Macroeconomic policy response to the Covid-19 shock

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Abstract

The unique shock of Covid-19 has necessitated a large-scale global economic policy response, in order to address the public health challenges, stabilise financial markets and support sectors of the economy affected by restrictions. The unprecedented support packages first launched by Poland's monetary and fiscal authorities in March 2020 have contributed to Poland weathering the shock relatively well compared to peer countries. The cost of fiscal support will substantially raise public debt levels across the world. Among advanced economies this further exacerbates concerns surrounding the concurrence of high public debt and low interest rates, which had already been voiced before the pandemic. However, empirical literature has attributed the decline in interest rates observed in recent decades mostly to private sector factors – notably shifts in saving and investment preferences – and not to pressures on central banks arising from weak fiscal fundamentals. Meanwhile, despite the substantial fiscal support package launched in 2020, Poland's medium-term fiscal sustainability outlook remains sound, supported by a relatively low debt-to-GDP ratio, a low underlying fiscal deficit and solid potential output growth.

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Introduction

Following the global financial crisis (GFC), which had appeared to be a once-in-a-generation economic shock calling for an unprecedented policy stimulus, in 2020 the world was hit by an even more exceptional shock. Yet again, a large policy response was required, particularly on the fiscal front – according to IMF data the average size of direct fiscal support among advanced economies reached 8.3% of GDP.[2] As a consequence of this support and the 2020 recession, debt-to-GDP ratios in advanced economies are now projected to reach 125% in 2021.[3]

Already prior to 2020 there had been growing concerns that high public debt ratios and very low interest rates were becoming a permanent feature of the economic landscape. The increase in public debt related to the Covid-19 pandemic may further entrench advanced economies in this setting. This entails numerous risks, including that of limited capacity to respond to future shocks and potentially the threat of fiscal dominance, as a hypothetical increase in interest rates would undermine the governments' ability to sustain high debt ratios.

This note explores some of these issues in a global context and from the perspective of Poland and considers the possible implications going forward.

Economic policy response to Covid-19 shock – general considerations

The unique nature of the Covid-19 pandemic has required a somewhat different type of economic policy support than traditionally provided in response to downturns. The pandemic is an unusual economic shock which negatively affects both supply and demand. However, it is not a shock to aggregate demand and supply as such, but a combination of disaggregated shocks which impact different sectors with different strength in an asymmetric way (Baqaee and Fahri, 2020). These shocks then propagate from sectors affected by health restrictions to the rest of the economy, leading to further business shutdowns and layoffs. As shown by Guerrieri et al (2020), breaking this vicious chain calls for unconventional fiscal policy measures targeted at preventing business shutdowns and incentivising companies to maintain employment. In addition, monetary policy should help businesses and households to stay afloat by lowering debt payments.

Beyond the impact of lockdowns, another key channel of impact of the Covid-19 pandemic on economic activity was an unprecedented hike in uncertainty reflected in financial market tensions, which were particularly strong in March 2020. The measures undertaken by the central banks played a major role in alleviating these tensions, as confirmed for example by the event study of Rebucci et al (2021). The study showed that the Fed played a critical role in stabilising bond markets worldwide, but also that country-specific quantitative easing (QE) interventions by other advanced and emerging market central banks contributed to stabilising local bond

[2] IMF Fiscal Monitor Database of Country Fiscal Measures in Response to the Covid-19 Pandemic, data as of January 2021, figure refers to unweighted average of above-the-line fiscal support measures in advanced economies.

[3] IMF Fiscal Monitor Update, January 2021.

and exchange rate markets, after controlling for the impact of the Fed's actions and other factors.

