Discussion of:

UNCONVENTIONAL POLICY TOOLS AT THE FED: LESSONS FROM THEORY AND PRACTICE

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Introduction

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  - $Term\ Premium_t$ reflects forces that shift supply/demand for LT versus ST bonds;
    Includes return compensation that bond investors require for bearing the interest rate risk of LT bonds

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     - Goal is to provide stimulus by easing financial conditions
  3. Liquidity facilities: Making short-term collateralized loans (not at discount window)
     - Follow Bagehot's dictum: Lend freely against good collateral at a penalty rate
     - Goal is often to support orderly functioning of key markets

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  - Key take-away: Select formulations offering sufficient flexibility in event of a large shock that generates tradeoffs between goals of price stability and full employment

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1. OR as opposed to AND
   - Significant difference between 2012-style forward guidance:

$$(\text{Lift off from ELB})_t = [(u_t \leq \hat{u}) \quad \mathbf{OR} \quad (\pi_t \geq \hat{\pi})]$$

   and 2020-style forward guidance:

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   - 2020 guidance lacked a clear "escape clause": Too little flexibility

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   - Couching guidance in terms of near-term expectations is more robust in a world where:
     - There are lags policy implementation and their full impact on economy
     - It takes time for external shocks to fully impact economy and show up in hard data

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   - In last two cycles, Fed has signaled:
     - Reluctance to "lift off" from ELB until has stopped buying assets
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     - Reluctance to "lift off" from ELB until has stopped buying assets
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   - An LSAP with a high monthly purchase volume effectively becomes commitment to keep short rates low for length of time required to slowly taper

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   - Not clear why rates can't lift off until purchases cease
   - Also not clear why need to taper purchases so gradually
     - Want to learn from market responses to policies and policy announcements (e.g., 2019 repo spike)
     - Worry: Strong preferences to taper so gradually reflects overlearning from 2013 "taper tantrum"

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   - May be stuck in a "gradualism trap" a la Stein and Sunderam (2017)
     - CB has a bit of private info. about its reaction function (either for ST policy rate or LSAPs)
     - CB doesn't like bond market volatility; tries to gradually adjust policy in responses to its private info
     - Market understands CB's gradualist tendencies; significantly revises forecasts following small changes
     - Gradualism doesn't reduce volatility; CB can do better on policy goals if it abandons gradualism

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3. Delink guidance on policy rate from guidance on LSAPs
   - Potential solutions:
     - Clearly communicate that might quickly taper purchases in response to major surprises/shocks
     - Promote policy culture that's less concerned with high-frequency market reactions to announcements

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  - QE1: 03/08–03/10: 1.725 trillion = 1.25 trillion MBS + 0.3 trillion UST + 0.175 trillion GSE
  - QE2: 11/10–06/11: 0.6 trillion UST
  - QE3: 09/12–10/14: Open-ended, totaling 0.8 trillion UST +0.9 trillion MBS

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- COVID-19:
  - QE4: 03/20–03/22: Open-ended, totaling 3.2 trillion UST + 1.3 trillion MBS
    - Initial rationale 03/20: "Support smooth market functioning and effective transmission of monetary policy"
    - Revised rational 09/20: "Foster accommodative financial conditions"
  - Introduced various "backstop" facilities: Bought small amounts of municipal bonds and business debt

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- Perhaps more importantly, she expertly summarizes what we don't know about LSAPs
- In my view, LSAPs are not so different from conventional monetary policy in this regard:
  - Policymaking is like a doctor treating patients with a sickness that is always evolving in real time
  - Even if Dr. could figure out precisely how different treatments work & how to best treat patients
  - The sickness would morph in unexpected ways that would render that knowledge less useful

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- Need to approach unconventional policy with the same humility as convention policy

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- Know: Impact of LSAPs has varied over time
  - Impact has been greatest during bouts of market turbulence when investor risk aversion is high
  - Consistent with the logic of the portfolio balance channel

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- Don't know: Exact mix of financial market channels
  - Don't know: Whether mix varies over time

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- Don't know: Whether transmission of LSAPs to real outcomes—consumption and investment—depends on mix of financial channels via which they reduce LT yields
  - Example: Lower mortgage rates stimulate mortgage refinancing, home sales, home building
  - My prior based on household finance literature:
    - Mix shouldn't matter much: Households only care about level of mortgage rates, not why rates low
    - Path of mortgage rates ≈ Sufficient statistic for amount of accommodation via housing market

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- Don't know: How effects spillover to asset prices in untargeted asset classes
  - Example: Do purchases of Treasuries impact risk premia in the stock market?
    - We see short-run announcement effects in other asset classes, but hard to know whether reflect changes in fundamentals (LSAPs stimulate economy) or financial conditions (LSAPs move risk premia)

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  - Useful prior from theory (e.g., Vayanos and Vila (2021))
    - Portfolio balance: LSAPs should only impact risk premia if financial markets are partially segmented
    - Marginal investor in targeted asset class is specialized and so bears less risk following an LSAP
    - Segmentation limits potential for spillovers from targeted asset classes to untargeted asset classes

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  - Useful prior from theory (e.g., Hanson, Liao, and Greenwood (2017)):
    - If asset classes are less segmented in long-run because investors substitute slowly across markets
    - Targeted asset class: Long-term effects < Short-term effects
    - Non-targeted assets: Long-term effects > Short-term effects

