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# Republic of Moldova

## Bracing for domestic and external Covid-19 shocks


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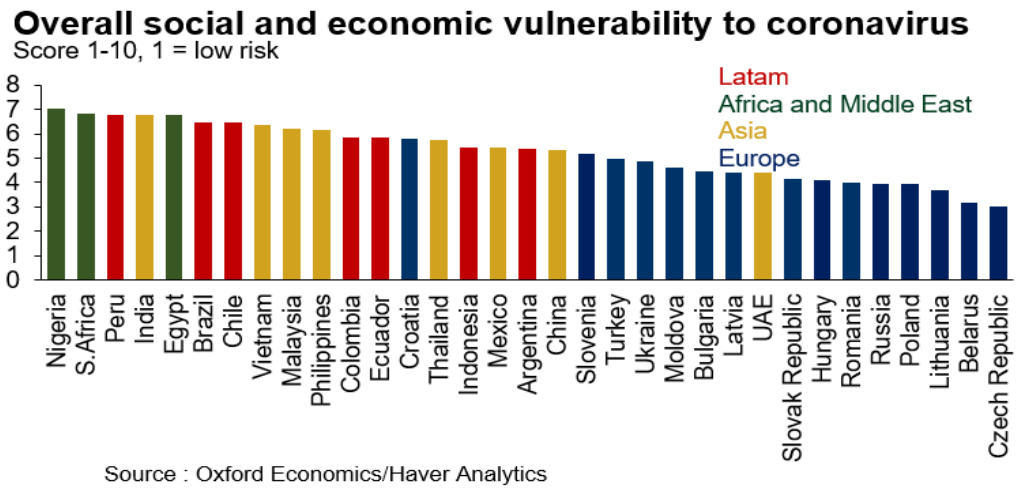
**Social and economic vulnerability to coronavirus**

- **Moldova's economy is vulnerable to the consequences to the coronavirus pandemic, but shows some important strengths compared to its peers.**
- **The lockdown is expected to deliver a serious blow to economic activity, which could reach 20 percent of GDP in Q2, in line with other developing economies. A disproportionately large reliance on consumer-oriented sectors (retail trade, restaurants and recreation) represents a serious vulnerability, and offsets the positives such as smaller share of tourism or commodities.**
- **Moldova is particularly vulnerable to a large drop in the inflows of foreign currency, which could compound the direct effects of the lockdown on economic activity. It will become harder to finance Moldova's large current account deficit in the current context. A decline in remittances, which we expect to reach around 24-27%, will be a further blow to the economy.**
- **An early response in terms of distancing measures and relatively extensive hospital availability represent important elements of resilience and could result in a shorter lockdown than comparator countries. This is badly needed given that the relatively large informal economy and prevalence of SMEs imply a lack of robust buffers to cushion the blow from the social containment measures.**
- **Moldova's public sector is in a relatively better financial position than others to respond to the crisis. However, its fiscal response so far has been underwhelming compared to other developing countries. The lack of effective institutions and governance gaps will hinder the effectiveness of the policy response regardless of the size of the intervention.**




Source : Oxford Economics/Haver Analytics

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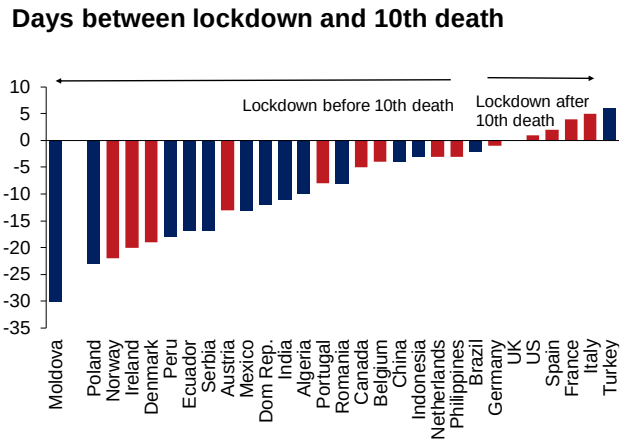
## Section 1. Coronavirus in Moldova and other emerging markets

**Moldova's early introduction of social distancing regime may mean a shorter one**

Moldova gained an advantage in its efforts to limit the spread of the coronavirus by introducing strict containment and social distancing measures early on in its pandemic: on 11 March, 3 days after its first confirmed Covid-19 case, and 7 days before the first death. The containment measures are expected to last until at least the beginning of May, or 7 weeks since Parliament declared a national State of Emergency. The early social distancing regime has therefore prevented many more deaths.

There are numerous data biases in comparing infections and mortality rates across countries, but we can overcome most of them by looking at rates of change in new deaths. As long as the recorded number of Covid-19-related deaths in each country remains a constant share of the true number of deaths, the rate of change statistic will be fairly accurate.

**Figure 1: Emerging Market policymakers typically acted earlier in the evolution of their epidemic**

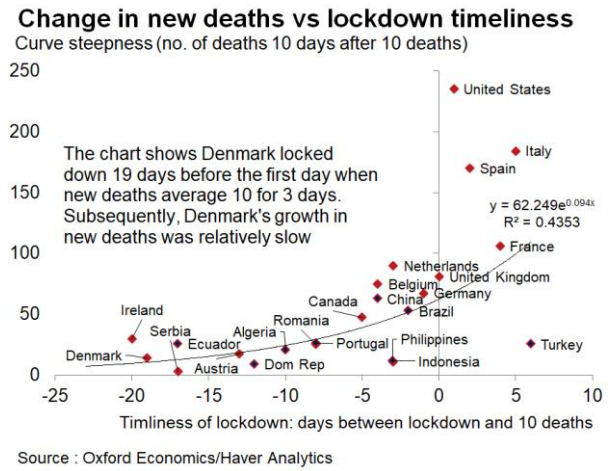



Note: Moldova hasnt yet recorded 10 daily deaths a month after lockdown
Source : Oxford Economics/wiki/national sources

Emerging markets typically went into social distancing regimes earlier in the infection cycle than advanced economies. Nine of 13 Emerging Markets did it at least eight days before the 10th death per day from Covid-19, compared to only five out of 15 developed markets (**Figure 1**).

According to our analysis of fatality rates, more timely social distancing measures are a major reason for the flatter curves in Emerging Markets (**Figure 2**). The other main reason is that most Emerging Markets are generally not travel hubs. The most affected cities are among the most visited (New York, Paris, London, Milan, Madrid).

**Figure 2: Countries that introduced social distancing late relative to the day when 10 deaths first occurred have had to endure higher mortality rates**




Source : Oxford Economics/Haver Analytics

The vertical axis is a measure of the slope (flatness) of the mortality curve in a country based on how many deaths occurred 10 days after the number of daily deaths first reached 10. Higher dots represent steeper curves. The horizontal axis measures the timeliness of lockdowns. Ireland's is most timely, locking down 20 days before 10 deaths. The chart shows that countries with later lockdowns typically have had steeper mortality curves.

Flatter curves in Emerging Markets should mean lower peaks in deaths, and consequently the potential for shorter containment measures than in Developing Markets. As well as moderating the impact on health services, this could offer much needed economic relief. The relatively flatter curves appearing in Covid-19 mortality trends in emerging markets are a relatively encouraging sign for Emerging Markets. It means many could avoid the lengthy lockdowns seen in developed markets that are suffering much steeper increases in fatality rates.

There are plenty of smaller populations with daily deaths above 10 (at some point in the crisis, for example Denmark, Ecuador, Finland, Honduras, Hungary, Norway, Panama and Serbia). It is a considerable achievement to have kept daily new deaths always below 10, though the risk remains that the virus could spread further.

## Section 2. Moldova's overall economic vulnerability

**Moldova's sovereign risk is one of the highest in the region**

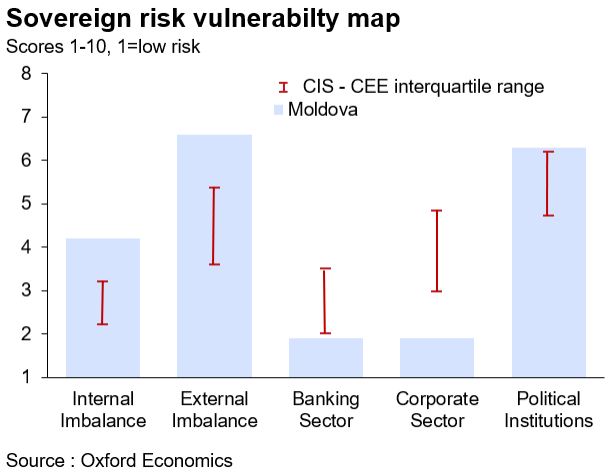
According to Oxford Economics sovereign risk indicator (SRI, a very broad measure of vulnerabilities) Moldova, together with Ukraine, remains among the riskiest countries in the CEE-CIS universe (**Figure 3**). The SRI's modules cover five possible areas of weaknesses.

**Figure 3: Sovereign risk across selected emerging markets**


Moldova's weak spots are quality of institutions and high internal and external imbalances. The reduced effectiveness of institutions in the context of past cases of corruption are concerns that could increase the likelihood of a crisis (**Figure 4**). Thus, Moldova ranks 109th out of 166 economies in SRI on government effectiveness, according to World Bank World Governance Indicators, and 135th on judiciary independence (according to World Economic Forum Global Competitiveness Index). Stronger institutions will help other countries cope with the Covid-19 crisis more effectively and reduce the risks of triggering a sovereign and/or a currency crisis.

