Tariffs and Global Imbalances*

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*based on "The Optimal Macro Tariff" joint with Oleg Itskhoki (Harvard)

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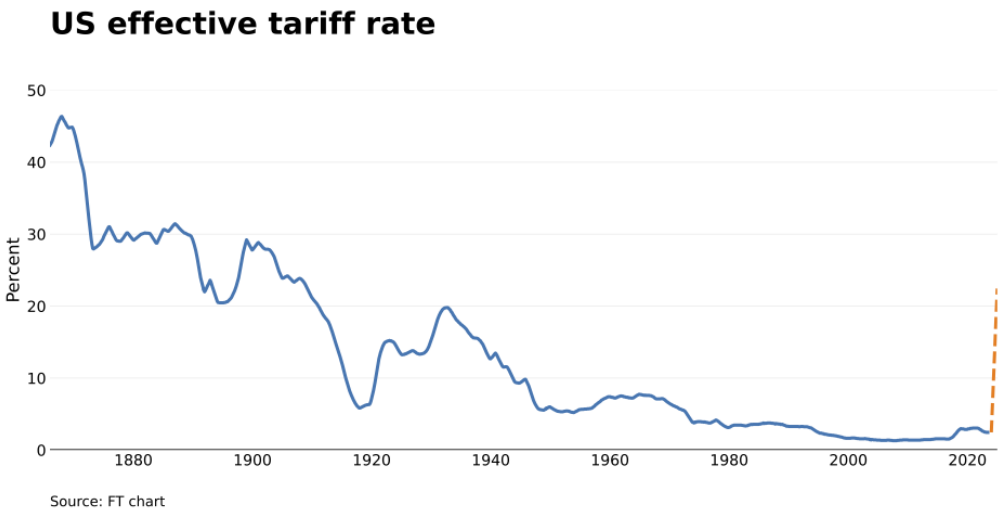
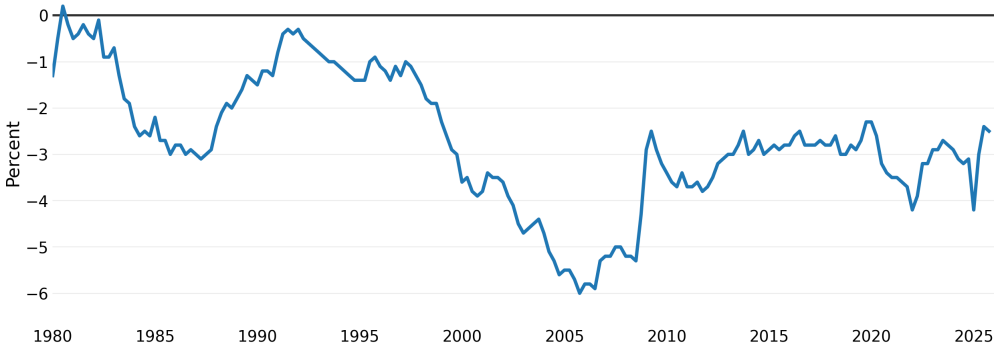


US net exports of goods and services

Share of GDP, quarterly



Source: BEA via FRED series A019RE1Q156NBEA.

Questions

1. **Can tariffs close permanent trade deficits?**

2. **Do larger trade deficits imply higher optimal tariff?**

3. **Do tariffs undermine U.S. "exorbitant privilege"?**

Closing Imbalances

- **Intertemporal budget constraint** of a country:

$$\underbrace{NX}_{\substack{\text{long-run}\\ \text{trade balance}}} + \underbrace{NFA}_{\substack{\text{net foreign}\\ \text{asset position}}} + \underbrace{EP}_{\substack{\text{excess returns on}\\ \text{foreign portfolio}}} = 0$$

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  — $NFA =$ Foreign Assets $-$ Local Liabilities $= \mathcal{E}B^* - B$

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  - can have intertemporal effects though, i.e. $NX_1 \uparrow, NX_2 \downarrow$

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- Correct Argument: $\tau \uparrow \quad \Rightarrow \quad \mathcal{E} \downarrow \quad \Rightarrow \quad NFA \downarrow,\ NX \uparrow$
  - tariffs generate **valuation effect** from the U.S. to the rest of the world

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- Quantitative results:

$$\tau = 64\%, \quad \mathcal{E} \downarrow \text{ by } 22\%, \quad C \downarrow \text{ by } 1.6\%, \quad T \uparrow \text{ by } 2.8\% \text{ of GDP}$$

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- Implications for other countries:
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- What if the goal is not welfare, but size of the tradable sector?
  - $NX \uparrow$, but $EX \downarrow \Rightarrow$ **tradable sector** $\downarrow$

Exorbitant Privilege

- Add excess returns:

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— hedging motive: $\tau \uparrow \;\Rightarrow\; EX, IM \downarrow \;\Rightarrow\; B, B^* \downarrow \;\Rightarrow\; EP \downarrow$

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  - $\Rightarrow$ further lowers welfare and optimal tariff
  - $\Rightarrow$ if large enough, can lead to USD **depreciation** $\mathcal{E} \uparrow$:

$$NX \uparrow \; + NFA \uparrow \; + EP \downarrow = 0$$

Conclusion

1. **Can tariffs permanently close trade imbalances?**
   — **yes**: but only via international asset positions

2. **Is optimal tariff higher under trade deficit?**
   — **no**: optimal tariffs are lower with cross-border asset holdings

3. **Do tariffs undermine U.S. "exorbitant privilege"?**
   — **yes**: retrenchment of cross-border positions and smaller privilege

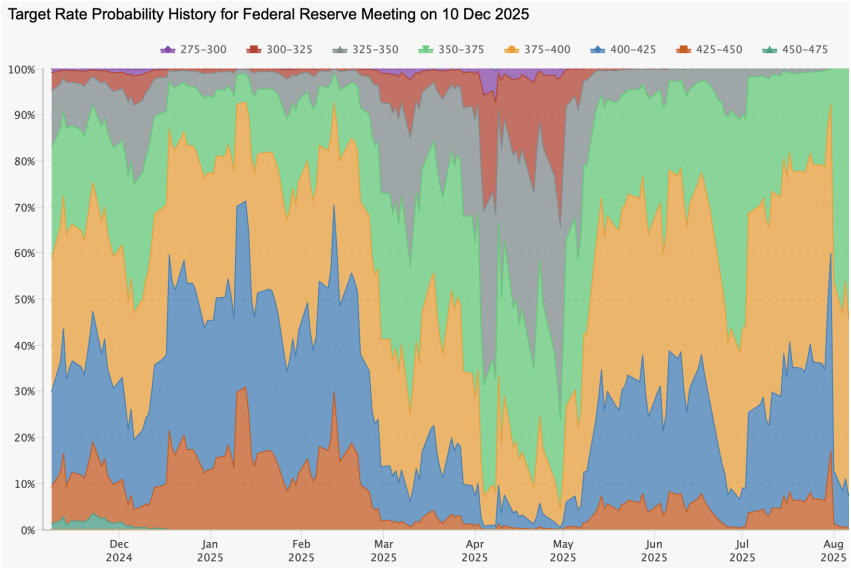
APPENDIX

Why Did the Dollar Depreciate?

Why Did the Dollar Depreciate?

1. **Monetary policy**: expectations about lower interest rates

Why Did the Dollar Depreciate?



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Why Did the Dollar Depreciate?

US yields and dollar have parted company

Rising US yields typically support the dollar, as do geopolitical tensions (as the dollar is often seen as a haven asset). Since Donald Trump unleashed his trade war, however, US yields have soared and the dollar has plunged.

The dollar usually moves in lockstep with US yields... until 'liberation day'

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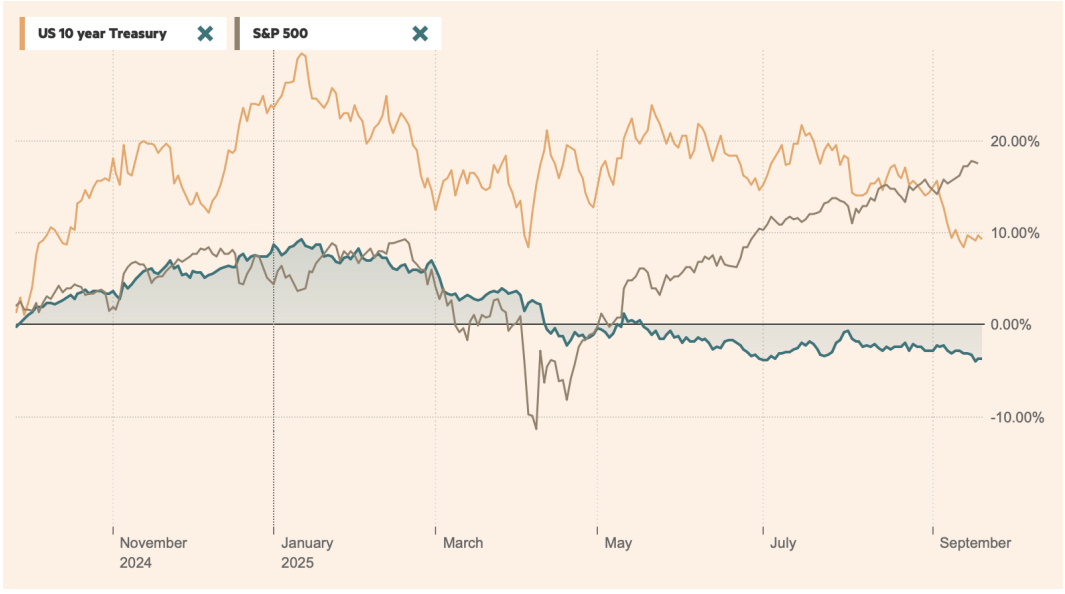
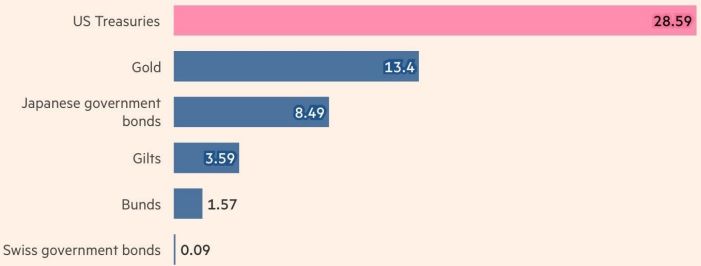


