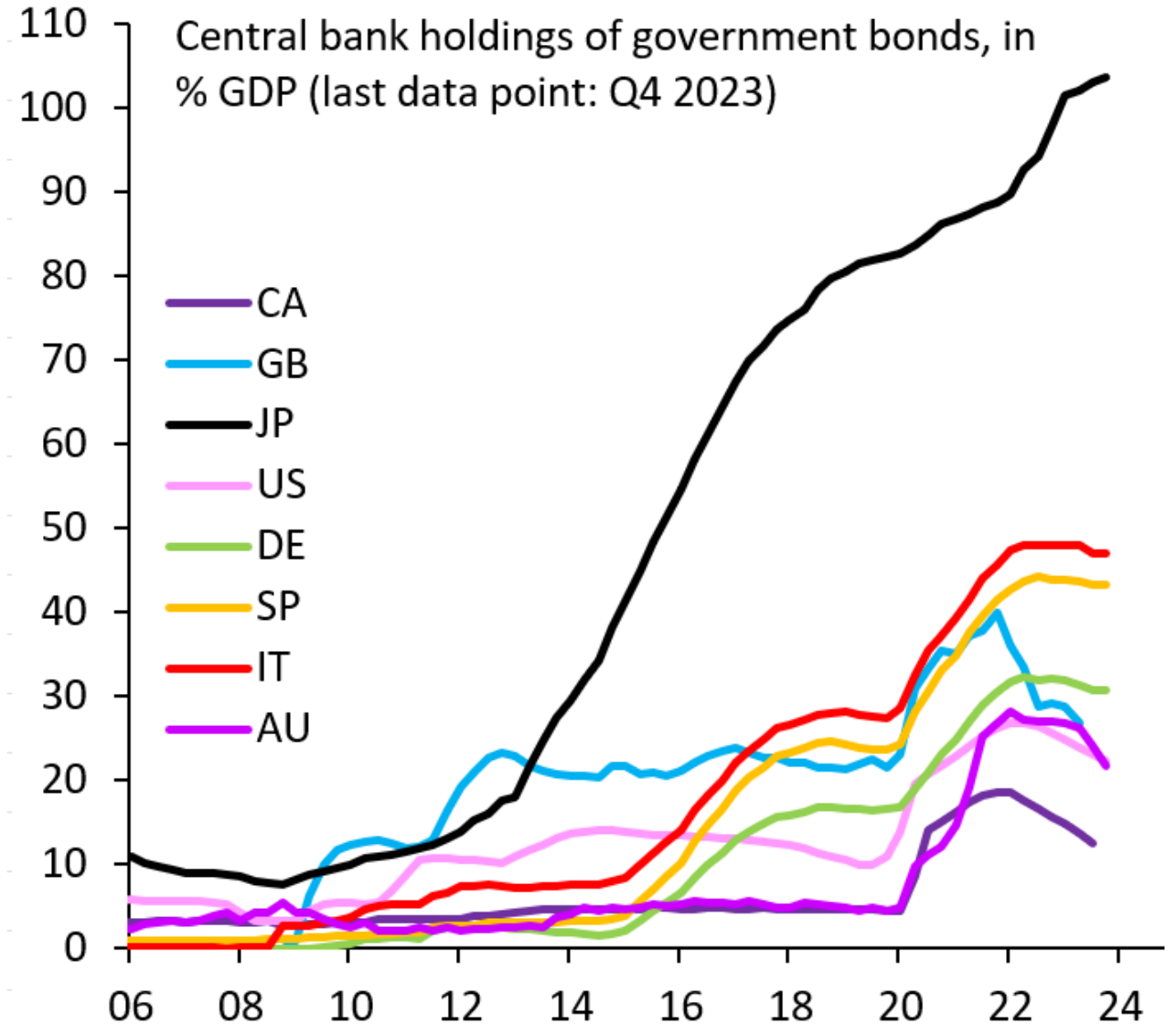


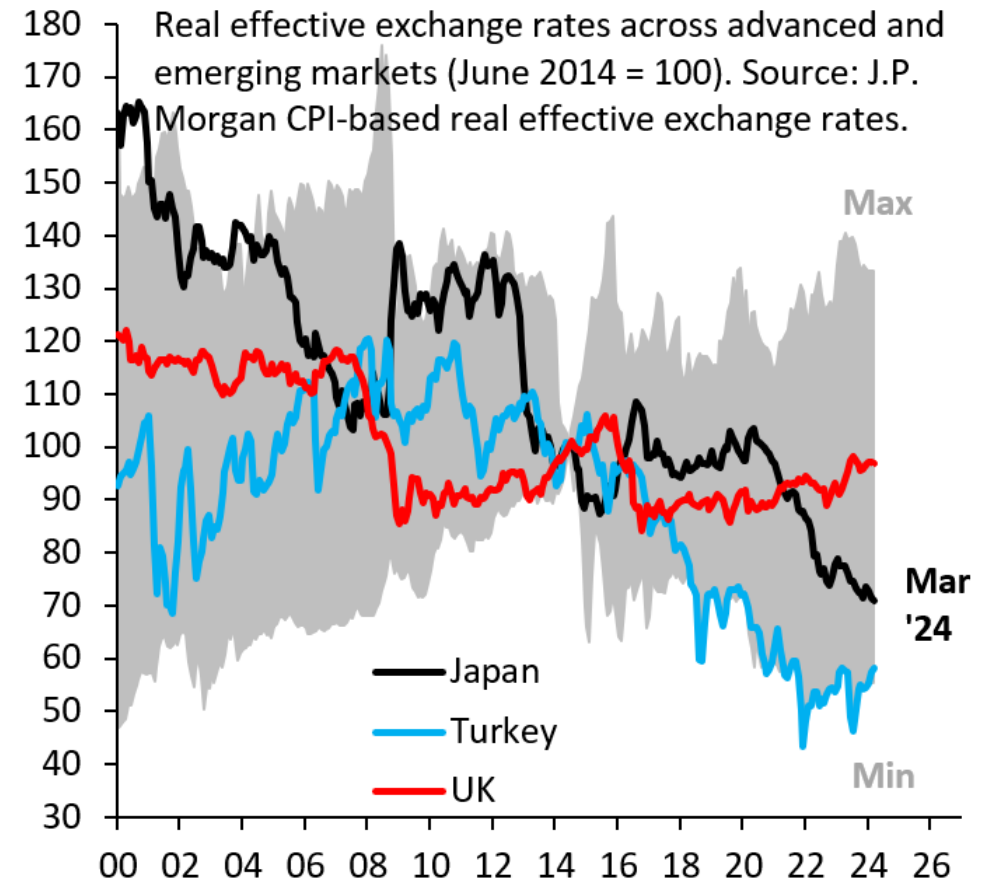
