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REPUBLIC OF MOLDOVA

SELECTED ISSUES

February 2022

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November 30, 2021

Approved By
European Department

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CONTENTS

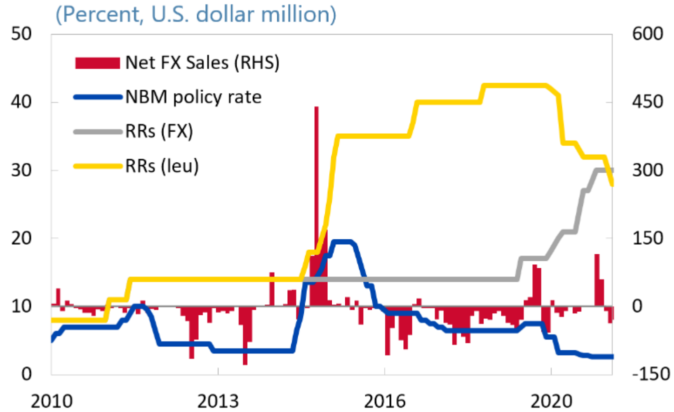
CHALLENGES OF IT IMPLEMENTATION IN LLMICS: A CASE STUDY OF MOLDOVA[1]

The implementation of an inflation targeting (IT) regime in developing economies faces several practical challenges. Underdeveloped financial markets, limited cross-border capital mobility, high degrees of dollarization, and subpar lending opportunities constitute frictions in the transmission from policy rate changes to inflation. Moreover, foreign exchange interventions (FXIs)—often used to curb excessive exchange rate volatility—could reduce the effectiveness of the monetary transmission mechanism and undermine the credibility of the IT regime. This paper conducts an empirical study of the effectiveness of the monetary transmission mechanism (MTM) in Moldova ten years after implementing IT. It finds that the transmission mechanism in Moldova is active, but impaired by inadequate financial market development and frequent interventions in the FX market. Since the 2014 banking crisis, its effectiveness has further decreased due to a large structural liquidity overhang, lingering legacy of the banking fraud, and explosive growth of feebly regulated non-bank credit organizations. The paper proposes some policy recommendations to enhancing the MTM, including with respect to strengthening implementation of the recently developed FXI strategy.

A. Monetary Policy Frictions and Challenges

1. **The National Bank of Moldova (NBM) formally adopted IT in 2013 after a three-year transition period.** According to the NBM's Monetary Policy Strategy, its first objective is to keep inflation at 5 percent with a variability range of ±1.5 percentage points, at a horizon of 18–24 months. Its secondary objective is to promote growth and employment. The policy rate is the official main instrument, which is transmitted through open market operations in the market for NBM certificates. The interest rates on the standing facilities establish a symmetric corridor at ±3 percentage points around the policy rate. Other policy tools influencing monetary conditions are reserve requirements (RRs) and FXIs. Since 2020, FXIs are guided by a formal FXI strategy that specifies intervention criteria indicating disorderly market conditions and/or excess exchange rate volatility.

Monetary Policy in Moldova
(Percent, U.S. dollar million)



Source: NBM.

2. **The IT regime was successful in reducing average inflation and inflation volatility, but doubts over the effectiveness of monetary policy transmission remain**. After the introduction of

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[1] Prepared by Julia Otten. Julia would like to thank Samuel Romero Martinez for excellent research assistance.

IT, both average inflation and inflation volatility fell substantially. Recent levels are well in line with a group of peer countries in the wider region (both low-income countries (LICs) and emerging markets (EMs)) that have also adopted IT frameworks over the last two decades. Yet, Moldovan authorities have expressed concerns about the effectiveness of the policy rate in steering inflation. This paper seeks to identify potential challenges and frictions in the MTM and provides some policy recommendations to enhance its effectiveness. It thereby identifies monetary transmission frictions that are present in many low-income and lower-middle-income countries (LLMICs) as well as some features unique to Moldova.

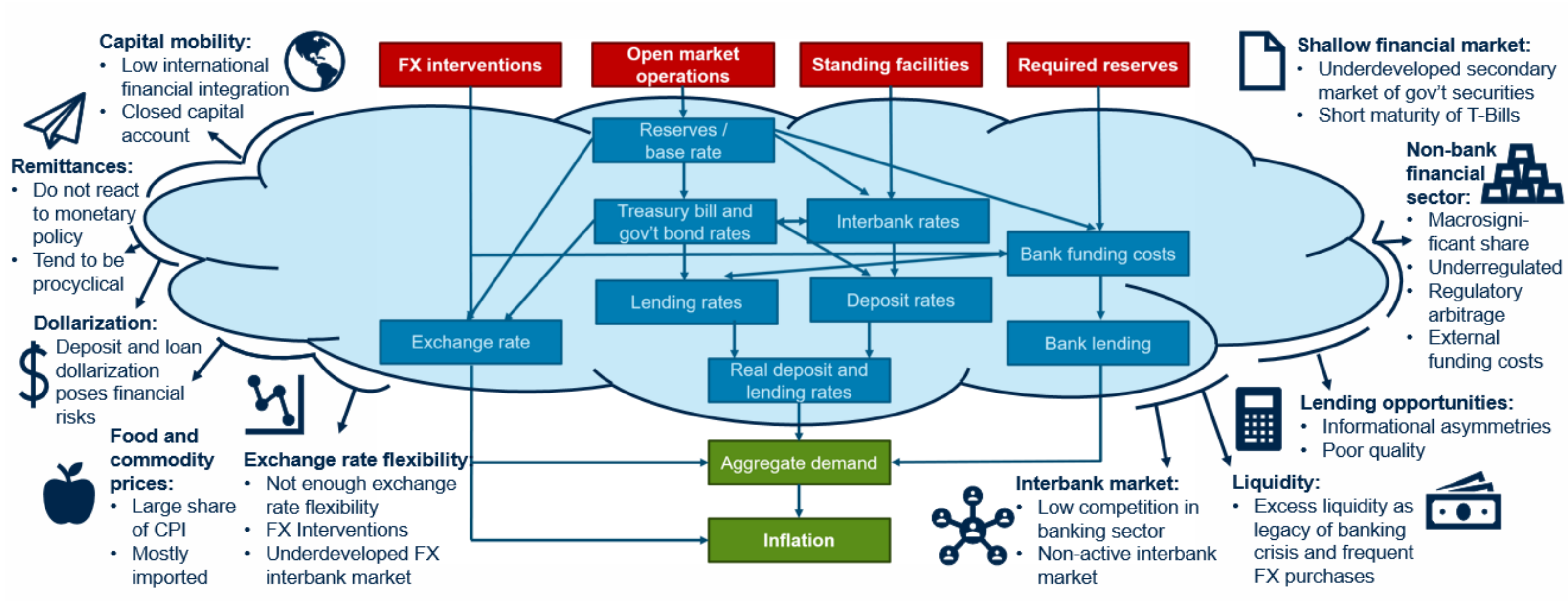
Average Inflation and Inflation Volatility in Moldova and Peer Countries

	Average inflation			Inflation volatilily		
	2005-2009	2010-2014	2015-2020	2005-2009	2010-2014	2015-2020
Albania	2.7%	2.5%	1.7%	0.5%	0.9%	0.3%
Armenia	4.1%	5.4%	1.4%	3.1%	2.6%	1.7%
Georgia	7.7%	3.5%	4.1%	3.4%	4.4%	1.5%
Kazakhstan	10.3%	6.6%	7.8%	4.2%	1.2%	3.5%
Romania	6.8%	4.1%	1.7%	1.7%	2.0%	2.4%
Russia	11.4%	7.0%	6.2%	2.1%	1.3%	4.8%
Serbia	…	6.9%	1.8%	…	3.3%	0.7%
Ukraine	15.3%	6.0%	16.6%	6.1%	5.5%	16.3%
*Average EMs**	*7.2%*	*5.2%*	*3.5%*	*2.5%*	*2.2%*	*2.1%*
Kyrgyz Rep.	10.4%	8.4%	3.2%	8.3%	5.2%	2.7%
Tajikistan	11.7%	7.3%	6.5%	5.6%	3.0%	1.7%
Uzbekistan	…	…	14.7%	…	…	2.2%
Average LICs	*11.0%*	*7.8%*	*8.1%*	*6.9%*	*4.1%*	*2.2%*
Moldova	**10.0%**	**5.9%**	**5.7%**	**5.6%**	**1.5%**	**2.4%**

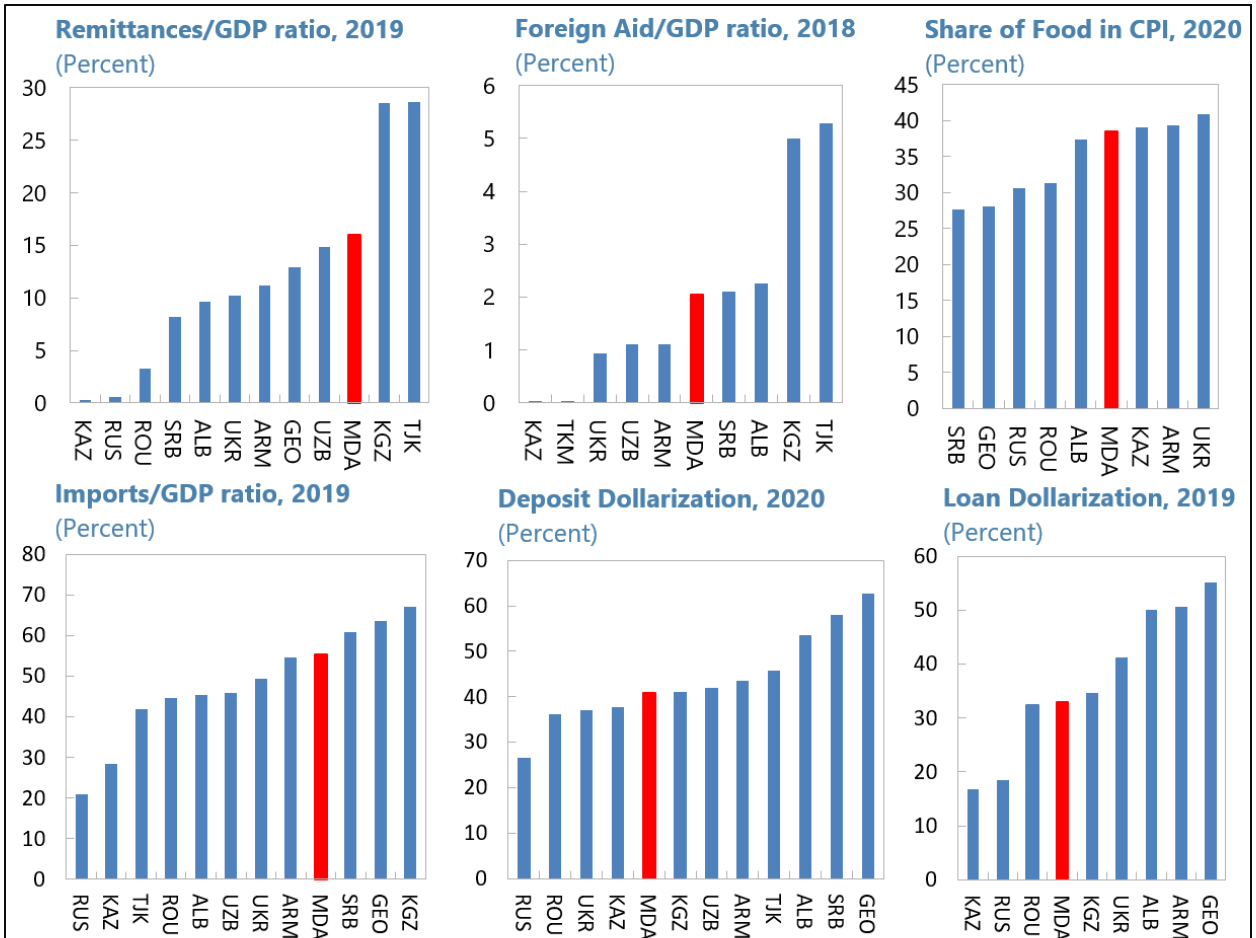
Source: Haver Analytics and IMF staff calculations.
Notes: Average inflation is computed as the average of monthly year-on-year CPI inflation inflation volatility is the standard deviation of annual year-on-year CPI inflation.
* Average excludes Ukraine.

3. **The effectiveness of the MTM in many LLMICs is threatened by several frictions and impediments.** Mishra et al. (2010) argue that the typically weak financial market development in LLMICs reduces the effectiveness of the asset channel, while ineffective central bank communication and a high degree of financial illiteracy impedes the expectations channel. Policy rate changes can therefore only be expected to transmit to inflation through the interest rate channel, the credit channel, and the exchange rate channel. Yet, also the effective transmission via these remaining channels depends on several conditions that are often not met in LLMICs. The interest rate channel rests on pass-through of policy rate changes to changes in market rates through various arbitrage conditions that rely on deep and well-developed securities and interbank markets. Transmission of policy rate changes to changes in loan supply (the credit channel) is contingent on a well-regulated and competitive financial sector with high-quality and transparent lending opportunities. Finally, a functioning exchange rate channel depends on an open capital account and a freely floating exchange rate. The following empirical evidence points to several frictions that are likely to disrupt the MTM in Moldova.

Figure 1. Frictions in Monetary Transmission



4. Supply shocks and remittances limit the scope of stabilization policies. Like many other LLMICs, Moldova features a high share of food and energy in its consumer price index (CPI), making it prone to supply shocks. In 2020, the share of food stood at almost 43 percent, a high value even relative to the group of peer countries. An additional factor that restricts the scope of stabilization policies are significant remittances inflows (around 16 percent of GDP) and foreign aid (2 percent of GDP). (See also Box 1.) Both influence domestic demand in an acyclical fashion and are not responsive to monetary policy.



Sources: WB WDI, IMF BOP, IMF WEO, IMF FSI, IMF MFS.

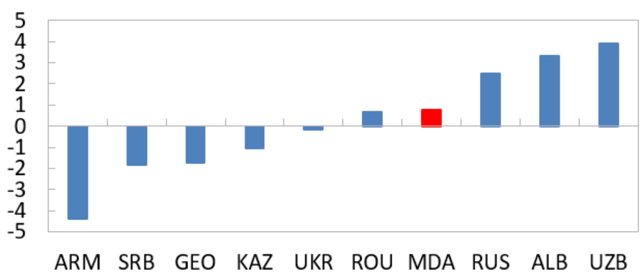
5. Exchange rate swings affect import prices and the valuation of partially dollarized domestic debt, inducing "fear of floating" and continuing interventions in the FX market on the part of the NBM. The Moldovan economy is sensitive to exchange rate swings in either direction. Dollarization has decreased over the years and is at medium levels compared to other countries in the region (standing at 33 percent for loan and 41 percent for deposit dollarization).[2]

[2] When banks accept dollar deposits from domestic residents, they assume foreign exchange risk, and they often give dollar loans to domestic firms to reduce currency mismatches on banks' balance sheets. Domestic firms, however, usually receive the largest part of their income in domestic currency, so they are at the risk to default on dollar debt in the event of a large depreciation.

Together with an import share of 55 percent of GDP, this makes Moldova vulnerable to sharp depreciations. On the other hand, an appreciation of the exchange rate, that is currently assessed to be moderately overvalued, weakens export competitiveness. The combination of a high degree of trade openness and dollarization levels explain why most central banks in LLMICs, even those with IT frameworks like the NBM, have some fear of floating and often use FXIs to limit excess exchange rate volatility.

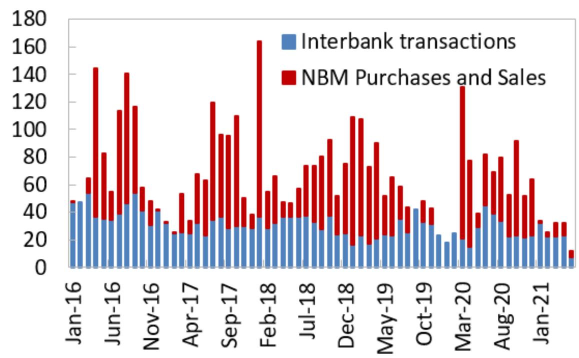
6. **The NBM continues to have a sizeable footprint in the FX market and intervenes frequently, which might impair the exchange rate channel.** Benchmarking it to other central banks in the peer group, NBM's footprint in 2020 seems moderate, but a comparison of the volume of NBM's interventions and interbank transactions shows that NBM's footprint was large in most months. There are only a few months with no or only minor interventions. NBM's heavy presence in the FX market suggests that the exchange rate is managed to some degree, which might reduce the effectiveness of the exchange rate channel of the MTM.

FXI Proxy, 2020
(Percentage points of (3-year moving average) GDP)



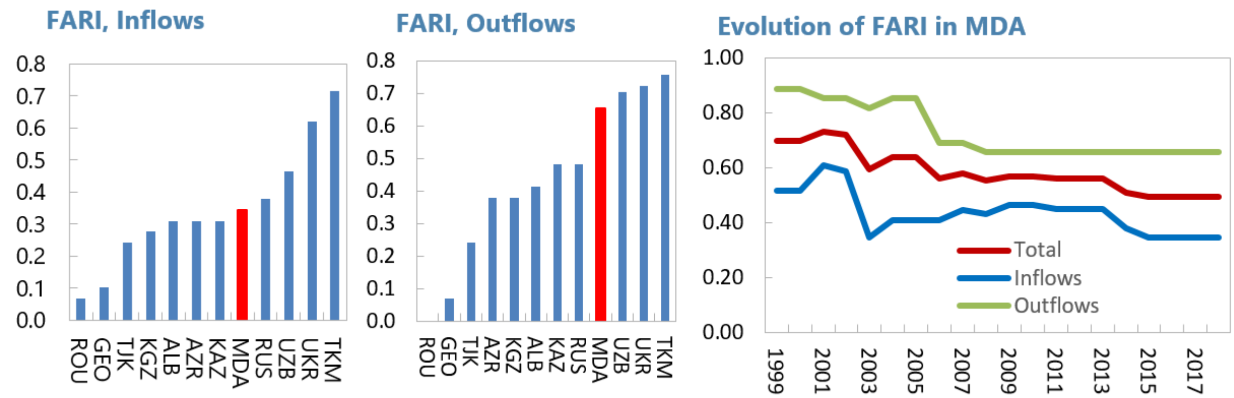
Source: Foreign Exchange Intervention: A Dataset of Public Data and Proxies, IMF.
Notes: FXIs are defined as "all transactions of the central bank that alter its foreign exchange position", FXI proxy shown includes both spot and derivative transactions.

