“Comments on Alternative Monetary Policy Tools”

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Bank of Canada Inflation Target Renewal Consultation Conference

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- Theory and evidence of how AMP works
- Pandemic deployment
- Open questions
- (Note: these are my views only and I am not speaking as an FPC member.)

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AMP context

Transmission mechanism is typically still couched as

Step 1: monetary policy changes aggregate demand and aggregate demand matters because it helps determine the output gap

Step 2: the output gap, along with inflation expectations determine inflation

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Is there any special about AMP?

Mostly has to do with how you think Step 1 works

- Stylized New Keynesian view: “the interest rate” determines the output gap, but which one….
  - Safe or risky
  - Short or long-term
  - Bank determined or market determined

- Relevant rate = safe short rate + expected short rate path + safe term premium + borrower’s credit risk premium (+ lender risk premium?)

- (Plus the exchange rate and your theory of its determination)

Is there any special about AMP?

Alternative view of Step 1

- Reduced form: "financial conditions" determine the output gap, but what determines FCs?
  - Equity prices and equity volatility
  - Bond rates
  - Bank rates and loan quantities
  - Exchange rate

- Financial conditions seem to have a big global component

Example of Measuring Financial Conditions

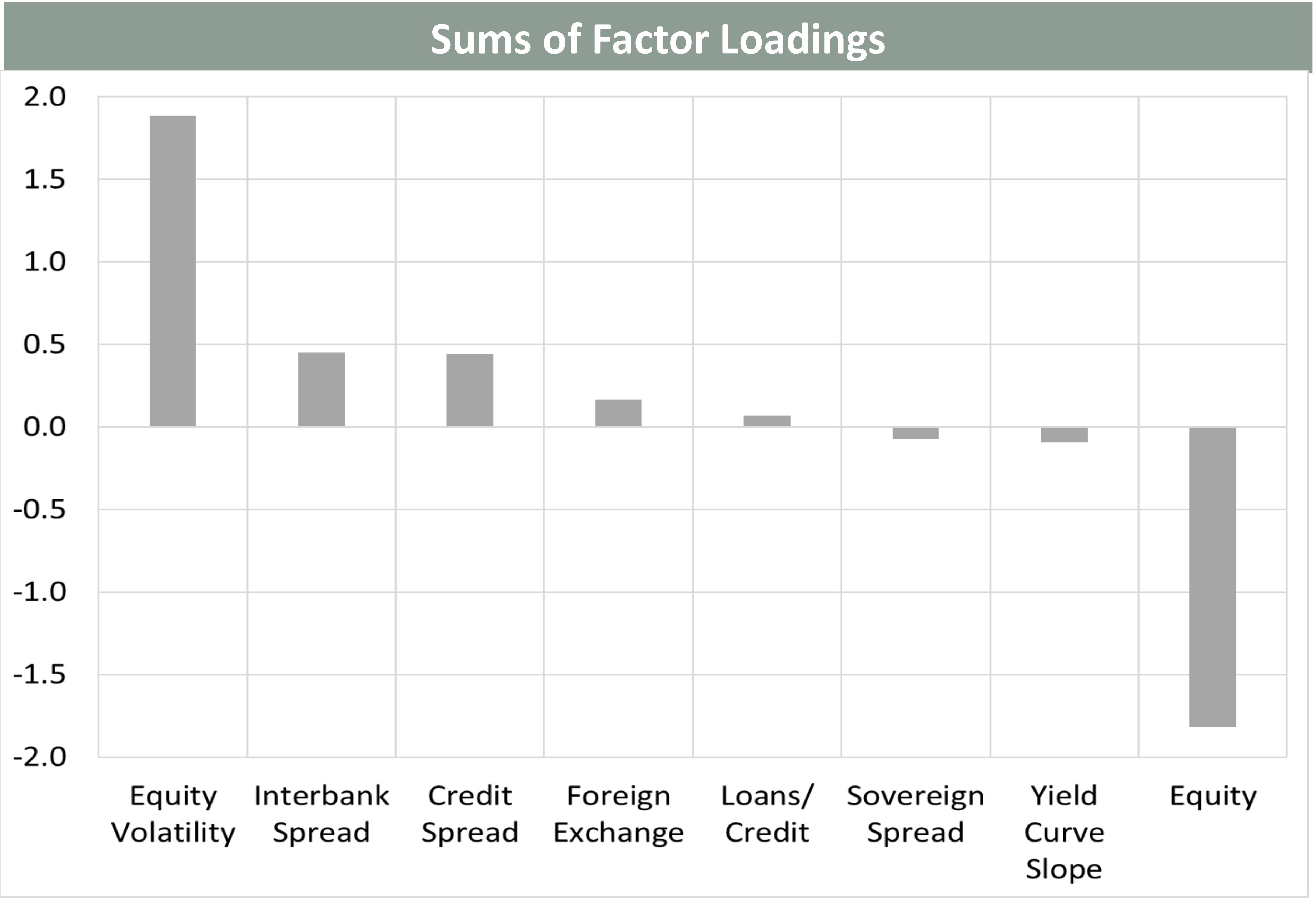
(Cecchetti, Feroli, Kashyap, Mann, Schoenholtz (2020))