Monetary and fiscal policy response to the Covid-19 pandemic in Poland

The spreading of the Covid-19 pandemic, the introduction of restrictions in economic activity and the worsening of the economic outlook which started in March 2020, were rapid in nature. The elevated economic uncertainty arising from these developments was also reflected in financial market tensions at the time. Faced with these challenging circumstances, policymakers had to quickly undertake measures to stabilise the situation and provide support to the economy in response to the Covid-related shock. Narodowy Bank Polski (NBP) decided to ease monetary policy in the middle of March, becoming one of the first central banks in Europe to react at a time when the economic downturn was not yet visible in hard data, but could have been expected. This response consisted of interest rate cuts (between 17 March and 28 May the reference rate was cut by a total of 1.4 percentage points to 0.1%) and the launching of structural open market operations consisting of purchasing government securities and government-guaranteed debt securities in the secondary market. These operations were aimed at changing the long-term liquidity structure in the banking sector, ensuring the liquidity in secondary markets for the purchased securities, and enhancing the impact of the NBP interest rate cuts on the economy, ie strengthening the monetary policy transmission mechanism. Additionally, NBP has lowered reserve requirements to equip the banking sector with sufficient liquidity and offered bill discount credit aimed at refinancing commercial bank loans granted to enterprises.

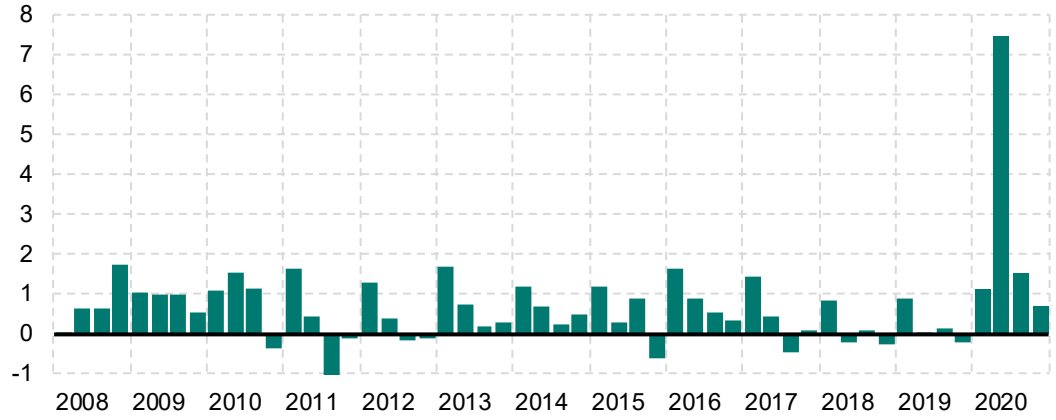
The response took into account not only the expected sharp GDP contraction and its likely negative impact on inflation, but also the more exceptional features of this economic shock. The first of these were the aforementioned tensions in financial markets which were common to many countries and which resulted in increased volatility and drying up of liquidity in bond markets, negatively affecting the monetary transmission mechanism. The second was the unique nature of the Covid shock, which – as noted above – implied that large-scale fiscal support to economic entities affected by lockdowns was required. This made it even more crucial that securities markets were liquid and functioning properly, in order for the government to be able to raise the necessary financing in an exceptionally short time frame (see Figure 1).

Besides ensuring liquidity in the government debt market, the measures undertaken by NBP have resulted in substantial lowering of the costs of financing and of debt service for the whole economy. Private sector borrowers have benefitted from the lowering of the WIBOR 3M interbank rate – often used as a benchmark in loan agreements – on average by 1.44 percentage points between February 2020 and June 2020, ie by a figure corresponding to the scale of the NBP reference rate cut. This was conducive to lower credit instalments, supporting the financial situation and sentiment of the indebted economic agents. The reductions of the NBP interest rates since March 2020 can be estimated to have lowered the burden on households and enterprises due to interest payments on outstanding loans by PLN 6-7 bn per year (0.3% of GDP).

Quarterly net issuance of Treasury and Treasury-guaranteed debt in the domestic market

% of annual GDP

Figure 1



Source: Authors' calculations based on data published by Ministry of Finance and Central Securities Depository of Poland.

