

# What do we know about fiscal multipliers?

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**Disclaimer: Opinions expressed in this talk do not necessarily reflect the official view of the Austrian Fiscal Advisory Council.**

# Definition and importance of fiscal multipliers

- **General definition:** EUR-reaction of GDP to a one EUR-change in public revenue (T) or public expenditure (G):
$$\frac{\Delta Y}{\Delta T} \text{ or } \frac{\Delta Y}{\Delta G}$$
  - Potential disaggregation for revenue or expenditure sub-components
- Important figure for **costing, macro stabilization** and **structural policy**. **Fiscal multiplier are needed to identify**
  - “**net**” **budget effect** (net of self-financing),
  - **macro stabilization potential** (short- to medium-term issue) and
  - **economic growth potential** (long-term issue) of discretionary measures
- **Optimal fiscal policy** crucially depends on the **government objective** (e.g. macro stabilization, maximizing economic growth or welfare) and the **size of fiscal multipliers**

# Fiscal multiplier metrics

- ❑ **The existing metrics reflect the different use of fiscal multipliers and deviate due to considered:**
- ❑ **Temporal effect**
  - **Impact multiplier:** immediate GDP-reaction at implementation date
  - **N-period multiplier:** GDP-reaction at certain period N
  - **Present value or cumulative multiplier:** sum of (discounted) GDP-reaction over a certain period
  - Size of fiscal shock (**denominator**) can also be measured at impact or cumulated over a certain period
- ❑ **Temporal dynamics of effect**
  - **Peak multiplier:** maximum GDP-reaction in one period
- ❑ Comparison of study results has to reflect the different metrics!

# Fiscal multiplier estimation – literature

- ❑ **Discretionary fiscal policy influences GDP through**
  - **direct (immediate) effect:** mainly government expenditure (part of GDP)
  - **indirect (medium- to long-run) effect:** key role of theoretic framework!
- ❑ **Three main approaches** to evaluate the size of fiscal multipliers:
  - **Empirical estimation:** mainly VAR models but also single equation estimation
    - Main approaches: Cholesky, Blanchard-Perotti, sign restrictions, narrative approach
  - **Model driven estimation:** D(S)GE models
  - **“Cowles” approach:** large scale macro-econometric models

# Fiscal multiplier results – literature

- **Summary of existing results** (Mineshima et al., 2014/Gechert, 2015)
  - **Government spending multiplier estimates: mean: 0.8/1.0**
  - **Revenue multiplier estimates: mean: 0.2/0.5**
    - Mean of spending and revenue multipliers in Europe are smaller than these figures (Mineshima et al., 2014)
  - Recent literature survey (Ramey, 2019) supports the above presented spending multiplier results
    - spending multiplier estimates: mean: 0.9
- No reflection of **deviating multiplier metrics** employed in the above presented results

# Fiscal multipliers – quantitative key drivers I

- **Theoretic model employed:** decides about the indirect effect
  - Mainly assumptions about behavior and expectation formation of agents are relevant
- **Identification, type (fiscal instrument), financing and temporal impact of exogenous fiscal policy shock**
  - **Size of exogenous fiscal shock** depends on: budget elasticity, identification strategy (Caldara and Kamps, 2017), anticipation effects?
  - **Empirical modelling assumptions:** e.g. composition of fiscal variable, deflation variable, amount of variables (Čapek and Crespo, 2018)
  - **Duration of exogenous fiscal impulse:** temporary vs. permanent shocks

# Fiscal multipliers – quantitative key drivers II

- **Country specific factors:** +(act multiplier increasing), -(-decreasing)
  - **Trade openness:** -
  - **Price flexibility (goods and capital market):** -
  - **Liquidity constraints:** +
  - **Exchange rate regimes:** fixed +, flexible -
  - **Membership monetary union:** +
  - **Automatic stabilizers:** -
  - **State of the economy:** ? missing evidence (Ramey, 2019)
  - **Monetary policy stance:** accommodative +, ZLB (+)
  - **Unsustainable debt level:** -

# FISK – project on fiscal multipliers I

- **Consistent framework**
  - Data and variable composition
  - Single small open economy country, Austria
  - Reflect all frequently used evaluation methods: exception of narrative approach due to data limitations
- **Part 1: empirical estimation: structural VAR models**
  - Reflect a large variety of potential modeling choices
  - **Joint project: Masaryk University, WU Wien and FISK:**  
**FISK study: “Fiscal multipliers in a small open economy: the case of Austria”**



# FISK – project on fiscal multipliers II

- **Part 2: model-based estimation: New Keynesian D(S)GE model**
  - Reflect a large variety of potential modeling choices
  - **FISK study: “On fiscal multipliers in New Keynesian small open economy models”**
- **Part 3: Stylized facts on fiscal multipliers and summary of obtained results for Austria**
  - **FISK study: “Fiskalmultiplikatoren in Österreich”**