4. SPECIAL ISSUES

4.1. THE ROLE OF SAVINGS IN DETERMINING THE RECOVERY PATH

The uncertainty surrounding future economic developments remains extraordinarily high. Although the acceleration of vaccination campaigns in recent weeks has brightened the prospects for the evolution of the pandemic and a return to normal life, the outlook for the European economy remains subject to some important unknowns. These include the behavioural response of consumers and businesses once restrictions are eased, and the structural changes to production processes and sectoral performances once policy support measures are withdrawn.

Acknowledging this uncertainty, this Special Topic updates the growth decomposition and scenario analysis for the euro area that was conducted in previous forecasts. [1] The first section quantifies the unobserved drivers behind the outlook for GDP growth in the forecast baseline through the lens of an estimated structural macroeconomic model. The second section presents the economic effects of alternative paths for selected key drivers, with a focus on the evolution of household savings.

4.1.1. A model-based decomposition of the forecast

The following analysis builds on the Commission's Global Multi-Country Model (GM), a New Keynesian macroeconomic model in a two-region configuration with the euro area and the rest of the world. [2]

The GM model has been augmented to capture specific features of the COVID-19 pandemic. The specification includes a transitory 'lockdown shock' that complements the standard shock to consumption demand. The lockdown shock can be characterised as *forced* savings, driven by supply constraints, such as those generated by social distancing requirements and the closure of non-essential services, as opposed to the shock to *voluntary* savings, which may reflect precautionary motives, financial constraints, or changes in household preferences. The lockdown shock, identified as a pandemic-specific determinant of consumption demand, is set to zero prior to 2020. The model also includes an explicit role for liquidity in the investment behaviour of firms, to reflect the adverse impact of the COVID-19 crisis on the liquidity and equity positions of non-financial corporations. [3] The model parameters are estimated using historical data from 1999-Q1 until 2020-Q4. The data set is then extended with the forecast baseline from 2021-Q1 until 2022-Q4 to identify the shocks that drive the forecast. [4]

In the forecast baseline, the recovery of consumption demand, which is associated with a normalisation of household saving behaviour, is the most important driver of the recovery in economic activity over the forecast horizon (Graph I.4.1). The adverse impact of exceptionally high (forced and voluntary) savings on growth in 2020 is estimated to start fading in 2021. Further normalisation of the household saving rate in 2022 substantially helps the economy grow out of the crisis.

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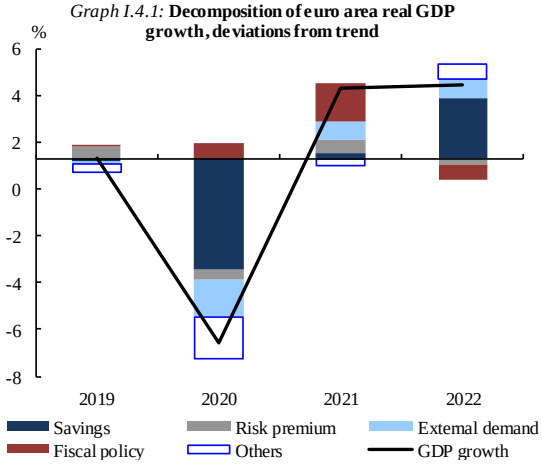
(1) See European Commission (DG ECFIN). (2020). European Economic Forecast – Spring 2020'. Institutional Paper 125 and European Commission (DG ECFIN). (2020). European Economic Forecast – Autumn 2020'. Institutional Paper 136.

(2) The Global Multi-Country (GM) DSGE model has been developed by DG ECFIN and the Joint Research Centre of the European Commission. A detailed description of the GM model can be found in: Albonico, A., L. Calès, R. Cardani, O. Croitorov, F. Di Dio, F. Ferroni, M. Giovannini, S. Hohberger, B. Pataracchia, F. Pericoli, P. Pfeiffer, R. Raciborski, M. Ratto, W. Roeger and L. Vogel (2019). 'The Global Multi-Country Model (GM): an Estimated DSGE Model for the Euro Area Countries'. *ECFIN Discussion Paper No. 102*. European Commission. The defining characteristic of New Keynesian (NK) models is the combination of the micro-foundation of household and firm behaviour with nominal (price and/or wage) rigidities.