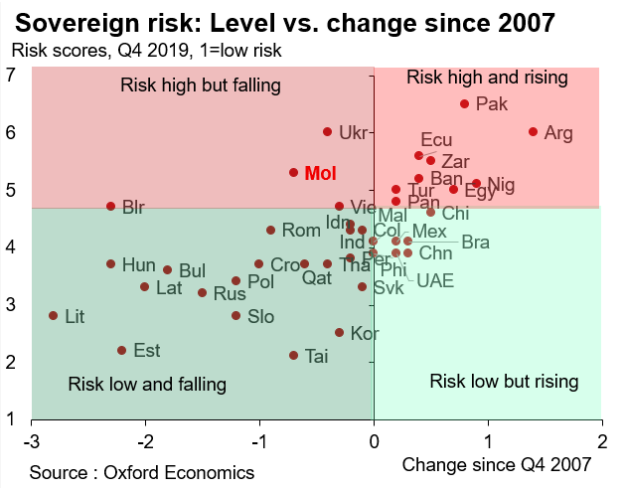
Moldova's external imbalances are huge. The current account deficit of 9.7% of GDP, would be even wider were it not for the remittances that amounted to $1.2bn in 2019 (or 16% of GDP). This leaves Moldova highly vulnerable to external shocks. The ongoing return of labour migrants on the back of the pandemic will exert a further external shock (see **Section 5**).

**Figure 4: Key dimensions of sovereign risk**




However, risks have generally decreased since the global financial crisis (GFC) mainly due to reductions in internal imbalances – inflation dropped to single digits and fiscal discipline persists (**Figure 5**). Furthermore, banking sector risks have fallen owing to improved capital adequacy, lower loan-to-deposit ratios, and lower cross-border borrowing.

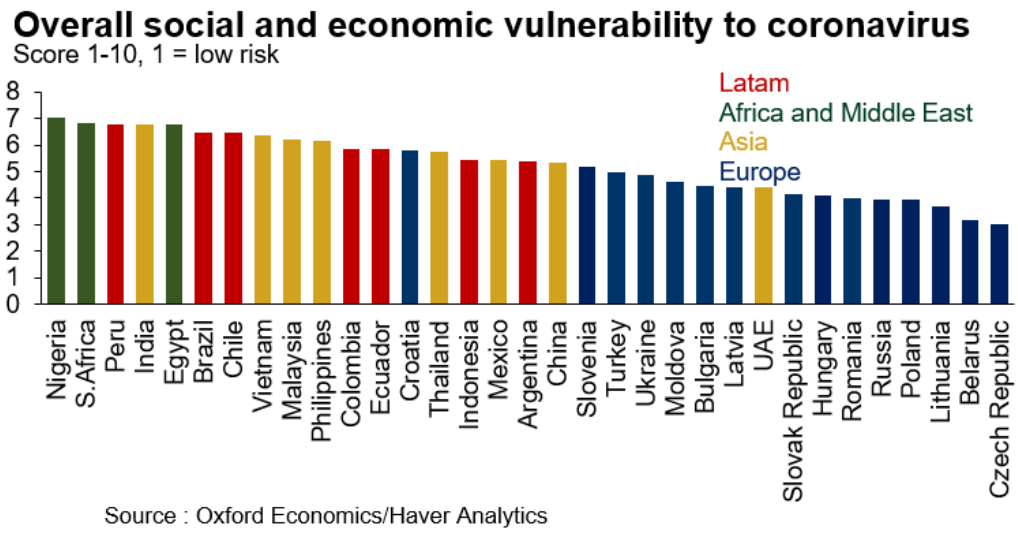
**Figure 5: Moldova's sovereign risk has barely improved since the GFC**




## Section 3. Coronavirus vulnerabilities

We produce a specific scorecard on the basis of key elements of vulnerability to this kind of shock. Overall, Moldova ranks relatively well, 22 out of 33 emerging and developing economies included in the study. However, Moldova's economic and social vulnerabilities are higher than most of the European countries considered (**Figure 6**).

**Figure 6: Moldova's vulnerability to the economic impact of the Covid-19 pandemic is among the highest in emerging Europe**



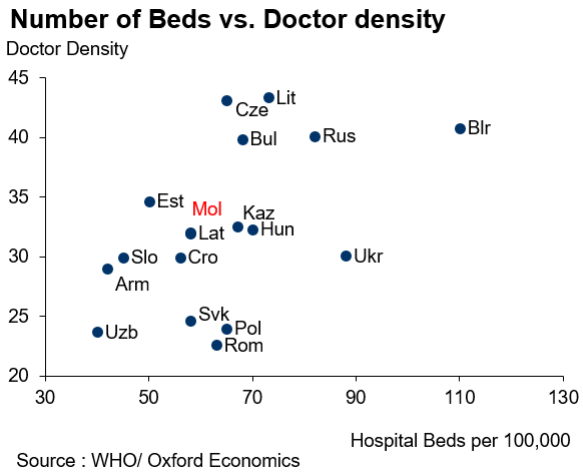

Source : Oxford Economics/Haver Analytics

**Moderate vulnerability of the healthcare system**

To build the scorecard we identify three areas that could exacerbate the economic impact of the outbreak:

First, the **risk of overwhelming the health systems**. Moldova ranks as well as most European countries in terms of healthcare capacity as the number of beds (public/private) and doctors is relatively robust compared to other emerging and developing economies (**Figure 7**). However, an area of concern is that the number of available beds has been falling and that the health care is facing multiple technical and human resource capacity issues. The strain on health system also depends on the proportion of people aged over 60, which in Moldova has reached 20.8% (quite high relative to most Emerging Market because of low fertility rates and emigration in the past years). Data in several countries have shown that hospitalizations and death rates increase with aging.

**Figure 7: Moldova is mid-range in terms of medical capacity in central and eastern Europe.**

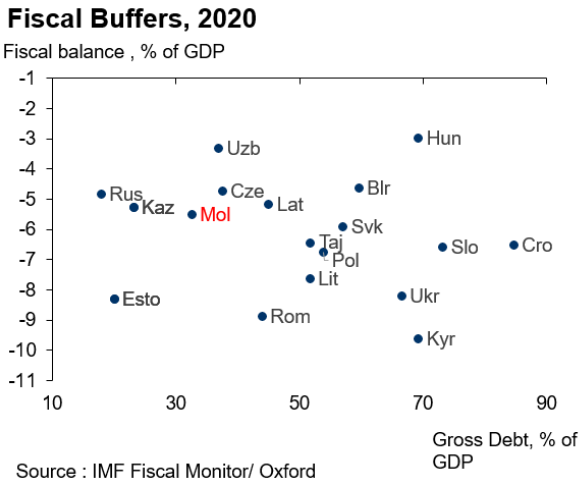



Source : WHO/ Oxford Economics

**Reasonable fiscal space**

Second, **fiscal space**. Most of the countries are implementing countercyclical measures to support the most affected sectors and households. Emerging Markets tend to have a less fiscal space relative to advanced economies, but Moldova's past fiscal discipline coupled with a sustainable debt path places the country in a relatively favourable position to engage in support measures. The fiscal deficit was 1.5% of GDP in 2019, and public debt stood at around 30% of GDP. This compares to 2.5% and 47% respectively for countries in the comparator peer group. If we consider 2020 forecast Moldova is still well positioned (**Figure 8**).

**Figure 8: Moldova has relatively wide fiscal space…**




**But institutional capacity is a major weakness**

The government's capacity to provide support where it is most needed depends not only on the size of the programs but also on policy implementation capacity. Corruption and weak governance are to be taken into consideration to reduce the risk of misallocation of any additional fiscal impetus, which would weaken the support to the economy.

The following example illustrates the point. The main anti-poverty program (Ajutor Social – a means-tested cash benefit program, launched in 2010) is considered one of the best targeted programs in the country as the majority of its beneficiaries are the poorest families, yet its coverage is low. Among the poorest 20% of the population only 19% benefit from it, and its size is inadequate, accounting only for 8% of recipients' total disposal income. Moreover, there are little incentives for social assistance beneficiaries to seek jobs. The program has been an improvement over the previous one, which was based on nominative compensations. However, 14.7% of population still live below the poverty line (according to World Bank, calculated with subsistence minimum per adult).

Third, the scorecard assesses the extent to which the economic structure leaves the economy exposed to the coronavirus-related shock. Here we focus on the following key dimensions (we shall expand coverage of relevant aspects in the next section).

