Bank of England

Unintended Consequences of Holding Dollar Assets*

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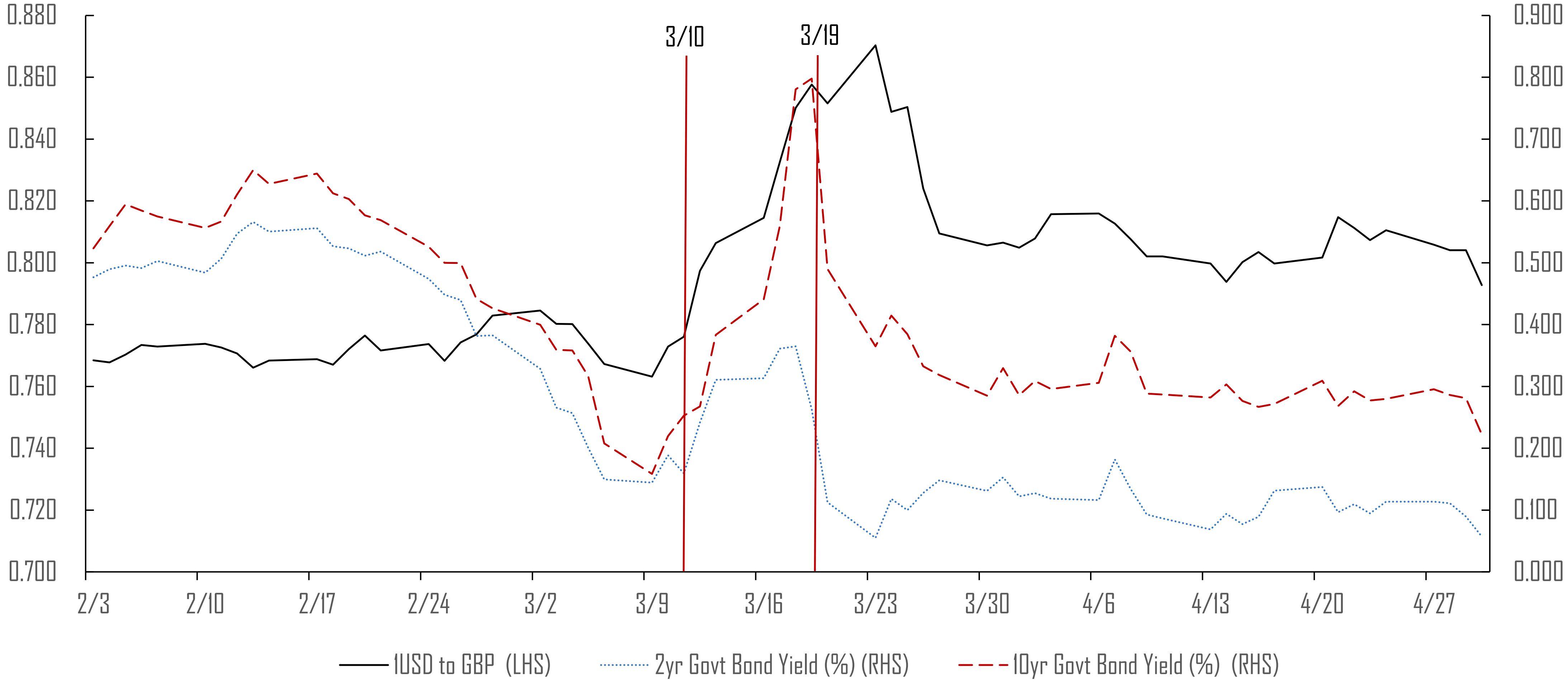
* The views expressed in this presentation are those of the authors, and not necessarily those of the Bank of England or its committees.

Motivation



0.880
0.860
0.840
0.820
0.800
0.780
0.760
0.740
0.720
0.700
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
3/10
3/19
2/3
2/10
2/17
2/24
3/2
3/9
3/16
3/23
3/30
4/6
4/13
4/20
4/27
1USD to GBP (LHS)
2yr Govt Bond Yield (%) (RHS)
10yr Govt Bond Yield (%) (RHS)

This Paper

- Typically large demand for safe assets in stress periods → "**flight to safety**"

- However, unprecedented global sell-off of liquid & safe assets during COVID-19 crisis in March 2020 → "**dash for cash**"

- UK government bond (gilt) yields increased by >**50 bps** between March 10-18, accompanied by heavy selling of three investor groups:
  - i) DMO; ii) mutual funds; iii) insurers and pension funds (ICPFs)

