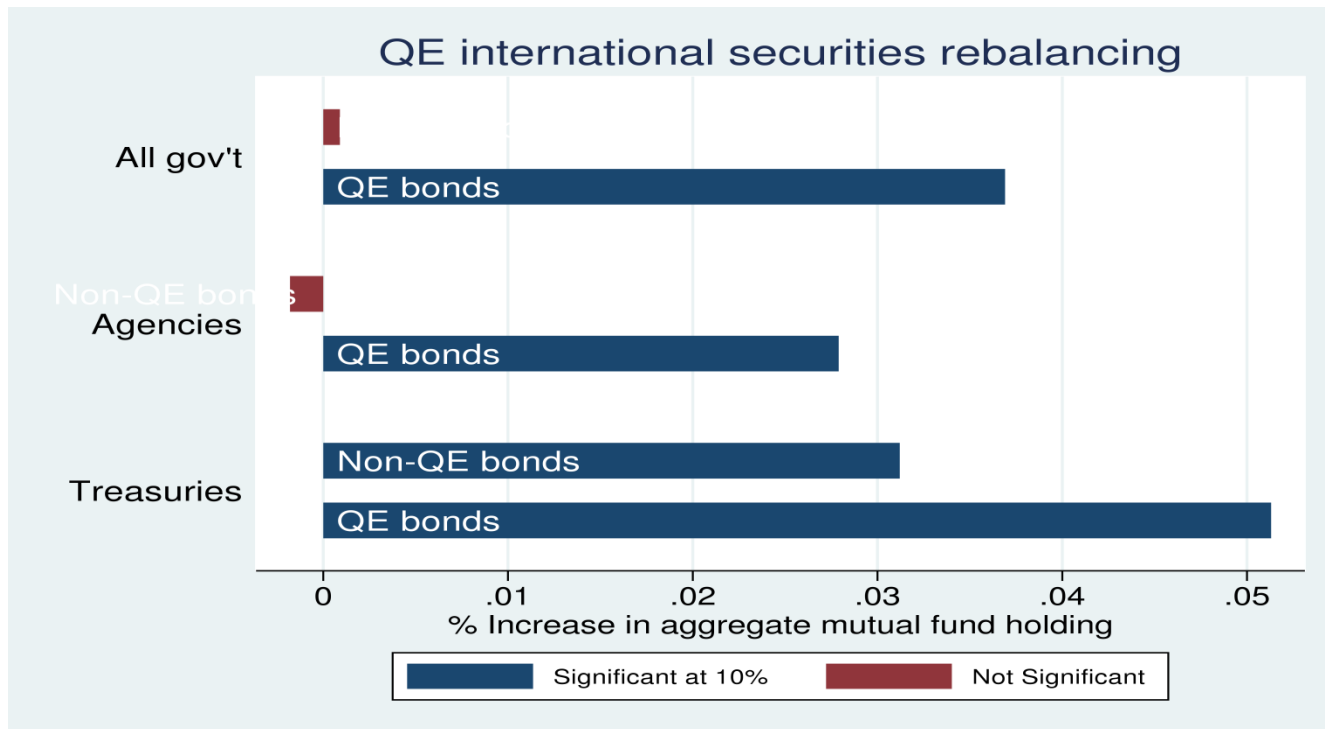
# Where do funds rebalance?



# Do funds rebalance to corporates with QE?



# Do funds rebalance to international bonds?



# Other highlights

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- Portfolio rebalancing seems to be driven more by long maturity purchases.
- Funds rebalance their portfolio more into AAA countries.
  - No difference based on language / geography.
- There are some price effects with these portfolio adjustments, albeit small.

# Summary

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- Mutual funds sold the specific securities to the Federal Reserve during QE period.
- Mutual funds mostly rebalance their portfolio into other government securities and to a lesser extent corporate and international bonds.
- Duration matters.

# Thanks!