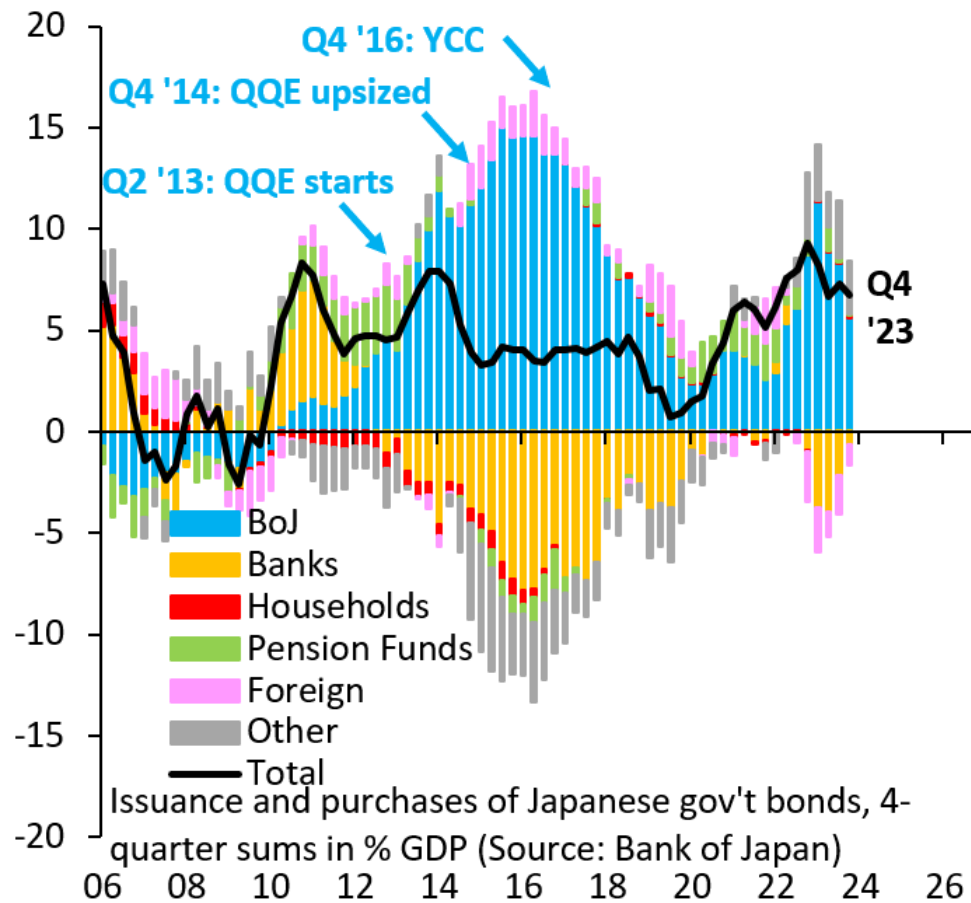
Fiscal Dominance