NBM FXI and Interbank Market
(Million USD equivalent)



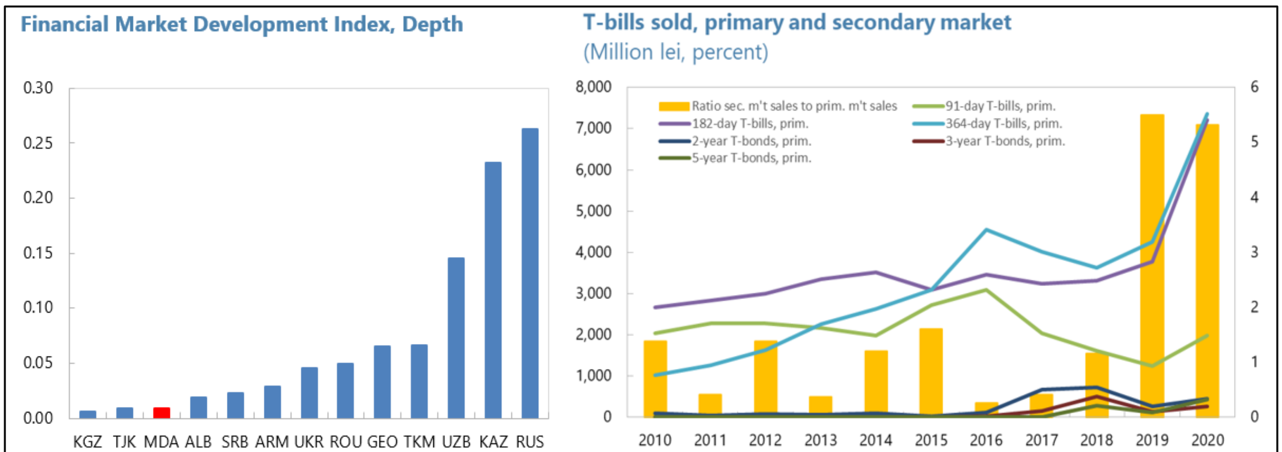
Sources: NBM and IMF staff calculations.

7. **Despite some progress, the financial account remains restricted, potentially further impeding transmission via the exchange rate channel.** Moldova's financial account remains restrictive, especially on the outflows side. The Financial Account Restrictiveness Index (FARI), based on the 2018 AREAER, indicates that restrictiveness on the inflows side is in line with peers, albeit substantially higher than in Advanced Economies. On the outflows side, the Moldova's financial account deemed very restrictive even compared to peer countries. Since capital cannot flow freely across borders, it is likely that arbitrage opportunities between returns on domestic and foreign assets cannot be eliminated in an efficient and timely way, which—together with frequent and large FXIs—might prevent the exchange rate from adjusting to policy rate changes.



Source: Baba et al. (forthcoming).
Notes: FARI indices are constructed based on the 2018 AREAER.

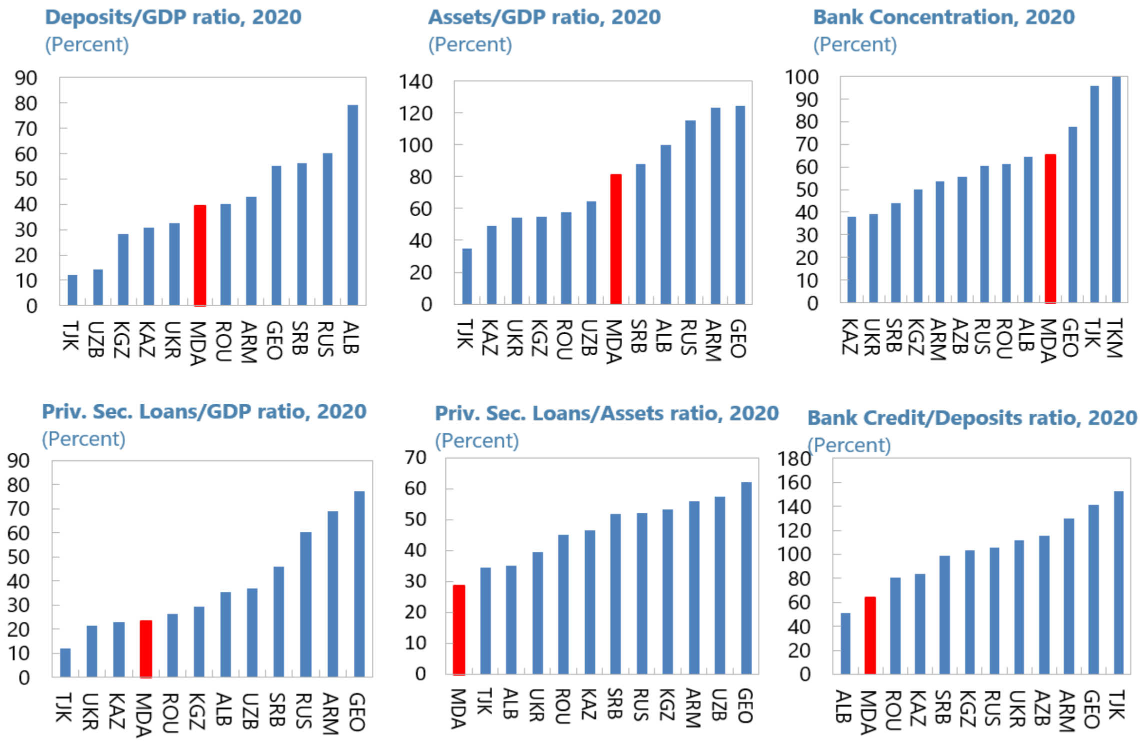
8. The interbank market collapsed after the banking fraud and securities markets are shallow, possibly reducing transmission via the interest rate channel. Moldova's interbank market in local currency has been largely inactive and has completely dried up after the banking crisis. Lingering trust issues and reliable provision of liquidity by the NBM discourage banks from borrowing from each other. Even compared to its peer group, Moldova's stock and securities markets are extremely shallow. The size of the primary and secondary T-Bill markets increased over the last two years but remain small compared to peers. Shallow financial markets weaken arbitrage, and thereby potentially the interest rate channel.



Source: IMF SPR.
Notes: The FMD index focuses on the size of the stock and securities market.

Source: NBM and IMF staff calculations.

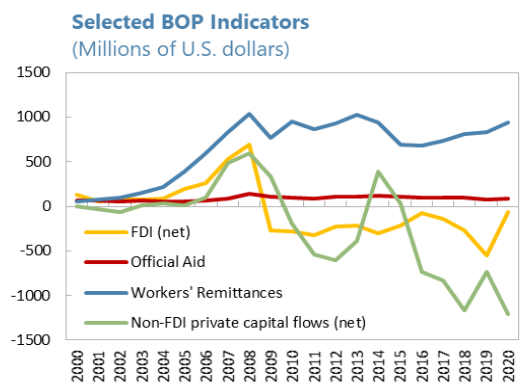
9. Subdued financial intermediation by banks might reduce the strength of the credit channel. Cross-country comparison shows that despite Moldova being in the middle range of peer countries in terms of banks capitalization, lending indicators are particularly low in Moldova, hinting to some frictions in the lending process. One important factor here might be high remittances inflows which tend to increase deposits, which is often, however, not matched by an equivalent growth in credit. (See Box 1.) Bank concentration is also at the higher end. These characteristics are likely to harm the credit channel, but might also reduce the effectiveness of the interest rate channel.



Sources: IMF MFS, IMF FSD.

Box 1. Remittances and Monetary Transmission

While beneficial to the individual recipients, the macroeconomic consequences of remittance inflows are ambiguous. Workers' remittance inflows into Moldova strongly increased in the 2000s and are by far the largest external inflow. A vast literature argues that remittances grow the tax base, enlarge fiscal space, and improve debt sustainability, but at the same time discourage fiscal discipline, erode the quality of institutions, and increase business cycle volatility. Furthermore, remittance inflows may complicate monetary policy through several channels that seem also to be operative in Moldova (Barajas et al., 2018).

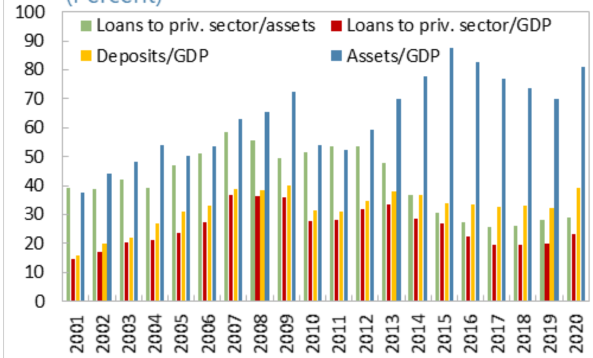


Sources: IMF BOP and IMF staff calculations.

Box 1. Remittances and Monetary Transmission (continued)

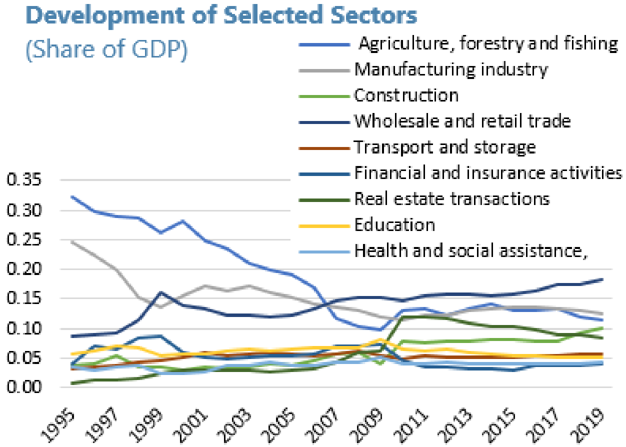
Persistent remittance inflows can cause Dutch-Disease-like effects, appreciating the real exchange rate and weakening the competitiveness of the tradable sector, which might drive frequent and non-coordinated FX purchases. Barajas et al. (2012) document that countries with a large share of remittances experience symptoms that are similar to those of countries with vast natural resources. Remittance inflows allow for higher spending on both tradable and non-tradable goods, but since prices for tradables are set internationally, only non-tradable sector prices increase, expanding non-tradable supply and shifting resources from tradable to non-tradable production. The resulting increase in tradable sector wages can erode the sector's competitiveness, causing an increase in the real effective exchange rate (REER). The coincidence of an increase in remittance inflows, an expansion of the non-tradable sector, and an appreciation of the REER suggests that remittances tend to diminish competitiveness, which in turn might be associated with more prevalent FXIs and a weaker exchange rate channel.

Selected Bank Indicators for Moldova
(Percent)



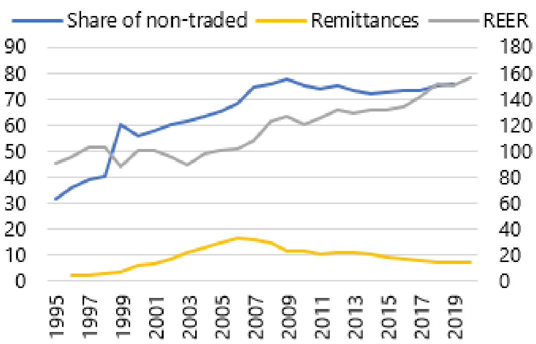
Sources: IMF MFS; IMF WEO; and IMF staff calculations.

Development of Selected Sectors
(Share of GDP)



Sources: NBS and IMF staff calculations.

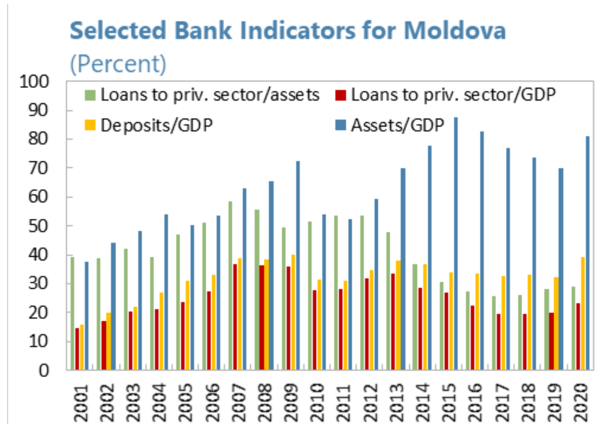
Share of Non-tradable Sector, Remittances and REER
(Percent of GDP, Index)



Sources: NBS , IMF BOP, and IMF staff calculations.

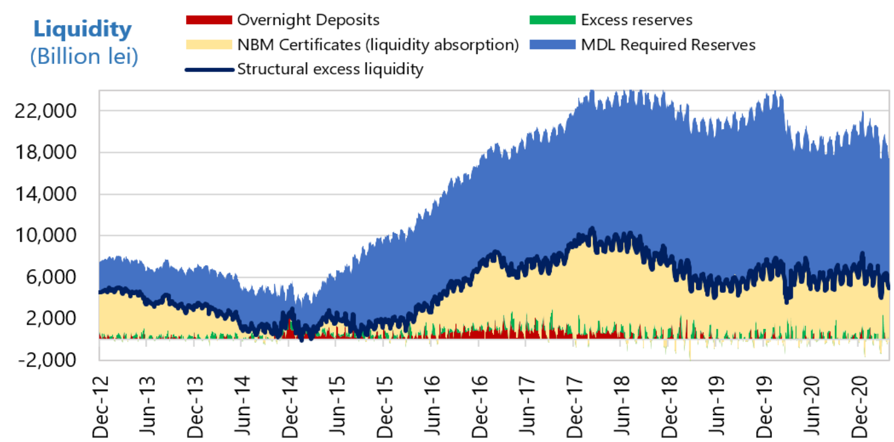
Box 1. Remittances and Monetary Transmission (concluded)

Remittances can also weaken the credit channel by curbing institutional quality and bank intermediation. Abdih et al. (2012) suggest that high remittance inflows are associated with a weak institutional environment, which might undermine the development of financial markets. Furthermore, remittances provide a stable inflow that is not sensitive to interest rates, narrowing the scope of monetary policy. Finally, while remittances increase bank deposits, they are often not matched by a one-to-one increase in credit to the private sector, generating excessive liquidity on banks' balance sheets, in turn reducing in the interbank market. In Moldova, the deposit-to-GDP ratio increased in the early 2000s and remained relatively stable since then, while loans indicators have been going down since the early 2010s. While the banking fraud was responsible for a large part of the decrease in credit to the private sector, high remittances inflows might have contributed to this development.



Sources: IMF MFS; IMF WEO; and IMF staff calculations.

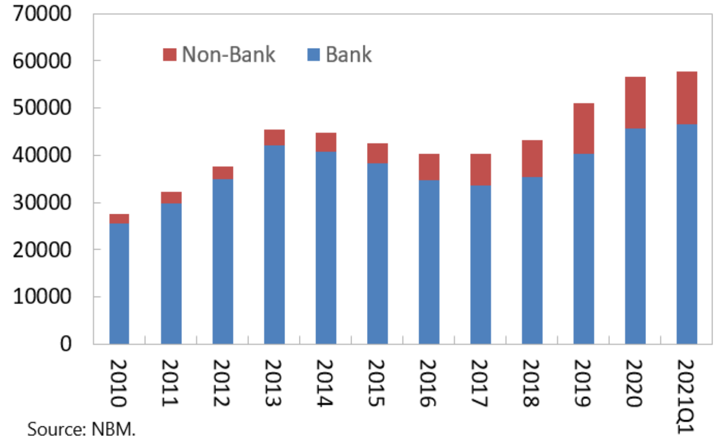
10. There is an excess liquidity overhang as a legacy of the 2014 banking fraud, which might deter banks from passing on policy rate changes to market rates and loan supply. All frictions and challenges mentioned so far pose difficulties and monetary policy trade-offs for most LLMICs, but there are also idiosyncratic factors in Moldova potentially harming transmission through the interest rate and credit channels. One important friction is the excess liquidity that the NBM injected into the financial system in the aftermath of the 2014 banking fraud, which has only partially been mopped up by increases in RRs. Excess liquidity continues to impair interbank lending and the pass-through of policy rate changes to changes in bank rates and loan supply. As credit to the economy continues to increase, liquidity slowly comes down, but a normalization of the liquidity situation is still a long way to go.



Sources: NBM and IMF staff calculations.
Notes: Structural excess reserves are the amount of reserves in excess of the reserve requirement held in aggregate by the banking system prior to any open market operations and recourse to standing facilities. They are equal to the sum of the autonomous liquidity factors minus reserve requirements.

11. Regulatory arbitrage resulted in growth of externally funded non-bank credit organizations. The non-bank financial sector started growing in the aftermath of the banking crisis, coinciding with a stricter regulation of the banking sector, while the non-banking sector remained largely underregulated, giving rise to regulatory arbitrage and predatory-lending practices. With non-banks predominantly being funded from abroad, domestic monetary policy can only marginally influence non-banks' lending conditions, again potentially reducing the scope of monetary policy.[3]

Total Bank and Non-Bank Lending
(Million MDL)



Source: NBM.

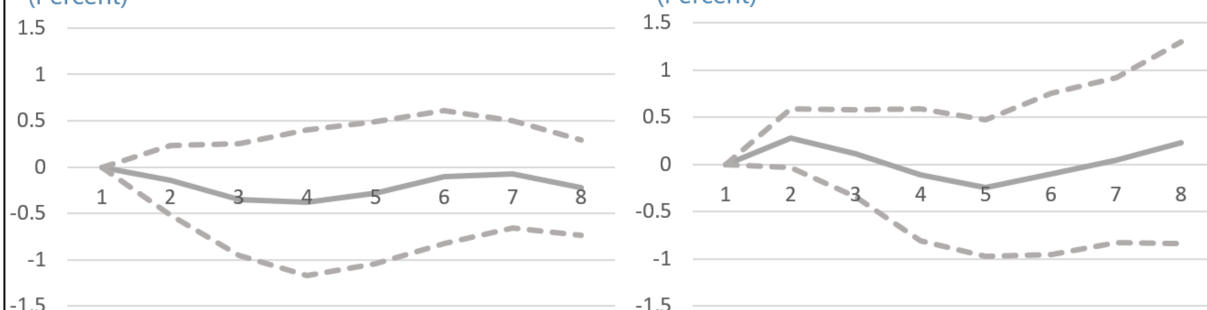
B. Empirical Analysis of the Monetary Transmission Mechanism

Overall Transmission

12. The effectiveness of the transmission of policy rate changes to inflation has weakened after the banking fraud. The empirical part of this paper starts by analyzing the general strength of the monetary transmission mechanism.[4] Vector autoregression (VAR) allows to identify monetary policy shocks and to estimate the response of inflation to these shocks. The sample period, 2010–2020, is split into two subperiods to account for the clear structural break after the banking fraud became public. Although statistically insignificant, it appears that in the first subperiod, 2010–14, transmission to inflation was swift and solid: In response to an increase in the policy rate by one percentage point, prices decreased by around 0.4 percent after three quarters. After the banking

Response of CPI, 2010-2014
(Percent)

Response of CPI, 2015-2020
(Percent)



Source: IMF staff calculations.
Notes: VAR with GDP, CPI, broad money, credit, policy rate, nominal exchange rate. Responses to a one-unit shock in the policy rate, dashed lines depict +/- 2 std.

[3] An additional factor that is beyond the scope of the NBM are regulated energy prices.

[4] Details on data and methodology can be found in the technical annex.

fraud, the response of inflation weakened considerably, showing only a peak decrease of 0.2 percent after five quarters. In the following analysis, the focus will be on the effectiveness of different transmission channels to determine which channels are most impaired and what frictions are likely to be responsible.