- Eight countries: US, FR, DE, IT, JP, SW, CH, UK
- Monthly: 1989-2019
- Include (US version)
  - Equity volatility (S&P 100 volatility index)
  - Equity returns (Wilshire 5000)
  - Yield curve slope (10 yr Treasury – 3 mon bill)
  - Interbank (LIBOR – 3 mon bill)
  - Credit risk spread (Baa – Treasury)
  - Credit growth (Loans and leases)
  - Effective exchange rate (BIS narrow)
  - Sovereign spread (for FR, IT, SW and CH)

A Global Financial Conditions Index

- Purge financial variables of cyclical variation
- Compute first principal component of 56 series
- The global FCI explains more than 20% of variation

What drives the Global FCI?



Numbers are sums of the loadings for the first principal component of 56 financial series purged of cyclical variation.

Alternative Monetary Policy Tools

- Policy Rates
  - Date-contingent forward guidance (FGD)
  - State-contingent forward guidance (FGS)
  - Negative nominal interest rates (NR)
- Balance Sheet
  - QE: policy driven expansions (1 announced, -1 end)
  - ME: maturity extension (1 announced, -1 end)
  - Size: base money (scaled by nominal GDP)

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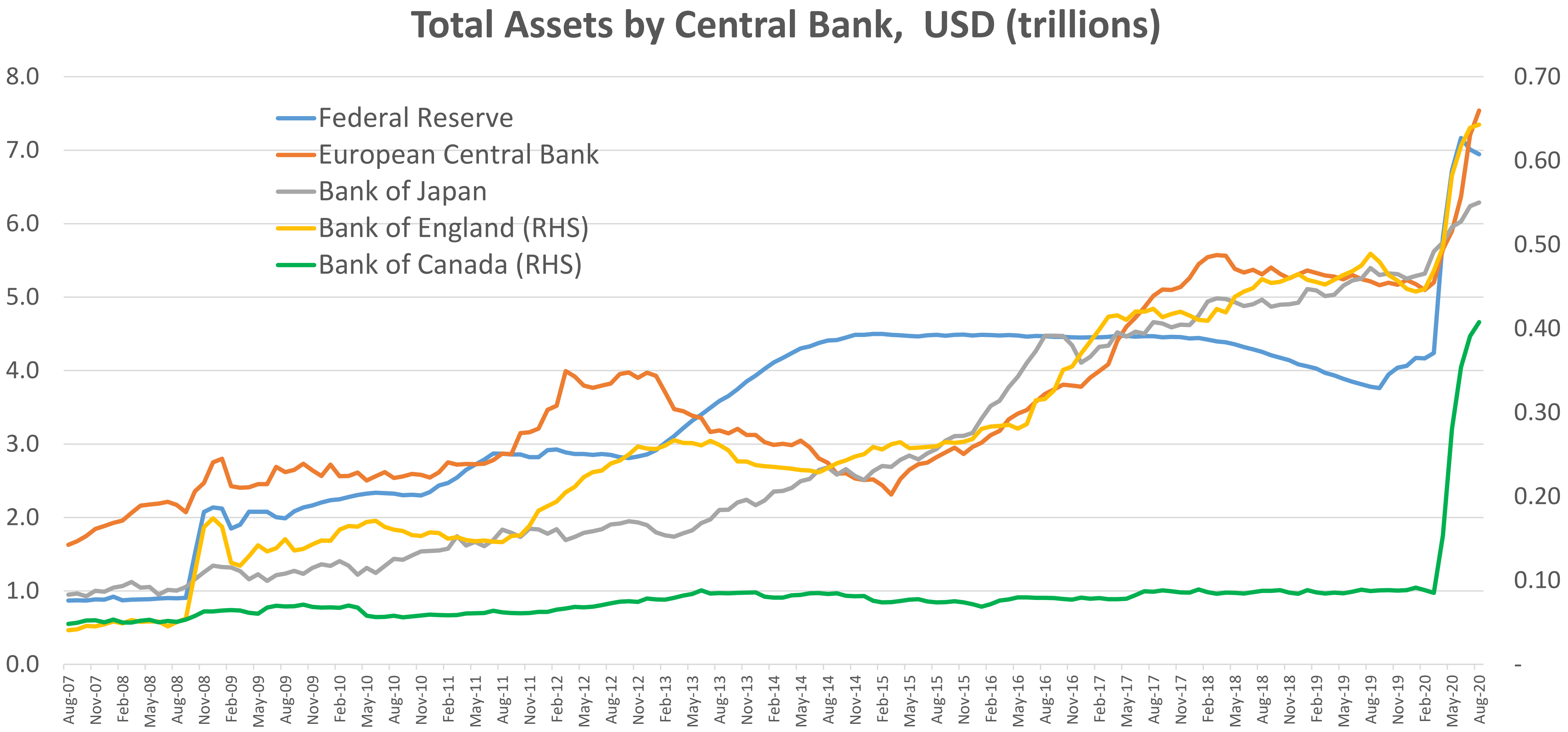
Comparison of AMPs on Domestic Financial Conditions

