Discussion of

“Trade fragmentation, inflationary pressures and monetary policy”

L. Ambrosino, J. Chan and S. Tenreyro

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general comment on the three scenarios

- Very topical paper
- Three scenarios to approximate the fragmentation process:
  - an anticipated gradual increase in import prices
  - a front-loaded permanent increase in import prices
  - a transitory decrease in TFProductivity in the tradable sector

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    ⇔ fragmentation is not just reversing the downward trend in trading costs that was observed during the globalization process;

    ⇔ anticipation will more likely result in precautionary action to reduce the exposure to risky policy actions.

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    => already a strong assumption about agents understanding of the impact of a permanent TOT and supply shock on their budget constraint and on their willingness to adjust;

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  - a transitory decrease in TFProductivity in the tradable sector:

    => combination of external import price shock/tariff and domestic TFP shock gives a first crude approximation of the potential effects and policy challenges.

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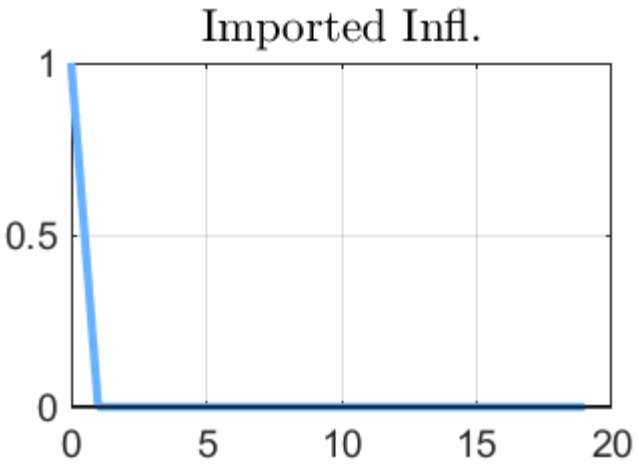
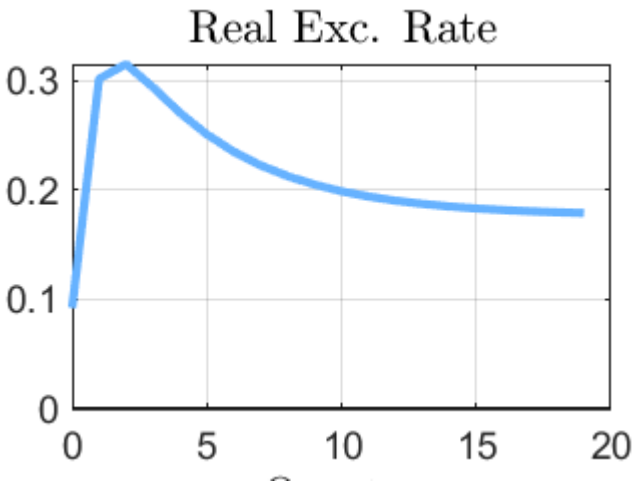
- Focus my comments on the scenario with front-loaded permanent increase in import prices.

modelling assumptions: No ERPT

- The import price is exogenous in local currency (ERPT=0, permanent LCP)

$$P_{F,t} = (P_{F,t}^{ss})^{\rho_F} P_{F,t-1}^{1-\rho_F} \epsilon_{F,t}$$





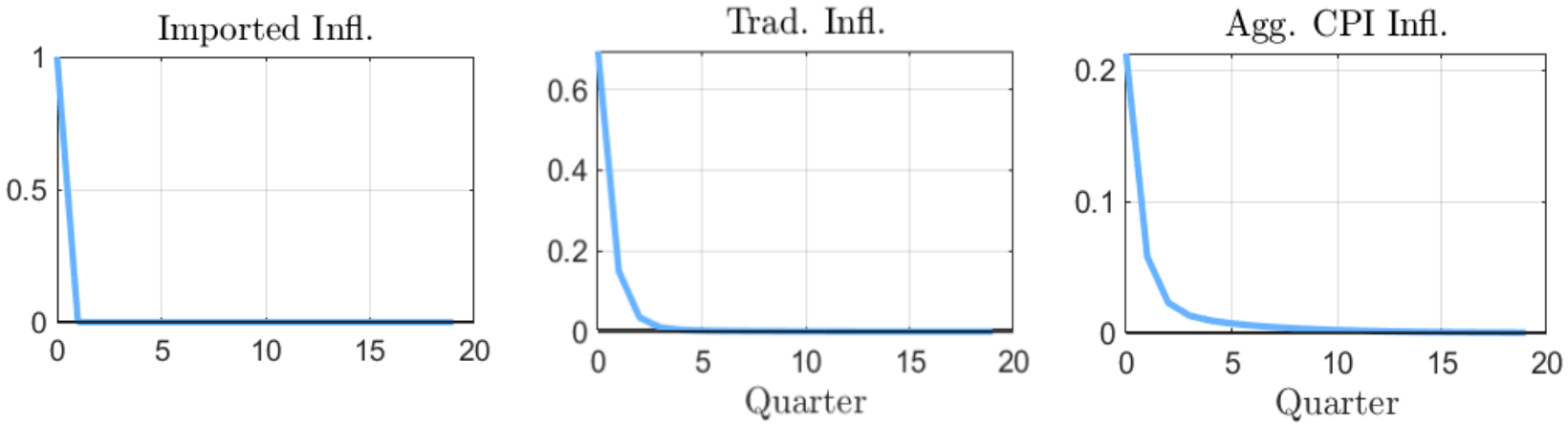
⇔ Broad empirical evidence for long term PCP and almost complete ERPT to import prices.