Fiscal policy measures in response to the Covid crisis were initially launched at the end of March, with the bulk of the support delivered to recipients in the second quarter of 2020. According to government figures, the overall size of economic support in 2020 reached 7.5% of GDP, including loans and guarantees. The size of non-refundable support impacting the fiscal balance in 2020 may be estimated at around 5% of GDP. The design of fiscal measures placed a lot of emphasis on preserving jobs. The single largest measure (2.6% of GDP) were repayable advances paid out to micro-, small and medium enterprises in the form of loans, but with up to 75% of the loan amount eligible for write-off upon meeting specified conditions, including maintaining employment. Other support measures focused on protecting jobs included wage subsidies and a three-month exemption from social insurance contributions.

While data limitations constrain comparisons of fiscal support packages between countries, there is some evidence that the fiscal support provided to enterprises in Poland was relatively large and was delivered quickly (see Figure 2). Notably, the swift processing and disbursement of support provided to enterprises was made possible by advances in IT, as financial data included in applications submitted by companies via their online banking channels was automatically verified against the databases of tax and social insurance administrations.

The crisis response measures appear to have helped achieve the goal of protecting jobs. According to Eurostat data, in the third quarter of 2020, the seasonally-adjusted unemployment rate in Poland stood at 3.3%, the second lowest level in the EU, having increased from 3.1% in the first quarter of 2020 (the lowest increase over this period among EU countries). According to preliminary data, Poland's GDP declined by 2.8% in 2020, as compared with the EU average drop of 6.4%.[4] It should be noted, that Poland's relatively strong economic performance during the pandemic is also attributable to other factors, such as a lower share in the

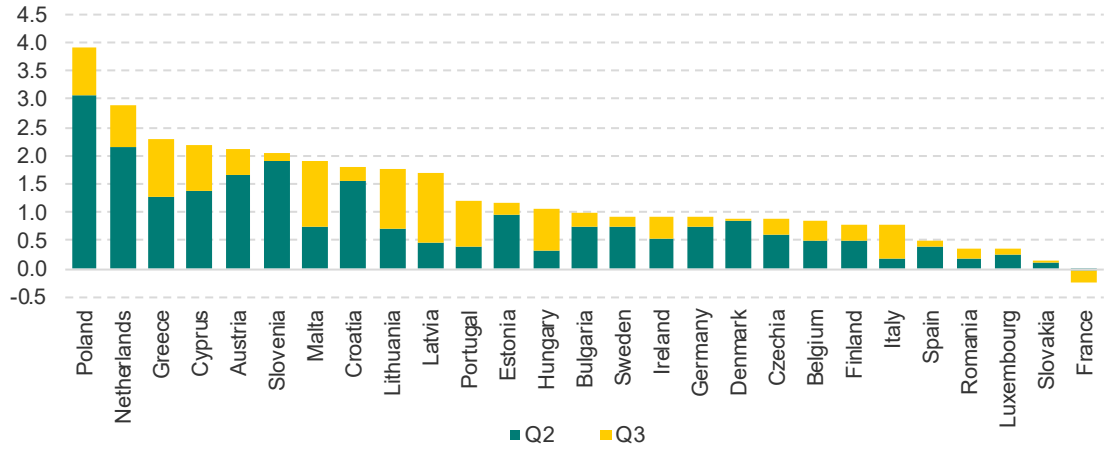
[4] Figures according to releases of Statistics Poland (29 January, 2021) and Eurostat (2 February, 2021).

economy of service sectors most affected by sanitary restrictions, as well as strong trade ties to Germany, which also weathered the crisis relatively well.

Approximate level of government expenditure on anti-crisis support to enterprises* in the second and third quarter of 2020

% of annual GDP

Figure 2



* Calculated as nominal year-on-year change in expenditure on subsidies to enterprises (D.3) and capital transfers (D.9)

Source: Eurostat

Public debt sustainability – the global context

Following the global financial crisis, public debt ratios globally have increased massively. According to IMF data, among advanced economies, the average public debt-to-GDP ratio increased from just over 70% in 2007 to above 100% in the 2010s. Already this increase has prompted economists to re-examine the limits of public debt sustainability, particularly in the context of persistently low interest rates. Now the Covid-19 pandemic is projected to push this ratio to well above 120% of GDP, making the questions surrounding public debt ratios even more pressing.