Interest Rate Channel

13. For the interest rate channel, short-term transmission from the policy rate to market rates weakened after the banking fraud, while long-term transmission remains solid. The first channel to be analyzed is the interest rate channel, with a focus on its first leg (i.e., the transmission of the policy rate to deposit and lending rates, the money market rate, and the T-bill rate). First, Granger causality analysis indicates that direction of causation is correct: The policy rate affects money market, T-Bill, deposit, and lending rates, but not vice versa. Money market rates affect lending and deposit rates, but not vice versa. This suggests that there is reliable pass-through from the policy rate to market rates. Second, autoregressive distributive lag (ADL) regression analysis allows to estimate the size of the pass-through from the policy rate to market rates. The estimates provided in the table provide the short run and long run change of a given market rate in response to a one percentage point change in the policy rate. For example, between 2010 and 2014 a change in the policy rate by 100 basis points led to a change of the deposit rate by 6 basis points in the following month, and to a long-term change of 4 basis points. Short term pass-through to the lending rate was higher with 24 basis points. Short-term pass-through to money market and T-Bill rates was higher, with 48 and 60 basis points, respectively.[5] After 2014, short-term pass-through from policy rate changes to market interest rates

Pairwise Granger Causality Tests

Null Hypothesis:	*Probability*
Money market rate does not Granger Cause deposit rate	0.02
Deposit rate does not Granger Cause money market rate	0.42
Policy rate does not Granger Cause deposit rate	0.00
Deposit rate does not Granger Cause Policy rate	0.53
Money market rate does not Granger Cause lending rate	0.24
Lending rate does not Granger Cause Money market rate	0.09
Policy rate does not Granger Cause lending rate	0.00
Lending rate does not Granger Cause Policy rate	0.60
Policy rate does not Granger Cause Money market rate	0.00
Money market rate does not Granger Cause Policy rate	0.60
Policy rate does not Granger Cause T-Bill rate	0.00
T-bill rate does not Granger Cause policy rate	0.85

Source: IMF staff calculations.
Notes: Monthly data from 2010M1 until 2020M12.

Effect of 1 Percent Policy Rate Change on Change In ...

		2010-14	2015-2020	2010-2020
Lending rate	ST	0.24	0.02	0.08
	LT	0.06	0.27	0.24
Deposit rate	ST	0.06	0.06	0.07
	LT	0.04	0.61	0.52
Money m't rate	ST	0.48		
	LT	1.01		
Tbill rate	ST	0.60***	0.04	0.21**
	LT	1.05	1.28	1.24

Source: IMF staff calculations.

Notes: * 0.01<p≤0.05, ** 0.001<p ≤ 0.01, *** p ≤ 0.001.

Short term effect: $\hat{\gamma}$, Long term effect: $(\hat{\gamma}+\hat{\delta}+\hat{\varepsilon})/(1-\hat{\alpha}-\hat{\beta})$.

Money m't rate data is only available for 2010M1 to 2015M4.

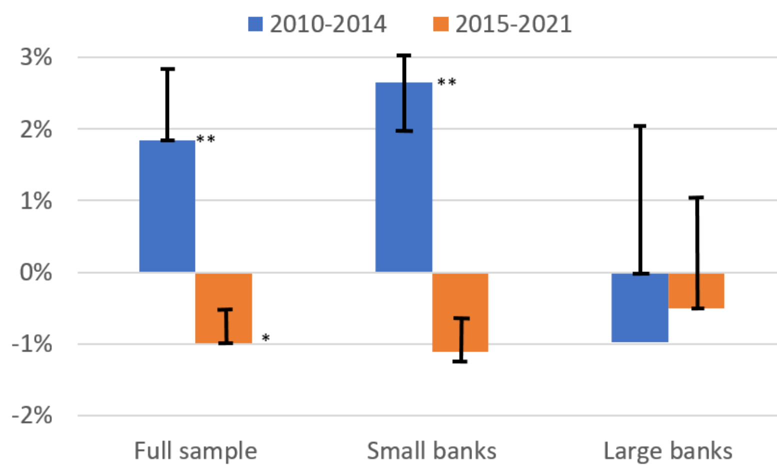
[5] The fact that the interest rate channel was effective in Moldova prior to 2014, even though financial markets in general and the secondary securities market in particular were not very deep, is in line with recent evidence by Bulíř and Vlček (2021). They find that the interest channel in LLMICs can be active when agents trade in "close-asset alternatives" with similar maturities, and arbitrage opportunities between different maturities are of secondary importance.

remained low, but long-term transmission improved. Note that results for the lending and deposit rate are statistically insignificant and very sensitive to the sample period analyzed.[6] Short-term pass-through to T-Bill rates has weakened considerably, while long-run transmission remained intact. Improvement in long-term transmission could be linked to slowly deepening financial markets. A possible cause for the persistent low short-term transmission might be the excess liquidity injected into the system, which, apart from diminishing the interbank market, means that banks are less compelled to immediately pass on interest rate changes.

Credit Channel

14. **The bank lending channel was operative before the banking fraud but broke down after the crisis, likely caused by the injection of excess liquidity.** Next, the credit, or bank lending, channel is analyzed which is defined as the effect of a change in the policy rate on banks' loans supply. A change in the policy rate constitutes a funding shock to liquidity-constrained banks, forcing them to adjust credit supply. While policy rate changes also bring about a change in demand, this effect is considered to be part of the second leg of the interest rate channel. Since demand and supply effects are difficult to disentanlge in aggregate data, the method used in this paper relies on bank-level data on lending and liquidity. If the bank lending channel is active, liquidity constraints should be amplified during periods of tight monetary policy and vice versa, which would be indicated by a positive sum of coefficients on the interaction term of policy rate changes and a liquidity indicator and its lags. The analysis shows that this is the case for the first subperiod. Additional evidence for a stable bank lending channel in the first subperiod is the fact that the results are mainly driven by small banks that are most likely to be liquidity constrained. In the second subperiod, there is no evidence for an active bank lending channel, reflected by the negative sum of coefficents. The inactive bank lending channel is likely the

Sum of Coefficients on the Interaction Term



Source: NBM and IMF staff calculations.

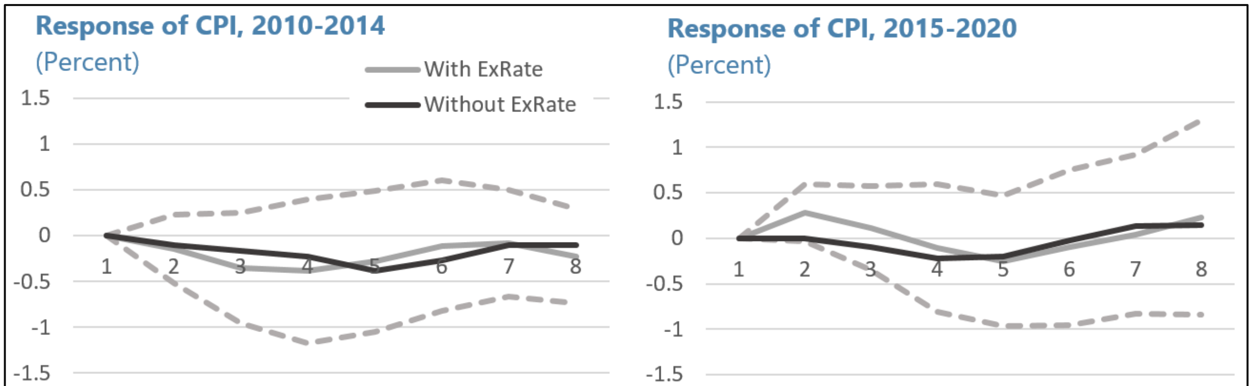
Notes: * p≤0.1, ** p ≤ 0.05, *** p ≤ 0.01. Whiskers indicate min and max of reasonable specifications of $\Delta\log(L_{it}) = \sum_{j=1}^{5}\alpha_{tj}\Delta\log(L_{it-i}) + time_t + \beta B_{it-1} + \gamma Y_t + \sum_{j=0}^{5}\left[\delta_{tj}\Delta\log M_{t-j} + \eta_{tj}B_{it-1}\Delta\log M_{t-j} + \theta_{tj}Y_t\Delta\log M_{t-j}\right] + \varepsilon_{it}$, following Kashyap and Stein (2000).

[6] The analysis for 2009-2014 generates more significant results, which suggest a serious deterioration in short term pass-through to market rates, while long-term transmission remained intact.

result of the injection of liquidity and efforts to clean up the banking sector in the aftermath of the banking fraud.

Exchange Rate Channel

15. Transmission via the exchange rate channel remains weak in light of low capital mobility and exchange rate management. The remaining channel to be analyzed is the exchange rate channel. Its role in overall monetary policy transmission is isolated by comparing the response of CPI to a monetary policy shock with and without including the exchange rate in the VAR. For both subperiods, the difference in impulse responses with and without the exchange rate are not substantially different, hinting at a generally weak transmission through the exchange rate channel, which reflects Moldova's restricted capital account. There are, however, important differences between the two subperiods. In the first subperiod, the response of CPI would been weaker and slower without the exchange rate, showing that the exchange rate channel was active, albeit with only a small impact. After 2015, the response of CPI would have been stronger without the exchange rate channel, suggesting that the exchange rate is effectively undermining transmission of the policy rate. In the following, the role of FXIs in damaging the exchange rate channel is analyzed.



Source: IMF staff calculations.

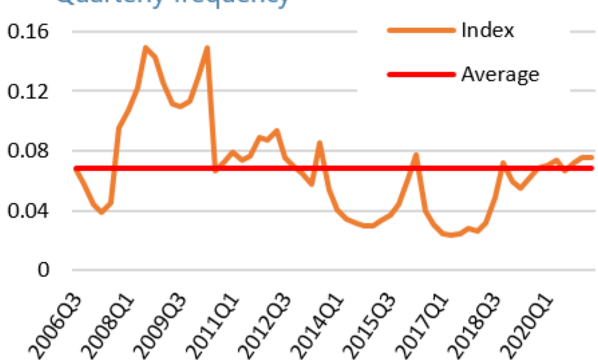
Notes: VAR with GDP, CPI, broad money, credit, policy rate, nominal exchange rate. Responses to a one-unit shock in the policy rate, dashed lines depict +/- 2 std.

16. The degree of exchange rate management in the medium term is moderate, but it is much higher at high frequencies, potentially harming warranted adjustments in the exchange rate. As mentioned in the beginning, there are features of the Moldovan economy that might justify a degree of exchange rate management to reduce excess exchange rate volatility. This should, however, not prevent warranted macroeconomic adjustments via the exchange rate, a trade-off that needs to be carefully evaluated and managed. To analyze whether NBM's FXIs take out too much of the exchange rate volatility, a simple index of exchange rate management at quarterly frequency is constructed. Cross-country comparisons indicate that Moldova's level of exchange rate management is moderate at quarterly frequency and is well in line with IT emerging economies. Constructing the same index with daily data, however, shows that the degree of exchange rate management is much stronger at higher frequencies compared to the lower frequency index. Part of this high-frequency management is warranted and desirable, as it reduces excess volatility, but it might also reflect some over-management of lower frequency movements.

Index of Exchange Rate Management, 2000–2018

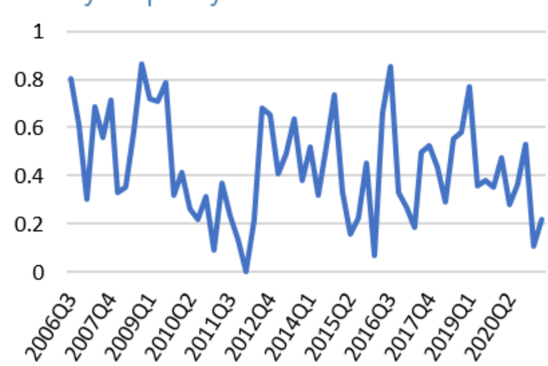
Source: Adler et al. (2019)

Degree of Exchange Rate Management
Quarterly frequency



Sources: NBM and IMF staff calculations.
Notes: The index is computed as $\frac{\sigma_t^{FXI}}{\sigma_t^e+\sigma_t^{FXI}}$ over a 12-quarter window using the MDL-USD exchange rate, in line with Adler et al. (2020).

Degree of Exchange Rate Management
Daily frequency



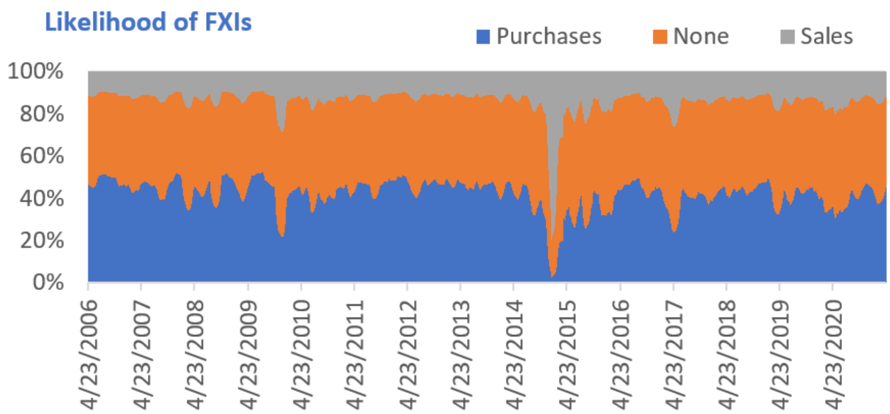
Sources: NBM and IMF staff calculations.
Notes: The index is computed as $\frac{\sigma_t^{FXI}}{\sigma_t^e+\sigma_t^{FXI}}$ over one quarter using the MDL-USD exchange rate.

17. **Exchange rate volatility is a more important driver of FXIs than low-frequency developments.** The next analysis investigates to what degree FXIs are driven by concerns about exchange rate volatility versus efforts to affect the medium- and long-run level of the exchange rate. The latter would be in stark contradiction of NBM's commitment of a freely floating exchange rate. The analysis suggests that exchange rate deviations from its medium-term level play only a minor role for FXIs, whileexchange rate volatility is the dominant driving force for most of the time. This confirms the previous findings that the NBM does not seem to attempt to manipulate the medium and long run development of the exchange rate, but rather reacts to high-frequency movements. Using the regressors to estimate the time-variant likelihood of interventions shows that, on average over the whole sample, the likelihood of purchases is about 40 percent, the likelihood of no intervention 45 percent, and the likelihood of sales 15 percent for a given week. In crisis times, the likelihood of FX sales increases.

Drivers of FXIs

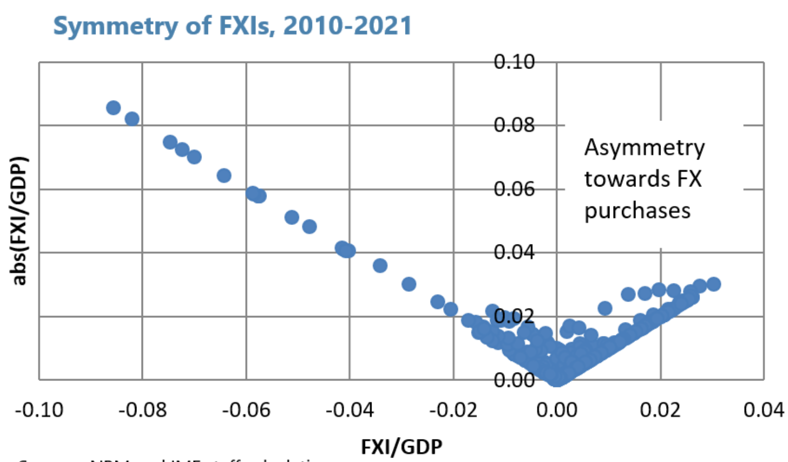
Variable	*Coefficient*	*Probability*
Deviation from moving average	0.01	0.57
ExRate volatility	2.23	0.00

Source: IMF staff calculations.
Notes: Ordered logit model following Poghosyan (2020).



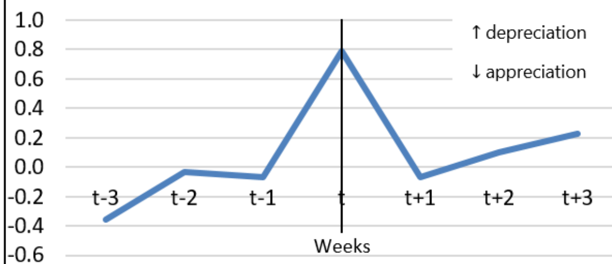
Source: IMF staff calculations.
Notes: Ordered logit model following Poghosyan (2020).

18. **NBM's FXIs are tilted towards purchases ("one-sided leaning-against-the-wind"), except for few large sales, standing in the way of two-way flexibility of the exchange rate.** Weekly intervention data shows that NBM purchases much more often than it sells, while the average purchase volume is smaller than the average sale volume. This suggests that NBM tolerates more volatility on the depreciation side than on the appreciation side, but only to the point where a large depreciation looms that would threaten partially

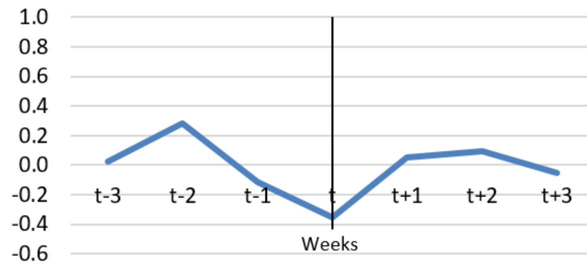


Sources: NBM and IMF staff calculations.
Note: Weekly data.

Exchange Rate around FX Sales
(Percent deviations)



Exchange Rate around FX Purchases
(Percent deviations)

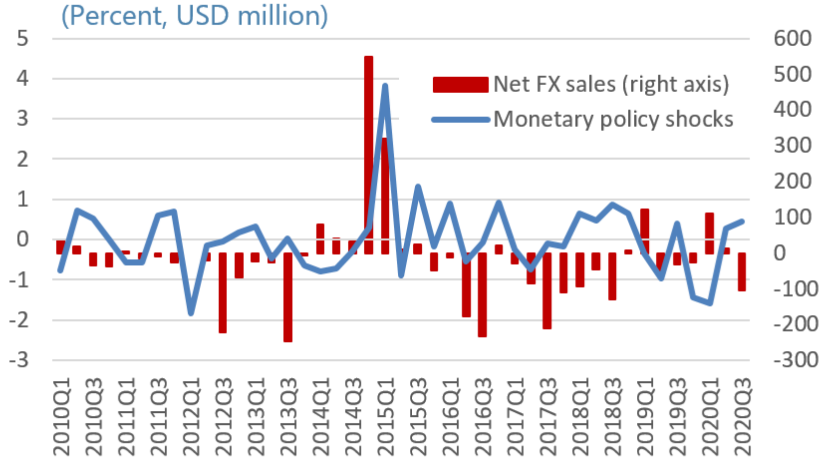


Sources: NBM and IMF staff calculations.
Notes: Event study with weekly data and regression $\Delta er_t = \alpha_0 + \sum_{j=-3}^{3}\beta_j S_{t+j} + \sum_{j=-3}^{3}\beta_j P_{t+j} + \varepsilon_{i,t}$, following Poghosyan (2020).

dollarized balance sheets. An event-window analysis around the time of the intervention shows that FXIs are effective in changing the path of the exchange rate into the desired direction. The analysis averages over the evolution of the exchange rate over a period three weeks before and three weeks after an intervention. FX purchases happen in weeks after the exchange rate appreciates relative to the average by about 0.3 percent. Starting from the week of the purchase, the difference comes down and becomes not different from zero. FX sales, in contrast, occur in weeks after exchange rate depreciates relative to average by about 0.8 percent. After the intervention, the difference comes down, being not different from zero. Here the asymmetry of NBM's FXIs becomes apparent in that it requires a smaller appreciation to prompt an intervention than the average depreciation that leads to an intervention. Starting from the week of the sale, the difference relative to normal periods comes down and becomes not different from zero. This suggests that FXIs are successful in influencing the exchange rate, at least in the very short term. Continuing one-sided interventions can be expected to have more permanent effect. This "one-sided leaning-against-the-wind" strategy might reflect NBM's preference for higher reserve adequacy and the assessment that the currency is moderately overvalued. It bears, however, the danger of preventing the exchange rate from appreciating when monetary policy is tightened, thereby blunting interest rate policy.