- We pin down drivers of ICPFs' abnormal trading behaviour, using granular investor-level data on **dollar holdings**, hedging positions and gilt transactions

Results (I): FX Holdings & Hedging

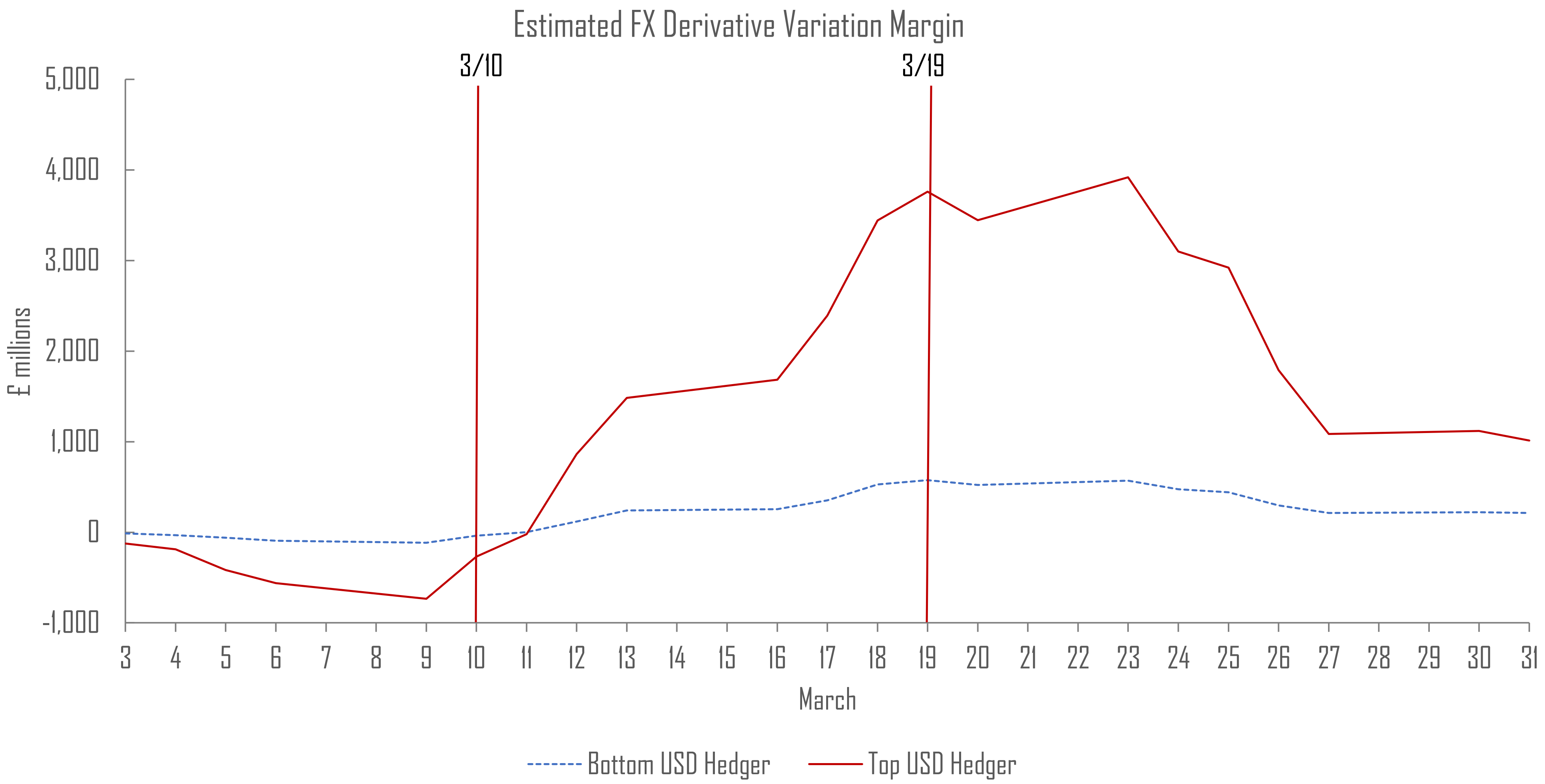
- UK insurers had total capital of approx. £2tn end-2019; nearly **£250bn** invested in dollar denominated assets

- Insurers hedge positions by selling dollars forward through **FX derivatives**
  - Hedge 50 cents for every dollar of USD exposure

