

DISCUSSION OF “FROM IMPORTER TO EXPORTER: OIL SHOCKS AND THE U.S. ECONOMY”

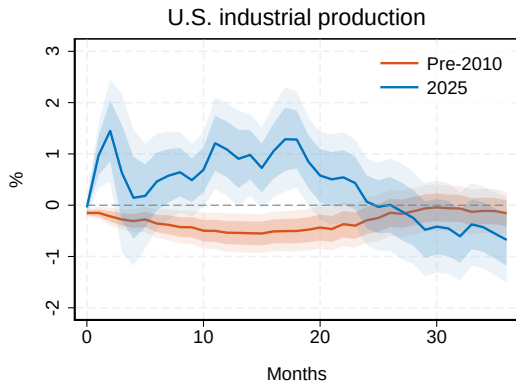
KÄNZIG, STOCK AND ZANOTTI

Johannes Wieland
UCSD & NBER

Fall 2026 BPEA Conference

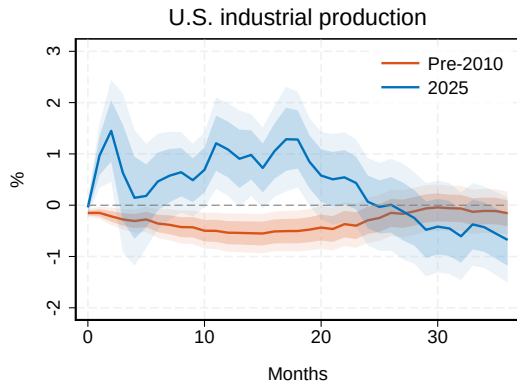
THE PAPER

- Oil price shocks have become **expansionary** for the U.S. economy as the U.S. has moved from being a net importer to a **net exporter** of petroleum.
- Interpretation: **general-equilibrium income and wealth effects** of the terms-of-trade reversal.



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MY DISCUSSION

Compelling evidence that the transmission of oil shocks has changed as the U.S. has moved from being a net importer to a net exporter of petroleum, but **I question the general-equilibrium interpretation.**

KEY POINTS

- 1 CALIBRATING PARTIAL EQUILIBRIUM EFFECTS
- 2 VALIDATING THE CALIBRATED PE EFFECTS
- 3 PUZZLE: GE MULTIPLIER MUST BE VERY LARGE OR MISSING PE EFFECTS

OUTLINE

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CHAIN-LINKED GDP + SIMPLE MODEL

$$\bar{Y}_t = C_{Ht} + I_t + X_{Ht} + Y_{Ot} (+G_t)$$

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Economic relationships (simplified Auclert, Monnery, Rognlie, Straub 2023, plus oil investment):

$$C_{Ht} \approx (1 - \alpha) \left(\frac{P_{O,t}}{P_{H,t}} \right)^{\gamma_C \eta} C_t \left(\left\{ \left(\frac{P_{O,s}}{P_{H,s}} \right)^{-\gamma_C} \frac{W_s}{P_{H,s}} L_s \right\}_{s \geq 0}, r_0 \right)$$

$$X_{Ht} \approx \alpha^* C^*$$

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Linearization Define $dp_O \equiv d \ln(P_O/P_H)$

$$d \ln \bar{Y} = \underbrace{s_{OC} \eta dp_O}_{\text{Expenditure switching}} - \underbrace{(1 - \alpha) \mathbb{M} \gamma_C s_L dp_O}_{\text{Real income channel}} + \underbrace{(1 - \alpha) \mathbb{W}_0 \frac{A}{\bar{Y}} \frac{dr_0}{dp_O} dp_O}_{\text{Asset price revaluation}} + \underbrace{s_I \mathbb{I} dp_O}_{\text{Investment channel}}$$