19. **FXIs are not always aligned with interest rate policy, potentially harming transmission of policy rate changes.** FXIs that are well coordinated with interest rate policy should foster appreciation (depreciation) in times of policy rate increases (decreases), or at least not stem against exchange rate adjustments by pushing in the opposite direction. The plot below shows that this was the case for the crisis years of 2015/16 when a sharp increase

Monetary Policy Shocks and FX Net Sales
(Percent, USD million)

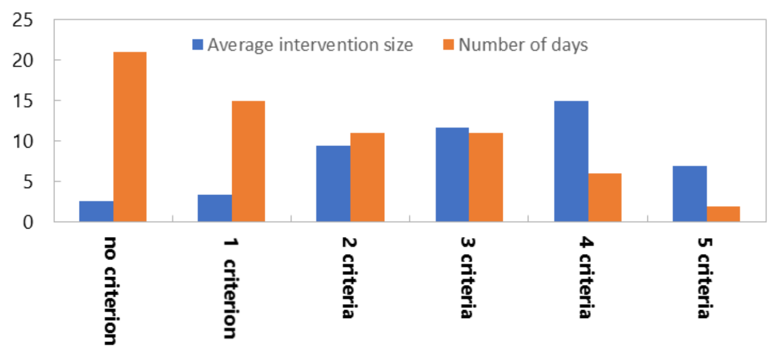


Sources: NBM and IMF staff calculations.

in the policy rate was accompanied by large FX sales, stemming against depreciation, and thereby fostering monetary tightening. However, for most part of the period from 2010–2020, FXIs were not coordinated with interest rate policy, and sometimes even actively countering it. For example, in 2017/18 NBM was increasing policy rates while at the same time purchasing FX, thereby preventing an appreciation of the exchange rate. Here, the tightening effect of policy rate changes on inflation might have been impaired by inflationary pressures caused by FXIs not allowing the exchange rate to appreciate (sufficiently) as well as additional liquidity brought about by only partially sterilized FXIs. Hence, FXIs actively stemming against exchange rate adjustments in response to changes in the policy rate weaken the exchange rate channel of monetary transmission, or even work against the other monetary transmission channels, and thereby seriously reduce the effect of policy rate changes on inflation, in line with the VAR analysis.

20. Since 2020, FXIs are guided by a formal intervention strategy to increase two-way exchange-rate flexibility, which has been broadly followed. In 2020, NBM adopted a FXI strategy to foster two-way exchange-rate flexibility.[7] The strategy specifies several intervention criteria specifying disorderly market conditions and excess exchange rate volatility. If at least one of these criteria is fulfilled, the NBM can justify an intervention in the FX market. The evaluation of daily intervention data suggests that the strategy was broadly followed. There were some days when no intervention criterion was satisfied, and yet NBM decided to intervene, albeit with very small volumes.[8] But most interventions happened on days when at least one criterion was satisfied. As expected, the more intervention criteria were fulfilled, the larger the average intervention size, since the number of fulfilled criteria proxies the degree of market turmoil.

Number of Intervention Days When X Intervention Criteria Were Fulfilled and Average Intervention Size
(Number, Million USD equivalent)



Source: NBM and IMF staff calculations.
Note: Period under consideration is Jan 1 2020 - August 26 2021.

[7] The strategy has been developed with the IMF's MCM department.

[8] NBM reports that some of these interventions happened preemptively (i.e., to prevent an expected future market turbulence).

Box 2. International Experience with FXIs in IT Frameworks

Many LLMICs with IT regimes use FXIs to curb excess exchange rate volatility. As illustrated in Section A, many LLMICs have high levels of dollarization (often in the presence of currency and/or maturity mismatches) and trade openness, making excess exchange rate movements costly. At the same time, many of these countries have adopted IT, which, in theory, requires a fully floating exchange rate. The following two examples illustrate how FXIs can coincide with an IT regime in practice:

- **Peru's FXI strategy was broadly successful in guarding its highly dollarized economy from exchange-rate-related financial risk, while reducing dollarization over time.** In 2002, the Central Reserve Bank of Peru (CRBP) adopted a hybrid framework that combines IT with a managed float and a long-term national de-dollarization strategy. This framework shields the originally highly dollarized economy from excessive exchange rate swings using sterilized FXIs, and reduced dollarization (coming down to 26 and 35 percent of loan and deposit dollarization, respectively, at the beginning of 2021, from over 60 and 70 percent, respectively at the beginning of the 1990s).[1] Lower dollarization levels allowed to gradually reduce the size and frequency of FXIs, which are supposed to strike a balance between smoothing exchange rate volatility to limit detrimental balance-sheet effects and allowing for sufficient volatility to incentivize agents to internalize exchange rate risk and the cost of dollarization. Still, interventions came at the cost of more constrained financial development (e.g., low credit-to-GDP ratio and limited FX hedging instruments).

- **Ukraine's recent IT framework has been combined with a FXI strategy from the start.** The National Bank of Ukraine (NBU) adopted IT only in 2016 (later than many other countries in the region), so building up credibility for the new framework is crucial. Since the NBU faces many of the same economic challenges as the NBM (high remittances, high shares of food and energy in CPI, relatively high dollarization), the Ukrainian example is particularly instructive for Moldova. From the beginning, the IT regime has been complemented by a FXI strategy that specifies three objectives justifying (fully sterilized) FXIs: (i) accumulating international reserves; (ii) smoothing out excess exchange rate volatility; and (iii) supporting the transmission of the policy rate "when it is not efficient enough". That is, the NBU specifies FXIs as an additional monetary policy instrument that may be used to support the transmission of the policy rate.[3]

International experience shows that IT systems can coexist with limited use of FXIs if their scope is narrowly defined and targeted to country characteristics, but it can entail considerable costs in terms of hindering market development and undermining central bank credibility. Recent research shows that the use of FXIs is only warranted if there are currency mismatches and FX markets are shallow.[2] In this context, countries with high levels of dollarization might want to intervene to ensure financial stability during the transition phase to lower dollarization levels. However, as FXIs can encourage moral hazard by protecting market participants from exchange rate fluctuations, disincentivizing hedging or addressing currency mismatches, their use should be limited. FXIs also pose the risk to undermine the credibility of the policy rate as the main monetary policy tool, which is particularly relevant for central banks that have moved recently to an IT framework. Establishing a credible FXI strategy is crucial to minimize this risk.

[1] Armas et al. (2015) cite four main risks of financial dollarization for monetary policy: (i) balance sheet effects of large exchange rate depreciations; (ii) high exchange rate pass-through to prices; (iii) high exchange rate volatility; (iv) high pass-through of foreign to domestic interest rates.
[2] See Grui and Lepushynskyi (2016).
[3] See Adrian et. al. (2020) and Basu et al. (2020).

C. Policy Recommendations

21. It is crucial to strengthen the IT framework's credibility and policy consistency. Staff emphasizes that the policy rate should always be NBM's primary instrument to achieve its inflation target. If additional instruments are used, be it RRs for liquidity management or FXIs to counter disorderly FX market conditions, they need to be coordinated with the policy rate, so as not to undermine the credibility and effectiveness of the IT regime. NBM should improve its communication with the public, both with regards to the general outlook and objectives as well as to the instruments used to achieved them. Thereby the development of well-anchored inflation expectations is fostered, which will ultimately improve the MTM.

22. Going forward, NBM's presence in the FX market should be gradually reduced to facilitate external adjustment and improve transmission through the exchange rate channel. The empirical analysis has shown that there are three factors associated with large and frequent FXIs that potentially harm monetary transmission, especially in periods of monetary tightening. First, persistent and one-sided FXIs might prevent the exchange rate from appreciating when the policy rate is hiked, reducing the tightening effect of policy rate changes on inflation. Second, at the same time, the increase in liquidity associated with FX purchases might put further upward pressure on inflation. Third, the conflicting signal from FX purchases when interest rate policy is tightened poses the danger of blurring NBM's messaging and undermines the credibility of the IT regime. Staff assesses that the new FXI strategy is an integral part of following an exchange rate strategy that is consistent with the IT regime. The Covid-crisis-induced FX market volatility, and consequent FXIs, complicate the assessment of the FXI strategy's success in reducing NBM's footprint in the FX market. However, the most recent data suggests that NBM seems to be continuing the positive trend from the beginning of 2020 in reducing its footprint in the FX market. Going forward, there should be an evaluation as to whether the parameterization of the strategy could be improved, with the objective of gradually improving exchange rate flexibility. Staff also assesses that NBM should communicate the main objectives of the strategy to banks, so banks can make informed risk-pricing decisions. At the same time, it is important to foster development of the FX market, which should further improve the pricing of exchange rate risks, and in particular the development of hedging instruments. Given that the capital account is still less open than in peer countries, limiting the ability of the exchange rate to act as a shock absorber, a review of FX market liberalization policies should identify and eliminate potential obstacles. Finally, there should be a national de-dollarization strategy to limit balance sheet exposure to exchange rate shocks and. (See Box 2.)

23. Facilitating financial market development and reducing excess liquidity is essential to foster transmission via the interest rate and credit channels. To foster lending to households and small and medium enterprises without compromising financial stability, reforms in both bank and non-bank financial sector should be advanced. It is crucial to safeguard progress in reforming the banking sector and continued progress in financial sector reforms. To eliminate opportunities of regulatory arbitrage of non-bank financial institutions (NBFIs) and ensure financial stability, it is important to strengthen regulation and supervision. Thereby, it is crucial to address risks and increase consumer protection without depriving NBFIs' customers of access to lending. The forthcoming transfer of supervision from NCFM to NBM allows leveraging NBM's expertise in this area. A strategy to foster financial inclusion and capital market development should be an important pillar in broadening the financial sector's customer base, and thereby widening NBM's scope of action. As credit to the economy grows and excess liquidity is reduced to more normal levels, a normalization of RRs to reduce banks' funding costs should follow. With reduced excess liquidity, it is also important to move away from the passive full-allotment system and towards a proactive liquidity forecasting and management system. In that regard, also the strengthening of the budgetary liquidity and debt management procedures and promoting development of domestic securities should be priorities.

Annex I. Technical Annex

A. VAR Analysis of the Transmission of the Policy Rate to Inflation

1. The VAR analyses on pages 10 and 13 use quarterly data from 2010Q1 through 2020Q3 of the policy rate, GDP, CPI, broad money, credit to the economy, and the nominal MDL-USD exchange rate.

2. Vector Autoregressions (VARs) describe the dynamics of a set of variables imposing minimal structure on the data. They are dynamic systems of equations where the current value of each variable depends on its past values as well as contemporaneous and past values of all other variables in the system, as captured by

$$\mathrm{Y_t} = \mathrm{A_1 Y_{t-1}} + \cdots + \mathrm{A_p Y_{t-p}} + \mathrm{u_t},$$

where $\mathrm{Y_t}$ is an $\mathrm{n} \times 1$ vector of variables at time t, $\mathrm{A_1}, \dots, \mathrm{A_p}$ are $\mathrm{n} \times \mathrm{n}$ coefficient matrices, and $\mathrm{u_t}$ is an $\mathrm{n} \times 1$ vector of residuals with a variance-covariance matrix $\mathrm{E[u_t u_t']} = \Omega$. Estimating this reduced-form system of equations yields residuals $\mathrm{u_t}$ and allows forecasting the variables of interest, but it does not provide an estimate of the response of the system to an isolated shock in one of the variables, since reduced-form shocks affect more than one variable. Thus, additional structure is needed to identify structural shocks to one variable in isolation, i.e. to derive shocks with an economic interpretation as e.g. shocks to the policy rate. To that end, the reduced-form system of equations is rearranged in the following way

$$\mathrm{Y_t} = \mathrm{B_0 Y_t} + \mathrm{B_1 Y_{t-1}} + \cdots + \mathrm{B_p Y_{t-p}} + \varepsilon_\mathrm{t},$$

where, $\mathrm{B_0, B_1, \dots, B_p}$ are $\mathrm{n} \times \mathrm{n}$ coefficient matrices with $\mathrm{A_0} = (\mathrm{I} - \mathrm{B_0})^{-1}$ and $\mathrm{A_i} = \mathrm{A_0 B_i}$ for $\mathrm{i} = 1, \dots, \mathrm{p}$, and ε_t is a vector of structural shocks with a variance-covariance matrix $\mathrm{E}[\varepsilon_\mathrm{t}\varepsilon_\mathrm{t}'] = \mathrm{I}$. It therefore holds that residuals and structural shocks are related in the following way: $u_t = A_0 \varepsilon_\mathrm{t}$, and $\Omega = A_0 A_0'$. That is, if matrix $\mathrm{A_0}$ is known, structural shocks can be backed out from residuals. $n(n+1)/2$ additional restrictions required to uniquely identify $\mathrm{A_0}$. This paper uses Cholesky ordering, assuming that monetary policy shock affects variables in the following order: exchange rate, interest rate, broad money, CPI, GDP. Under these assumptions, impulse responses to identified monetary policy shocks can then be derived from $Y_t = [I - A(L)]^{-1} A_0 \varepsilon_\mathrm{t}$.

B. Interest Rate Pass-through / ADL and Granger Causality Analysis

3. The interest rate channel analyses on page 11 use monthly data of the policy rate, deposit rate, lending rate, money market rate, and T-Bill rate from 2010M1 to 2020M12.

4. The pairwise Granger causality analysis uses two lags and is conducted for each of the relevant pairs of variables. The table on page 11 shows probabilities for the joint hypothesis

$$\beta_1 = \beta_2 = \cdots = \beta_k = 0,$$

where the coefficients come from the following bivariate regressions

$$y_t = \alpha_0 + \alpha_1 y_{t-1} + \cdots + \alpha_k y_{t-k} + \beta_1 x_{t-1} + \cdots + \beta_k x_{-k} + \varepsilon_t$$

$$x_t = \alpha_0 + \alpha_1 x_{t-1} + \cdots + \alpha_k x_{t-k} + \beta_1 y_{t-1} + \cdots + \beta_k y_{-k} + u_t.$$

For example, in the first row of the Granger analysis table on page 11, the hypothesis that the deposit rate does not Granger cause the policy rate cannot be rejected, but the hypothesis that the deposit rate does not Granger cause the policy rate can be rejected. These results suggest that Granger causality runs one-way from the money market rate to the deposit rate and not the other way.

5. An Autoregressive Distributive Lag (ADL) model (see e.g. Mishra et al., 2010) is then estimated for every relevant pair of variables of interest

$$\Delta x_t = \propto \Delta x_{t-1} + \beta \Delta x_{t-2} + \gamma \Delta y_t + \delta \Delta y_{t-1} + \varepsilon \Delta y_{t-2} + \eta_t.$$

The short term-effect is given by the estimate of coefficient, $\hat{\gamma}$, and the long-run effect is given by the ratio of the following estimated coefficients: $(\hat{\gamma} + \hat{\delta} + \hat{\varepsilon})/(1 - \hat{\alpha} - \beta)$.

C. Credit Channel Analysis

6. The credit channel analysis on page 12 uses monthly bank-level data from 2010M1 to 2021M1 on lending volumes and liquid-assets-to-total-assets ratio for 11 banks (balanced panel).

7. The advantage of a microeconometric approach, relative to a macroeconometric one, is that it allows to isolate the effect of a monetary policy shock on credit supply by analyzing the effects of (excess) liquidity at the bank level. To this end, the following pooled regressions are estimated

$$\Delta \log(L_{it}) = \sum_{i=1}^{5} \alpha_{tj} \Delta \log(L_{it-i}) + time_t + \beta B_{it-1} + \gamma Y_t$$
$$+ \sum_{j=0}^{5} \left[\delta_{tj} \Delta \log M_{t-j} + \eta_{tj} B_{it-1} \Delta \log M_{t-j} + \theta_{tj} Y_t \Delta \log M_{t-j}\right] + \varepsilon_{it}$$

where L_{it} is lending volume, B_{it-1} is the ratio of liquid assets to total assets (capturing (excess) liquidity and balance sheet strength), M_t is the policy rate, and Y_t is a business cycle indicator (see Kashyap and Stein, 2000). The idea is that an expansionary monetary policy shock should lead to a reduction of credit-constrained banks if the bank lending channel is active. This would be reflected by a positive sum of coefficients on the first interaction term and its lags.

D. FXI Analyses

8. The FXI analyses on pages 13-16 use weekly data of NBM FX sales and purchases as well as the nominal MDL-USD exchange rate. It is aggregated from daily data.

9. The index to capture the degree of exchange rate management is computed as $\sigma_t^{FXI}/(\sigma_t^{FXI}+\sigma_t^{E})$, where σ_t^{FXI} is the standard deviation of FXIs and σ_t^{E} is the standard deviation of the exchange rate. For the index at quarterly frequency, weekly data are aggregated to quarterly frequency and then a 12-quarter rolling window is used to compute the standard deviation of FXIs and the exchange rate. For the index at daily frequency, the standard deviation of daily data over one quarter is computed for both FXIs and the exchange rate.

10. An ordered logit model is estimated to assess the determinants of FXIs (see e.g. Poghosyan, 2020). Two variables drive the probability to intervene in the exchange market: er_t is the percentage deviation of the exchange rate at time t from its average in a 12-week rolling window centered around period t. vol_t is a proxy for volatility that measures the standard deviation of the exchange rate in a 12-week moving window centered around period t. The empirical specification takes the following form

$$y_t^* = \alpha + \beta\ er_t + \gamma\ vol_t + \varepsilon_t$$

with

$$P(y_t = "FX\ purchase" = P(y_t^* \leq \kappa_1)$$

$$P(y_t = "No\ intervention" = P(\kappa_1 \leq y_t^* \leq \kappa_2)$$

$$P(y_t = "FX\ sale" = P(\kappa_2 \leq y_t^*),$$

where κ_1 and κ_2 are the cut-off values of y_t^* associated with probabilities of purchases, no intervention, and sales, respectively.

11. The empirical specification of the event-window analysis is as follows (see e.g. Poghosyan, 2020):

$$\Delta er_t = \alpha_0 + \sum_{j=-3}^{3} \beta_j\, S_{t+j} + \sum_{j=-3}^{3} \gamma_j\, P_{t+j} + \varepsilon_{i,t}$$

where er is the logarithmic difference of the MDL/USD exchange rate times 100, S is a dummy variable that takes the value 1 in periods of FX sales, and P is a dummy variable that takes the value 1 in periods of FX purchases.