ERPT is important for the equilibrium outcome of the ER and TOT: in this exercise there is no offsetting response of the ER (appreciation) to reduce the initial impact of the shock.

modelling assumption: no imported intermediate input (κ = 0)

- Baseline calibration assumes that all imports are final goods directly entering consumption.
- The production function in the Non-Trabable sector is more general but κ = 0 in simulations.

$$Y_{N,t}(i) = A_{N,t} M_{F,t}^{\kappa}(i) N_{N,t}^{1-\kappa}(i)$$



- Full pass-through of import prices with impact proportional to the share 60% Trad / 24% CPI:

⇔ important fraction of Trade are intermediaries;

⇔ broad empirical evidence for indirect pass-through of import prices to CPI.

- Without imported intermediate inputs, the shock has no direct impact on the production and costs of the firm sector: there is no supply distortion.

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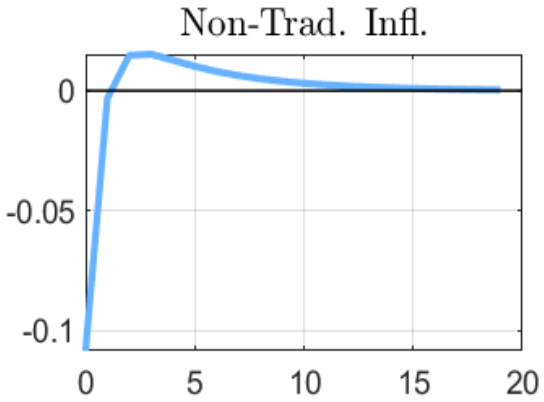


- The price of Non-Tradables decreases following the decline in the marginal cost that is composed exclusively of wages.

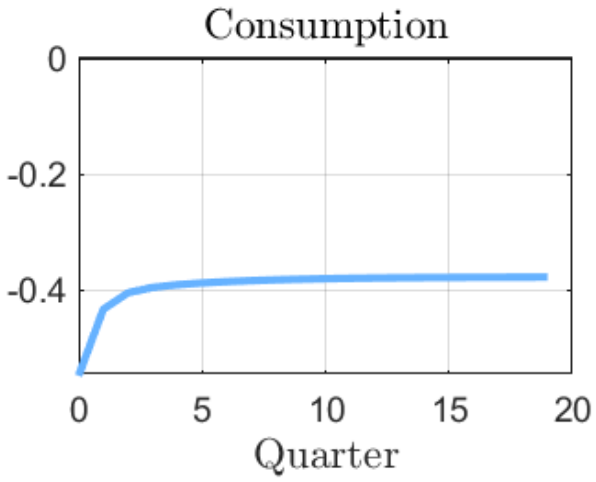
=> Monetary policy is facing an easy context with weak trade-offs. A policy that is targeting the sticky price component has room to be more expansionary and to look through the import price and CPI inflation.

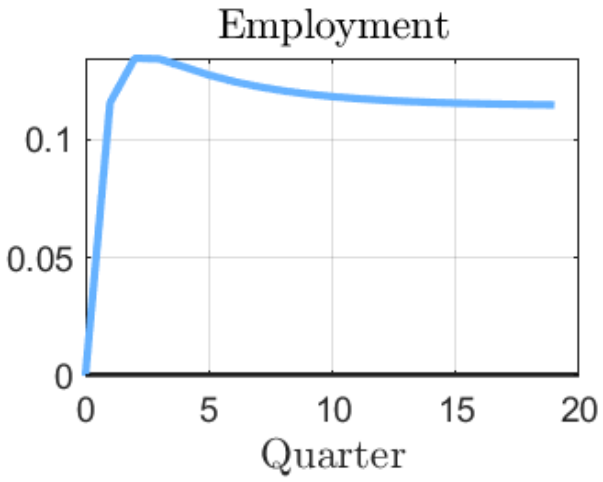
modelling assumptions: strong wealth effect on labor supply