Yellow: t-ratio ≥ 2. Orange: t-ratio ≥ 1.5. **Black "–"s are the correct sign**. Red "+"s are the "wrong" sign. **Gray is not significant**. White signifies that tool was not used.

Tool	US	FR	DE	IT	JP	SW	CH	UK
Date-contingent Forward Guidance (FGD)	–		+	+				
State-contingent Forward Guidance (FGS)	–	–		–				
Quantitative Easing (QE)	+	–		–		+		
Maturity Extension (ME)	–	+	+					–
Monetary Base (M0)						–		
Negative Rates (NR)							+	

Pandemic Deployment



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The Econometric Challenge in Assessing Alternative Tools

Government of Canada Bond Purchase Program (GBPP)

Canada Mortgage Bond Purchase Program (CMBP)

Bankers' Acceptance Purchase Facility (BAPF)

Provincial Money Market Purchase Program (PMMP)

Provincial Bond Purchase Program (PBPP)

Corporate Bond Purchase Program (CBPP)

Commercial Paper Purchase Program (CPPP)

Contingent Term Repo Facility (CTRF)

Open Questions

1) Why did take so much CB intervention to stabilize markets?

   More generally how do we calibrate these tools?

2) What to do about central puts?

   vis a vis Markets

   vis a vis Politicians

3) Debt guarantees and fallout from the liquidity diagnosis, when we are headed towards having solvency issues…