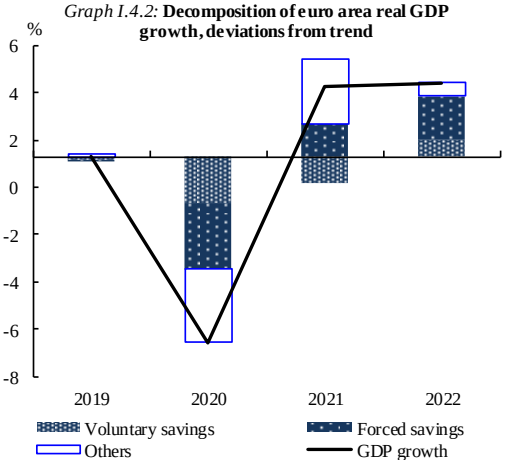
(3) In technical terms, the model incorporates heterogeneous firms. As in standard NK models, the investment behaviour of unconstrained firms depends on real interest rates and the market relative to the replacement value of physical capital. The constrained firms' investment, by contrast, is conditioned on their earning and liquidity flows (gross operating surplus). The share of constrained firms is an endogenous (countercyclical) model outcome. See also the discussion in: Pfeiffer, P., Roeger, W. and in 't Veld, J., (2020), 'The COVID-19 pandemic in the EU: Macroeconomic transmission and economic policy response', *Covid Economics: Vetted and Real-Time Papers*, Issue 30, 2020, 120-145.

(4) The term 'shocks' refers to the exogenous factors that drive the deviation of the endogenous model variables from their long-run trend paths.

Graph I.4.1: **Decomposition of euro area real GDP growth, deviations from trend**



Graph I.4.2: **Decomposition of euro area real GDP growth, deviations from trend**



The sizeable fiscal support deployed over 2020 and 2021 also markedly helps the economy to bounce back this year. [5] In addition, the continued implementation of the RRF provides further impulse to the economy and helps to mitigate the fading effect of emergency support measures in 2022. A more favourable global outlook (including positive spillover from the US fiscal expansion) nurture euro area growth in both 2021 and 2022. Finally, the recovery also benefits from a strong increase in private investment demand this year.

A closer look at the contribution of household savings (Graph I.4.2) reveals a positive growth effect from the gradual and steady decline of forced savings in 2021 and 2022, which is associated with the easing of pandemic-specific supply restrictions. The voluntary part of savings, to the contrary, continues to weigh negatively on growth in 2021, before contributing positively in 2022. The elevated and still growing level of savings in 2021, even if associated with some decrease in the saving rate, can be attributed to precautionary motives, in view of continued uncertainty about future pandemic and economic prospects.

[5] The fiscal shocks include shocks to government spending and tax revenue. They exclude government guarantees that, if effective, may not imply additional budgetary costs. Fiscal shocks do not capture the automatic stabilisers that act through the tax and benefit system.

4.1.2. A scenario analysis

Consumption and savings dynamics remain central in shaping the recovery …

The baseline forecast takes the view that the propensity to consume out of savings remains limited, with excess savings unlikely to feed significant pent-up demand, especially considering that pent-up demand for goods was largely satisfied in the aftermath of the first lockdown. [6] Still, the unprecedented accumulation of private savings throughout last year offers the EU economy enough leeway to grow out of the crisis more quickly than assumed in the forecast baseline through consumption. The swift reduction in the saving rate observed in the third quarter of 2020 testifies that consumers are keen to spend once restrictions are lifted. Recent improvements in consumer confidence also bode well for a consumption-driven recovery going forward.[7] These considerations could motivate a more optimistic view of the growth outlook for the euro area.

At the same time, the economy has yet to find a firm footing. First, despite recent gains, consumer and business confidence is still highly contingent on the evolution of the pandemic and the success of vaccination campaigns, which induces some volatility in expectations. Secondly, with further labour market adjustments on the horizon (see Section 2.9), a consumer spending spree may be held back to some extent. Third, past empirical evidence shows that the propensity to consume out

[6] See also the special topic in 'European Business Cycle Indicators – 1st Quarter 2021', European Commission (2021)

[7] See Special Topic 4.2.