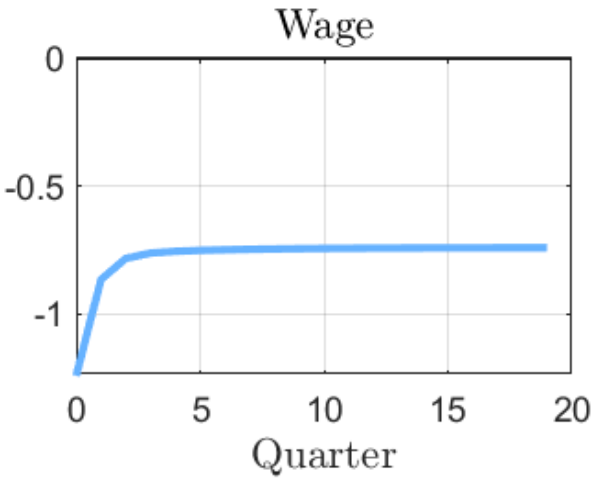
- Baseline calibration implies a strong wealth effect on labor supply:

$$\kappa_\ell (N_t^U)^\phi = (C_t^U)^{-\sigma} \frac{W_t}{P_t} \quad \text{with } \sigma = 2, \phi = 1$$

- The increase in the import price leads to a decline in real income, wealth and consumption and households have a strong desire to compensate that loss by increasing labour supply.
- This high labor supply puts extra negative pressure on real wages, which makes it profitable for firms to increase employment, in particular in the Trad. sector supported by the expenditure switching towards the cheaper domestic goods.

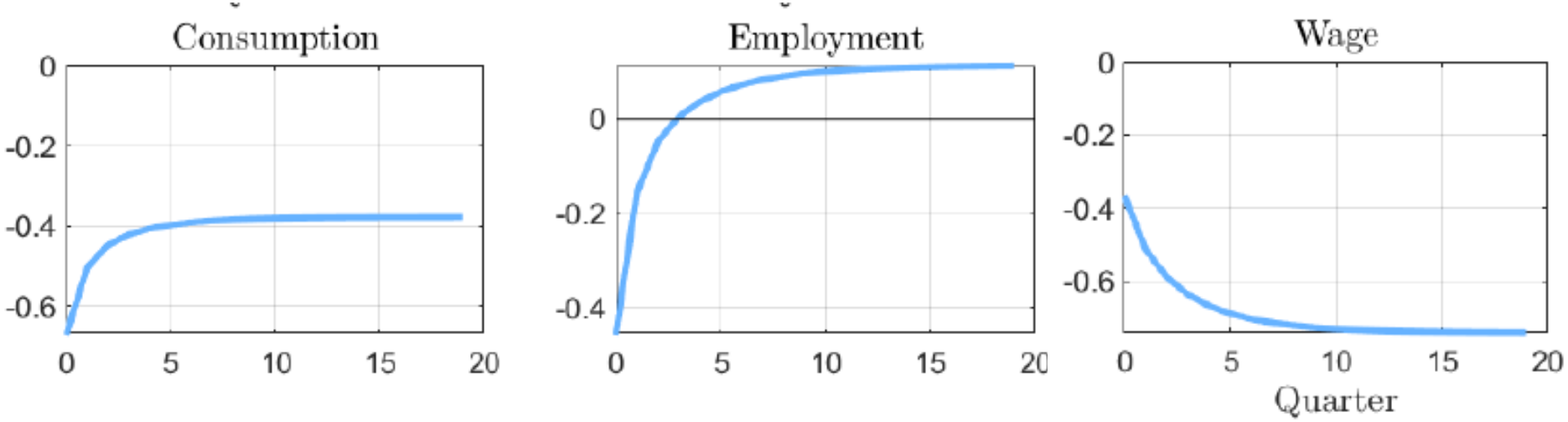






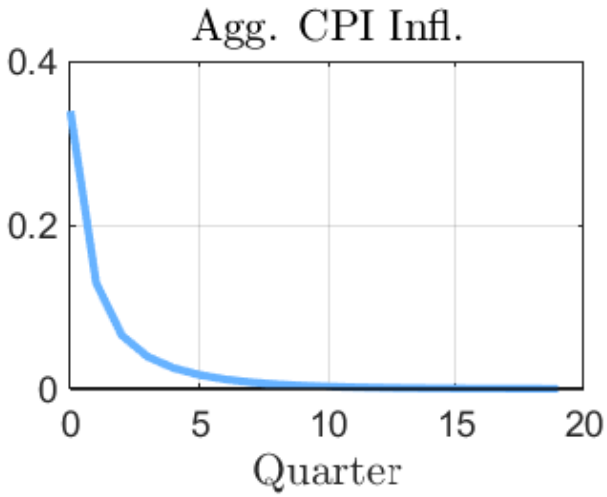
modelling assumptions: adding sticky wages

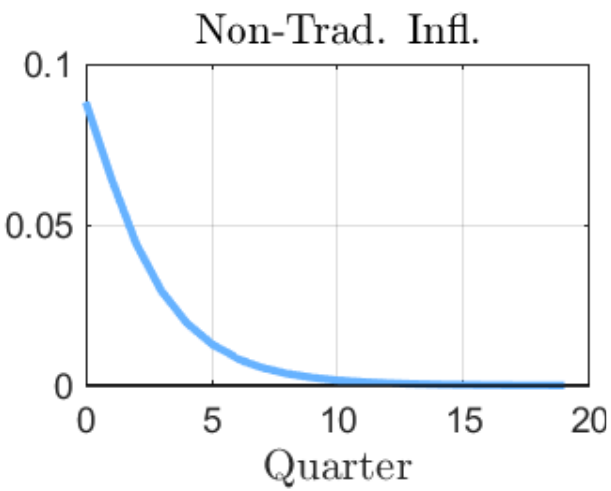
- Sticky wages reduces the unrealistic quick decline in flexible wages.
- Firms face now higher marginal costs and reduce their production and employment decisions accordingly.



modelling assumptions: adding sticky wages

- With sticky wages, the real wage resists the downward TOT-pressure and the markup in the Non-Tradable sector declines. This struggle to divide the TOT-costs between firms and workers results in a persistent domestic inflation in Non-Tradables.