**Low reliance on tourism and exports of commodities serves as a cushion amidst the pandemic**

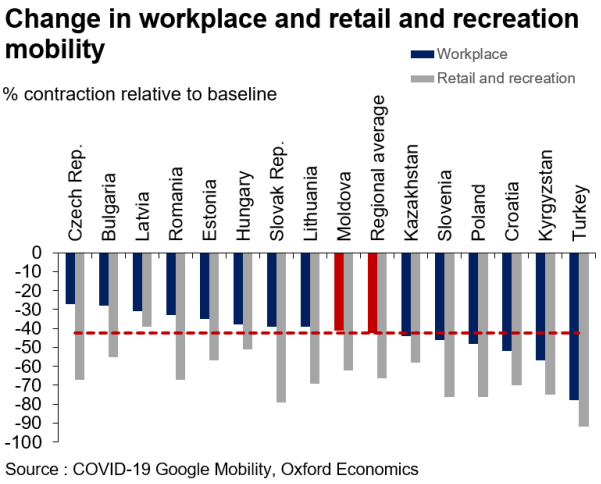
(1) **Reliance on tourism**. Tourism contributes a relatively modest 1% of GDP. We note, however, that containment measures affect the service sector more generally, not just tourism. Moldova is a consumption-driven economy (representing about 85% of GDP), where services account for 65% of output and manufacturing only 23%.
(2) Moreover, **commodity dependence** is a key vulnerability given a huge decline in some commodity prices, especially oil. Moldova's key export categories are agricultural products and ICT services, which a are less vulnerable to the impact of containment measures.
(3) **Adaptability to containment measures.** Countries such as Moldova will suffer greater disruptions because of (i) slow internet connection and (ii) high female labour participation, as working mothers are likely to suffer greater disruption from school closures.

## Section 4A. Domestic angle: Structure of the economy

**Economy in sudden stop amidst the lockdowns**

Although it is often perceived that most of the impact from containment measures will be concentrated in retail and recreation sectors of the economy, real time data on personal mobility shows that overall workplace mobility has also decelerated dramatically. In Moldova, people's visits to their workplace have dropped by 40% relative to the pre-crisis baseline. This is in line with the regional average; it is deeper than the Czech Republic and Romania but more moderate than Turkey, Croatia or Poland. Other things equal, we would expect the ultimate impact on the economy across these countries to be consistent with the ranking of the decline in personal mobility (**Figure 9**).

**Figure 9: A dramatic drop in personal mobility**




Source : COVID-19 Google Mobility, Oxford Economics

**High reliance on SMEs**

While the reduction in mobility is similar, the costs of such reduction are likely to be higher in Moldova. First, small and medium enterprises (SMEs) play an important role in Moldova's non-financial business economy (Figure 10). SMEs in Moldova provide 70.6 % of employment and 70.7% of value added, higher than the EU averages (66.5 % and 56.3% respectively). They are also concentrated in the wholesale and retail sectors where the containment measures have hit hard (they account for 24% of total employment). SMEs are likely to be affected on the demand side as well as on the supply side. A sudden drop of demand is likely to complicate the financial situation of multiple businesses, which will translate into a reduction of income and consumption.

**Figure 10: Share of SMEs in Moldova and EU-28**

| Enterprises by size | Number of Enterprises | | Number of Workers | | Value Added | |
|---|---|---|---|---|---|---|
| | Moldova | EU-28 | Moldova | EU-28 | Moldova | EU-28 |
| Micro | 82.9 | 92.9 | 21.0 | 29.4 | 19.6 | 20.5 |
| Small | 13.9 | 5.9 | 24.7 | 20.2 | 24.6 | 17.6 |
| Medium-Size | 2.7 | 1.0 | 25.0 | 16.9 | 26.6 | 18.1 |
| **SMEs** | **99.5** | **99.8** | **70.7** | **66.5** | **70.8** | **56.2** |

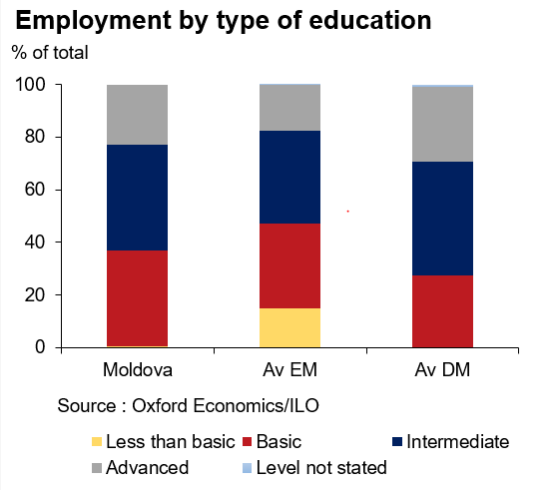
Source: European Comission, 2019 SBA Fact Sheet
Note: The data are from 2017 and it covers the non-financial business economy

**Employment structure by employment is more resilient than the EM average**

Second, several studies suggest the share of jobs that could be performed at home is lower in poorer economies (Dinger et al 2020, Gottlieb 2020). In these economies, more people work in sectors that are less amenable to working from home. Moldova is one of the poorest countries in Europe, but the silver lining is that its employment structure by type of education is better than that of emerging markets on average. About 23% of employment is in jobs requiring advanced education, compared to less than 20% in emerging markets on average, and 25% in advanced economies (see **Figure 11** below).

Its share of jobs with basic or less than basic education is also smaller than in Emerging Markets on average. This is likely explained by the growing share of ICT and engineering industries in Moldova, helping to diversify output structure away from agriculture.

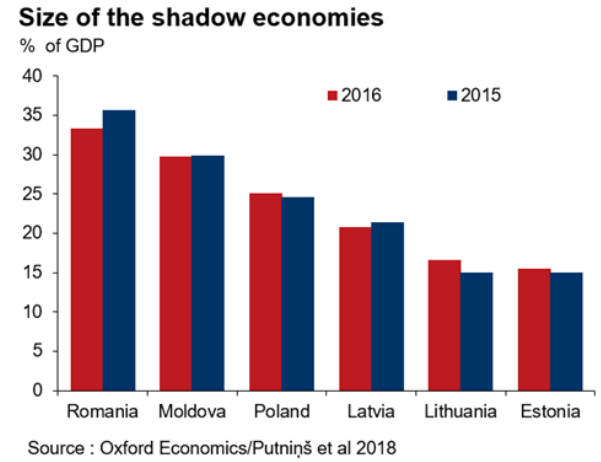
**Figure 11: Employment by type of education**




**Large shadow economy puts many households at risk of falling through the safety net**

Third, Moldova is still haunted by high levels of informality and poverty (**Figure 12**), with very limited social protection and financial buffers. The highest levels of shadow economy are mainly in Calarasi, Hincesti, and Ocnita. The likelihood that informal workers are pushed into poverty as a result of the pandemic is high. According to recent studies, the construction sector has the highest level of shadow activity in Moldova. This sector is prone to be hard-hit by the coronavirus crisis and the government containment measures.

**Figure 12: Share of shadow economy**




**Gender – mind the gap**

Also, the Covid-19 outbreak in Moldova is likely to have gender-related implications. We identify three channels.

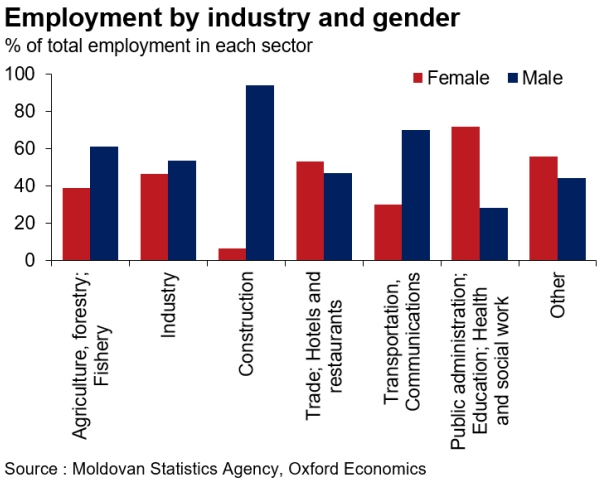
(1) There will be a significantly negative impact from distancing measures in the service sector where female workers dominate (**Figure 13**). In 2019, around 70% of female labour force participation was in the service sector while only 47% of employed men worked in this sector. Women are particularly over-represented in the education, healthcare and social work, as well as in retail trade and hotel and restaurant business, sectors that are acutely affected by the pandemic.

(2) Increasing child care needs due to school closures has a particularly large impact on working mothers. Female labour participation rate is among the highest in the region (85% vs 79% of its regional peers, **Figure 14**).

(3) Th share of elderly women is larger than men. According to latest statistics Moldova has 62 men per 100 women in the over-65 age group. This vulnerability is mitigated by the fact that men seem to have higher fatalities rates (based on Italy, China and South Korea data).

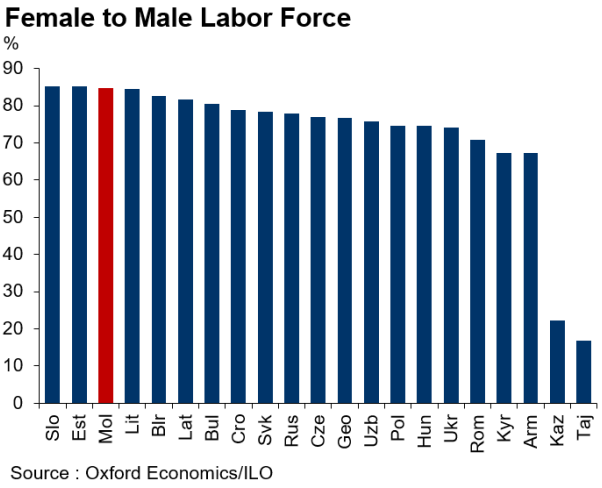
In the long run, the consequences on gender are unclear. Working and consumer conditions are likely to change in upcoming years. Additional working-from-home policies are a potential outcome that could redefine and benefit families to achieve a better life balance.

