Essential background details and overview: The EU economy has been experiencing a recession in 2020 and (parts of) 2021 of unprecedented depth, outside of war times, due to the coronavirus pandemic. The potential growth and output gap implications depend on the complex mix of supply, demand, uncertainty and liquidity shocks, which the virus is provoking. The degree of uncertainty is enormous given inter alia the many unknowns regarding not only how the sanitary crisis will further evolve, how the vaccine strategy will roll-out but also the strength of the short-term policy response, the impact of NextGenEU recovery plans and the implications, which COVID-19 may have on the habits of economic agents. There are considerable risks that labour markets could suffer more long-term scars (hysteresis) than currently expected; that liquidity difficulties could turn into solvency problems for many companies and result in a prolonged drag on investment; and that repatriating global value chains has a longer lasting impact on productivity due to reductions in trade activity. Moreover, sectoral shifts in the economy (caused also by shifts in the habits of economic agents) may have longer-lasting effects related, for instance, to skills mismatch. Precautionary savings can also contribute to more long-lasting effects.

In this workshop we will explore together the questions we face as economists trying to evaluate economic dynamics in times of such a deep and sudden economic shock as the COVID-19 pandemic has provoked. The first day of the workshop will concentrate on the assessment of output gaps and potential output during COVID-19 - also covering questions related to policy implications. The second day will be dedicated to the evaluation of possible long-term effects of the pandemic and to exploring alternative methodologies currently discussed in the academic literature and the policy debate.
**Agenda**

**13:00 – 13:30** Introductory Remarks: C. Cuerpo Caballero (Chairman of the Output Gap Working Group OGWG); B. Döhring (European Commission Directorate-General Economic and Financial Affairs EC-DG ECFIN); C. Planas (European Commission Joint Research Centre JRC)

**13:30 – 14:30** "Potential Output in a Pandemic: A Labor Market Perspective", M. Burda (Humboldt University Berlin)

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**Keynote address**

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**Day 1: Alternative approaches to the estimation of output gaps and potential output with a focus on the impact of Covid-19**

**Session 1: Potential Output and Output Gap Estimation against the background of the COVID-19 Pandemic Shock: Methodologies used by the IMF, the OECD, the European Commission, & the ECB**

(Chair: B. Döhring, EC)

**14:30 - 15:00** "Estimation of output gaps and potential output against the backdrop of the COVID-19 pandemic – EUCAM approach", A. Thum-Thysen (EC)

**15:00 - 15:15** Coffee Break

**15:15 - 15:45** "Estimation of output gaps and potential output against the backdrop of the COVID-19 pandemic – Euro-system approach", B. Szörfi (ECB) and Katalin Bodnar (ECB)

**15:45 - 16:15** "Estimation of output gaps and potential output against the backdrop of the COVID-19 pandemic – OECD approach", Yvan Guillemette (OECD)

**16:15 – 16:45** "Estimation of output gaps and potential output against the backdrop of the COVID-19 pandemic – IMF approach", A. Diziolli (IMF)

**16:45 – 17:15** Discussion round

**17:15** Close of Workshop
Day 2: Post-COVID: possible long-term effects and exploring new methodologies

8:45 – 9:00 Dial-in and virtual morning coffee

Session 2: Post COVID and the long-term impact of COVID on potential output: hysteresis, scarring, reallocation processes
(Chair: A. Thum-Thysen, EC)

09:00 - 9:30 Post-Covid-19 potential output in the euro area, E. Ilzetzki (London School of Economics)
Discussant: L. Dősza (MoF Hungary)

09:30 – 10:00 "COVID and the Wage Philipps curve: a search and matching model including labour hoarding indicators", A. Hristov (EC, speaker), A. Thum-Thysen (EC)
Discussant: M. Burda (Humboldt University Berlin)

10:00 – 10:30 “Potential Growth of the Spanish economy after the pandemic”, P. Cuadrado (Banco de Espana)
Discussant: F. D’Auria (EC)

10:30 – 10:45 Coffee Break

Session 3: The truth lies in the data – new data developments in view of estimating potential output
(Chair: C. Maier, EC)

10:45 - 11:15 "Changes to capital stock and MFP estimation” R. Stehrer (WiiW); and J. Cabeca (Eurostat)

11:15 - 11:45 "Covid impact on labour input indicators", A. Panizo Espuelas (Eurostat) and Jenny Runesson (Eurostat)

11:45– 12:15 "Output gap in real time? Big Data approaches to GDP now-casting", M. Ratto and L. Onorante (JRC)

12:15 – 13:15 Lunch Break

Session 4: Output gaps and inflation – re-examining the relationship
(Chair: A. Rossi, JRC)

Discussant: Ottavio Ricchi (MoE, Italy)

13:45 – 14:15 "Output Gap and Inflation with Persistent Demand Shocks", W. Röger (DIW, University of Wuppertal and VIVES University of Leuven, speaker), O. Croitorov (JRC), P. Pfeiffer (EC), M. Ratto (JRC)
Discussant: D. Gros (CEPS)

14:15 –14:45 “Is the Phillips curve in the Euro area stable?”, Andreas Zervas (MoF, Greece)
Discussant: C. Planas (JRC)
14:45 – 15:00 Coffee Break

**Keynote address**

15:00 – 16:00 "The impact of COVID on productivity”, N. Bloom (Stanford University) and G. Thwaites (Nottingham University)

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**Session 5: Output Gap Calculation Methodologies: possible new approaches**

(Chair: C. Planas, JRC)

**16:00 - 16:30** "How do I measure the output gap?", F. Canova (Norwegian Business School)

*Discussant: W. Roeger (DIW, University of Wuppertal and VIVES University of Leuven)*

**16:30 – 17:00** "Estimating the output gap in real time: a factor model approach", K. Aastveit (Norges Bank)

*Discussant: V. Sivec (STATEC LU)*

**17:00 - 17:30** "Shadow output gap", V. Sivec (STATEC LU)

*Discussant: A. Rossi (JRC)*

**17:30 – 17:45** Concluding remarks by C. Cuerpo Caballero (Chairman of the Output Gap Working Group OGWG)

**17:45** Close of Workshop