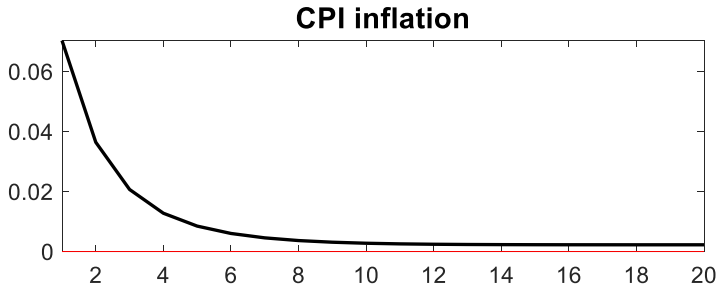


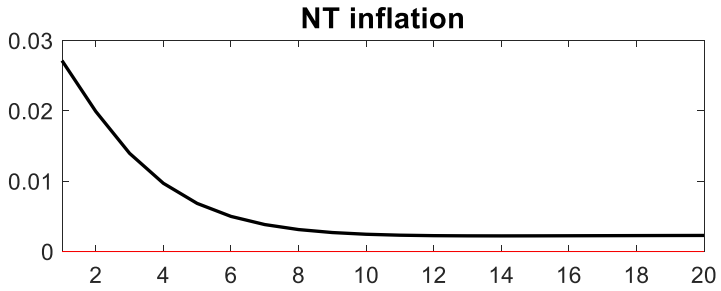


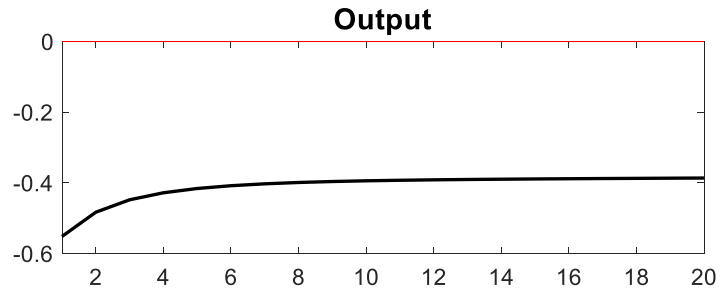
- Stabilizing sticky price inflation becomes much more costly. Monetary policy is facing a more complex trade-off problem: achieving the same inflation outcomes will require a deeper recession and more unemployment to force sticky wages downward.

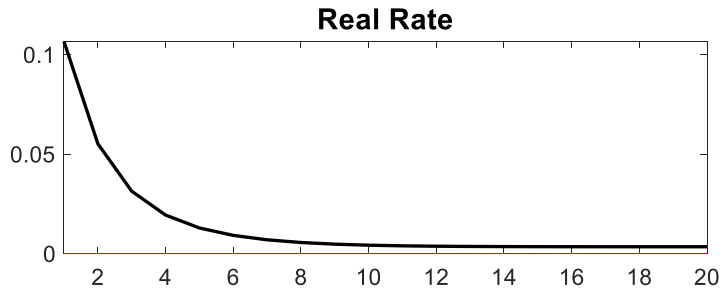
Model with full ERPT, κ=0.3, GHH-preferences, sticky wages

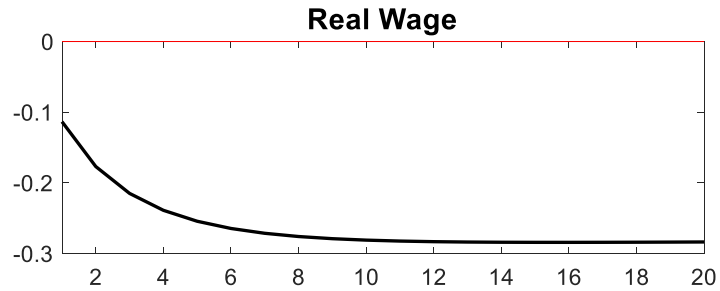
IRF of an increase in the Foreign Price Level (CPI-rule)