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THE NEXUS BETWEEN PUBLIC ENTERPRISE GOVERNANCE, FINANCIAL PERFORMANCE, AND MACROECONOMIC VULNERABILITIES: AN APPLICATION TO MOLDOVA[1]

Strong governance frameworks for state-owned and managed enterprises have long been an anchor of stability and efficiency underpinning their financial operations and performance. Cross country experiences with the adoption of robust legal, regulatory and institutional arrangements—in line with international best practices—proved critical in reducing well-known risks and vulnerabilities from such companies, clarifying the role of the state, improving the management of state assets and ensuring a level playing field for the private sector to prosper. Moldova's large public enterprise sector of over 900 state-owned companies faces elevated risks that undermine market competition, productivity, and private investment, while amplifying fiscal risks. Moldova stands to greatly benefit from strengthening its public corporate governance regime in line with best principles to put its public corporations on a stronger footing, address vulnerabilities, and improve market structure.

A. Background, Context, and Motivation

1. **Public enterprises play a central role in many economies and have gained prominence over time**. Their significance in many countries' market structures is a reflection of the role they play in the delivery of public policy objectives; namely, the provision of key (essential /useful) public goods and services to society (as an arm of the state). With a heavy presence in systemically important sectors such as utilities, infrastructure, and energy, they contribute significantly to sectoral and overall output. They are also a strategic employer, affecting the lives of many households. The quality of their operations determines net market competitiveness and efficiency as they deliver on the social, economic, and strategic interests of the state.

2. **Yet, governments often face challenges in organizing, managing, monitoring and mitigating their operational risk.** The operations of public enterprises pose various well-known risks and vulnerabilities, often attributable to severe underlying weaknesses in their governance frameworks. These include a poorly defined state ownership rationale (objective) behind setting up such companies; a weak legal (regulatory) umbrella that governs their operations; a poor institutional setup; frail checks and balances to ensure that they deliver effectively on their mandates, and undue state intervention (ad-hoc political interference or vested interests). Numerous examples of vulnerabilities are evident in unclear and/or forced policy mandates, complex webs of financial interlinkages with the government, or overly complicated lines of authorities across many agents (internally, e.g., within the companies' management and/or boards, or externally with

[1] Prepared by Amgad Hegazy.

government ministries, the legislature, etc.). This easily weakens incentives to improve performance and fuels lack of transparency, poor accountability, and corruption.

3. The result is hampered economy-wide activity and lost growth potential via several channels. Weak financial performance in public corporations carries significant fiscal and quasi-fiscal risks, inflicts self-fulfilling crises, and underpins a number of negative externalities involving corruption and mismanagement of public sector assets; misallocation of the economy's scarce resources; undermining market-wide competitiveness and efficiency by weakening the private sector as the main engine of growth (especially in strategic sectors in which public companies operate as natural monopolies/ oligopolies). These challenges weaken the optimal functionality of commodity, services, and labor markets, thereby adversely affecting economy-wide productivity and employment. If left unaddressed, such challenges exacerbate the problem by often forcing governments to continue funding such enterprises despite their poor performance (e.g., through taxpayer money, misuse (abuse) of public funds, or preferential treatment/access to government support to sustain a seemingly profitable status in otherwise failing enterprises). Eventually, this culminates in elevated fiscal costs and exacerbates the market dominance of these companies.

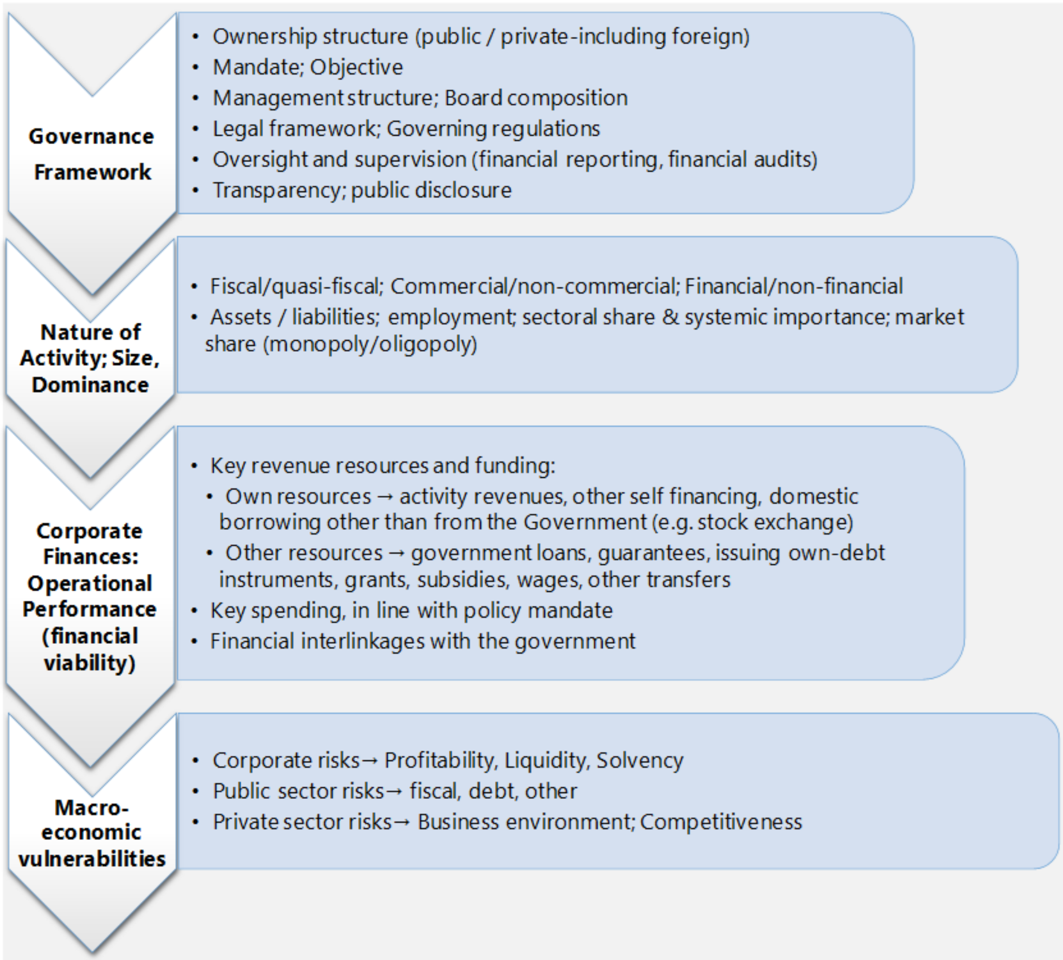
4. International best practices reiterate the importance of strengthening corporate governance of public enterprises; guidance from which Moldova stands to greatly benefit. Cross-country experience has shown the extent to which addressing governance-related vulnerabilities stemming from sub-par performance in public enterprises is critical in mitigating their institutional, legal and structural weaknesses. As such, strengthening public corporate governance helps to reduce fiscal risks and costs, entrenches macroeconomic stability, and ensures a level-playing field for the private sector that raises overall market efficiency, boosts output, and employment.

5. The paper is organized into the following sections. Section B discusses the importance of strong public corporate governance frameworks and the extent to which weaknesses in such frameworks affect corporate performance, particularly via the linkages with the state through possible fiscal costs, and their broader macro-economic implications. Section C summarizes Moldova's public enterprise sector in terms of size, scope, coverage, legal framework, and organizational and institutional set-up. Section D discusses international best practices and principles related to governance of public enterprises, and how Moldova's existing framework compares. Section E provides an in-depth assessment of the financial performance of—and risks in—326 public enterprises in Moldova (for which data are available; roughly one-third of all public enterprises). Section F presents results of stress tests for individual enterprises as well as for a cohort of enterprises having the largest liabilities to explore the links between corporate risks, fiscal costs and macroeconomy-wide vulnerabilities. Last, Section G presents a framework and strategy to reform the governance of public enterprises in Moldova and concludes with key recommendations.[2]

[2] Limitations on data availability and capacity constraints on the part of the authorities have confined the scope of analysis in this paper, which does not aim to provide an exhaustive analysis of all public enterprises in Moldova, nor an assessment of the links between state-owned companies and public banks (non-existent in Moldova) (continued)

B. Public Corporate Governance Frameworks and Corporate Performance: The Nexus between State Linkages, Fiscal Costs and Macro-vulnerabilities

The Importance of Sound Public Corporate Governance Frameworks



Source: Author's representation, based on varous reports and studies by the OECD, the World Bank, and the International Monetary Fund.

6. **A strong governance framework for public enterprises establishes the umbrella that determines firm-level, market, and the overall economic performance.** Governance frameworks provide clarity to the ownership structure for public enterprises, in terms of their objective (mandates), their management structure and the composition of their executive board of directors (BoDs). It also helps identify their legal set-up and other governing regulations. A strong framework provides a clear institutional arrangement within which enterprises operate (e.g., with respect to

or a comparison between public and private enterprises. Poor data quality and inconsistencies in financial statements required extensive manual data cleansing on the firm level but are not expected to significantly undermine the accuracy of bottom-line results.

roles and responsibilities of oversight and supervisory functions such as financial reporting and audit requirements and ensures transparency and public disclosures of enterprise performance). As such, the strength of governance frameworks often ultimately determines the nature of enterprise activities (e.g., fiscal or quasi-fiscal, commercial versus non-commercial, or financial vis-à-vis non-financial); their size (assets and liabilities, employment structure, etc.); and the extent of their dominance (systemic importance and market share). This in turn helps shape enterprise finances and operational performance (or financial viability) depending on how the enterprise manages its own versus borrowed resources—through financial linkages with the state—to execute its operations and fulfill its mandate in line with its policy objective. As such, overall enterprise performance (in terms of profitability, liquidity, and solvency) and associated operational risks can feed into public sector risks (e.g., through fiscal or debt exposures) or private sector risks (e.g., through the business environment and competition). Thus, macro-wide risks can be dependent on enterprise-level performance, which is a function of their activity and the nature of their operations, which in turn is traceable to their governance framework

7. **Corporate performance and the complex financial interlinkages with the state are a direct source of fiscal risks and costs to the state.** On one hand, public enterprises often rely on the central government for grants, loans, subsidies, extension of sovereign guarantees, and other forms of transfers to facilitate their operations. Such dependence carries contingent fiscal liabilities, and poses fiscal costs and risks to the state, especially from companies suffering from weak financial performance.[3] On the other hand, fiscal policy conduct by the state can itself affect public corporate performance, e.g. cuts by the state to publicly funded companies' capital allocations (e.g. due to countercyclical policy needs) complicates the execution of companies' budget plans, slows down operations, and raises firm-level risks to profitability, liquidity, or solvency. As a result, poor corporate performance can precipitate future adverse feedback loops to the state via lower tax, dividend, and other forms of transfers to the state.

8. **Addressing risks arising from weak operational performance can be costly to the firm, state, and economy.** Low-to-moderate risks at the firm level having minimal impact on company performance are often manageable, especially if risks are adequately addressed or dissipate over time. However, elevated risks that materialize and are persistent—depending on their severity and complexity—tend to expose vulnerabilities that further undermine firm performance, necessitating prompt government intervention. And in the event of inaction, firm-level challenges can possibly spill over to fuel systemic (sector-wide) risks, making these costlier to address.[4] Such circumstances inhibit market efficiency and competitiveness and have macro-fiscal implications due to the nature of the state's involvement in the operations of these enterprises (see section VI on stress testing).

[3] The materialization of contingent liabilities has implications on debt sustainability of public companies. A significant shock would increase debt levels notably, though such risks are difficult to quantify precisely owing to lack of adequate data (IMF, March 2020).

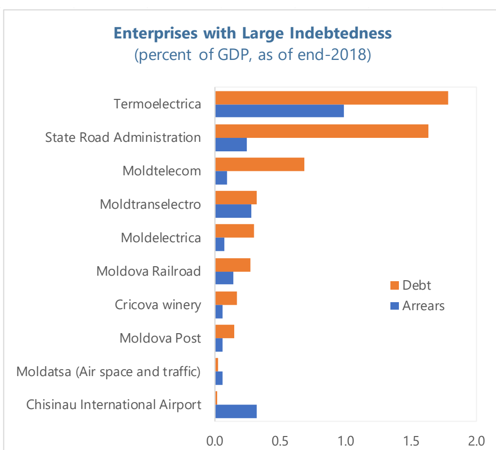
[4] Especially if the companies are part of a chain (e.g., upstream versus downstream) or have horizontal/vertical or forward/backward financial or operational linkages which can be detrimental to the whole sector if one company collapses.

Box 1. Corporate Vulnerabilities and Financial Flows to the State – A Two Way Street

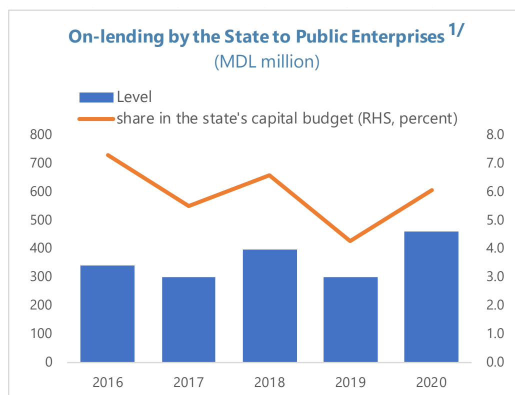
Indebtedness is a clear hindrance to the operational performance and to the solvency of public enterprises and sectors, especially where financial flows to the state are concerned. The total debt and arrears outstanding on companies for which data is available amounted to 7.3 percent and 3.3 percent of GDP, respectively, as of end-2018. A sizable amount of debt is held by a handful of large firms (by size of assets and liabilities) in a number of key sectors that provide essential goods and services, like the energy, public works, telecommunications, and transportation sectors. The elevated (heavy) debt burdens in these enterprises ultimately weighs on their performance and raises their vulnerabilities. High insolvency risks may hamper the ability of such companies to deliver on fiscal obligations to the state (pay taxes, fees, etc). Examples of companies that have a two-way relationship with the state in terms of financial flows (i.e., receive aid and pay taxes) are the electricity company Termoelectrica (recipient of on-lent loans), the state road administrator (a large recipient of state subsidies), wine company Milesti Mici (a recipient of state guaranteed debt), and Orhei water and sanitation company (recipient of both on-lent loans and subsidies).

On-lending to public enterprises seems to have added little value to their performance, as evident from their elevated risk profiles, based on available data for four key companies in strategic sectors (energy and transportation).

Net financial flows from the government to public enterprises can be high, constituting a large fiscal drain on state finances. The lack of a comprehensive dataset covering the net financial flows between all public companies and the state prevents such analysis in the case of Moldova. However, the net impact of inter-governmental financial transactions on the state can be sizeable (e.g., in Georgia, these added 6 percent of GDP to general government expenditures over a period of five years covering 2014–18).



Source: Public Property Agency (PPA).



Source: Ministry of finance.

1/ Externally financed net on-lending to SOEs (Termoelectrica, Moldelectrica, Moldovan Railways, and CET-NORD).

9. **In Moldova, the questionable strength of public enterprise governance frameworks is an important factor in the weak performance of these enterprises.** Concerns over shortcomings in Moldova's governance framework for public companies are well- documented and help explain how they undermine financial performance and weaken incentives to improve efficiency. Sub-par company performance has been ascribed to high perceptions of corruption due to mismanagement of corporate portfolios; poor transparency and disclosure practices; political interference in company decisions and forced policy mandates; inadequate supervision and opaque lines of authority; and the prevalence of monopolistic / oligopolistic practices that introduce market inefficiencies (distortions) that weaken the private sector. Such challenges are often linked to a lack of clarity on

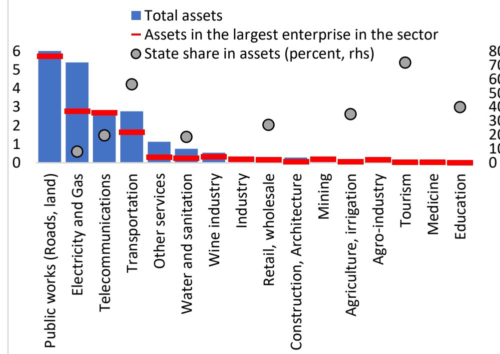
the state's overall ownership policy and lack of control over the extent to which public corporations adhere to institutional, legal, and operational requirements.[5]

C. Overview of Moldova's Public Enterprise Sector

Size, Scope, Coverage

10. The public enterprise sector has a sizeable footprint of over 900 companies, one-third of which operate at the central government level and the remainder at the sub-national level (municipal or local government). Its combined assets were valued at about 21 percent of GDP (US$2.5 billion), concentrated in four key sectors: public works, energy, telecom and transportation. In 90 percent of the enterprises operating at the central level, the controlling share of the state was 100 percent (full control/ownership); only 44 companies had state participation below 50 percent.[6] In addition, companies at the central level hired almost 40 thousand employees (as of 2018—about 4 percent of total national employment).[7] This dominance and penetration in the economy in terms of employment and shares is reportedly more than twice the average in other Eastern European countries in the region.[8] Companies enjoy heavy strategic footprint in almost all sectors, with 15 companies reportedly listed on the stock exchange (as of 2016).[9]

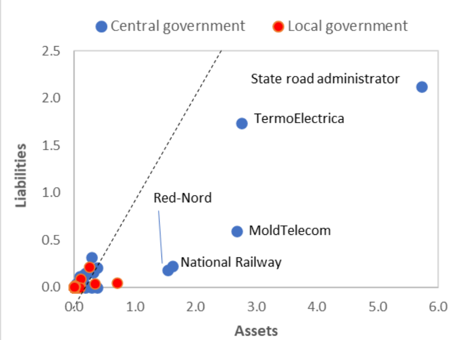
Public Enterprise Assets by Sector, 2019 1/
(percent of GDP)



Source: Public Property Agency (PPA).
1/ State shares shown are for enterprises operating at the Central Government level (2018 data).

11. Enterprises with the largest assets had the biggest liabilities and operated at the central level of government. The largest five enterprises in terms of assets operate at the central government level in a number of strategic sectors (State road administration, Termoelectrica, Moldtelecom, Moldova Railways, and another electricity company Red-Nord. Their assets (and outstanding liabilities) constituted roughly 6–7 percent of total assets and total liabilities out of the 326 companies for which data is available. By comparison, companies operating at the sub-national

Assets-Liabilities Nexus
(Percent of GDP)



Source: PPA.

[5] See relevant reports by the World Bank, Moldova's 2020 Article IV Consultation report (IMF), and Moldova's Country Governance Assessment report (IMF).

[6] Based on 2018 data provided by the PPA. No information is available regarding the controlling share of the state in municipal companies.