Why Did the Dollar Depreciate?

US Treasuries are a much larger market than other haven assets

Market size ($tn), by asset



Source: US Department of the Treasury, Japan's Ministry of Finance, UK Debt Management Office, Deutsche Bundesbank, Swiss National Bank, World Gold Council, FT calculations • US Treasuries include all marketable Treasury securities outstanding. Gold refers to total above-ground stock, including bars and coins, gold-backed ETFs, central bank holdings, and other forms, excluding jewellery. Bond values are converted using exchange rates on Apr 30, and gold is estimated at $3,500 per ounce. Data as of Mar 2025 for US Treasuries and Swiss government bonds; Apr 2025 for gilts and bunds; and Dec 2024 for gold and JGBs

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Why Did the Dollar Depreciate?

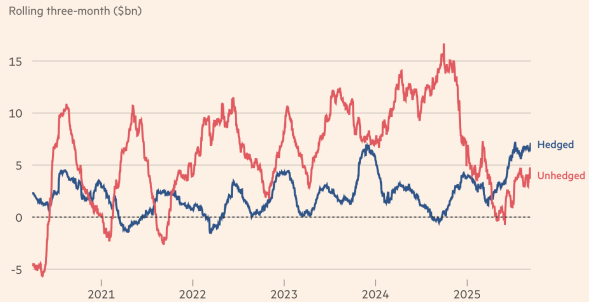
US dollar + Add to myFT

Foreign investors in US assets rush for protection against swings in dollar

Sharp increase in hedging comes amid broad rethink on exposure to greenback

Hedged ETF flows into US assets now surpass unhedged

Foreign-domiciled ETF inflows into US assets



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- Loss of exorbitant privilege $\Rightarrow$ weaker dollar + rebalancing of trade

$$NX(\mathcal{S}) + NFA(\mathcal{Q}) + CY(\mathbf{X}) = 0$$

Numerical Results

	τ	τ^*	C	C^*	$\mathcal{Q}$	$\mathcal{S}$	T	NX
BASELINE CALIBRATION								
Closing imbalance τ^I	63.81	0.00	−1.60	−0.04	−22.22	−22.22	2.86	0.00
Closing imbalance τ^E	−41.71	0.00	−12.90	1.87	−22.22	33.44	−15.31	0.00
Optimal τ^I	8.76	0.00	0.10	−0.05	−4.37	−4.37	1.02	−1.61
Optimal τ^E	67.47	0.00	1.80	−0.93	19.45	−28.67	2.13	−3.75
Trade war τ^I	6.75	6.78	−0.08	−0.02	−0.22	−0.22	0.76	−1.98
Fiscal tariff τ^I	64.93	0.00	−1.64	−0.03	−22.47	−22.47	2.86	0.02
FINANCIAL AUTARKY								
Optimal τ	35.31	0.00	0.95	−0.46	−15.14	−15.14	2.60	0.00
Trade war τ	34.90	40.48	−1.61	−0.29	3.55	3.55	1.48	0.00
Fiscal tariff τ	81.62	0.00	0.41	−0.74	−27.98	−27.98	3.14	0.00
NO IMBALANCES								
Improving balance τ^I	122.53	0.00	−3.49	−0.05	−28.57	−28.57	2.15	2.00
CONVENIENCE YIELDS								
Closing imbalance τ^I	14.36	0.00	−1.58	0.36	−5.11	−5.11	1.41	0.00
Optimal τ^I	−31.19	0.00	2.53	−1.25	17.96	17.96	−10.47	−11.19
Optimal τ^E	−1.82	0.00	0.02	−0.01	−0.92	0.92	−0.23	−2.12

▸ closing imbalances ▸ optimal tariff ▸ retaliation ▸ fiscal revenues