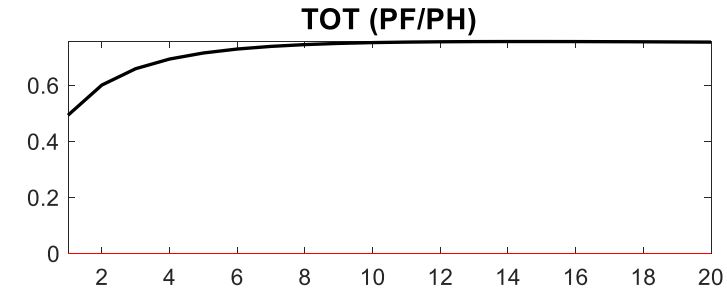






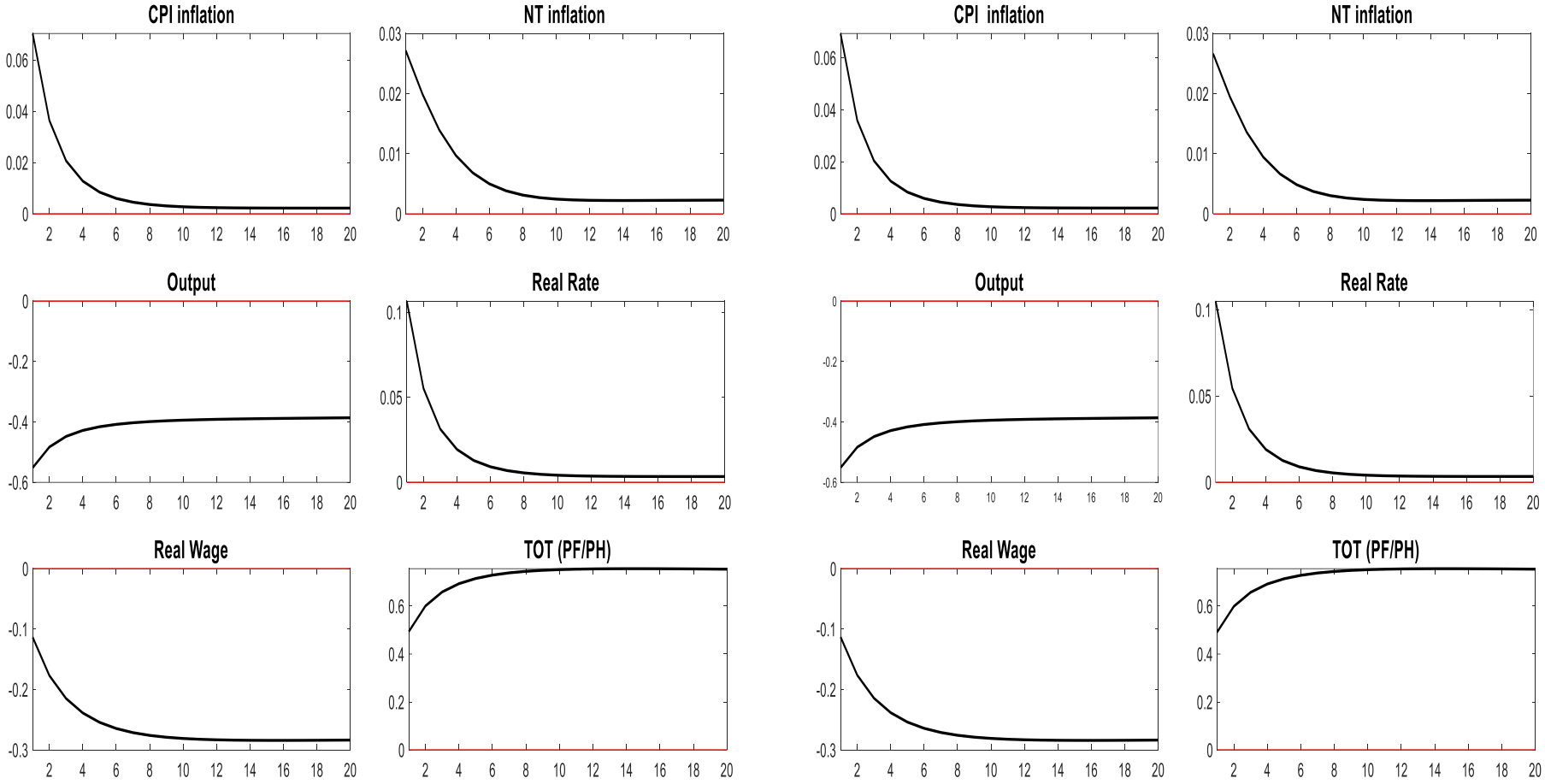






IRF of an increase in

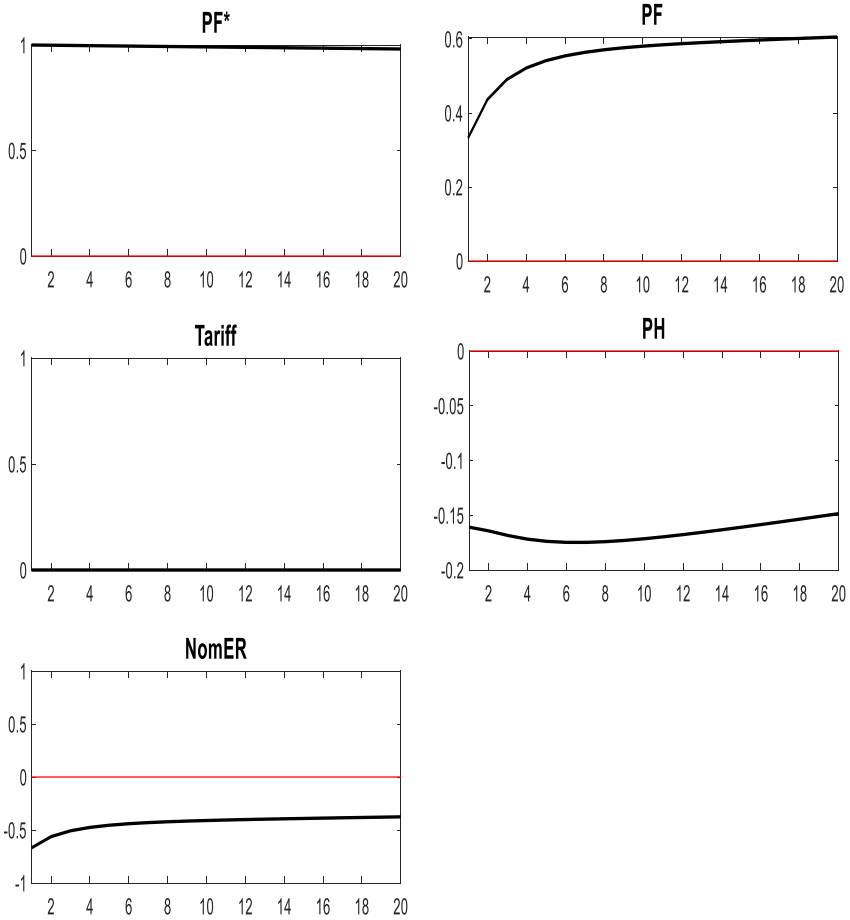
Foreign Price Level = Import Tariff abroad