- During dash for cash, **dollar appreciated >10%** against sterling

- ICPFs received large **variation margin (VM) calls** on derivative positions
  - Sector faced VM calls of ~£8bn on FX hedging positions (+£5.5bn on other derivatives) from March 10-18
  - Hence in desperate need for cash

FX Hedging and Variation Margin

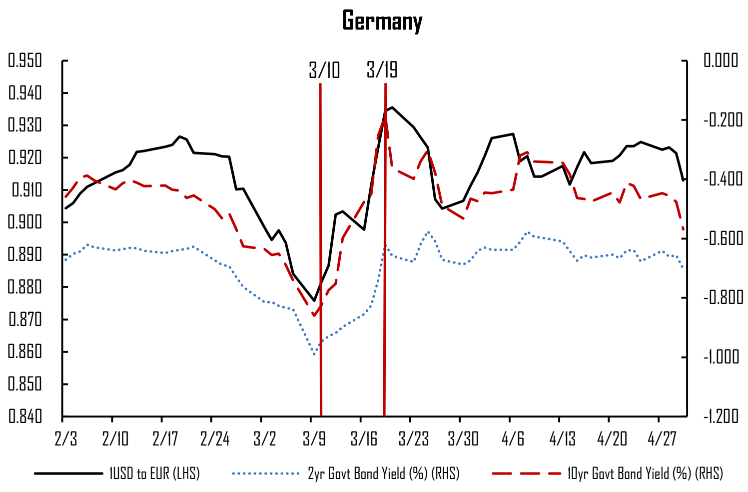


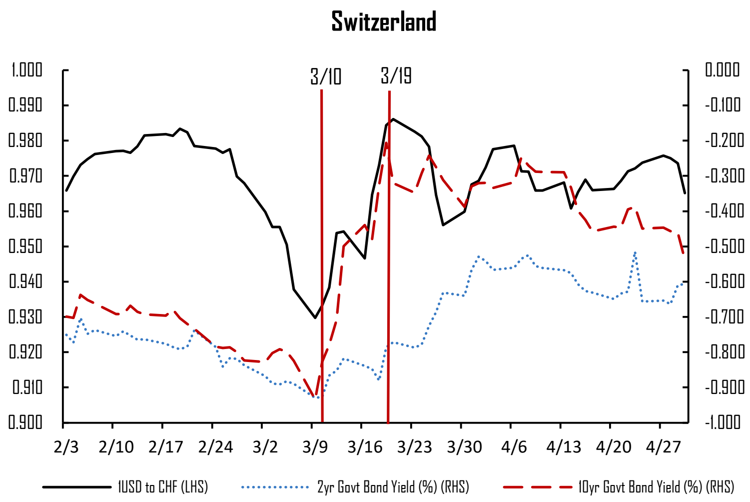
Results (II): Gilt Liquidation & Price Effect

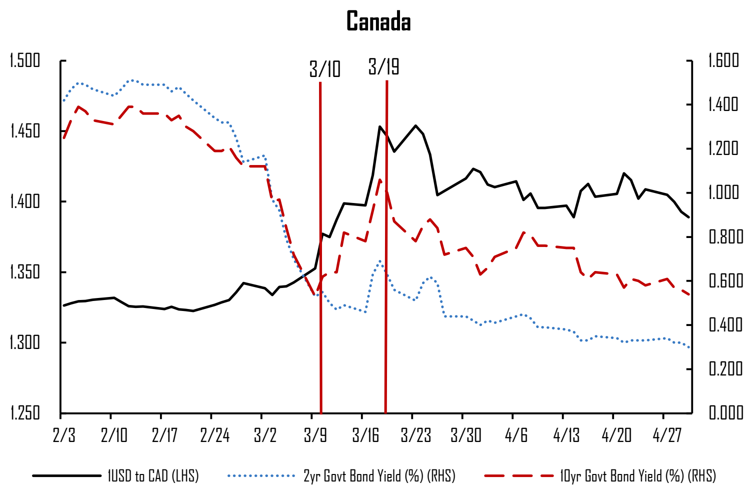
- In response to VM calls, ICPFs **sold ~£4bn of gilts** and increased **repo borrowing by £2bn** during dash for cash
  - Effect most pronounced for VM calls on **FX derivatives**
  - ICPFs follow liquidity pecking order and sell relatively **liquid gilts**
  - One dollar increase in FX VM associated with 42 cents of gilt sales and 22 cents of repo borrowing