- A new era for central banks
 - Started with Fed QE in March 2009
 - QE was intended as a cyclical tool at ZLB
 - But that cyclical aspect has gone missing
 - Central bank debt holdings only go up
- Fiscal fragility is rising
 - Spending needs are high
 - Public debt levels are elevated
 - Recent bond market accidents:
 - US: March 2020
 - Euro zone: June 2022
 - UK: September 2022
- Fiscal dominance of G10 central banks
 - Fiscal dominance is extreme for the BoJ
 - No sign of fiscal dominance for the BoE
 - All others – including ECB – in between



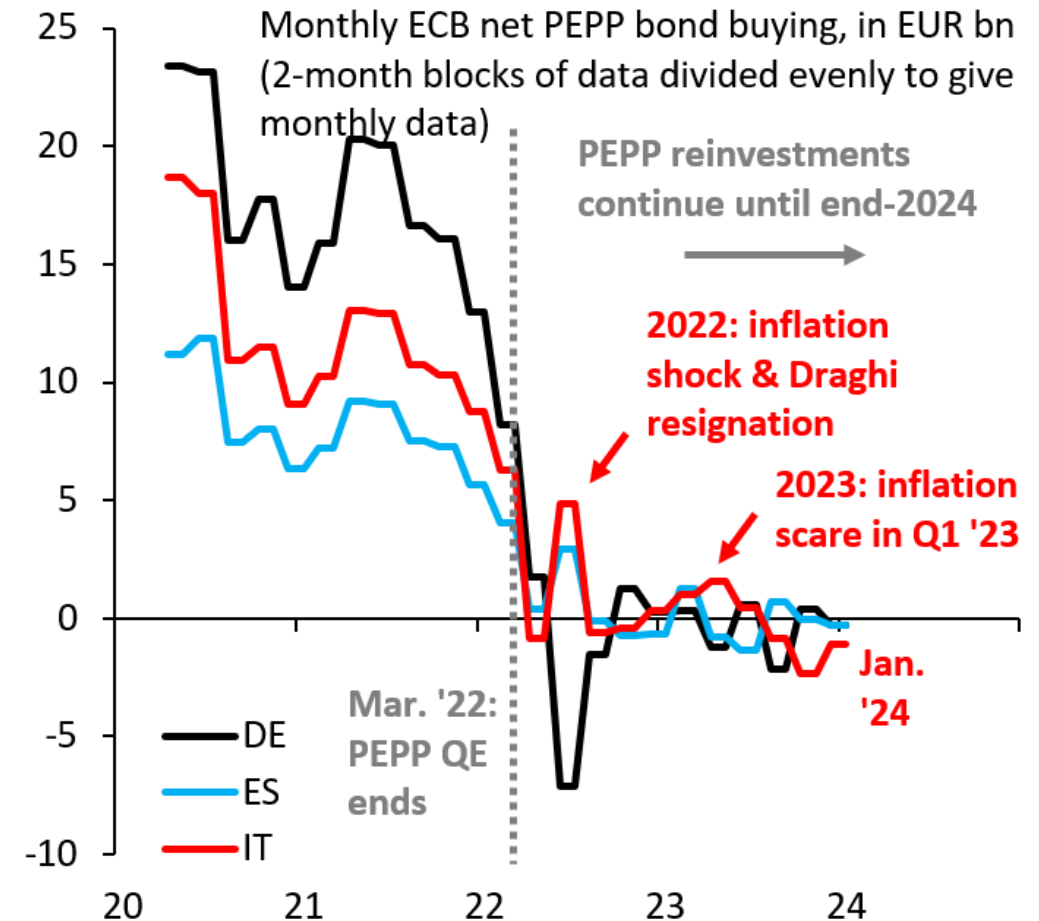
The G10 Central Banks

- There's a spectrum of fiscal dominance across G10 central banks
- Bank of Japan is at one end of the spectrum: full fiscal dominance
- The Bank of England is at the other end: zero fiscal dominance
- Every other G10 central bank – including ECB - is in between