The two shocks generate an equivalent TOT loss by offsetting ER adjustment

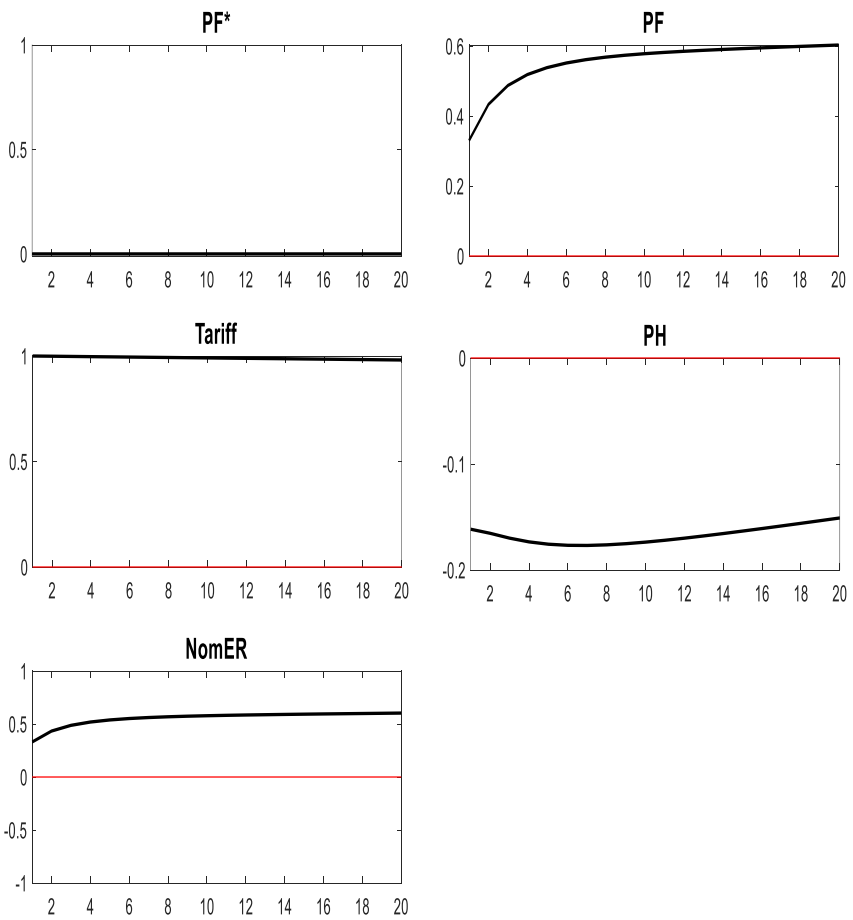
Foreign Price Level ~ nom. appreciation

offsetting the foreign price increase