**Figure 13: Employment by industry and gender**




Source : Moldovan Statistics Agency, Oxford Economics

**Figure 14: Moldova's female labour participation among the highest in the region**




Source : Oxford Economics/ILO

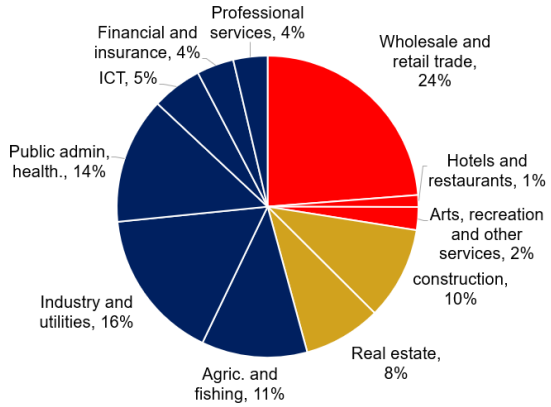
## Section 4B. Domestic angle: Direct impact of lockdowns

**Moldova's sectoral vulnerabilities**

We now turn to a granular analysis of Moldova's economic structure and its exposure to the containment measures. This builds on key aspects highlighted by the coronavirus heatmap, bringing to the fore further vulnerabilities. Such analysis can be used as a partial basis for quantification of the direct impact of the containment measures. Wholesale and retail trade, as well as hotels, restaurants and catering services account for a quarter of overall output, reflecting the heavily-consumer driven structure of the economy. Construction accounts for 10% and is one of the most sentiment-sensitive industries that tends to come to a halt in conditions of heightened uncertainty (**Figure 15**).

**Figure 15: Gross value added by sector**

Moldova: Gross value added by sectors




Source : Oxford Economics, Moldovan Statistics Agency

**Bottom-up assessment of the economic costs of lockdowns**

With high-frequency data for March still not available, the only way to gauge the likely impact of containment measures at this stage is to do a bottom-up assessment of the likely contraction in each gross-value-added sector and derive the ultimate weighted average impact on economic activity as a whole. Such approach is now widely being used by international organisations, think tanks and private sector organisations (e.g. see OECD, EconPol, Russian Centre for Macroeconomic and Short-term Forecasting).

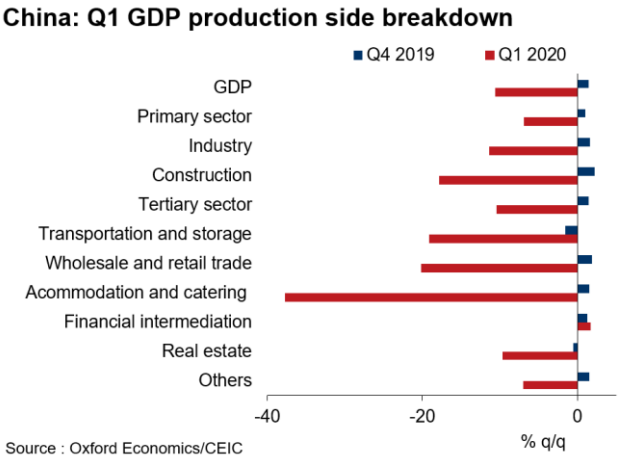
This approach is, however, very sensitive to the assumptions about the contraction in each sector. With little by way of empirical data from Moldova, we use several sources to derive assumptions on the "hit" to each sector and produce three alternative scenarios:

1) **China scenario (optimistic):** Here we apply the same quarterly contraction factors to Moldova's activity as the ones seen in China in Q1 (**Figure 16**). In China, the economy contracted by over 10% on a seasonally-adjusted quarter-on-quarter basis in Q1 2020. Accommodation and catering (-35% q/q), wholesale and retail trade (-20%), transportation and construction (-19%) were most heavily hit. Industry also fell by a staggering 11% relative to the previous quarter. But there are two important caveats: first, China adopted a partial lockdown strategy, affecting just under half of its population. Therefore, its Q1 growth rates may turn out to be overly optimistic for a country that implemented a nation-wide lockdown. Secondly, China's containment measures took place in conditions of still robust external demand. This will not be the case for most other economies that introduced containment measures in March, when global demand experienced a synchronised contraction.

   China's experience also offers insight into the shape of recovery. And early high-frequency Chinese data for March (when most of lockdowns were being relaxed) suggest that consumption will be much harder to relaunch than industry and fixed investment.

   In this scenario, Moldova's total output would fall by 10% in Q2 and by 5.2% in 2020 relative to the pre-crisis baseline. Given that previous official government forecast was for 3.8% y/y growth in 2020, this would mean a **recession of 1.4% in 2020** (not taking into account the impact of external demand and falling remittances).

**Figure 16: Lockdowns caused a broad-based slide across most sectors of output in China**




Source : Oxford Economics/CEIC

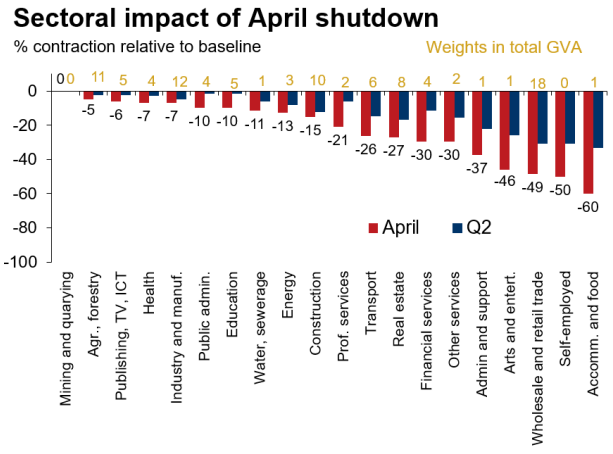
2) **CMASF scenario (baseline)**: here we use the assumptions from an alternative impact assessment study done by the Russian Centre for Macroeconomic and Short-term forecasting (CMASF). The modelling exercise is done at a detailed disaggregation into 60 GVA industries and captures both the direct impact of containment measures and indirect effects that the demand shocks induce on output. It also only looks at the domestic shocks, excluding the impact of external demand and remittances. We assume that social distancing measures last for six weeks, but recovery in the rest of the year is only gradual (**Figure 17** and **Appendix 2** for more detail).

   In this scenario, Moldova's GDP is 15.5% lower than the pre-crisis baseline in Q2 and 7.3% lower in 2020, resulting in a recession of 3.6% y/y. External demand would pose a further drag and deepen the recession.

3) **Ifo business climate index-based scenario (downside scenario):** assumed contraction factors are taken from the German business sentiment survey, which indicates business expectations about the performance across various German industries in March, at the peak of Germany's containment measures (EconPol). (This scenario considers the impact of external demand, but it is specific to Germany).

   In this scenario, the economic costs of the lockdown for Moldova are about 20% of GDP in Q2 and 10% in 2020, with a recession in which growth is -6% y/y.

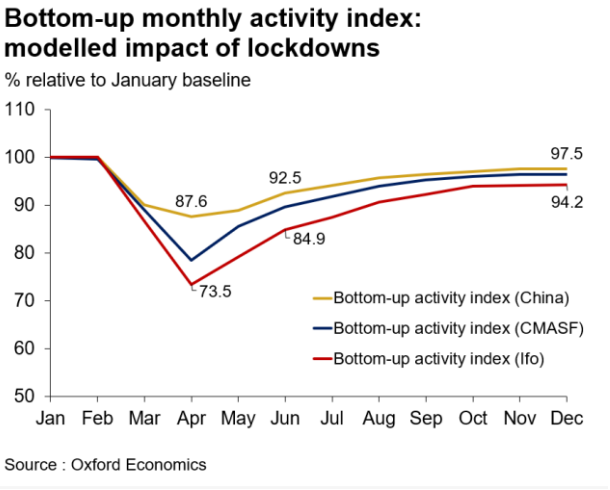
**Figure 17: Assumptions on sectoral contraction in Moldova's gross value added**




Source : Oxford Economics, CMASF

The outcome of the three scenarios is shown in **Figure 18** below. In each of the scenarios, we assume a relatively robust rebound after the lockdowns, but some output is permanently lost and overall activity remains below the pre-crisis baseline by 2.5-6%.

**Figure 18: GDP contracts dramatically in each of the three scenarios**



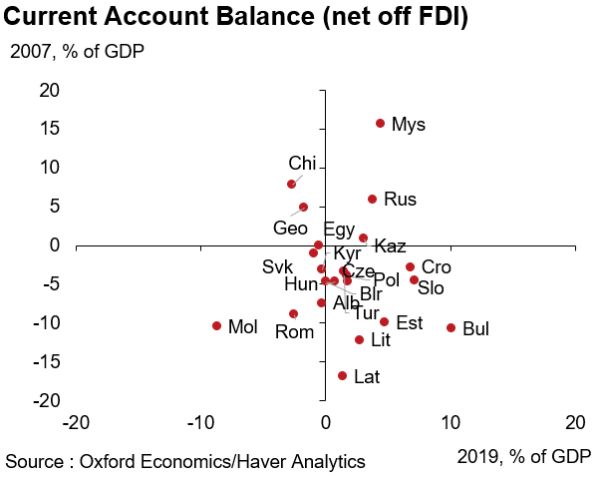

## Section 5. External angle: foreign capital flows at risk

**External vulnerabilities are exceptionally high**

The impact of the pandemic's containment measures will be compounded by external shocks Moldova's economy will be suffering, as Moldova is likely to face greater challenges to obtain fresh resources for financing imbalances, as export revenue and remittances experience a sharp drop.

