

# Sanctions and the Exchange Rate

ITSKHOKI AND MUKHIN

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AEA Annual Meetings

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- ▶ After sanctions are imposed on an economy
- ▶ the exchange rate might depreciate
- ▶ or the exchange rate might appreciate
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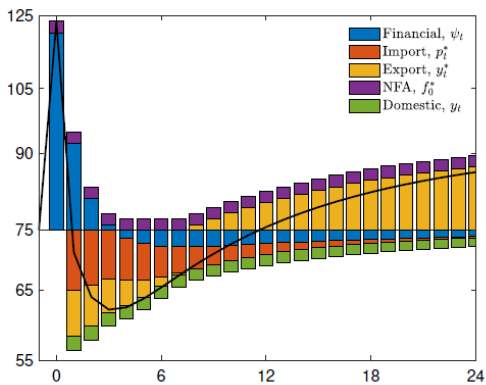
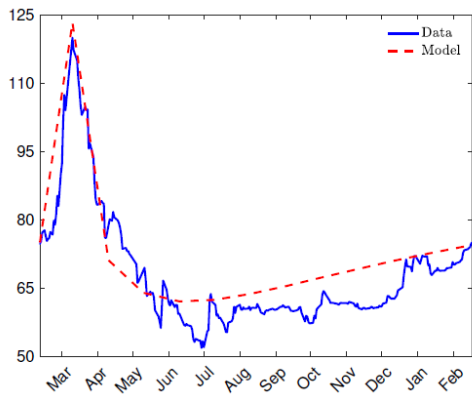
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- ⇒ **exchange rate dynamics are a poor “measure of success” for sanctions**

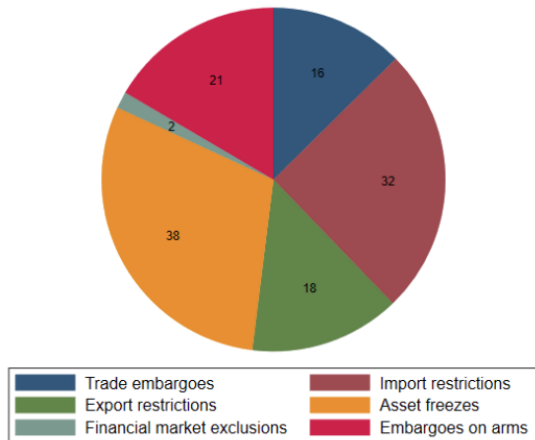
## HIGHLIGHTS OF THIS PAPER

- ▶ Important topic: ongoing discussion around the effects of sanctions
- ▶ Parsimonious model that generates lots of insights
- ▶ Careful empirical exercise: Ruble dynamics in 2022/23

# INSIGHTFUL ANALYSIS



## NOT ONLY RELEVANT FOR RUSSIA IN 2022/23



- ▶ Sanction types between 1914 and 1945 (Eichengreen et al., 2023)



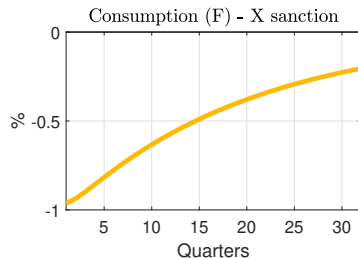
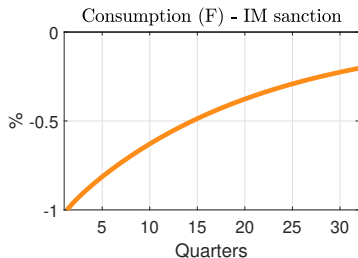
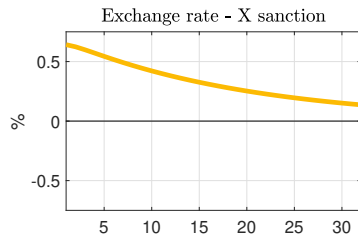
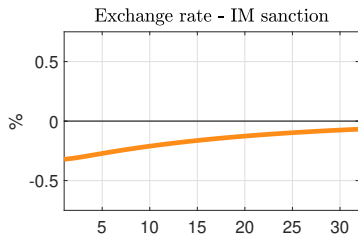
## PLAN FOR MY DISCUSSION