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    - Volume of mortgage refinancing and home sales; volume of corporate capital raising

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  - Although precisely measuring full chain is hard, probably haven't focused enough on second arrow

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- In 2020, Fed had two very distinct goals for large scale bond purchases

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1. Reduce level of LT yields to ease financial conditions and stimulate economy
   - Absolute value goal: Reduce absolute level of all LT yields (or prevent an incipient spike)
   - Risk: Fed bears more interest rate risk so investors can bear less
   - When deploy? Makes most sense when R_t is at ELB
     - If not at ELB, provide accommodation by reducing Funds rate
     - At ELB, trade off benefits of further accommodation from LSAPs against fiscal risk

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2. Promote orderly functioning in bond market, especially Treasuries
   - Relative value motivation: Promote orderly trading by reducing yield differences between similar instruments (Treasuries vs. derivatives)
     - Dysfunction due to tightening of balance-sheet and risk constraints at broker-dealers
   - Risk: Doesn't require to Fed to bear more interest rate risk
   - When deploy?
     - Want well-functioning markets irrespective of R_t
     - If the cost is tiny (it may not be), should arguably deploy whenever significant dysfunction

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1. Sterilized foreign exchange interventions
   - Absolute value goal: Goal is to affect valuation of country's currency, say, to impact trade balance
   - Mechanics: Central bank issues interest-bearing reserves in its own currency and purchases short-term bonds denominated in foreign currency
   - Risk: CB is bearing FX risk

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2. Central bank liquidity swaps
   - Relative value motivation: Goal is to promote market functioning in global funding markets by aligning relative prices in forward FX and spot FX markets with difference in ST interest rates between foreign and domestic currency (i.e., to reduce "CIP basis")
   - Mechanics: Central bank makes a ST loan in domestic currency to foreign central bank that is collateralized by foreign currency
   - Risk: Central bank is not bearing FX risk

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- Outright purchases (financed with reserves)
  = Right instrument to target absolute level of yields
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  - Reduces term premia—or prevents an incipient spike in term premia

- Are outright purchases also the right instrument to address Treasury market dysfunction?

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    - Dislocations: Near-identical bonds trading at different prices
  - However, LSAPs are not principally about taking pressure off broker-dealers
    - Modern broker-dealers function as a "distribution pipes" and not "front-line risk bearers"
    - Broker-dealers bear minimal interest rate risk (Lina, Wallen (2024))

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- Dysfunction source #1: Treasury sales by foreign CBs who want USD reserves
  - Think COVID-19 scenario where foreign CBs want USD reserves instead of LT Treasuries
  - FIMA Repo Facility: Backstop repo facility that allows foreign CBs to borrow USD using Treasuries as collateral
  - Reducing mass CB liquidations:
    - Relieves pressure on broker-dealer "pipes"
      ⇒ Improves market functioning
    - Avoids jump in rate risk that front-line bond investors must bear
      ⇒ Avoids incipient spike in term premia

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- Dysfunction source #2: Unwinds of Treasury vs. derivatives trades
  - Background:
    - "End investors" want "off-balance sheet" exposure to bonds via Treasury futures or swaps
    - Hedge funds accommodate demand: Long Treasuries and short derivatives
    - After large market shock, hedge funds forced to deleverage
      ⇒ Sell Treasuries to dealers and buy derivatives from them
    - Tightens dealer constraints (even though doesn't change who is bearing directional rate risk)
      ⇒ Widens gap between yields on Treasuries and derivatives
      ⇒ Decline in Treasury market liquidity

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- Dysfunction source #2: Unwinds of Treasury vs. derivatives trades
  - To improve market functioning, need to take pressure off dealers
  - Fed could relieve pressure by
    - Buying USTs from dealers
    - Hedging associated interest risk by selling derivatives

    See: Kashyap, Stein, Wallen, Younger (2025)
  - Notice: Fed is not bearing additional interest rate risk
  - Near perfect analogy with logic of Central Bank Swap Lines
  - Legally, Fed might need to lend to SPV that executes this long-short trade

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1. Elastically deploy liquidity facilities to support Treasury market functioning
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1. Elastically deploy liquidity facilities to support Treasury market functioning
   - Follow Bagehot dictum that guides other liquidity facilities
   - As a result, do not assume additional interest rate risk

2. Only resort to outright Treasury purchases if:
   - Treasury liquidations are leading to an incipient rise in term premium
   - Want to deliver monetary accommodation, so tightening of financial conditions undesired
   - At or rapidly approaching ELB so cannot deliver accommodation by reducing Funds rate

Conclusions

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1. Use forward guidance that strikes a better balance between commitment and flexibility
   - OR as opposed to AND
   - Condition guidance on near-term forecasts instead of realized data
   - Delink guidance on policy rate from guidance on LSAPs

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2. Have learned a lot about how LSAPs work, but lots we don't know
   - Don't know: How persistent effects of LSAPs on asset prices are
   - Don't know: How much LSAPs ultimately impact consumption and investment
   - Given uncertainty: At margin, need less research and policy-focus on:
     - LSAPs → Financial conditions → Financing quantities → Real effects and more on
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     - LSAPs → Financial conditions → Financing quantities → Real effects
3. Two different goals for LSAPs: Easing financial conditions & supporting market functioning
   - Outright purchases are right tool for easing financial conditions
   - Liquidity facilities are right tool for supporting market functioning

THANK YOU!

Sam Hanson
Harvard Business School and NBER

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