Our proprietary risk score points out that Moldova's external imbalances are its key vulnerability, as increased difficulties in financing could bring forced reduction in consumption and investment. Although the current account deficit in Moldova has been narrowing (in 2008 it was at around 16% GDP), its level is still very high compared to its peers, standing at 9.7% of GDP in 2019 (**Figure 19**).

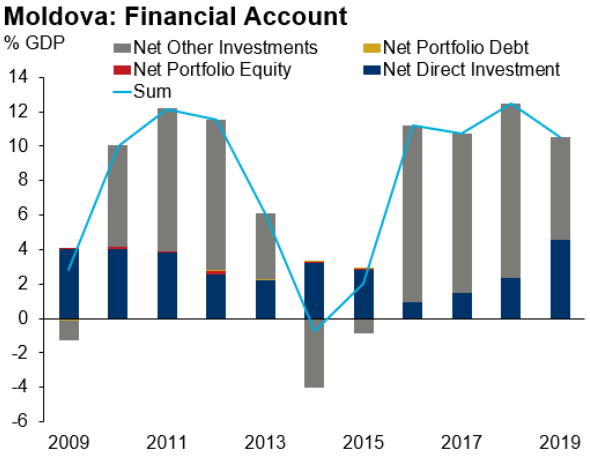
**Figure 19: The Current account deficit is the highest in the region**



**Financing of the current account deficit is a source of risks**

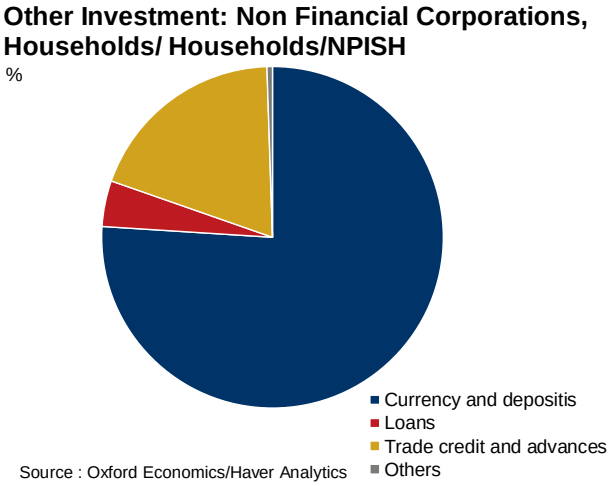
The financing of the current account deficit is a source of risks. Recently, unusual FDI inflows (linked to one company) have partially compensated the drop in other investments. However, these other types of flows still represent 6% of GDP and are mainly focused in the non-financial corporations and non-profit institutions serving households (NPISH). Such a concentrated financing structure leaves the country highly vulnerable to external shocks. Other Investment flows have been volatile in the past years and are likely to be affected by the pandemic putting additional pressure on the currency (**Figures 20** and **21**).

**Figure 20: The balance of payments is highly dependent reliant on "net other investments"**




Source : Oxford Economics/Haver Analytics

**Figure 21: Net other investments mainly consist of currency and deposit inflows**



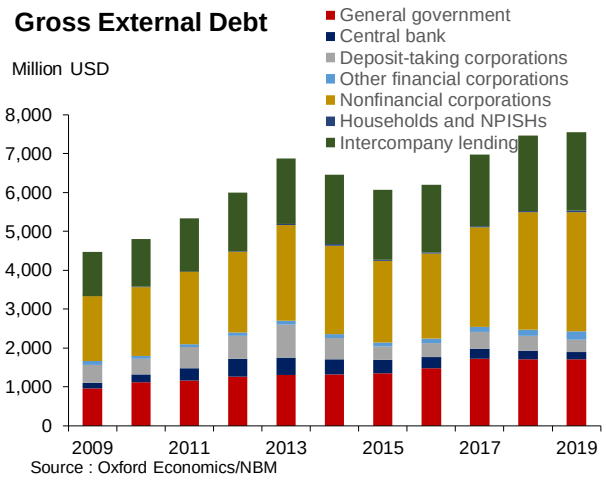

Source : Oxford Economics/Haver Analytics

**External debt among the highest compared to peers**

External debt in Moldova reached an all-time high in 2019 (**Figure 22**) and is among the highest against its peers. The private sector concentrates 74% of the total external debt, with non-financial corporations the main holders (54% of total private debt). Significant short-term debt in the form of trade credit (54% of total non-corporate debt) poses potential rollover risks that could challenge growth in the near term.

Exports are set to decline considerably, and Moldova is still quite exposed to supply chain disruptions. For instance, exports of engineering components (such as cables) are part of European supply chains and account for 20% of total exports. Apparel and clothing are another leading exporting sectors which represents 11% of total exports

**Figure 22: Gross external debt has been on an upward trend, led by corporates.**



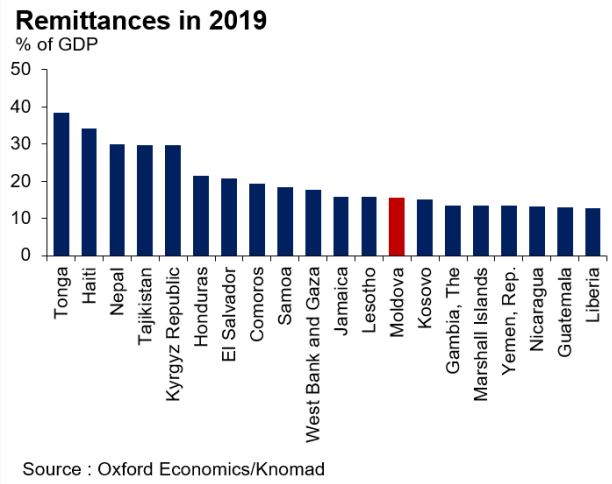

**A drop in remittances will be a heavy blow to the economy**

Dependence on remittances is a major vulnerability. In 2019, Moldova received $1.2bn in 2019 in remittances (16% GDP), among the largest in the world (Figure 23), which represents one of the largest shares of population living abroad worldwide. As per International Organisation for Migration (IOM) estimates in 2019, up to 350,000 labour migrants were residing abroad on a temporary basis. This represents 27% of Moldova working population (16-56/61 years).

The total population of migrants, including those residing abroad long-term, are estimated at around 1 million (i.e. about a third of early 1990s population). A noticeable feature of Moldavan migration is that a third of it is composed by temporary migrants, rather than permanent ones. Temporary migrants are the ones that are most vulnerable and are most likely to repatriate during the ongoing Covid-19 crisis. Up to 20% of Moldovan labour migrants already indicate their intention to return to Moldova, according to a rapid diaspora survey conducted by IOM in April 2020, a figure likely to increase as the COVID-19 imposes a further negative impact on the job markets of the destination countries of Moldovan migrants.

According to the National Bureau for Statistics (2018), 24.7% of all Moldovan households received remittances form their family members working abroad (IOM's estimates indicate a ratio of 30%, and for half of these families, remittances accounted for more than half of their disposable income). Remittances constituted over half of the disposable income of households in the country, dependent on remittances, accounting for 52.4 percent as of 2018. In rural areas, the share of remittances in the disposable income is particularly high, constituting 59.7 percent in 2018, the difference compared to the urban environment being 7.9 p.p. Proportion of households that would be placed below the poverty line if they did not receive remittances was 23.4%, and in rural areas it was 30.5%.

**Figure 23: Add headline for chart here**




Source : Oxford Economics/Knomad

## An assessment of the likely drop in remittances

It is still early to assess impact of the pandemic, but historical evidence and international experience shows it can be substantial. The risks of dependence on remittances were exposed during the Global Financial Crisis, when remittances plunged around 29% and unemployment increased by 2.4 points.

It is challenging to identify what share of the remittance's evolution is a direct consequence of the containment measures (restriction of movement and closure of bank branches) and what share is associated to longer-lasting demand effects.

We estimate a 24-27% drop in the remittances to Moldova in 2020, similar to 2009. However, if global downside risk materialise, remittances are likely to decline even further. To calculate the drop in remittances, we use two different methodologies listed below.

**Figure 24: Remittances shock. Alternative scenarios**

| Remittances Shock | | | |
|---|---|---|---|
| | Estimations | | Actual Data |
| | Methodology 1 | Methodology 2 | 2009 |
| **Direct impact (in %)** | | | |
| Estimated drop in remittances | -27.3 | -24.4 | -28.7 |
| Impact on Consumption* | -15.3 | -13.7 | -13.0 |
| Impact on Investment* | -24.5 | -22.0 | -15.3 |
| **Assumptions** | a) Drop in employment in Moldovan is taking into account UN migrants flows estimations for 2020.<br><br>b) Forecast average remittances of those that remained employed follows a similar pattern than in 2009. | a) Uses as input real GDP forecast from main sender countries from Oxford Economics.<br><br>b) Uses estimate from IMF (2012) of sensitivity of bilateral remittances flow to sender country's GDP. | |

Note: Methodology 1 follows the framework used by IDB, Orozco (2020). Methodology 2 combines IMF estimated elascticity for workers transfers with OE forecast of GDP for the main senders countries. In this estimation we do not take ito account currency effects. Afterwards we calculate the sensitivity of household consumption and investment to remittances.
* In nominal MDL.