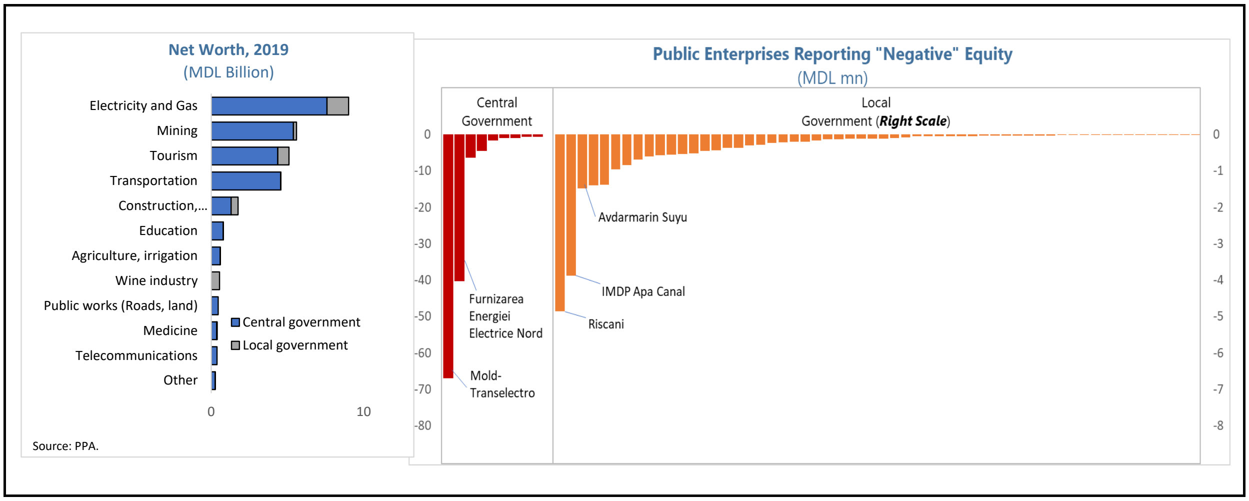
[7] No information is available regarding employment in public enterprises operating at the sub-national level of government.

[8] The Word Bank Group (April 2019).

[9] EBRD (2020).

(municipal or local) level are much smaller companies, with only three enterprises having liabilities exceeding MDL 100 million (liabilities of the largest company are below MDL 500 million).

12. Total net worth improved in 2019 driven by growth in equity in most sectors at the central government level, but masks worse performance at the sub-national level. While net worth dropped slightly as a share of GDP from 2018 to 2019, it grew 5 percent annually, thanks to the expansion in the balance sheets of four sectors with the largest equity positions. However, one-fifth of all companies suffered *negative equity;* the majority of which at the local level. Many of these companies incurred sustained net losses that eroded retained earnings, causing their overall equity position to shrink.



13. A sizeable number of enterprises seem to have breached minimum net asset position requirements relative to their statutory capital. Contrary to the law on Joint-Stock Companies (JSCs)'s requirements on companies' capital, five enterprises had the value of net assets lower than their statutory capital--besides another 28 state-owned enterprises (SOEs) all at the central government level. This is on top of 92 other enterprises operating at the sub-national government.

Organization, Legal Framework and Institutional Arrangements

14. State ownership of public enterprises follows a centralized model. Companies are incorporated according to three legal forms: state-owned enterprises (SOEs), joint-stock companies (JSCs) and limited liability companies (LLCs). Enterprises are entitled to participate in the establishment of associations or (going) concerns and to open bank accounts in Moldova and abroad. State ownership follows a centralized model founded (and supervised) by the Public Property Agency (PPA); a central administrative authority subordinated to the government.[10]

15. Three key laws govern the operations of public enterprises: Law 246 (2017) on state owned enterprises and municipal enterprises; Law 1134 (1997) on Joint Stock Companies; and

[10] The interests of JSCs (operating at sub-national / municipal level of government) are represented by the Congress of Local Authorities from Moldova, a non-governmental organization.

Decision 902 (2017) on the organization and functioning of the PPA. Other relevant laws include Law 149 (2012) on Insolvency, Law 183 (2012) on Competition, and Moldova's Civil Code 1107–XV (2002).

16. **Four management bodies jointly govern public enterprises.** The founder (PPA), the board of directors (BoD) of each company, the administrator (executive body), and the board of auditors (BoA, or commission of censors) jointly manage companies in the sector (Box 2).[11]

Box 2. Institutional Set-up of Public Enterprises

Among its key functions, the ***PPA*** approves statutes of enterprises, regulates the BoD and appoints the BoA, appoints and revokes the chairman and the members of the BoD and members of the BoA, and establishes monthly remuneration for senior management. Members of BoDs are appointed by the PPA for 2 years, with eligibility for reappointment. The PPA also decides on the annual deductions from net profits to be transferred to state/local budgets and approves the distribution of annual net profits. It has authority to raise or lower the share capital of companies, and to agree to pledge state assets as collateral for bank loans.[1] The PPA also presents to MoF the auditor's report on SOEs.

For SOEs:

The ***Board of Directors*** approves business plans, sets performance indicators of the enterprise and evaluation criteria, approves annual finances including personnel and salary fund, ensures transparency of procurement related procedures, and selects the administrator (by competition) as well as the audit entity. The BoD also presents to the founder (PPA) (i) proposals to improve management, (ii) modify share capital, (iii) streamline the enterprise's activity, and (iv) its annual performance report. Meetings of the BoD are convened by its president and/or at the request of at least 1/3 of its members, not less than once in a quarter. Members of BoD may sit on boards of other enterprises (not exceeding three). BoD decisions are adopted by majority vote.[2]

The ***Administrator*** is in charge of daily operations, executing and implementing decisions by the PPA and BODs. S/he is effectively in charge of the "integrity, efficient use and development of the enterprise's assets" and alerts the BOD of deficiencies and proposes remedies.[12] The administrator presents to the BOD quarterly financial reports and to the PPA and BoD annual financial statements and the audit report. S/he also submits for approval to the BoD the proposal on the distribution of annual profits. Administrators are appointed for a term of up to five years.

The ***Board of Auditors*** may comprise representatives of the PPA and of the central public administration authorities (at least three people). It undertakes bi-annual audits and may undertake unannounced audits. The chairman of the BoA presents the audit report to the administrator and to the BoD. The audit report includes an evaluation/assessment of activity/performance relative to the preceding year. Members of the BoA can participate in the meetings of the BoD and have an advisory vote. Members must be qualified in accounting, finance, or economics/jurisprudence. They are appointed for up to 2 years.[3]

[1] Law 246, Article 8.
[2] Law 246, Article 4.
[3] Law 246, Articles 7 and 8.

[11] Law 246 on SOEs and Municipal Enterprise (2017), Chapter III, Article 6.
[12] Law 246, Article 9.

Box 2. Institutional Set-up of Public Enterprises (concluded)

For JSCs:

Law 1134 (1997) establishes the framework governing the functioning of companies with respect to their registration procedures, aims and activities, statutory capital requirements, and obligations and rights of shareholders (e.g., owning 5, 10, or 25 percent of company shares).

Members of the ***BoD*** are elected for a term not exceeding 4 years (but with unlimited renewal) and can hold position of a member of a board in no more than 5 different companies at any time. Ordinary Board meetings are held quarterly (to examine quarterly performance reports presented by the administration of the enterprise).

The ***auditing commission*** is appointed for 2–5 years and is accountable to the general meeting of shareholders. Members of the audit commission must have qualification criteria in accounting, finance, or economics. Audits are performed at the commission's own initiative, at the request of shareholders holding 10 percent of voting shares, or by a decision by the general meeting of shareholders or by the BoD. Audit safeguards include a prohibition on an auditing firm to be an affiliate of the enterprise or its management, as well as to conclude any other contracts apart from the audit with the enterprise.

D. International Best Practices in Governance of Public Enterprises: How Does Moldova's Existing Framework Compare?

International Best Practices

17. Corporate governance of state-owned companies aims to achieve three broad objectives. According to guidelines by the OECD, the World Bank Group, and others, international best practices broadly aim to: *"(i) professionalise the state as an owner; (ii) make SOEs operate with similar efficiency, transparency and accountability as good practice private enterprises; and (iii) ensure that competition between SOEs and private enterprises, where such occurs, is conducted on a level playing field."*[21] These principles can be summarized as follows:

- **Ownership rationale as an overriding principle.** This calls for the need for governments to provide a rationale for the creation of public companies to carry out public policy mandates, and to ensure that such rationale is enshrined in legislation (and facilitates the termination of companies once the rationale ceases).[22]

- **Criteria to determine if an entity can (or should) be classified as a state-owned company.** Key criteria here are weather it meets the definition of an institutional unit, charges economically significant prices, and its dependence on regular financial assistant from the government.[23]

[21] OECD (2015).
[22] OECD (2018).
[23] See IMF's Government Finance Statistics Manual (GFSM) 2014, and IMF Georgia TA report (July 2020).

- **Grant companies' full autonomy** in executing their operations, **respect their independence, avoid intervention, and avoid redefining objectives** in opaque manners.

- **Hold accountable the entity that exercises ownership rights on behalf of the state and ensure its endowment with the competencies and capacity** to carry out its duties effectively.

- **Clarify responsibilities of BoDs.** Company boards should be tasked with a clear mandate enshrined in legislation and held responsible for effectively executing their functions. They should establish company strategy and oversee management and exercise independent, objective, policy judgment.

- **Hold BoDs accountable** for companies' financial performance, especially vis-à-vis deviations from pre-set performance targets. Accountability should include regular impartial performance assessments and reviews of their efficiency and effectiveness in overseeing company operations, as well as ensuring transparency over their participation in the boards of any other companies.

- **Combat corruption and mitigate conflicts of interest.** BoDs should adopt and implement strong internal controls, ethics, and compliance measures including those aimed at combating fraudulent or corrupt activity and ensure compliance with international commitments applicable to the company and any of its subsidiaries. To limit political interference, the legal framework should ensure the independence of members of BoDs to safeguard the enterprise and its shareholders against any material vested interests, as well as guarantee the establishment of necessary mechanisms to avoid conflicts of interest. This includes ensuring that the selection (nomination) of BoDs is transparent, well-structured, and merit-based, with appropriate (transparent) remuneration to attract, retain and motivate managers that work in the interest of the enterprise. In addition, public enterprises should be prohibited from being used as vehicles to finance political activities (e.g., from involvement in contributions to political campaigns).

- **Strengthen corporate disclosure and transparency.** Best principles in this area are vital to mitigating all other weaknesses common to any corporate governance framework as far as responsibility, accountability and addressing corruption are concerned. Adhering to standard regular disclosure and reporting requirements applicable to companies' financial statements is key, including any intra-governmental financial flows and transactions that may carry significant fiscal risks (costs) and affect contractual commitments towards the state (e.g., PPPs). In addition to internal audits, best practices call for subjecting financial statements annually to an independent external audit, and to require the "ownership entity" to publish a comprehensive high-quality annual report on public companies' performance. Mandated disclosures of annual appraisals of BoDs' performance, their remuneration (and that for senior management), besides publishing companies' governance, voting, and ownership structures are critical.

- **Safeguard a level playing field with private sector firms.** This broadly refers to the review of and adoption of principles of non-discriminatory nature or non-preferential treatment of public enterprises to avoid giving public companies undue advantages over the private sector, for example, through exemptions from general laws, taxation or other regulations, reexamination of direct state financial support or preferential (below-market cost) access to finance, or other measures or benefits such as receiving inputs at subsidized prices or at more favorable conditions. Public companies should be subjected to similar rules of the game as far as their participation in public procurement is concerned (ensuring competitive and transparent procedures). There is also an argument that public enterprises should be expected to achieve rate of return broadly compatible with those attainable in the private sector. Last, due access to legal recourse by shareholders in public corporations to protect their rights like the access extended to private firms is an important element of the level playing field.

How Does Moldova's Existing Framework Compare?

18. Moldova has elements of a public corporate governance regime. It follows a centralized model with one state body (the PPA) exercising ownership rights on behalf of the state and has adopted laws over time to help guide the regime governing the operations of public corporations. According to a self-assessment survey, Moldovan legal and institutional framework fares above average on an SOE governance index relative to other countries in central, eastern and south-eastern European economies.[24]

19. However, shortcomings are evident on several fronts—legal, institutional, and operational—calling for a thorough review of the existing governance framework (Annex 2). For example, the lack of a corporate governance code and the lack of independence of company directors; pending clarifications related to internal controls and audit processes in public companies as part of supporting secondary legislations; perceptions of corruption that are at odds with legal requirements; and fragmented institutional arrangements for company oversight (e.g. between PPA, MoF and line ministries) are among many factors undermining Moldova's governance framework.[25] Annex 2 compares Moldova's governance regime to international best practices and highlights some areas where governance-related weaknesses can be strengthened. In particular:

- **An absence of a comprehensive state-ownership policy and strategy** document that ultimately defines the objective for state ownership and the rationale behind establishment and termination of public corporations (including the criteria to determine their legal form as public corporations versus other general government units, criteria for extension of state aid, etc.).[26]

- **Weak enforcement and less-than-ideal implementation of laws and regulations in practice, despite appearing to be comprehensive on paper.** One example relates to audits, where there appears to be three layers of audit (internal company audit, external expert audit, and audit performed by the court of audit) that are not applicable to all public companies.

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[24] Moldova ranks 6th highest (out of 20 countries in the region) in a composite index measuring SOE governance that covers ownership policy, financial oversight, and fiscal and policy interactions. See IMF (November 2019).

[25] Moldova's Country Governance Assessment report (IMF).

[26] IMF Country Report No. 20/240.

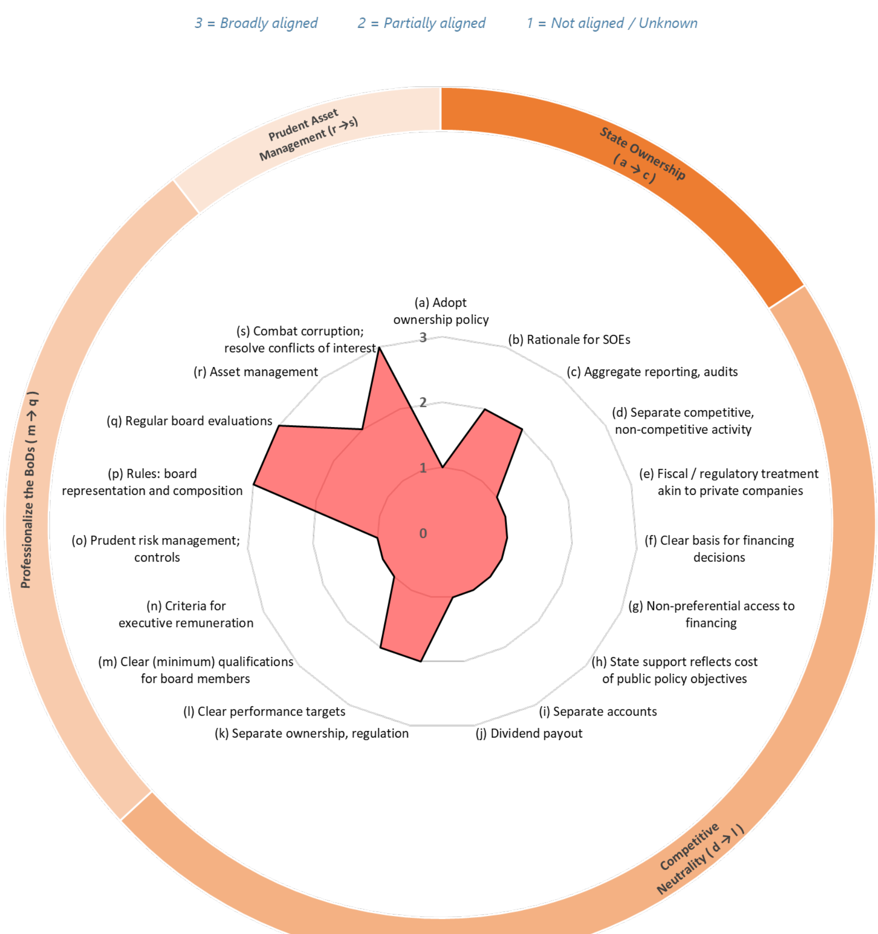
- **Legislation that does not clearly safeguard independence of company boards. Heavy participation by the state on company boards** also calls into question their independence.

- **Poorly defined organizational arrangements and institutional set-ups that blur the respective roles and responsibilities between the state (MoF, line ministries), the PPA, and company boards** as far as oversight, managerial, and ownership functions intersect, **and between enterprises and the MoF, external donors, and other levels of government**, adding to confusion over the appropriate lines of authority and hindering accountability.

- **Overly stretched mandate of the PPA amid capacity constraints** that undermine its ability to execute its functions efficiently and effectively.

- **Limitations on the quality and availability of data on all public enterprises at all levels of government** undermine a solid understanding of the complex financial transactions between enterprises and the state and prohibit a comprehensive assessment of fiscal costs (risks). Data constraints also reaffirm concerns over the lack of proper record keeping and accounting standards, fueling perceptions of corruption and poor transparency and disclosure practices.

Moldova's Governance Framework versus International Best Practices



Source: OECD 2018 and staff's interpretation of relevant laws governing pubic enterprises in Moldova.

E. Analyzing Moldova's Public Enterprise Sector

Assessing Financial Performance

20. The SOE health check toolkit developed by the IMF's Fiscal Affairs Department (FAD) is used to assess the financial performance of 326 public enterprises in Moldova in 2019, based on official data from financial statements provided by the authorities (income statements and balance sheets) The toolkit assesses performance through standard financial ratios covering profitability, liquidity, and solvency metrics on a company level and on aggregated basis. It estimates assigned risks in each of these metrics using pre-set benchmarks tailored to Moldova (Annex 1).

Profitability

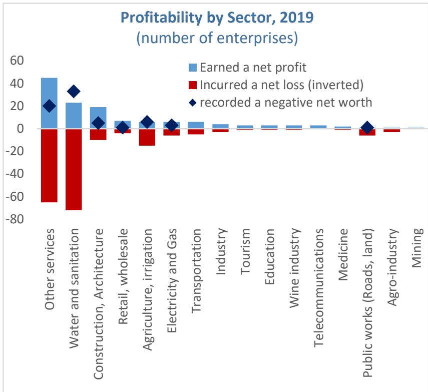
21. Profitability was very poor; 60 percent of public companies incurred net losses and seven sectors faced recurring losses. Net income was negative in 195 companies out of the 326 under study, dragged down by over 150 companies that posted losses at the sub-national level (particularly in water, other services and agriculture activities). The net profits achieved by enterprises at the central government level were wiped out by losses incurred by sub-national companies, driving the sector as a whole to suffer a minor loss in 2019 (compared to a slight net profit in 2018). Out of a total of 16 sectors, four at the central government level and 8 at the sub-national level posted overall losses, and seven sectors carried over persistent losses from 2018.[27]

- ***ROA averaged 5 percent overall but exhibited considerable variation across sectors and government levels.*** Despite achieving a 5 percent average return on assets (ROA), great disparities prevailed at the sectoral level; the strong ROA performance in the retail, education, mining and energy sectors was starkly diminished by much poorer performance in a large number of companies operating in two other strategic sectors (water and agriculture). ROA averaged 5 percent at the central government level where large companies in terms of asset size operate—suggesting somewhat efficient asset management to generate earnings in some companies—but recorded negative 2 percent for the much smaller sub-national companies (returns on public assets should ideally equal the government's cost of borrowing plus a risk premium to be commercially sustainable).