- ▶ I center my discussion around one specific theme: **anticipation effects**
1. In the model, X vs. IM sanctions do differ when they are anticipated to change
    - ▶ Examine these differences
  2. Apply the model to study FX movements after anticipated “sanctions”
    - ▶ Brexit vote in 2016  $\approx$  news about future trade restrictions

## HOW I PROCEEDED FOR BOTH POINTS

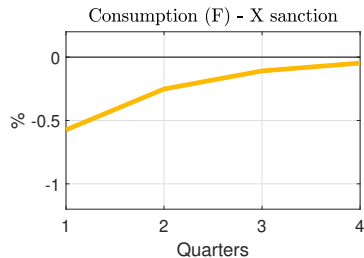
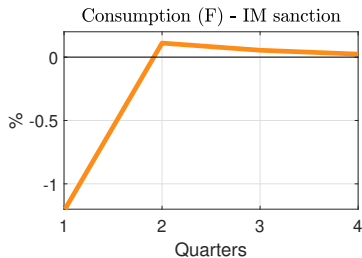
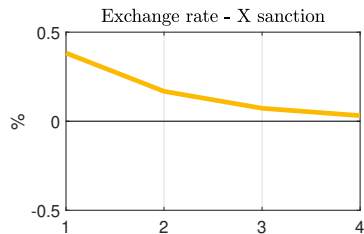
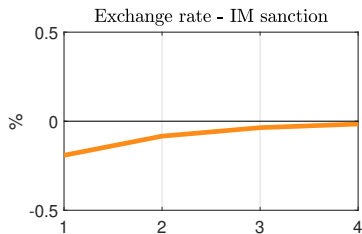
- ▶ Solve model on computer
- ▶ Simplifications: no shocks to  $\Psi_t$ ; no financial repression ( $R_t^* = R_{h,t}^*$ ); no role for foreign reserve accumulation ( $F_t^* = B_t^*$ )
- ▶ Additions:
  1. Stochastic shocks to  $Y^*$  and  $P^*$ , with persistence  $\rho$
  2. News shocks to  $Y^*$  and  $P^*$ , 15 quarters into the future
  3. Monetary policy rule:  $R_t = 1/\beta + \phi(\mathcal{E}_t - \mathcal{E})$
- ▶ Calibrate similar to the paper (but quarterly frequency)

# IRFS - PERSISTENT SHOCKS ( $\rho = 0.95$ )



► Different  $\mathcal{E}$  dynamics, same  $c_F$  dynamics – confirms main intuition of the paper

## IRFS - TRANSITORY SHOCKS ( $\rho = 0.01$ )



► Dynamics of  $c_F$  now different across the sanction types

## INTERPRETATION

- ▶ Suppose  $P_t^*$  increases
- ▶ If HH knows that  $P_{t+j}^*$  is lower again, will “frontload” reduction in consumption

$$\beta R_t^* \mathbb{E} \left[ \frac{P_t^*}{P_{t+1}^*} \left( \frac{u_{F,t+1}}{u_{F,t}} + \dots \right) \right] = 1$$

- ▶ The red term drops out when shock is permanent

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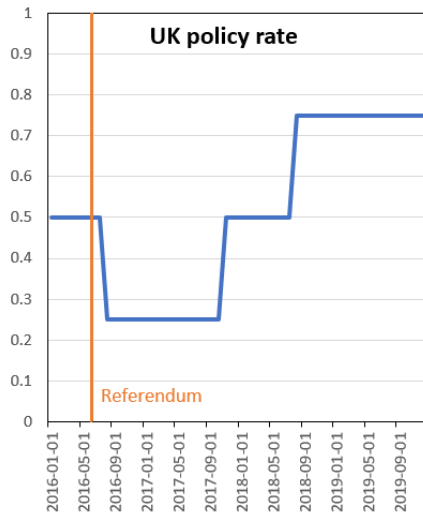
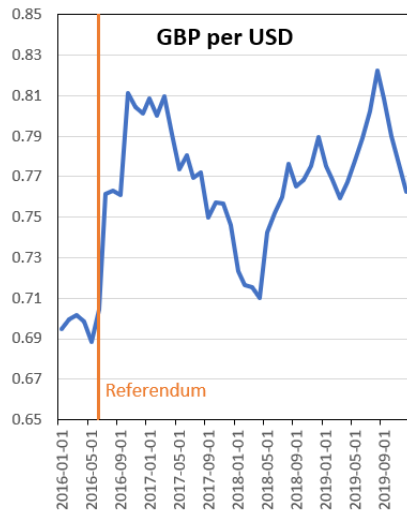
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- ▶ The red term drops out when shock is permanent
- ▶ In the IRFs, the differences do not appear to be drastic
- ▶ But it might make some difference for the numerical evaluation
- ▶ Anticipation probably mattered more in other historical episodes