CALIBRATING EXPENDITURE SWITCHING

s_{OC}

η

dp_O

$= 0.009\%$ of GDP

$$1\% \times 0.85 \times 0.68 = \mathbf{0.0058}$$

1%: crude-consumption / PCE

0.85: import propensity

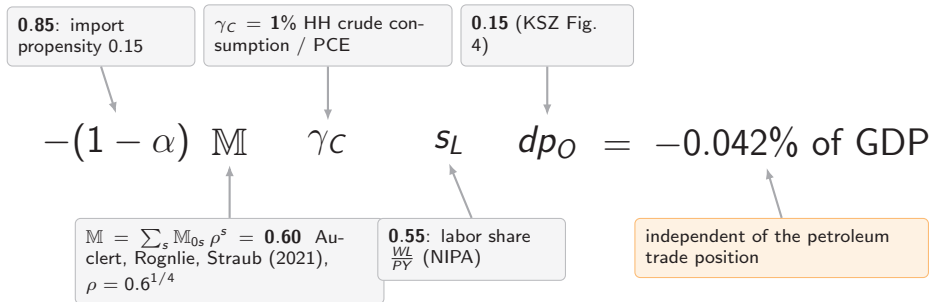
0.68: PCE / GDP

0.1 (Bachmann et al. 2022)

0.15 (KSZ Fig. 4)

independent of the petroleum
trade position

CALIBRATING REAL INCOME CHANNEL



CALIBRATING ASSET PRICES

0.85: import propensity 0.15

0.008 per quarter (Chodorow-Reich et al. 2021)

0.15 (KSZ Fig. 4)

$$(1 - \alpha)$$

$$W_0$$

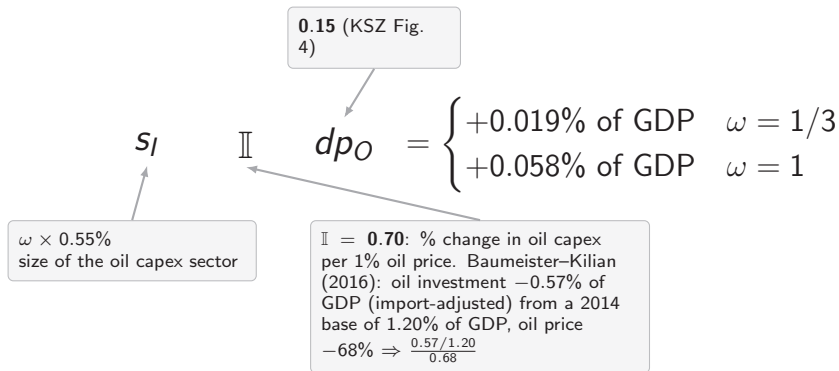
$$\frac{A}{Y} \frac{dr_0}{dp_O}$$

$$dp_O$$

$$= \begin{cases} -0.004\% \text{ of GDP} & \omega = 1/3 \\ +0.006\% \text{ of GDP} & \omega = 1 \end{cases}$$

$(\omega s_O - \gamma_Y) \times \text{PV factor} = (\omega \times 2\% - 1.2\%) \times 7.8$
 $s_O = 2\%$: crude use / GDP
 $\gamma_Y = 1.2\%$: firms' crude input / GDP
 ω : domestic production / use
 PV factor 7.8 quarters ($r = 1\%/qtr$, half-life 16 months)

CALIBRATING OIL INVESTMENT



ADDING UP: PE DEMAND FOR DOMESTIC GOODS, IMPACT QUARTER, % OF GDP

	Domestic production / Use, ω		Δ (1/3 $\rightarrow$ 1)
	1/3	1	
Expenditure switching	+0.009	+0.009	+0.000
Real income channel (W/P_H fixed)	-0.042	-0.042	+0.000
Asset price revaluation	-0.004	+0.006	+0.011
Oil investment	+0.019	+0.058	+0.038
Total	-0.019	+0.030	+0.049
<i>Alternatives (totals)</i>			
No nominal wage adjustment	-0.064	-0.015	+0.049
Assets pricing permanent shock	-0.069	+0.106	+0.176
Adding non-oil investment (q -model)	-0.018	+0.031	+0.049
KSZ: industrial production, 12 months	-0.54	+1.09	+1.62