Import Tariff abroad ~ depreciation

offsetting the loss in competitiveness



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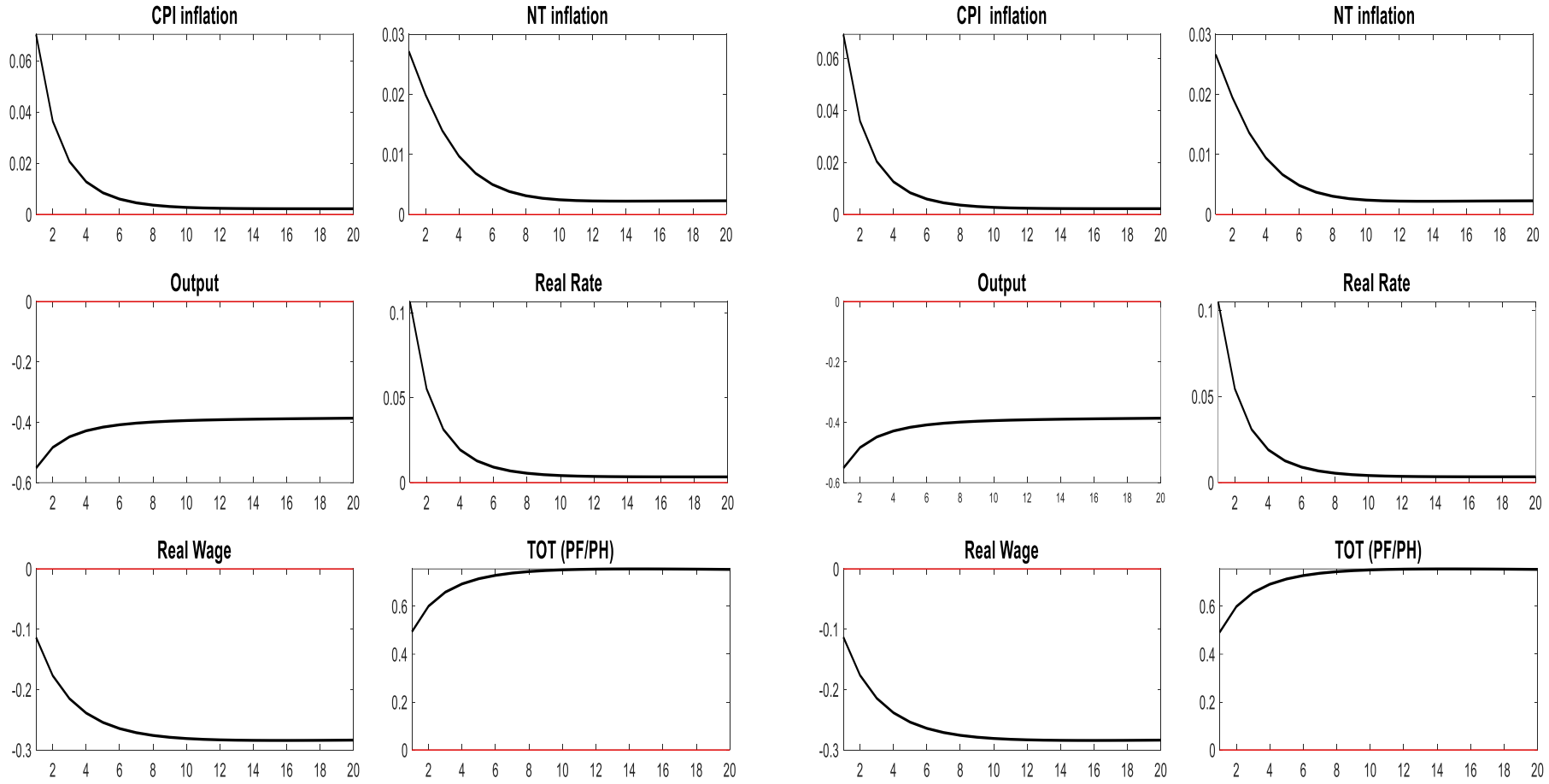
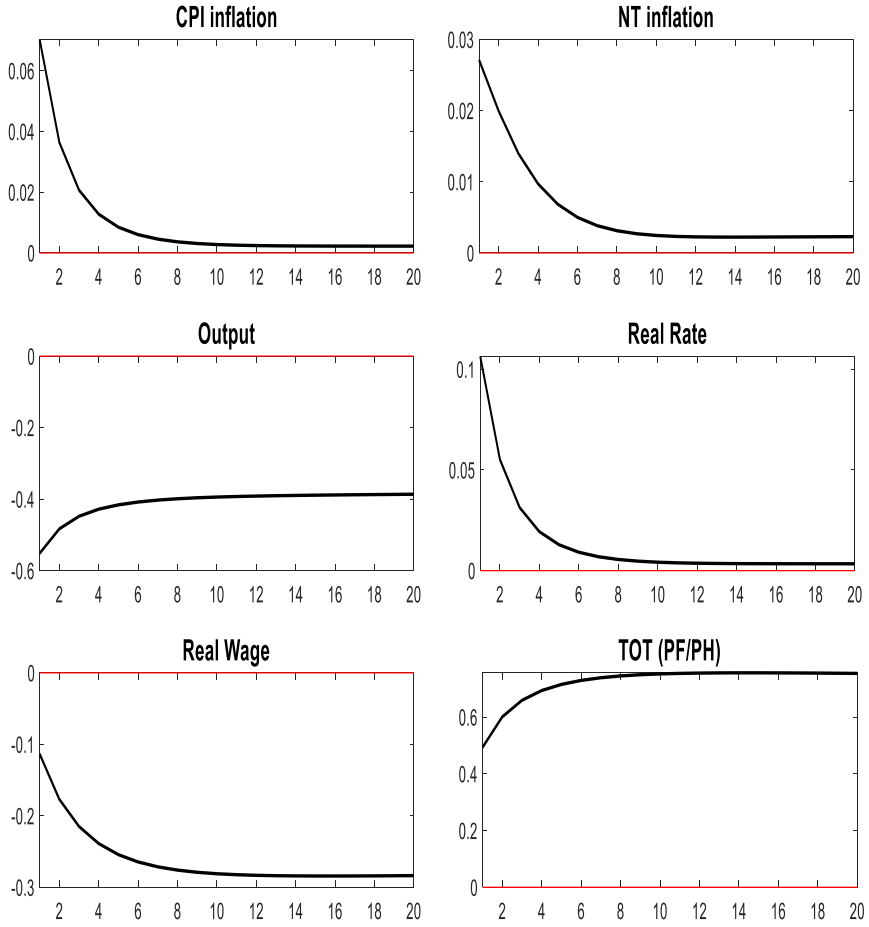