## Alternative methodologies for calculating the likely fall in remittances

In the first Methodology, we modify the framework by Orozco (2020) to include UN estimates on returnees as a determinant of remittances decline. For those who stayed in the foreign countries, we then forecast that their average remittances would fall by a similar amount as in 2009 and consistent with Orozco (2020) calculations. This is confirmed by the rapid diaspora survey conducted by IOM, with 80% of migrants indicating either a decrease in remittances they send home or ceasing to remit; 43% no longer send remittances at all, while 29% send less than 50% of what they used to send prior to Covid-19 outbreak.

In the second methodology, we combine the IMF estimates of migrant workers transfers' elasticity to economic developments in foreign countries with the OE growth forecast of the main senders' countries. Results are very sensible to GDP forecast; thus, a downgrade of Russia and European growth will have an immediate impact on the drop in remittances. For instance, a drop of 1.2pp of GDP in OE baseline forecast for growth in Russia, Italy and the rest of the EU would make remittance fall by over 30%.

Such a drop in remittances could be associated with a fall of around 14% in consumption and 23% in investment, on the basis of historical association of these variables (**Figures 25 and 26**). The remittance shock is likely to impact more rural than urban areas as remittances represent a greater share of their income (around 25% of total income in rural households).

**Figure 25: Remittances are strongly correlated with consumption…**

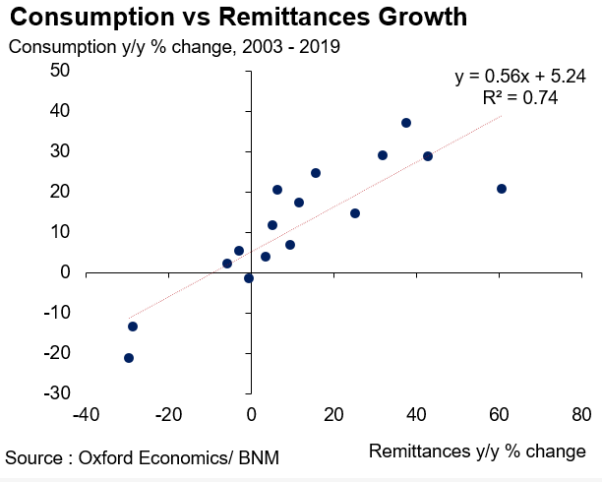
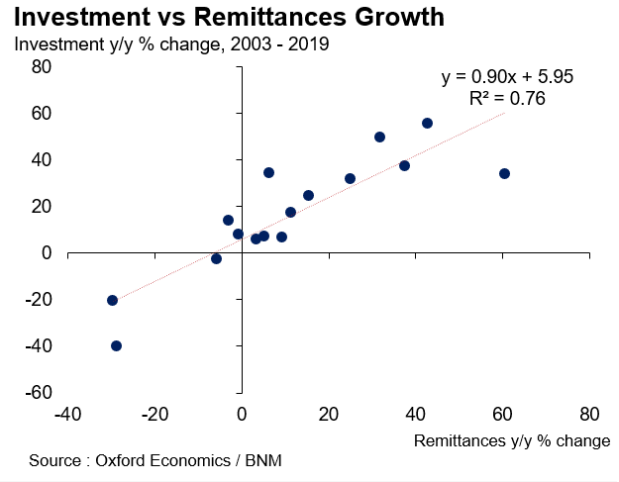



**Figure 26: …and investment**




As the number of Moldovan migrants return to the country (as per IOM's initial estimations, 150,000 are expected in 2020, which represents 10% of working age population), unemployment is likely to rise as they will have limited possibilities for return to their previous jobs. Labour demand will be dampened as aggregate demand is low and containment measures affect the economy. The drop in remittances would cause a deterioration in Moldova's already vulnerable external accounts, potentially weakening the currency and sovereign ratings.

With such collapse in consumption and investment, the GDP growth would be significantly worse than the government's official forecast of -3%, likely reaching as much as 8-10% of GDP, once both external shock and the costs of containment measures are combined.

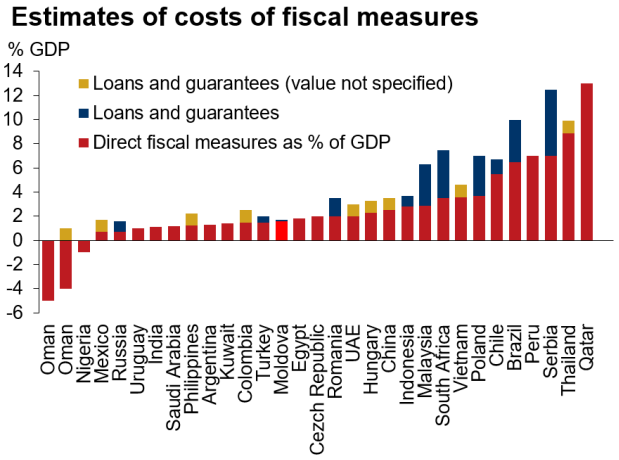
## Section 6. Policy response

**Aggressive monetary, limited fiscal response**

Moldova's central bank (BNM) has implemented one of the most aggressive rate cuts among emerging markets, cutting the policy rate by 2.25% in March, to 3.25%. With inflation at 5.9% in March (against the 5% target), Moldova's real rate is in the red, at -2.75%.

The fiscal stimulus, however, is moderate compared to most emerging economies, but larger than that some other emerging economies more developed than Moldova (**Figure 27**). Public spending will increase by 3% of GDP, 1.6% of which is direct fiscal spending, with the rest representing compensation of revenue shortfall and an increase in government emergency fund (**Figures 28 and Appendix 4**). Fiscal deficit is seen widening from the planned 3.2% to 7.6% of GDP. Overall, Moldova's fiscal policy response ranks as relatively restrictive compared to other emerging markets (**Figure 29**).

**Figure 27: Fiscal stimulus in Moldova vs. other emerging markets**




Source : National sources/IMF

**Figure 28: Proposed budget revision to alleviate the consequences of the pandemic**

| Moldova: Fiscal response measures to the Covid-19 pandemic crisis | | | |
|---|---|---|---|
| **Fiscal measures** | **MDL mln** | **% of revised GDP**** | **Notes of source of funding** |
| **Healthcare support** | **1,082** | **0.51** | |
| PPE | 41.1 | 0.02 | Govt emergency fund |
| Equipment and PPE for hospitals | 416 | 0.20 | Loan from Council of Europe Development Fund |
| Equipment, PPE and transport for hospitals | 624.4 | 0.29 | Loan from WB |
| **Support to households** | **309** | **0.15** | |
| Six-fold increase in the unemployment benefits fund during state of emergency | 168 | 0.08 | |
| Active labour market policies | 10 | 0.00 | |
| 40% increase in social support spending during state of emergency | 201.9 | 0.10 | |
| Additional taxes | -71 | -0.03 | |
| **Support to the economy** | **2,034** | **0.96** | |
| Tax and social insurance subsidies | 320 | 0.15 | Dedicated budget fund |
| Loan interest subsidies | 90 | 0.04 | |
| VAT reimbursement scheme | 1000 | 0.47 | |
| Preferential loans to SMEs and micro enterprises (subsidised interest) | 624 | 0.29 | Loan from Council of Europe Development Fund |
| Reduction of VAT for HORECA sector | n/a | | |
| **Other support measures** | **1,526** | **0.72** | |
| Increase in government emergency Fund | 452 | 0.21 | |
| Salary guarantee fund | 200 | 0.09 | |
| Compensation of budget revenue shortfall | 874.4 | 0.41 | |
| **Total*** | | **2.33** | |

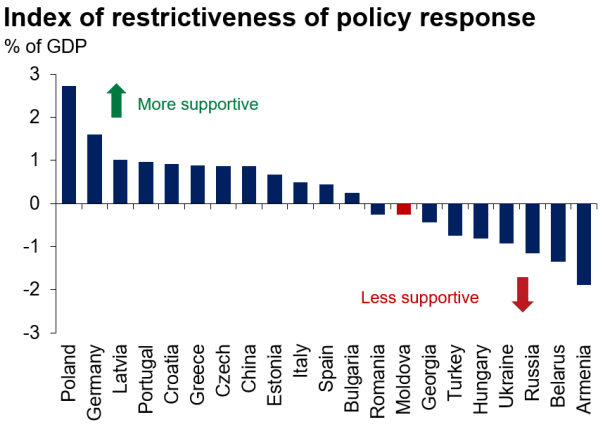
Source: Moldovan government proposed budget revisions, Oxford Economics
* Total without Reduction of VAT for HORECA sector
** Using official government forecast that assumes 3% GDP contraction

**Aggressive monetary easing, moderate fiscal easing**

The key measures of support proposed by the government include:

- Reimbursment of VAT (0.5% of GDP)
- Subsidised interest rates on loans to enterprises (0.35% of GDP)
- Support to households in the form of increased unemployment benefits and social support, amounting to 0.15% of GDP.