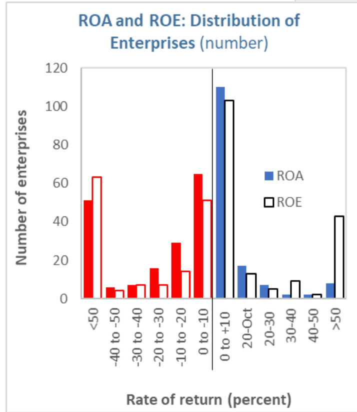
- ***ROE performance came in much worse,*** visibly lower than ROA across all sectors, and much worse in the case of activities with the poorest net-income bottom-line. ROE was low at 1.3 percent for companies at the central government level, but averaged negative 10 percent at the sub-national level, a reflection of companies' severe negative equity positions (equity erosion). ROE is best examined in the context of company indebtedness (see *solvency* assessment and Box 3).[28]

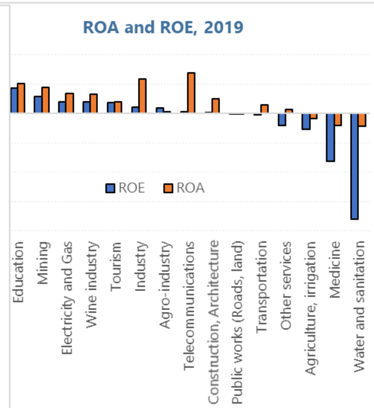
[27] There are no indications in the data to suggest that larger companies benefit from economies of scale, or that companies posting the largest profits are consistently the largest in terms of asset size.

[28] EBRD (2020).



Source: PPA, and author's calculations.





Box 3. Breakdown of ROE

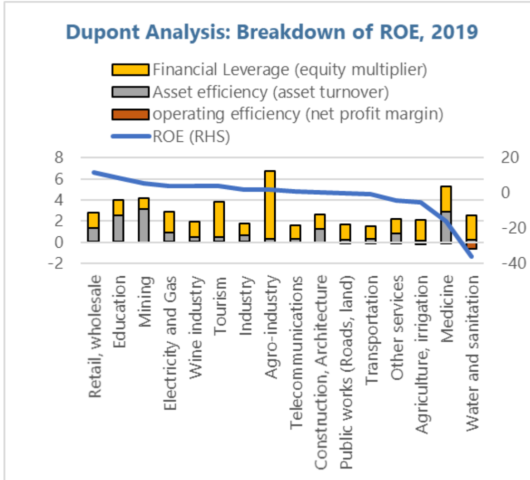
- **Return on equity can be deciphered into its key sub-components using common *dupont analysis* to determine the driving forces affecting financial performance**. This is achieved by breaking down ROE into the product of three explanatory elements: financial leverage; asset efficiency; and operating efficiency.

- ***Financial leverage* is high in Moldova in many companies and a key contributor to overall ROE.** Commonly known as the equity multiplier, the ratio of company assets to equity is an alternative measure of indebtedness indicating the degree of aggressiveness of funding of company operations through "own" versus "borrowed" funds. Financial leverage is high in many public enterprises across many sectors (yellow bars in box figure). High ratios of the equity multiplier typically point to a larger balance sheet gap between assets and own capital, reflecting bigger company liabilities (e.g. long-and short-term debt) to finance operations.

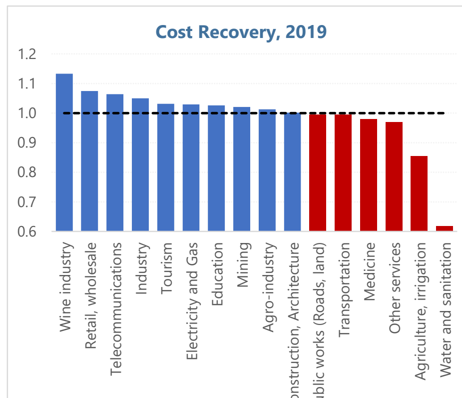
- ***Asset efficiency* is a strong driver of profitability.** An indicator of asset turnover—defined as sales revenue to assets—it measures the extent to which a company's assets generate sales revenue. The better an enterprise manages its assets, the more efficient it operates and can generate revenue streams. In Moldova, this is a key driver behind ROE performance in many sectors, in particular education, mining, construction, medicine, and retail activities (grey bars in box figure).

- ***Operating efficiency* in Moldova is hampered by loss-making enterprises**. Measured by net profit margins—defined as net profit to total revenue—it reveals how much each dollar in revenue collected translates into profit, helping to assess if enough profits are generated from sales and if overhead and operating costs are being contained. Loss-making companies suffer from operational "inefficiencies" which drag down ROE ratios, as is clear for six sectors in Moldova, especially in the water sector.

Box 3. Breakdown of ROE (concluded)



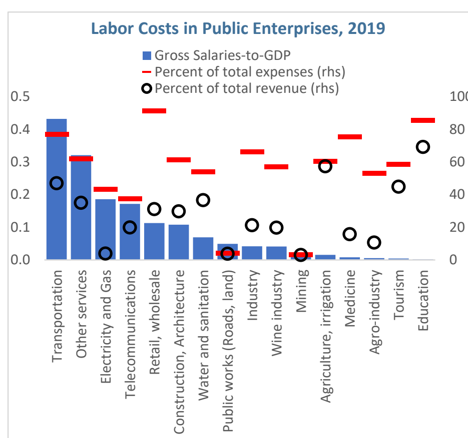
22. **Cost recovery in many public companies was subpar, especially at the sub-national level.** The ratio—which measures the ability of companies to generate adequate revenue to cover operating expenses—hovered only mildly above "1" in 10 sectors, indicating the ability of companies in these sectors to maintain their assets and operate sustainable in the absences of supplementary funding (although with a high degree of variation across companies and industries). Nevertheless, six sectors home to numerous enterprises had poor cost recovery ratios: significantly below 1 in agriculture and water activities. More sectors at the local level struggled to achieve cost recovery in their operations relative to those at the central level of government.



Source: PPA and author's calculations.

Key Factors Affecting Profitability

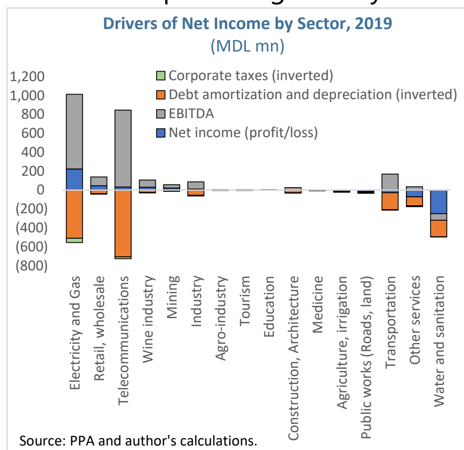
23. **High labor costs in many companies significantly curtail profitability.** Data shows that a third of the 326 enterprises pay salaries that exceed 75 percent of their total expenses, with 47 enterprises paying salaries comprising over 90 percent of their total expenses. Labor costs also absorb almost 15 percent on average of total enterprise revenue; 14 companies are burdened with salary costs that exceed their revenue intake. Labor costs are particularly high in sectors such as transportation, electricity and gas, telecommunications and other services that are also large employers, indicating potential challenges in their cost structures, cost (mis)management, and/or adverse



Source: PPA and author's calculations.

impact from overstaffing due to targeted employment policy mandates in some companies.[29] The salary burden is costlier in companies operating at the sub-national government level (the share of salaries to expenses and to revenue are over 60 percent and over 40 percent, respectively, compared to 36 percent and 15 percent at the central government level, respectively).

24. Large, directed state subsidies mask actual financial performance. Profitability in a number of cases is dependent to a great degree on direct state support. Total subsidies extended to only four public enterprises (operating at the central government level) reached 1.5 percent of GDP, of which the overwhelming amount was granted to one state company managing roads (the state roads administration). That subsidy exceeded the enterprise's operating revenue by 20 percent; implying that the company would have otherwise incurred massive losses in the absence of such support (Box 4). Two of the other companies had in fact realized losses despite being directly subsidized by the state. Such examples point to severe operational weaknesses and inefficiencies and highlight the extent to which company finances can be hampered without the state's involvement in their operations.



Source: PPA and author's calculations.

25. Sizeable depreciation and amortization costs in key sectors dampen profitability prospects. While corporate taxes paid by companies are not inhibiting, three sectors bear the brunt of depressed profit margins due to significant debt amortization and depreciation costs, resulting from the high debt burden facing enterprises in these sectors (Box 1).

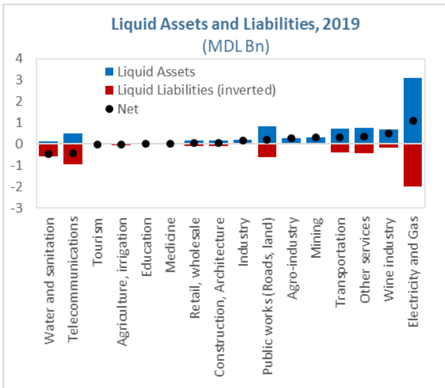
Liquidity

26. The *net liquid assets position* of public enterprises was broadly adequate overall, but masks underlying discrepancies. Net liquid assets—defined as the ratio of liquid assets to liquid liabilities—measures the "immediate" liquidity status of a company and its ability to both pay off short-term obligations as well as weather sudden downturns in activity without the need for excessive additional financing to sustain its operations. All sectors appear broadly liquid except for two sectors facing liquidity shortfalls (telecommunications and water). However, the net liquid assets position at the sub-national level was negative, much weaker than at the central government where liquid assets more than covered liquid liabilities by a large margin.

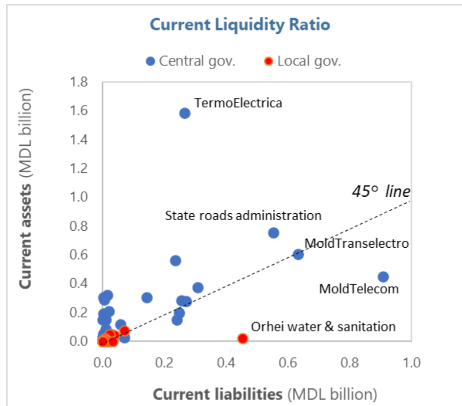
- ***The current liquidity ratio* in all but four sectors was adequate, albeit with weaker performance at the sub-national level.** The current ratio—defined as current assets to current liabilities—is an indicator of short-term liquidity of a company that measures its ability to meet short-term liabilities (falling due within a year) from selling short-term assets. On average, all

[29] The PPA annual report 2019 points to significant variation in salary structures across sectors and enterprises; from the highest average salary of almost 33 thousand Lei to the lowest average salary of less than 1,400 lei.

sectors had current ratios above "1" implying good short-term liquidity. While some sectors had ample liquidity exceeding "2" (such as transportation, construction, industry, and trade), other sectors had insufficient liquidity (telecommunications, agriculture, tourism and water activities).



Source: PPA and author's calculations.



- ***However, debtor and creditor turnover were high,* suggesting liquidity constraints**. The number of days it takes to pay bills or collect claims is another useful indicator of companies' liquidity positions. While data is fragmented, *Debtor turnover*, which measures how fast a company is paid by its customers, was high at 2 months on average (for enterprises for which data are available), signaling that many companies possibly face increasing liquidity challenges. *Creditor turnover*, a measure of the speed with which companies pay their suppliers, came in worse at over 4 months, indicating slow repayment for company inputs; likely indicating underlying weak financial conditions. Many companies had extremely high ratios (outliers).[30]

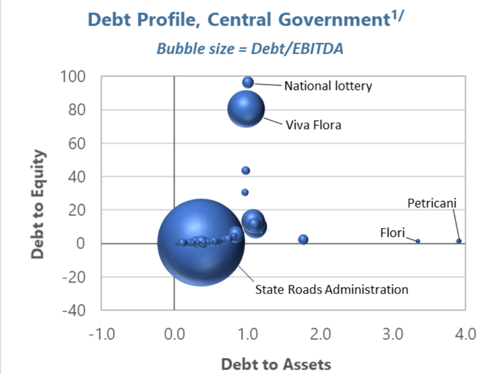
Solvency

27. The *solvency* of public enterprises in Moldova is a major problem at all levels of government. The loss-making nature and negative equity positions in numerous public companies highly undermines their solvency prospects, i.e. heavy debt burdens that curtail their ability to pay off debt obligations under already constrained operations. The real solvency status may be worse than presented, given the quality and accuracy of company data for short and long-term debt.

- ***Debt-to-assets* were manageable overall yet hide severe divergences across companies**. A key indicator of solvency, the level of indebtedness relative to a company's asset size was manageable for most sectors (less than 0.5; considered a moderate ratio), although it was higher in water services, agro-industry, electricity and agriculture at the central government level, in addition to construction and telecommunications at the sub-national level. The majority of

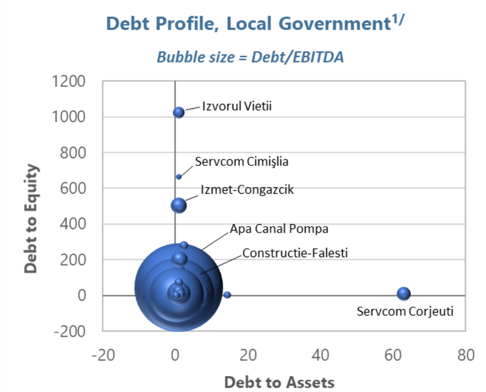
[30] Forty-six enterprises recorded debtor or creditor turnover exceeding 1,000 days.

companies had manageable ratios, with the exception of 9 companies whose debt exceeded their assets (among which two companies had debts three-to-four times the size of their assets).



Source: PPA and author's calculations
1/ Ratios are inverted (shown positive) for negative equity or EBITDA.

- ***Debt-to-equity* ratios were elevated and are more concerning, especially in companies with negative equity.** Many sectors suffered from excessive (double digit) ratios, such as agro-industries, water sector, retail, agriculture and construction, indicating the degree of their dependence (reliance) on external funding resources to finance ongoing operations. The picture was notably worse at the sub-national level and is unquestionably worse considering the level of indebtedness against the negative equity positions in many enterprises, which indicates overleveraging and/or undercapitalization. As expected, the ratio significantly differs across sectors depending on their capital intensiveness (where debt/equity ratios may be higher).



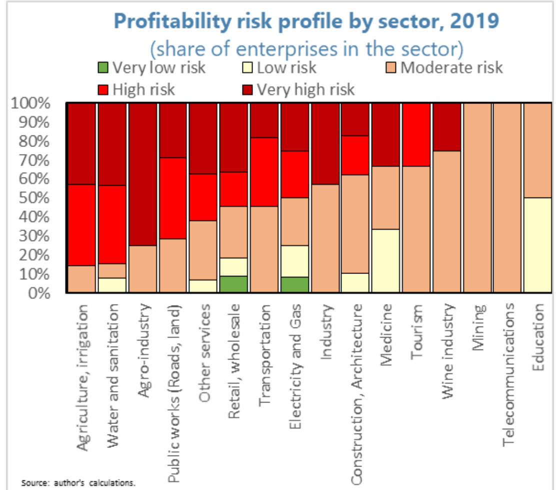
Source: PPA and author's calculations.
1/ Ratios are inverted (shown positive) for negative equity or EBITDA.

- ***Debt-to-profits (EBITDA)* were extremely high and particularly worrying in the case of loss-making enterprises.** Another important measure of enterprise solvency that assesses a company's debt burden and its ability to pay off debt in the future reveals worrying results for many companies, especially for those in the public works sector such as the state road administrator (Box 4). The indebtedness in five other sectors was 20–50 times the size of their earnings, highlighting severe signs of financial instability and potential insolvency (the inability of a debtor to honor its payment obligations).

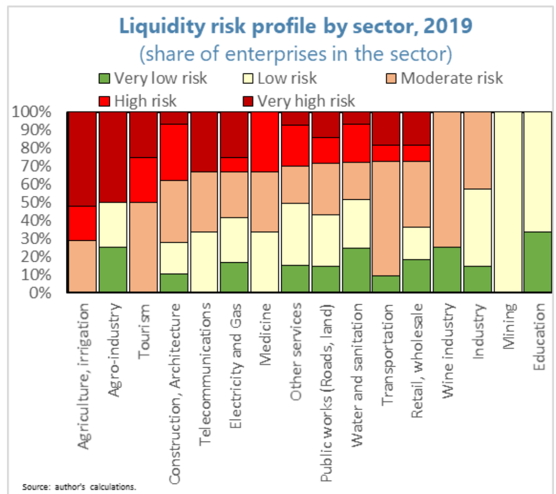
Assessing Financial Risks and Vulnerabilities

28. Overall, Moldova's 326 public enterprises under study face a "High" overall level of financial risk, both at the central and sub-national level of government.

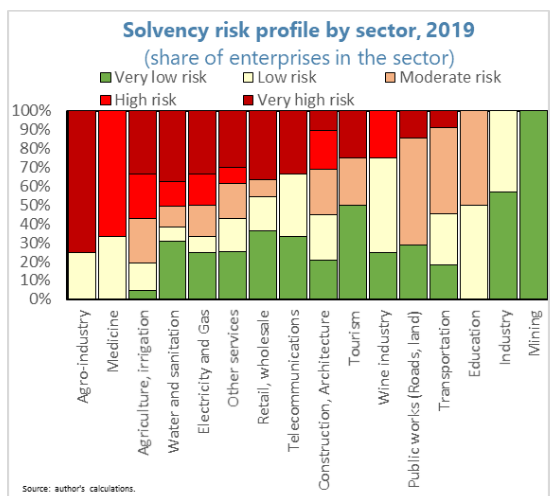
- ***Profitability risk: "Moderate" overall, but "High" at the sub-national level.*** 200 enterprises faced "high" or "very high" risks to their profitability, three-quarters of whom operated at the sub-national government level, scoring "high" risks in ROA, ROE and in cost recovery. Sectorally, eight sectors had a significantly higher share of companies facing elevated risks, making them more vulnerable from an operational standpoint: a reflection of weak financial performance.



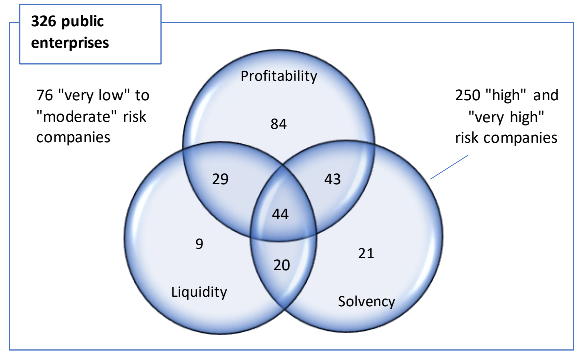
- ***Liquidity risk: "High" overall, but "Very high" at the sub-national level.*** 102 enterprises suffered from "high" or "very high" risks to their liquidity positions, among which two-thirds at the sub-national level who faced "very high" risks according to their current ratio and creditor turnover indicators (in addition to aggregate negative net liquidity positions). Sectorally, eight sectors had 30 percent or more of their companies exposed to elevated liquidity risks.



- ***Solvency risk: "High" overall and at all levels of government.*** 128 enterprises faced "high" or "very high" solvency risks, three-quarters of whom operated at the sub-national level, scoring "very high" risks in relation to the level of their indebtedness relative to their equity and to net earnings (income). Eight sectors had a third or more companies facing potential insolvency.