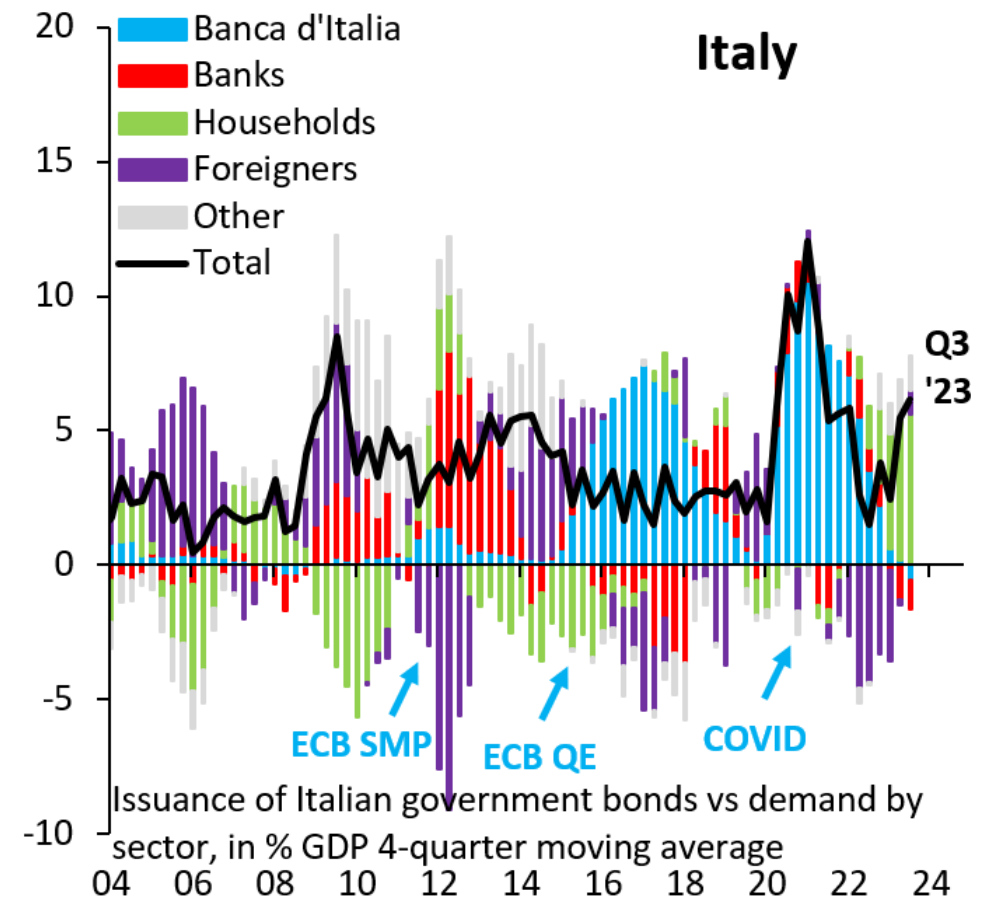
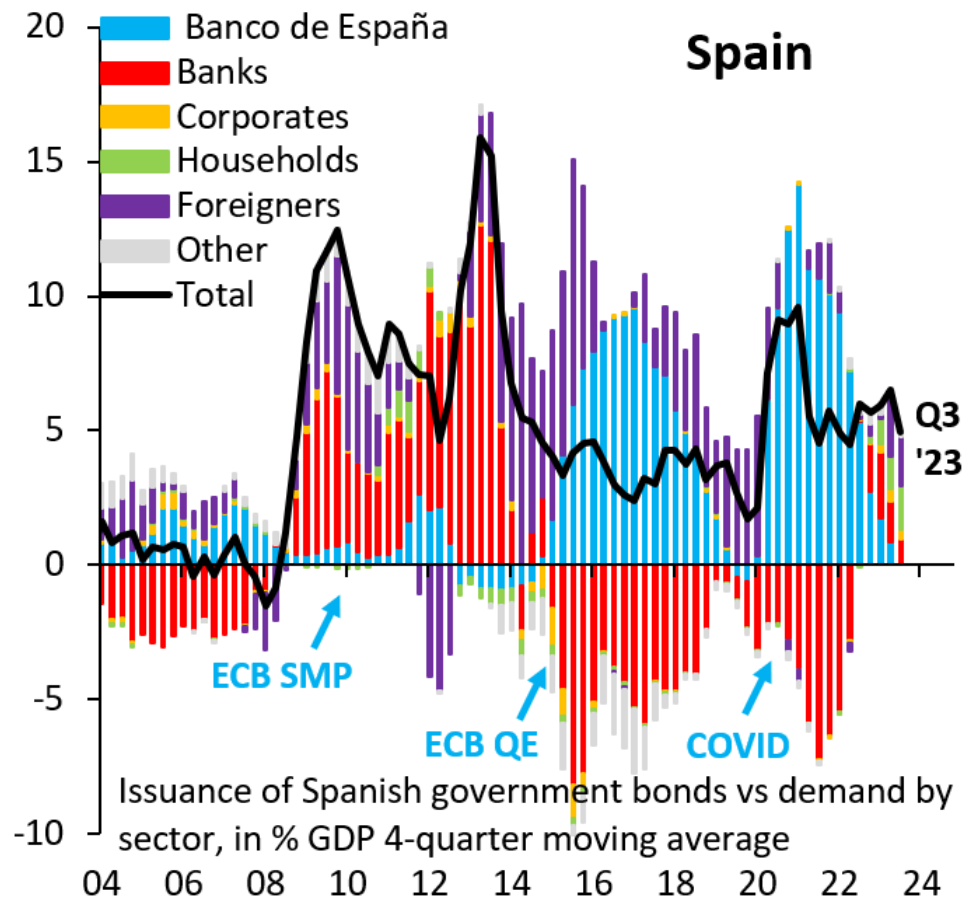
ECB

- A monetary union without a fiscal union
- Implicit subsidy of high-debt sovereigns is large
- COVID QE dropped capital key and reduced data transparency
- Coming full circle: Europe's new fiscal rules use market interest rates



ECB

- ECB buys debt issuance in bad shocks
- That ECB buying keeps interest rates low
- Budget deficits post-COVID are staying wider
- Latest fiscal rules will not help remedy this



United States

- The United States is not immune
- Debt issuance has shifted to very short tenors
- Intention is likely to reduce upward pressure on long yields
- This has eased financial conditions (runs counter to the Fed)