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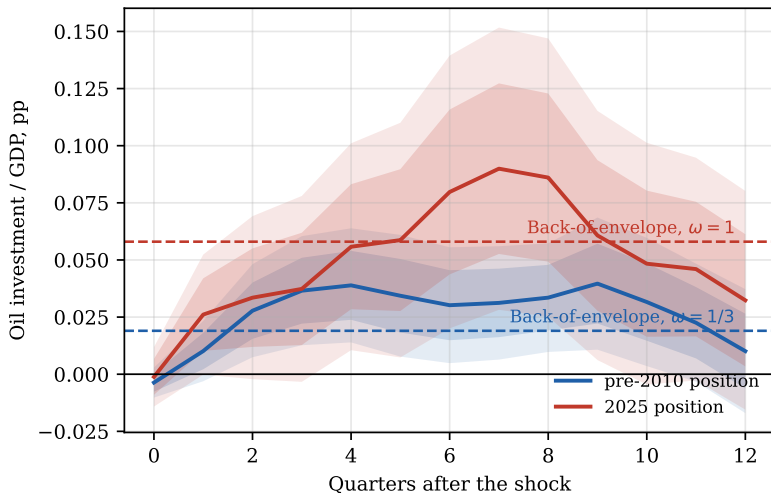
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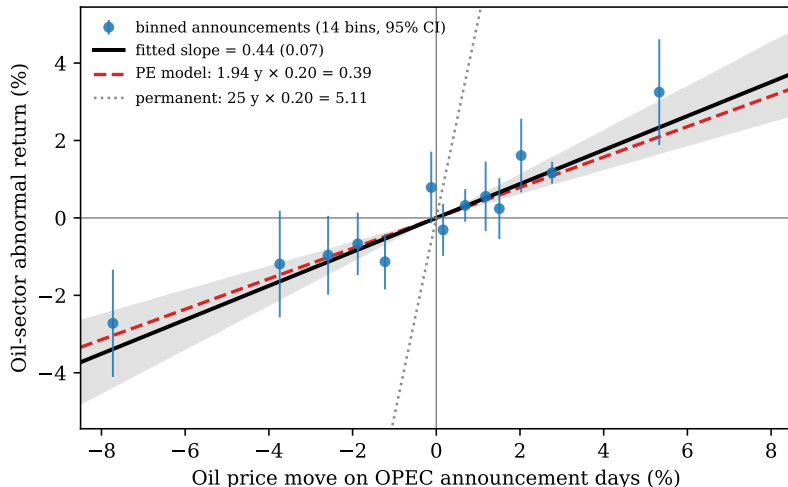
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THE INVESTMENT RESPONSE BY PETROLEUM TRADE POSITION



- Not strictly PE: the estimate includes any GE feedback.

ASSET PRICE REVALUATION ON OPEC ANNOUNCEMENT DAYS



$$\begin{aligned}
 PV &= \frac{\text{slope}}{\text{exposure}} \\
 &= \frac{0.44}{\underbrace{0.21}_{\frac{\text{Oil prodn}}{\text{Gross Rev}}} \times \underbrace{0.95}_{\frac{\text{Listed Oil Rev}}{\text{Oil Market Cap}}}} \\
 &= \frac{0.44}{0.202} = 2.17
 \end{aligned}$$

- Markets capitalize oil shock consistent with its estimated persistence, 2.17 years / 8.7 quarters.

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LARGE GE MULTIPLIER OR MISSING PE EFFECTS?

	KSZ (IP, 12m, %)	PE demand (Peak, % GDP)	Multiplier on IP	Multiplier on GDP (IP/GDP $\approx$ 2.5)
Level at $\omega = 1/3$	-0.54	-0.019	29	12
Level at $\omega = 1$	+1.09	+0.030	36	14
Difference $\omega : 1/3 \rightarrow 1$	+1.62	+0.049	33	13

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- Important for future work to resolve the puzzle.
- State-dependence documented by the paper likely a very important input.