**Figure 29: Moldova's policy response has been relatively restrictive**




Source : Elgin et al. (2020) "Covid-19 Economic Stimulus Index", Oxford Economics

**Policy recommendations**

The monetary response has been appropriately decisive, whereas fiscal policy and credit response could be expanded, particularly given the fact that Moldova has access to official bilateral and multilateral loans and does not depend entirely on private market financing.

**Rather limited support to households**

The overall size of **support to households**, at 0.15% of GDP, appears rather limited, yet the GoM intends to increase the benefit size (by 30%) and coverage (by 50%) of Ajutor Social program to address vulnerable population groups. The 40% increase in support for payment of social taxes is restricted only to the period of state of emergency, which is being lifted from May 15. It will thus leave a lot of households unprotected post-quarantine, in conditions of still persistent social distancing (either regulated or voluntary) and inability to earn income. The size of the proposed support also might fall short of the scale of needs associated with the influx of returned migrants.

As **Appendix 5** shows, Ukraine, Russia and Romania have all adopted some form of furlough scheme, where the governments guarantee a certain minimum of a monthly wage to workers in affected industries who have become temporarily unemployed. The same scheme is being implemented in most of Europe.

**Particular attention needs to be paid to the most vulnerable parts of the population**

Particular attention needs to be paid to the most vulnerable parts of the population, such as pensioners, people operating in the informal economy or returned migrants. Ukraine provides some example of an effective safety net for the most vulnerable (although not targeted at migrants): targeted utility subsidies (and increasing them during the Covid-19 crisis); introducing a moratorium on penalties and disconnection of communal services for non-payment of utility bills (which was also enforced in Moldova); and providing a one-off top-up of pensions by UAH 1,000 (around $40) as well as a regular increase of pensions to those aged 80 and above. Support with utility bills can be particularly effective, given that food and utility bills constitute the biggest share of spending for the poorest members of society. In an example of a policy that addresses the gender aspects of the current crisis, Russia and Romania have introduced partial coverage of salaries for workers affected by school closures.

**Support to businesses could be enhanced with loan guarantees**

Proposed support to businesses is more comprehensive, but could be usefully complemented by providing fresh funds and loan guarantees for SMEs to induce banks to lend. Such tools have been important components of policy packages across both advanced and emerging economies, including in Ukraine, Russia and Romania (**Figure 27** above above and **Appendix 5**). Guarantees have an advantage of helping to restore investor confidence, while not affecting the fiscal deficit in the short term. The government's preferred support – through subsidised interest rates – will help enterprises that already have a loan, but not that do not currently have a bank loan but would struggle to obtain one without a government guarantee.

To sum up, to maximise the support to both supply and demand, the policy response should be guided by the following principles: a) being as close as possible to the end user (to maximize the impact), b) as targeted as possible at those most in need and most vulnerable; c) as efficient as possible in terms of implementation (requiring less red tape); d) temporary and slowly withdrawn once the situation improves. This way, temporary but efficient liquidity support would allow businesses and households to survive the hard times and resume their activity in the most market-efficient way once the pandemic subsides. While policy package has so far shown positive elements, much remains to be done to have a response consistent with the size of the challenges Moldova is facing in light of the Covid-19 pandemic.

## Appendix 1. Coronavirus vulnerability scorecard

| | | Health system Collapse | | | | Goverment Buffer | | Activity Shock | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | % Population > 70 (average 2017-2020) | Beds in hospital* | Doctors density | Social insurance programs adequacy | Fiscal Deficit | Debt (% GDP) | Female Labour partic-ipation | Tourism contrib. to GDP | Broad-band (per 100 people) | Commodity Depend-ence(*) |
| Cze | Czech Republic | 13,1% | 65 | 43 | n/a | 0,3 | 31 | 77% | 6% | 30 | 9% |
| Blr | Belarus | 9,7% | 110 | 41 | 63 | 0,6 | 42 | 83% | 6% | 34 | 43% |
| Lit | Lithuania | 14,4% | 73 | 43 | 51 | 0,2 | 38 | 85% | 5% | 28 | 36% |
| Pol | Poland | 11,6% | 65 | 24 | 74 | -0,7 | 47 | 75% | 5% | 16 | 20% |
| Rus | Russia | 9,5% | 82 | 40 | 26 | 1,9 | 14 | 78% | 5% | 22 | 65% |
| Rom | Romania | 12,4% | 63 | 23 | 68 | -4,6 | 37,3 | 71% | 5,9% | 26 | 16,9% |
| Hun | Hungary | 12,8% | 70 | 32 | 61 | -2,0 | 66 | 75% | 8% | 32 | 12% |
| Svk | Slovak Republic | 10,1% | 58 | 25 | 46 | -1,3 | 48 | 78% | 6% | 28 | 9% |
| UAE | UAE | 3,7% | 12 | 24 | n/a | -0,8 | 27 | 55% | 12% | 31 | 86% |
| Lat | Latvia | 14,5% | 58 | 32 | 48 | -0,4 | 37 | 82% | 8% | 27 | 37% |
| Bul | Bulgaria | 14,5% | 68 | 40 | 36 | -1,0 | 19 | 80% | 11% | 27 | 38% |
| Mol | Moldova | 8,1% | 58 | 32 | 39 | -1,5 | 27 | 85% | 1% | 15 | 60% |
| Ukr | Ukraine | 10,9% | 88 | 30 | 44 | -2,0 | 50 | 74% | 6% | 13 | 51% |
| Tur | Turkey | 6,4% | 27 | 18 | 45 | -5,3 | 33 | 46% | 11% | 16 | 18% |
| Slo | Slovenia | 13,6% | 45 | 30 | n/a | 0,5 | 67 | 85% | 10% | 29 | 16% |
| Chn | China | 6,4% | 42 | 18 | 55 | -6,4 | 54 | 80% | 11% | 29 | 6% |
| Arg | Argentina | 7,6% | 50 | 40 | 43 | -3,9 | 89 | 67% | 9% | 19 | 62% |
| Mex | Mexico | 4,7% | 15 | 22 | 37 | -2,3 | 53 | 56% | 15% | 15 | 17% |
| Idn | Indonesia | 3,5% | 12 | 4 | n/a | -2,2 | 30 | 64% | 6% | 3 | 55% |
| Tha | Thailand | 7,8% | 21 | 8 | 75 | -0,8 | 41 | 78% | 20% | 13 | 23% |
| Cro | Croatia | 14,3% | 56 | 30 | 43 | 0,0 | 72 | 79% | 25% | 27 | 32% |
| Ecu | Ecuador | 4,7% | 15 | 21 | 42 | -2,8 | 50 | 69% | 5% | 11 | 94% |
| Col | Colombia | 5,5% | 15 | 21 | 38 | -2,2 | 53 | 72% | 5% | 13 | 79% |
| Phi | Philippines | 3,1% | 5 | 13 | 10 | -1,9 | 39 | 62% | 25% | 4 | 16% |
| Mys | Malaysia | 4,1% | 19 | 15 | 30 | -3,2 | 57 | 66% | 11% | 9 | 30% |
| Vie | Vietnam | 4,7% | 26 | 8 | 29 | -3,3 | 54 | 88% | 9% | 14 | 17% |
| Chl | Chile | 7,7% | 22 | 11 | 23 | -2,6 | 28 | 69% | 10% | 17 | 86% |
| Bra | Brazil | 5,8% | 22 | 21 | 48 | -6,0 | 90 | 73% | 8% | 15 | 63% |
| Egy | Egypt | 4,3% | 16 | 8 | 39 | -7,4 | 84 | 31% | 9% | 7 | 48% |
| Ind | India | 3,7% | 7 | 8 | 5 | -7,4 | 72 | 30% | 7% | 1 | 30% |
| Per | Peru | 5,3% | 16 | 13 | 20 | -1,4 | 27 | 83% | 9% | 7 | 89% |
| Zaf | S.Africa | 3,2% | 28 | 9 | 44 | -6,3 | 62 | 78% | 7% | 2 | 51% |
| Nig | Nigeria | 1,5% | 5 | 4 | 29 | -5,0 | 29 | 85% | 5% | 0 | 96% |