## STUDYING BREXIT AND THE POUND IN THIS MODEL

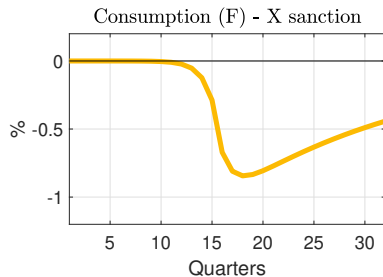
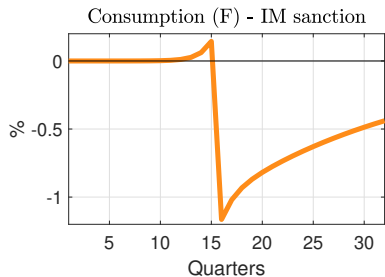
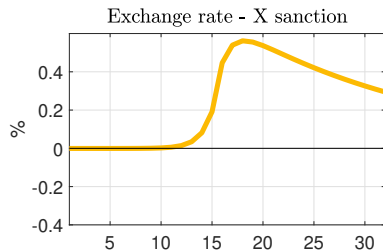
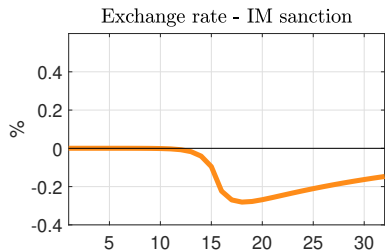
- ▶ What does the movement of the pound reveal about future trade “sanctions”?
- ▶ Relates to my own work (forthcoming in REStud): [Broadbent, Di Pace, Drechsel, Harrison, and Tenreyro \(2023\)](#)
  - ▶ Idea: Referendum  $\approx$  news about lower productivity growth in tradable sector
- ▶ What can we learn here?
  - ▶ How do news shocks unfold in the Itskhoki-Mukhin model?
  - ▶ What kind of news shock is Brexit vote? Future import or export restrictions?
  - ▶ Think about monetary policy after the referendum

## A LOOK AT THE DATA





# IRFS - PERSISTENT SHOCKS, HITTING 15 QUARTERS IN THE FUTURE



## WHAT DO WE LEARN FROM THIS ANALYSIS?

- ▶ Directionally, GBP depreciation in line with **expected restrictions on UK exports**, rather than UK imports
- ▶ Model generates gradual  $\mathcal{E}$  adjustment, while data shows instantaneous jump
- ▶ UK monetary policy easing in Aug 2016 might explain some of early depreciation

## CONCLUSIONS

- ▶ Important and insightful paper
- ▶ I explored pushing the model into a different direction: news about sanctions
- ▶ “Breakdown” of equivalence result, but does not appear to be a big concern
- ▶ Could be interesting to further study Brexit and the pound with this framework

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- BROADBENT, B., F. DI PACE, T. DRECHSEL, R. HARRISON, AND S. TENREYRO (2023): "The Brexit Vote, Productivity Growth, and Macroeconomic Adjustments in the U.K." *The Review of Economic Studies*, forthcoming.
- EICHENGREEN, B., M. FERRARI MINESO, A. MEHL, I. VANSTEENKISTE, AND R. VICQUÉRY (2023): "Sanctions and the exchange rate in time," *Economic Policy*.