The dynamics of public debt depend on two key variables – the government primary balance and the difference between the average effective interest rate on public debt and nominal GDP growth (r – g). As argued by Blanchard (2019), under a negative r – g, which has historically been the norm, a zero primary surplus will eventually result in a decline of the debt-to-GDP ratio, regardless of the size of the initial expansion. Another way to present the implications of the debt dynamics equation is to say that under a negative r – g, any size of the primary deficit will result in a finite debt-to-GDP ratio. Blanchard also argues that not only is there no fiscal cost to higher public debt (assuming r – g stays negative), but also the welfare costs are lower than typically assumed, due to a lowering of the marginal product of capital.

An important qualification is that in arithmetic terms, a lower or negative r – g is very helpful in preventing a further increase in the debt ratio, but not in reducing debt. This is illustrated by examples shown in Table 1. If r – g is negative, then a country with a higher debt ratio can actually run a higher primary deficit than a less indebted country in order to stabilise the debt. However, when it comes to debt reduction, r – g makes no additional difference – in order for debt-to-GDP to decline

by 1 percentage point, the primary surplus always has to be 1 percentage point higher than its debt-stabilising level. A meaningful reduction in public debt from current levels would require running substantial primary surpluses over several years, even if r – g is favourable.

Illustrative examples of primary fiscal balances required to stabilise or reduce public debt depending on r – g

Table 1

Initial debt / r – g	To stabilize debt-to-GDP			To reach 2007 debt-to-GDP ratio (71%) in 20 years	
	71% (2007 level*)	104% (2019 level)	125% (2021 level)	104%	125%
–1	–0.7	–1.0	–1.2	0.7	1.5
0	0.0	0.0	0.0	1.7	2.7
1	0.7	1.0	1.2	2.6	3.8

* Average of advanced country group.

Source: Authors' calculations using IMF data.

This is relevant in connection with the second key point of the ongoing discussion on the implications of low interest rates for fiscal sustainability, namely that in such an environment, fiscal adjustments are likely to be more costly. If monetary policy is already at the zero lower bound, it has limited capacity to accommodate the fiscal effort required to generate primary surpluses and reduce public debt (Blanchard et al, 2021). Running substantial primary fiscal surpluses over a number of years in such circumstances may not be viable from the point of view of macroeconomic stabilisation. In other words, low interest rates make it easier to sustain high public debt ratios and more difficult to reduce them.

Economic theory and past experience would indicate that maintaining high debt ratios carries important risks, most notably because there is a positive relationship between the public debt and long-term interest rates, as the risk premium increases with the level of debt. A well-known contribution in this field is Laubach (2009) who studied long-horizon forward interest rates and future government deficit and debt as projected for the US by the Congressional Budget Office. He found that bond yields rise by 20 to 30 basis points in response to a percentage point increase in the projected deficit-to-GDP ratio and by 3 to 4 basis points in response to a percentage point increase in the projected debt-to-GDP ratio. Baldacci and Kumar (2010) examined the impact of fiscal deficits and public debt on long-term interest rates for a panel of 31 advanced and emerging market economies, finding that higher deficits and debt lead to a significant, robust and non-linear increase in interest rates.

When discussing policy implications, Baldacci and Kumar have related their results to the increase in public debt in advanced economies following the global financial crisis, stating: "the results suggest a pronounced increase in debt service costs over the medium term for the advanced G20 economies: given the average increase in debt of about 20 percent of GDP, debt service costs are likely to increase by more than 1.5 percent in these countries". This prediction has not materialised, as despite an increase in public debt by more than 26 percentage points between 2007 and 2019, interest payments in this period declined by 0.3 percentage points.[5] The

[5] IMF data, "advanced economies" country group.

failed prediction is worth noting as an indication that while *ceteris paribus* higher public debt most likely still has a positive impact on interest rates, in the past decade other factors have dominated over this effect.