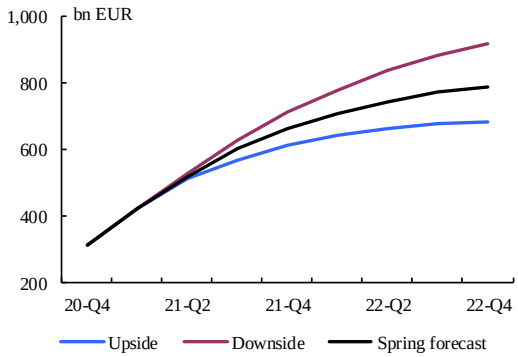
of cumulated savings (or wealth) tends to be lower than out of additional income.[8] Finally, positive growth surprises in the second half of last year strengthen the view that the economy is learning to live with the virus[9] with the negative impact of containment measures diminishing over time.[10] As a result, the eventual, gradual lifting of containment measures may give a lower growth impulse than assumed in the forecast baseline.

This Special Topic draws two alternative paths for key forecast drivers, exploring the sensitivity of the forecast baseline to them. An *upside scenario* features a sustained strong recovery in consumer confidence, with the resulting step-up in spending occurring in the summer of 2021. This scenario assumes that, starting in 2021-Q3, pent-up demand and intra-EU tourism drive the saving rate of households lower by around 2 pps. relative to the forecast baseline, bringing the rate back close to its long-term average by the end of the forecast horizon.

By contrast, a *downside scenario* assumes that precautionary savings remain substantially elevated over the forecast horizon. The saving rate in 2022 hovers around 2.5 pps. above that projected in the baseline forecast and thus significantly above its pre-crisis level. Delays in the lifting of lockdown measures are expected to impair confidence and discourage consumers from reducing their savings. At the same time, the sluggish recovery in economic activity takes its toll on the fabric of the European economy. To exemplify this channel, the scenario features an elevated investment risk premium, reflecting the higher uncertainty and deteriorating financing conditions triggered by such events.[11]

Graph I.4.3 summarises these assumptions by displaying excess savings, i.e. the additional stock of savings driven by the pandemic induced shocks.[12] In the upside scenario, the saving rate returns gradually to its pre-pandemic level as higher household consumption helps to put a brake on a further accumulation of excess savings, which reach about 700 bln EUR or 5.4% of euro area GDP at the end of the forecast horizon. By contrast, the saving rate path in the downside scenario leads to rising excess savings, which reach over 900 bln EUR, around 7.2% of euro area GDP at the end of 2022.[13]

Graph I.4.3: **Model-implied excess savings**



Note: Excess savings are the difference between accumulated households savings and a model-based unconditional projection as of 19-Q4.

… either to spur a faster rebound …

Model simulations of the upside scenario show a faster recovery in private consumption and aggregate demand. The resulting GDP growth rate in 2021 (see Graph I.4.4) is around 1 ppt. higher than in the forecast baseline. The more buoyant private demand is particularly evident in the third quarter, where the quarterly GDP growth rate exceeds baseline growth by around 1.5 pps.

[8] Available evidence for the euro area shows a marginal propensity to consume out of financial wealth (measured in cent per euro of wealth) between 1 and 3 (median of 6 studies). See de Bondt, G., Gieseck, A., Herrero, P. and Zekaite, Z. (2019). 'Disaggregate income and wealth effects in the largest euro area countries', ECB *Working Paper Series* No 2343, December.

[9] Both the Autumn 2020 and Winter 2021 forecasts underestimated GDP developments in 2020-Q3 and 2020-Q4, respectively.