## Appendix 2. Moldova: sectoral assumptions in the bottom-up assessment of the impact of social distancing measures

**Bottom-up gross value added analysis, assumptions on the impact of lockdowns on each industry**
**Activity level relative to pre-crisis baseline, %**

| Industry | Weight | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Q1 | Q2 | Q3 | Q4 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agr., forestry | 11 | 0 | 0 | -3 | -5 | -5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -3 | 0 | 0 | -1.0 |
| Mining and quarying* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Industry and manuf. | 12 | 0 | 0 | -4 | -7 | -6 | -5 | -3 | -3 | -3 | -3 | -3 | -3 | -1 | -6 | -3 | -3 | -3.3 |
| Energy | 3 | 0 | 0 | -6 | -13 | -10 | -7 | -6 | -5 | -4 | -4 | -4 | -4 | -2 | -10 | -5 | -4 | -5.3 |
| Water, sewerage | 1 | 0 | 0 | -6 | -11 | -7 | -5 | -3 | -2 | -2 | 0 | 0 | 0 | -2 | -8 | -2 | 0 | -3.0 |
| Construction | 10 | 0 | 0 | -8 | -15 | -13 | -15 | -13 | -11 | -9 | -7 | -7 | -7 | -3 | -14 | -11 | -7 | -8.7 |
| W'sale and retail trade | 18 | 0 | 0 | -24 | -49 | -35 | -25 | -21 | -15 | -9 | -7 | -5 | -5 | -8 | -36 | -15 | -5 | -16.2 |
| Transport | 6 | 0 | -4 | -15 | -26 | -19 | -14 | -11 | -9 | -7 | -7 | -7 | -7 | -6 | -20 | -9 | -7 | -10.6 |
| Accomm. and food | 1 | 0 | 0 | -30 | -60 | -35 | -25 | -20 | -10 | -10 | -10 | -10 | -10 | -10 | -40 | -13 | -10 | -18.3 |
| Publishing, TV, ICT | 5 | 0 | 0 | -3 | -6 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -3 | 0 | 0 | -1.1 |
| Financial services | 4 | 0 | 0 | -15 | -30 | -10 | -8 | -7 | -5 | -4 | -3 | -3 | -3 | -5 | -16 | -5 | -3 | -7.3 |
| Real estate | 8 | 0 | 0 | -14 | -27 | -20 | -15 | -10 | -7 | -7 | -7 | -7 | -7 | -5 | -21 | -8 | -7 | -10.1 |
| Prof. services | 2 | 0 | 0 | -11 | -21 | -5 | -2 | 0 | 1 | 1 | 0 | 0 | 0 | -4 | -9 | 1 | 0 | -3.1 |
| Admin and support | 1 | 0 | -2 | -20 | -37 | -29 | -17 | -7 | -7 | -5 | -5 | -5 | -5 | -7 | -28 | -6 | -5 | -11.5 |
| Public admin. | 4 | 0 | 0 | -5 | -10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -3 | 0 | 0 | -1.3 |
| Education | 5 | 0 | 0 | -5 | -10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2 | -3 | 0 | 0 | -1.3 |
| Health | 4 | 0 | 0 | -3 | -7 | -3 | -2 | -2 | -2 | -2 | -2 | -2 | -2 | -1 | -4 | -2 | -2 | -2.2 |
| Arts and entert. | 1 | 0 | 0 | -23 | -46 | -28 | -21 | -18 | -10 | -8 | -6 | -6 | -6 | -8 | -32 | -12 | -6 | -14.3 |
| Other services | 2 | 0 | 0 | -15 | -30 | -22 | -7 | -3 | -2 | -2 | -2 | -3 | -3 | -5 | -20 | -2 | -2 | -7.3 |
| Self-employed | 0 | 0 | 0 | -25 | -50 | -30 | -30 | -20 | -10 | -7 | -7 | -7 | -7 | -8 | -37 | -12 | -7 | -16.1 |
| **Total GVA** | | 0.0 | -0.2 | -10.8 | -21.3 | -14.3 | -10.3 | -8.1 | -5.9 | -4.6 | -3.9 | -3.5 | -3.5 | -3.7 | -15.3 | -6.2 | -3.6 | -7.2 |

Source: Oxford Economics, CMASF

## Appendix 3. Assumptions on the impact of lockdowns by sector, three alternative scenarios

**Assumptions on the impact of lockdowns by sector***

| | Weight in MD GVA | China | CMASF | Ifo survey |
|---|---|---|---|---|
| Agric. and fishing | 11% | 93 | 95 | 100 |
| Industry and utilities | 16% | 87 | 83 | 62 |
| construction | 10% | 82 | 80 | 80 |
| Wholesale and retail trade | 17% | 80 | 50 | 50 |
| Hotels, restaurants and catering | 1% | 62 | 16 | 0 |
| ICT | 5% | 93 | 85 | 80 |
| Financial and insurance | 4% | 102 | 70 | 50 |
| Real estate | 8% | 90 | 73 | 80 |
| Professional and other services | 4% | 93 | 80 | 60 |
| Public admin, health. | 14% | 93 | 93 | 100 |
| Arts, recreation and other services | 2% | 93 | 40 | 27 |
| **Total impact on annual growth, % relative to baseline** | | **-5.2%** | **-7.7%** | **-10.2%** |

Source: CMASF, EconPol, Oxford Economics
*Level of output in % of pre-crisis baseline in the most affected quarter

## Appendix 4. Fiscal and monetary policy response to the pandemic

| Country | Fiscal | Policy rate (pp cut) | Reserve requiremen | Macrofin. assistance | CESI |
|---|---|---|---|---|---|
| Poland | 8.5 | -1.0 | 93.8 | 0.8 | 2.7 |
| Germany | 10.7 | 0.0 | 0.0 | 12.5 | 1.6 |
| Latvia | 10.3 | 0.0 | 0.0 | 7.3 | 1.0 |
| Portugal | 9.9 | 0.0 | 0.0 | 7.3 | 1.0 |
| Croatia | 0.3 | 0.0 | 25.0 | 1.0 | 0.9 |
| Greece | 9.2 | 0.0 | 0.0 | 7.3 | 0.9 |
| Czech | 2.3 | -1.3 | 42.9 | 0.0 | 0.9 |
| China | 3.8 | 0.0 | 11.1 | 14.1 | 0.9 |
| Estonia | 7.0 | 0.0 | 0.0 | 7.7 | 0.7 |
| Italy | 5.7 | 0.0 | 0.0 | 7.3 | 0.5 |
| Spain | 5.3 | 0.0 | 0.0 | 7.3 | 0.4 |
| Bulgaria | 2.4 | 0.0 | 0.0 | 8.6 | 0.3 |
| Romania | 3.5 | -0.5 | 0.0 | 0.0 | -0.2 |
| **Moldova*** | **3.0** | **-2.3** | **5.5** | **0.0** | **-0.3** |
| Georgia | 4.0 | 0.0 | 0.0 | 0.0 | -0.4 |
| Turkey | 2.0 | -2.0 | 13.2 | 0.1 | -0.7 |
| Hungary | 1.3 | 0.0 | 0.0 | 17.6 | -0.8 |
| Ukraine | 5.0 | -1.0 | 0.0 | 0.0 | -0.9 |
| Russia | 1.0 | 0.0 | 0.0 | 0.4 | -1.2 |
| Belarus | 0.0 | 0.0 | 0.0 | 0.0 | -1.4 |
| Armenia | 0.2 | -0.3 | 0.0 | 0.0 | -1.9 |

Source: Elgin et al. (2020) Covid-19 Economic Stimulus Index (CESI), Oxford Economics
* CESI ranking calculated prior to fiscal stimulus being announced by the government

## Appendix 5. Comparative fiscal measures in Moldova and neighbouring countries

| Fiscal measures | | | | |
|---|---|---|---|---|
| **Fiscal measures** | **Moldova** | **Ukraine** | **Russia** | **Romania** |
| **Healthcare support** | | | | |
| Equipment and PPE for hospitals | X | X | X | X |
| Increased compensation for healthcare workers | | X | X | |
| Elimination of import duties on medical supplies | | X | X | |
| **Support to households** | | | | |
| Increase in the unemployment benefits * | X | X | X | |
| Active labour market policies | X | | | |
| Increased threshold for social assistance (Ajutor Social) | X | | | |
| ***Furlough scheme - government guarantee of a certain minimum of a mothly wage for workers in affected industries*** ** | | X | X | X |
| One-off increase in pensions | | X | | |
| Moratorium on penalties and disconnection for non-payment for utilities | X | X | | |
| Increased household utilities subsidies | | X | | |
| Covid-positive and quarantined people to receive sick leave equivalent to a minimum wage until end-2020 | | | X | |
| Additional childcare support | | X | X | |
| Partial coverage of salaries for workers affected by school closures | | | X | x |
| **Support to the economy** | | | | |
| **Tax measures** | | | | |
| Tax and social insurance subsidies*** | X | X | X | X |
| VAT reimbursement scheme | X | | | |
| Reduction of VAT for HORECA sector | X | | | |
| Increased thresholds for simplified taxation | X | X | | |
| Tax deferrals | x | | X | |
| Temporary cancellation or deferral of real estate tax on non-residential properties | | X | | X |
| Land rental payments eliminated or deferred | | X | | |
| **Credit measures** | | | | |
| ***Loan guarantees to SMEs in affected industries*** | | X | X | X |
| Interest rate subsidies on loans | X | X | X | |
| Preferential loans to SMEs and micro enterprises (subsidised interest rates) | X | | | |
| **Other support measures** | | | | |
| Increase in government emergency Fund | X | X | | |
| Compensation of budget revenue shortfall | X | X | X | X |

Source: IMF Covid-19 Policy tracker, Moldovan Government, Oxford Economics

* Moldova - during state of emergency, until 15 May. Ukraine - from March to 31 May. Russia - at least for 3 months.

** Ukraine: min. 2/3 of basic wage, but not higher than min. wage. Unemployment benefit to equal at least min. wage for 3 months. Romania: partial coverage of wages for at least one month

*** Moldova: Social Insurance subsidies.Ukraine: Social Insurance Contributions (SIC) cancelled in March. No penalties for late payment or filing of SIC payments. Russia: SIC permanently reduced from 30% to 15% for SMEs