- Question: what model assumptions are necessary for this equivalence ?

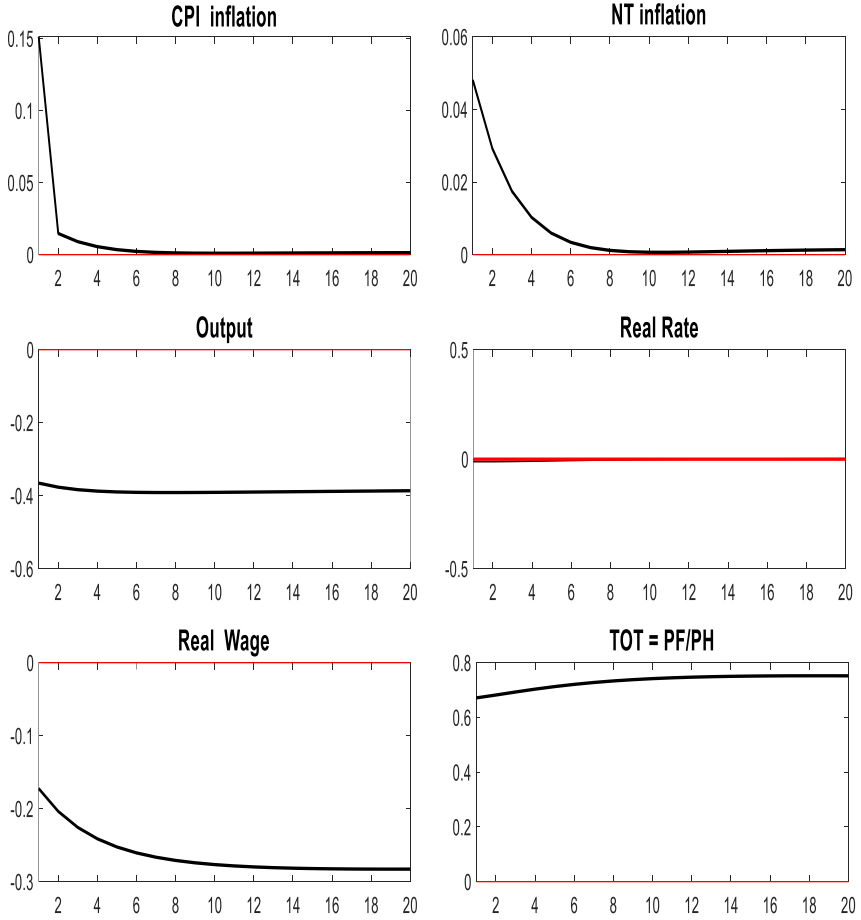
Monetary policy and the trade-off problem for import price = tariff shock

- A policy rule that is targeting a weighted average of sticky Non-Trad Price & Wage inflation achieves the real wage decline via higher short-run CPI-inflation and smaller output contraction.

CPI Rule



Weighted Sticky Price Inflation Rule



Concluding remarks

- The combination of an Import Price = Tariff shock and a negative TFP shock provides a first crude approximation of the cost of fragmentation: a mix of a TOT-wealth loss, a negative supply shock through higher input costs and a general loss in production efficiency.

- DSGE models can identify crucial assumptions and parameters for the analysis, but a more detailed sector and trade specification and an empirical validation are necessary before they can be used for policy advice (Kalemli-Özcan et al 25, Cuba-Borda et al 25).

- The extensions discussed in the paper such as the distribution effects in the TANK model with constrained households might improve the realism.
- Other important extensions to understand the current policy issues:
  - the impact of uncertainty and risk (Caldara et al 2020, Alessandria et al 24)
  - the fiscal implications of tariffs (Bianchi&Coulibaly 25, Alessandria et al 25)
  - the optimal policy analysis (Bergin&Corsetti 22-25, Werning et al 25, Monacelli 25)