[10] Goldstein, P., Yeyati, E.L., Sartorio, L. (2021). 'Lockdown fatigue: The declining effectiveness of lockdowns', CEPR Covid Economics, Issue 67

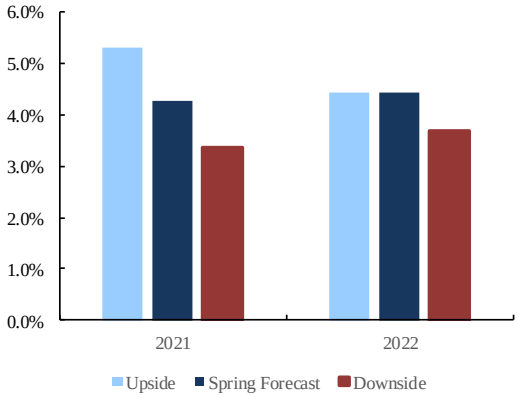
[11] Building on the shock identification described above, the macroeconomic impact of these conditioning assumptions is quantified with the GM model. In the simulations, the precautionary savings shock matches the assumed profile for the savings rate. The downside scenario features additional financial shocks. As an illustration, a stylised (and persistent) risk premium shock of around ½ of the size identified during the onset of the financial crisis in 2008-2009 is considered. The assumptions on other conditioning variables remain as in the forecast baseline. In particular, neither scenario includes further discretionary monetary and fiscal policy action beyond the workings of automatic stabilisers. The outlook for the external sector also remains unchanged.

[12] Excess savings are defined as the difference between *accumulated* household savings in the forecast scenarios and a model-based (pre-pandemic) projection as of 19-Q4. Note that model-implied savings can differ slightly from their empirical counterpart due to simplifying modelling assumptions (e.g., asset market structure and tax rates).

[13] For the US, recent research argues that the post-pandemic demand boost due to excess savings will remain limited. See Bilbie F., Eggertson, G., Primiceri (2021), 'US 'excess savings' are not excessive', VoxEU.

Notably, this upside risk implies that economic activity surpasses its pre-pandemic levels in the summer 2021, two quarters earlier than in the baseline forecast. Nonetheless, it is worth highlighting that even if such positive growth surprises were to materialise, economic activity would not reach the level projected before the pandemic (the 'pre-pandemic growth path' in Graph I.4.5) by the end of 2022.[14]

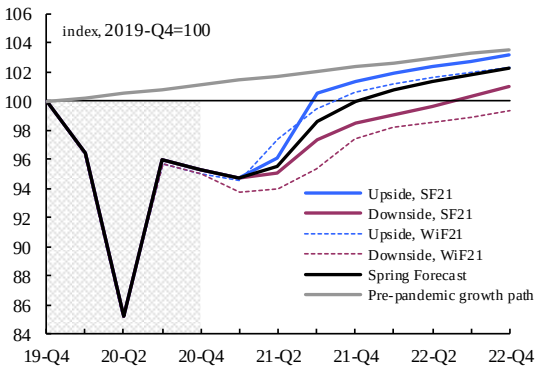
Graph I.4.4: **Real GDP annual growth rates, euro area**



… or to keep dragging it down.

In the downside scenario with the assumed higher aggregate savings and risk premia, lower aggregate demand significantly drags on growth over the forecast horizon. The interaction of downbeat consumer confidence and tighter financing conditions for firms leads to a prolonged weakness in private consumption and business investment. These adverse effects slow the recovery but do not derail it. With 2021 and 2022 GDP growth remaining about 0.9 pps. and 0.7 ppt., respectively, below the baseline, the rebound from the crisis is notably weaker than in the forecast baseline. Consequently, real GDP returns to its pre-pandemic level only in the second half of 2022.

Graph I.4.5: **Real GDP, euro area**



Note: The pre-pandemic growth path equals the winter interim forecast 2020 projections up to the end of 2021 and extrapolated thereafter.

Overall, the economy is set to emerge from the pandemic slightly stronger than expected previously, with the two scenarios foreseeing slightly higher growth paths than the respective scenarios in the Winter 2021 Interim Forecast. The implementation of the RRF, together with a more favourable global outlook, propel faster growth this year even if the negative surprise as assumed in the downside scenario were to materialise. This is also expected to limit longer-lasting damages to the economic fabric. Similarly, should the upside scenario assumptions materialise, somewhat diminished uncertainty about the progress of vaccination campaigns, coupled with strongly improving confidence, could give rise to a faster rebound in the second half of 2021 than previously envisaged.

(14) Before the pandemic, euro area GDP was forecast to grow by 1.2% in 2020 and 2021, which is taken as the 'pre-pandemic path'. See 'European Economic Forecast: Winter2020'. Institutional Paper 121