The drivers of low interest rates

Indeed, recent literature indicates that over the past few decades a number of factors have exerted strong downward pressure on interest rates in advanced economies, clearly outstripping whatever may have been the impact of the concurrent rise in public debt ratios. Rachel and Smith (2015) examined the causes of the decline of long-term interest rates across the world by about 450 basis points over a period of 30 years. They found that the decline in trend economic growth may have been one of the reasons, but shifts in saving and investment preferences were more important. These shifts are attributed to demographic forces (the declining share of young dependent population and rising share of working age population which is saving), rising inequality, as well as a decline in desired levels of investment, *inter alia* due to the falling relative price of capital goods and lower public investment. The authors expect these forces to persist. Holston et al (2017) reached similar conclusions, finding that natural interest rates for the United States, Canada, the euro area and the United Kingdom have been falling and by 2016 reached historically low levels. This is explained by a decline in trend GDP growth, but also other highly persistent factors. There is a substantial co-movement in the estimates of the natural rates of interest and trend GDP between the four economies, suggesting an important role for global factors influencing natural rates. Mian et al (2020) presented a related, but more extensive theoretical explanation of low interest rates, attributing this development to rising income inequality and liberalisation of the financial sector. In the 'indebted demand' model they propose, wealthy households (savers) save a greater fraction of their lifetime income than poor households (borrowers). As a result, large household debt levels weigh negatively on aggregate demand and lead to a decline in interest rates, as savers have a lower marginal propensity to consume out of the debt payments they receive, than borrowers do out of their disposable income.

Rachel and Summers (2018) directly addressed the issue of reconciling the record low interest rates observed globally in recent years with historically high public debt ratios. They estimated that the increase in public debt-to-GDP ratios observed in advanced economies over the previous 40 years should *ceteris paribus* have raised real rates by between 1.5 and 2 percentage points. However, the private sector forces dragging down on interest rates (broadly in line with those outlined in the previous paragraph) apparently are more powerful than previously anticipated and have more than offset the impact of public debt. The authors expect these forces to persist in the future.

Finally, among the various channels of interaction between public debt and interest rates discussed in the recent literature, there is no evidence of high debt suppressing interest rates via a fiscal dominance channel and no sign of inflation pressures arising from such a scenario, although some authors have pointed to such a risk in general terms. For example, Reinhart et al (2015) have examined the history of past debt reductions and have concluded that whether inflation can be an endgame to modern peacetime debt build-ups is an open question, but it remains on the table. However, several studies show that it is quite debatable whether in practical terms a central bank could significantly reduce the public debt burden by

increasing inflation. For example, Hilscher et al (2014) find, using data from 2012 for the United States, that higher inflation is unlikely to lower the real value of debt by more than a few percentage points of GDP. Krause and Moyen (2016) found that a significant fraction of real public debt can be inflated away only if the change in the inflation target is very persistent – for the US calibration, a persistent 4 percentage point increase in the target erodes after 10 years about a third of the additional public debt accrued during the GFC. A temporary change has much smaller effects, of about 10 percent of debt after 10 years. To sum up, the brief outline of the literature, high public debt ratios and low interest rates are to some extent interrelated, but there is unlikely to be direct causality between them. While the majority of large advanced economies currently carry high levels of public debt, there are also some advanced economies with low public debt and independent monetary policy, in which interest rates were already close to the zero lower bound before the pandemic. This further corroborates the attribution of low interest rates to non-fiscal factors.

Economic recovery and fiscal sustainability outlook in Poland

With the ongoing rollout of vaccines, a global recovery appears to be on the horizon, though with considerable uncertainty related both to the outlook for health risks, as well as the shape of the recovery from such an unusual economic shock.

In these circumstances, the medium-term policy mix in Poland is also subject to much uncertainty; however, the phasing out of unconventional fiscal measures may be expected. These measures are by design more temporary than traditional fiscal stimuli, as they are designed to support economic agents during periods of restrictions imposed on specific types of activities. Once restrictions are lifted, this form of assistance will no longer be necessary and fiscal balances should improve, without negatively impacting economic activity. Assuming such a scenario, there is good reason to believe that the Covid-related recession and large-scale fiscal support provided in response have not materially changed the outlook for fiscal sustainability in Poland. This outlook remains sound and the three main arguments supporting such an assessment are the same as they had been before the pandemic:

- Public debt, while higher than in 2019, remains relatively low. According to recent IMF forecasts,[6] public debt in Poland will remain below 60% of GDP throughout 2025. This is a level which can safely be sustained. As shown above, maintaining a constant debt-to-GDP ratio is considerably less demanding in terms of the required primary balance, than reducing it. It should be borne in mind, however, that targeting a constant debt-to-GDP ratio in practice implies stabilising this ratio over the economic cycle, ie reducing it during upturns in order to create room for increases during (normal) economic downturns.
- The underlying fiscal deficit is low. The headline general government balance has widened considerably in 2020, although currently available data indicate that its outturn was lower than projected in November by the IMF and European Commission (8.9% and 8.8% of GDP, respectively). However, prior to the pandemic the deficit was low (–0.7% of GDP in 2019) and the majority of its increase is attributable to crisis response measures. Some of these measures are

[6] Republic of Poland: Staff Concluding Statement of the 2020 Article IV Mission, November 20, 2020.

likely to be extended to 2021, as restrictions related to the pandemic are still partly in force. Nonetheless, these measures are by design temporary and once they are phased out, the deficit will improve substantially. According to IMF forecasts, by 2023, the structural primary balance will be close to 0, implying that the current fiscal policy will no longer contribute to the build-up of public debt. The sound structural balance implies that once the pandemic (hopefully) subsides, it will not be necessary to carry out a large-scale fiscal adjustment – as was the case following the global financial crisis – which would hamper the pace of economic recovery.

- A favourable r – g differential will be supported by relatively strong potential output growth, compared to leading advanced economies, making it easier to stabilise/reduce public debt even if interest rates are not at the zero lower bound, as had been the case in Poland until 2019.

The factors outlined above may be expected to support fiscal sustainability in the medium-term. In the longer run, the outlook is more challenging, in particular due to demographic factors – like all EU countries, in the next 40 years Poland is facing an ageing of its population. This factor will have a downward impact on potential output growth, as will the gradual closing of the productivity gap vis-à-vis leading advanced economies. These are important arguments for prudently managing the available fiscal space and striving to maintain a favourable fiscal sustainability outlook.

Conclusions

The economic shock associated with the Covid-19 pandemic has compelled policymakers around the world to engage in a policy response on a massive scale. Such response was clearly essential in order to save lives, stabilise markets and prevent unnecessary loss of productive potential.

At the same time, the policy measures have further pushed the limits of monetary policy and led to another jump in the level of public debt, on top of the large increase which took place during and after the global financial crisis. Already before the pandemic, there was an extensive economic debate on the topic of fiscal sustainability in a high-debt and low-interest rate world. Advanced economies have experienced a substantial decline in interest rates over the past decades which has been attributed in the literature to structural changes in saving and investment preferences. While the causes of this phenomenon have not been fiscal in nature, it does have fiscal implications – with interest rates close to the zero lower bound, it is easier to sustain large levels of public debt, but it becomes more difficult to reduce debt.

Current forecasts, albeit still surrounded by a lot of uncertainty, indicate that the lasting damage to output associated with the Covid pandemic will be smaller than in the case of the GFC and the same applies to the increase in public debt. This may serve as some indication, that the relationships between public debt, interest rates and economic growth will not change materially in the wake of the pandemic.

Poland has benefitted from having ample policy space prior to the outbreak of the pandemic, as a result of which both monetary and fiscal policy stimulus measures reached an unprecedented scale. These measures have contributed to Poland weathering the economic shock relatively well, despite experiencing the first annual decline in real GDP since 1991 and should help restore growth once the health risks subside.

While the fiscal support provided to the economy has resulted in a notable jump in public debt, the public debt ratio remains below 60% of GDP, the underlying primary balance may be expected to return to a level close to zero and the r – g differential is supported by a relatively high potential growth rate. Therefore, the assessment of its medium-term sustainability is broadly the same as it had been prior to the pandemic shock, indicating that fiscal sustainability concerns should not weigh negatively on the macroeconomic policy room for manoeuvre in response to future shocks.

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