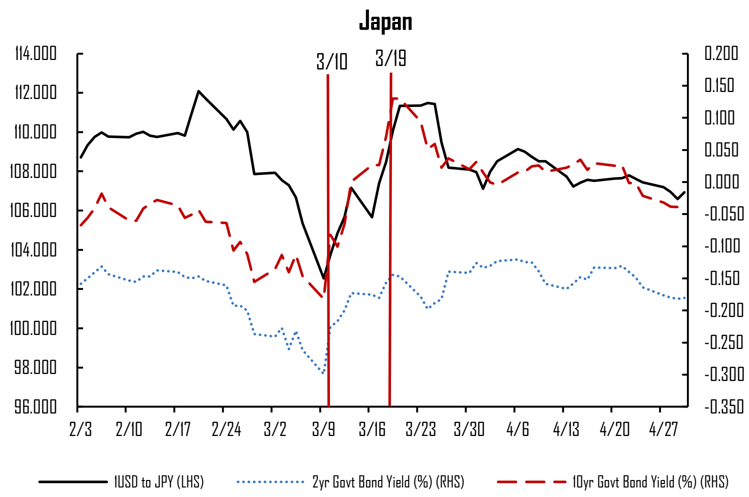
- ICPF selling pressure **contributed to yield spike** in gilt market
  - Effect more pronounced for **long-term gilts** (>5Y)
  - One SD increase in ICPF selling → **30bps** increase in long-term yields during dash for cash (~ 60% of total yield spike)

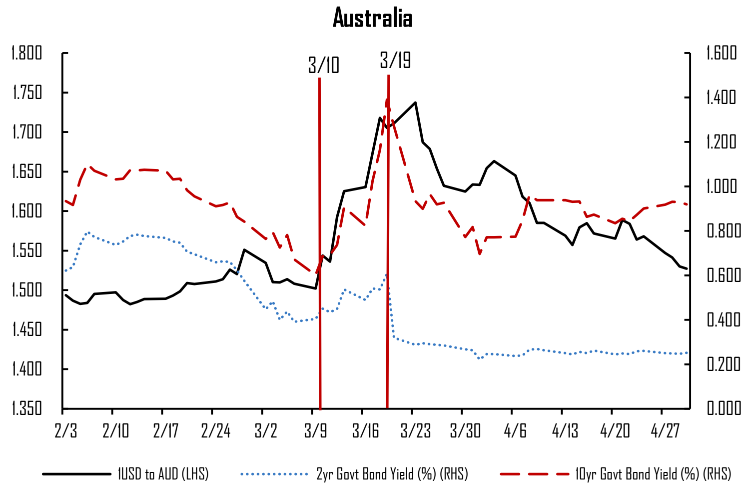
A Global Phenomenon

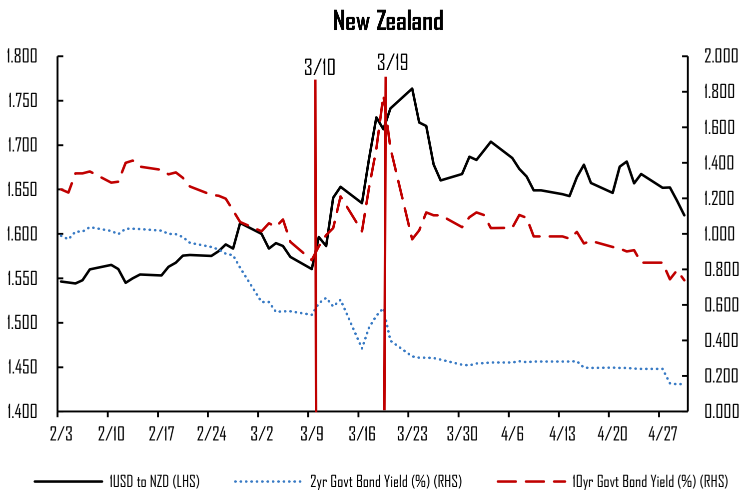












Conclusion & Policy Implications

- We reveal novel mechanism through which dollar’s **reserve currency status** can impact non-US safe-asset yields
- Non-US investors hedge large dollar exposures by selling USD forward through **FX derivatives**
- Dollar appreciates against most other currencies in crisis periods, leading to large **margin calls** on FX hedging positions
- Investors then **sell domestic government bonds** to meet margin calls, thereby contributing to yield spikes → exacerbating crises in domestic markets
- Important policy implications: enhance ICPFs’ **liquidity preparedness** & make **margin calls more predictable**, e.g. via more transparent margin calculations