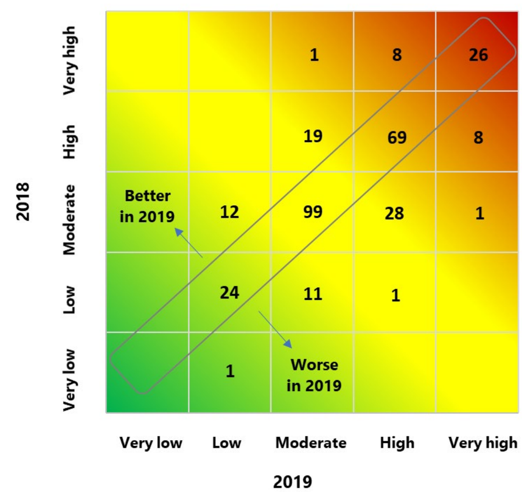


29. A striking feature is the large share of public enterprises facing combined or multiple financial risks. In Moldova, that number is 250 companies, representing over three-quarters of the sample. Among these companies, 44 stand out as the most vulnerable "core" group who are confronted with "high" or "very high" risks in all financial indicators covering their profitability, liquidity, and solvency. This core group includes 14 companies at the central level of government, among which are three companies operating in the energy sector (production, supply, transmission, distribution, etc.) and who are also among the largest companies in terms of the size of their outstanding liabilities. At the sub-national level, the same core group includes 30 companies, among which one company operates in the water and sanitation sector and is also a large company by liability size. This core group's liabilities make up over 13 percent of the 326 public companies' liabilities, or 1 percent of GDP.



30. Another concern relates to the worsening risk profiles in over 15 percent of public enterprises in Moldova prior to the COVID-19 pandemic. While 40 companies managed to reduce their overall financial risk in 2019 relative to 2018 (such as the Cricova wine company), 50 companies saw their riskiness rise in the same year just before the pandemic hit (including two electricity companies). While data for 2020 is unavailable, the impact of the pandemic on public enterprise performance is likely to have been severe—heightening existing vulnerabilities while introducing new ones—potentially exposing the whole sector to deeper scarring effects and contributing to a further buildup of fiscal and macro-economic risks.

Overall riskiness of public enterprises: 2018 versus 2019 (number of companies)



Source: author's calculations.

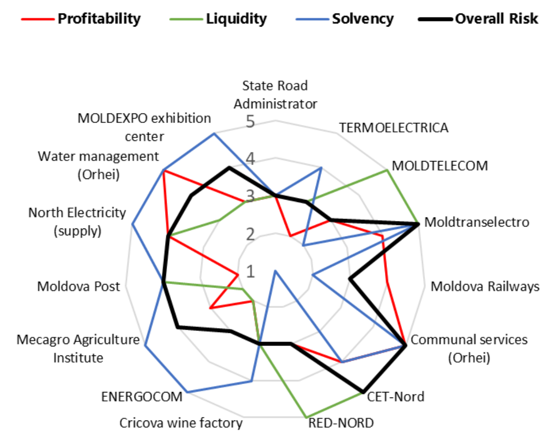
F. Stress Testing Public Enterprises and the Links to Macroeconomy-wide Vulnerabilities: The Role of Contingent Fiscal Liabilities

31. Public corporate risks, fiscal costs, and macroeconomic vulnerabilities are intertwined. Public enterprises exhibiting poor performance are a direct burden on the state via their dependence on the state's treasury (budget) for survival. They pose higher fiscal costs in the event of their failure, particularly when they carry large contingent liabilities. Higher fiscal costs in turn fuel unsustainable public debt trajectories which can destabilize financial markets—including by squeezing out credit for the private sector and raising government borrowing costs to prohibitive levels when financing is available. And where financing is constrained or limited, the government will have no choice but to undertake severe cuts to other productive spending or to raise revenue abruptly; ultimately precipitating in a lack of confidence in the economy. The macroeconomy-wide repercussions from these scenarios are multifaceted, potentially resulting in both domestic and external imbalances. First, economic growth, employment and the general price level will all be affected. Second, other costs and externalities can be incurred by the state due to a sudden lack of the government's ability to deliver on its public policy objectives—namely, the provision of vital public goods and services to citizens through these enterprises (i.e., a severe supply shock). For instance, compensating for the commodity shock via more expensive imports may lead to large losses in foreign currency that culminate in exchange rate pressures. In addition, the social costs to the state from labor market dynamics and unemployment should not be understated (e.g., mitigating measures to cover costs of unemployment benefits or severance packages paid to the employees of these enterprises or their re-training). As such, a shock that starts at the company level and reverberates through the financial, commodity, household, and labor markets can morph into an economic crisis.

Stress Testing the Enterprises with the Largest Liabilities

32. Underlying financial vulnerabilities are acute in the largest companies having the biggest outstanding liabilities. Another way to assess public corporate risks is to look at companies that have the largest liabilities across several sectors, as these tend to be the more vulnerable in the event of incurring sizeable losses, lack of liquidity, or insolvency because they often require the most substantial bailout (fiscal) costs via state intervention. Among the group of companies with the largest liabilities (15 in total), all had at least one "high" or "very high" risk, except for the largest company (State road administration, with liabilities equivalent to 2.1 percent of GDP). Several other enterprises in this group also suffered multiple (combined) elevated risks, further accentuating their operational vulnerabilities.

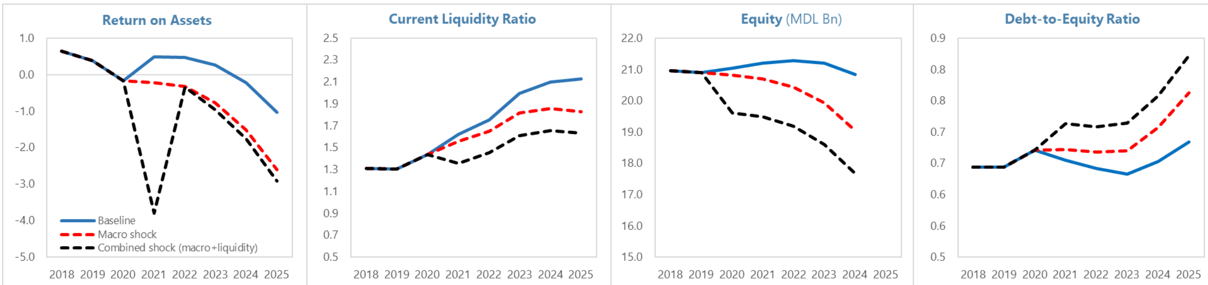
Risk profile: Enterprises with the largest liabilities
(1= very low risk; 5=very high risk)



Source: author's calculations.

33. With such risks and vulnerabilities in mind, a simple stress testing tool is employed to model the impacts of growth and liquidity shocks in 2021 on the baseline finances of these 15 companies.[31] The first shock—an economy-wide growth shock—assumes a 1.5 percentage points weaker economic growth recovery from the pandemic in 2021 (relative to the baseline) coupled with a weaker leu (10 percent). The second shock adds the impact of a liquidity shock on top of the growth shock by imposing a liquidity constraint defined as a 30 percent share of receivables potentially materializing; a risk that needs to be provisioned for and that negatively affects companies' financial statements. Results indicate an immediate deterioration in profitability indicators, coupled with weaker liquidity positions and debt indicators in the years ahead for this group of enterprises.

[31] Based on the IMF's Fiscal Affairs Department *SOE Fiscal Risks and Stress Test* tool.

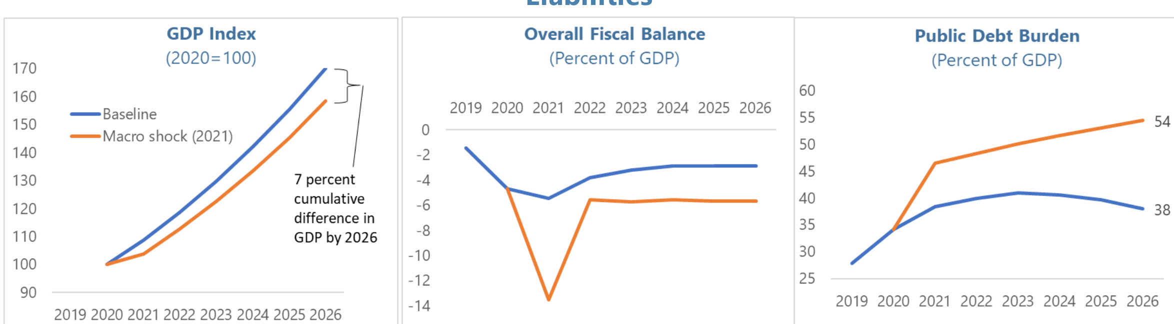


Source: PPA and author's calculations.

Macroeconomic Vulnerabilities from Contingent Public Liabilities

34. A failure of these 15 enterprises carries significant fiscal costs to the state and poses severe macroeconomic repercussions. A worst-case scenario under a modeled shock that foresees the government assuming the liability burden of the 15 companies would add about 8 percentage points of GDP to public debt in the year of the shock (2021) and 16 percentage points of GDP to debt over the next 5 years. This includes the additional burden on the state of absorbing their economic losses that is estimated at a cost of 0.7 percent of GDP in 2021 and 1.4 percent of GDP cumulatively over the medium term.[32] While these estimates remain conservative—by excluding other forgone financial flows to the state from these enterprises (e.g. tax and dividend transfers or tariff collections)—they are sizeable, and highlight the extent to which macroeconomic repercussions from fiscal risks driven by a materialization of enterprises' contingent liabilities in one year translates into permanent scarring of overall macroeconomic activity. Notwithstanding the range of other possible repercussions on the economy noted earlier, the results from such a scenario reiterate the urgency in carefully reforming these enterprises. In particular, the cases of the electricity companies and the National Railway Company merit further scrutiny (Box 5).

Possible Macroeconomic Repercussions from Fiscal Risks Driven by Contingent Public Liabilities [1]



Source: author's calculations and estimates based on financial statements for the 15 enterprises with the largest liabilities from the PPA.

[1] The modeled shock assumes higher interest payments on debt, as well as the impact of cuts in productive fiscal spending in 2021 on real economic activity, which—together with lower economic growth from squeezed private sector credit—feed back to lower tax revenues via a second-round effect.

[32] Costs due to economic losses are calculated relative to the baseline scenario.

Box 4. Too Big to Fail? Pulling the Plug on the Government's Direct Support Schemes for Public Enterprises: Moldova's State Roads Administration (Public Works)

The State Roads Administration company is by far Moldova's largest SOE, managing the biggest chunk of state assets worth almost 6 percent of GDP and employing about 170 staff. It is a recipient of sizable government subsidies amounting to 1.4 percent of GDP. The company's financial statements for 2019 reported a net income of MDL 0.8 million, inclusive of the state's direct subsidies to support its operations.

Stress testing the company's financial performance by removing direct state support reveals clear underlying operational weaknesses that mask seemingly profitable, liquid and solvent positions and exposes severe hidden fiscal costs and risks that could materialize, both for the company and for the state. exposes severe hidden fiscal costs and risks that could materialize, both for the company and for the state. In the absence of such support, the company would have faced a huge loss hampering its cash flow operations and impacting its performance, potentially precluding it from meeting its existing and future obligations (i.e., triggering possible defaults on its current and other payments) (a situation in which imminent liquidity and solvency risks materialize). Alternatively, the company may have been forced to resort to either fire asset sales, borrow from the local market at a prohibitively high cost, or tap into its reserves (which would have depleted/wiped out 40 percent of its equity), ultimately requiring a costly capital injection through state intervention.

While the company provides an important public service in a systemically important sector, it does so at a price, calling into question the costs/benefits and rationale for its operations. Experience in other countries points to large fiscal costs of resolving failing SOEs. As such, a deeper cost-benefit analysis and examination of the rationale behind the existence of this and similar public enterprises in Moldova could focus on addressing a few valid questions, including: (a) why the state needs to subsidize otherwise failing companies through a continuous lifeline of direct government support (i.e. rationale for state ownership), especially in the presence of alternate market structures; (b) the opportunity cost related to the provision of such large public funds (especially to one single company), and the mechanisms underlying its financing (including via external funding channels that may carry a high debt burden for the state); (c) the extent to which the state is efficiently and effectively managing a large share of its public assets; (d) market efficiency and level playing field considerations related to competitiveness of public enterprises; and (e) the degree and aptitude of managerial oversight over the company's operations. Overall, revisiting the role of governance frameworks within which this and similar companies operates deserves merit.

Source: PPA, and author's calculations based on the IMF's Fiscal Affairs Department *SOE Fiscal Risks and Stress Test* tool.

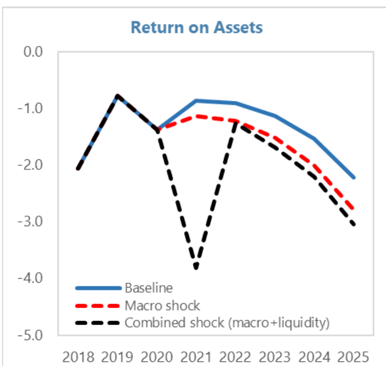
Box 5. Stress Testing the Financial Performance of the National Railway Company

The financial performance of Moldova's Railway Company was mixed. It is the second largest in Moldova (by asset size), managing state assets worth 1.6 percent of GDP and employing around 7,600 staff, and a recipient of on-lent external financing from the state for its projects. In 2019, while sales revenues increased and cost of goods sold declined, the company still incurred a large cumulative net loss for a second year in a row, alongside a reduction in equity (net worth). Overall financial performance was mixed; on profitability, the positive rate of return on assets was met by a negative ROE, maintaining its high profitability risk. Its liquidity position fared better, scoring a moderate risk due to strong current and quick ratios and a positive net liquid asset position. Last, risks of insolvency remained very low, as debt remained subdued relative to assets and to equity (the company reduced long-term debt in 2019 relative to other companies after sharply increasing in 2018 and reigned in its short-term liabilities). More recently (March 2021), salary arrears were reported, and the company's staff were advised to take voluntary leave with less than full remuneration, partly reflecting the impact of COVID restrictions on consumer travel demand.

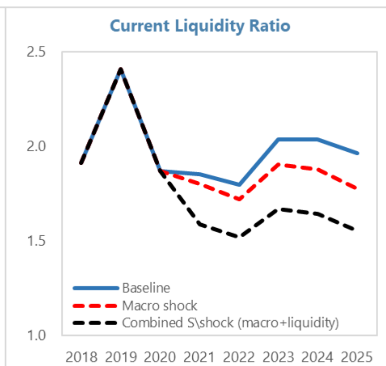
Box 5. Stress Testing the Financial Performance of the National Railway Company (concluded)

Results of similar stress tests that expose the company to potential macroeconomic and liquidity shocks point to underlying vulnerabilities. Results indicate moderate vulnerabilities to the company's performance under the growth shock, especially on key profitability and liquidity indicators. However, the combined liquidity-macro shock yields more pronounced results, as expected, highlighting stronger risks to the company's performance. Both shocks underscore the permanent nature of losses that could affect company operations beyond the immediate year. This reiterates the importance of strengthening the company's governance framework, including through improved oversight of—and a stronger role played by—its executive board, mitigating operational risk by setting clear forward-looking financial targets and ensuring implementation of prudent risk management practices, and enhancing managerial accountability over the use of public funds (including those on-lent) to improve the management of state assets.

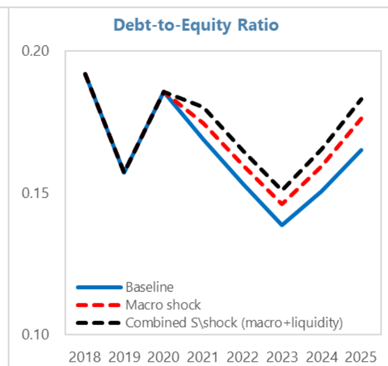
Profits



Liquidity



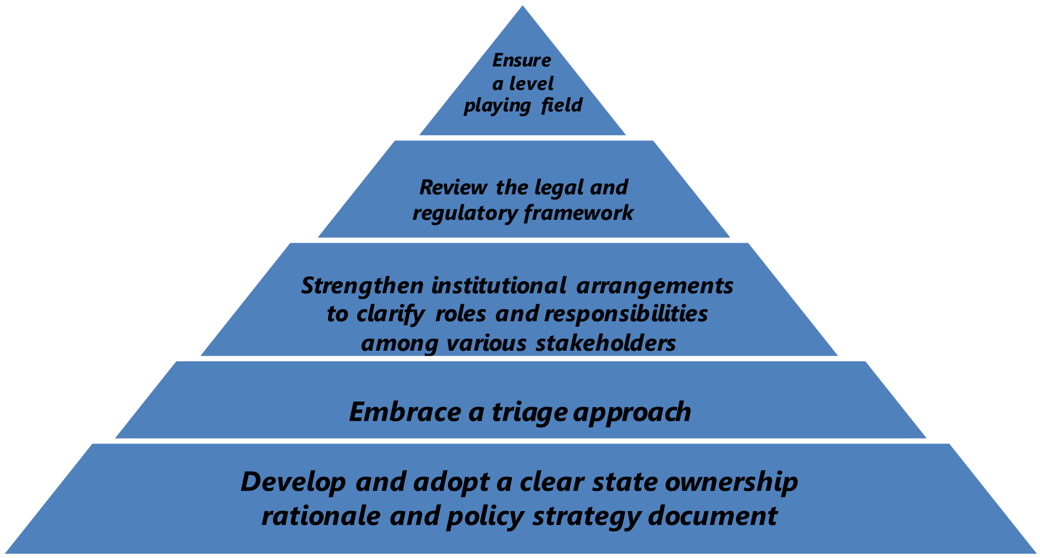
Solvency



Source: PPA and author's calculations based on the IMF's Fiscal Affairs Department *SOE Fiscal Risks and Stress Test* tool.

G. Reforming Moldova's Public Enterprises: A Roadmap to Strengthen Governance

35. Establishing a clear roadmap will serve to anchor reforms. Five interrelated areas in line with international best practices can be identified in Moldova's case. Strengthening public enterprise governance practices at all levels of government calls for concerted reform efforts in each of these areas:



Source: author's representation, based on various reports and studies by the OECD, the World Bank, and the International Monetary Fund.

36. Strengthening public corporate governance practices at all levels of government calls for concerted reform efforts in the following areas:

At the State-wide Level (MoF, Line Ministries, etc.)

- **Adopt an ownership rationale and policy strategy document** that supports clear stated public policy objectives for these companies (including rationale and criteria establishing their existence/termination, criteria for classifying companies as public enterprises, their legal form, defining commercial versus non-commercial mandates, financial or non-financial functions, choice of sectors, etc).[33]

- **Strengthen MoF's roles with respect to fiscal risk oversight and fiscal cost and risk management functions.** Expand the Fiscal Risk Statement (FRS) to include a more detailed assessment and bigger share of public enterprises subject to high and very high risks (at least the 44 "core" companies identified herein, besides other systemically important enterprises in strategic sectors and those having large liabilities). Improve the coverage, monitoring, inter-agency coordination, and reporting of contingent liabilities

[33] According to an IMF TA report on GFS (August 2020), "*...the classification of entities may not be in full alignment with international standards. The lists of JSCs and SOEs contain at least some institutions, such as the State Road Administrator, which may be wrongly classified as public nonfinancial corporations in Moldova's statistics, rather than general government units*".

- **Clarify state aid rules and intervention criteria.** This includes guidelines for what constitutes fiscal or quasi-fiscal activities, linkages between the state and public enterprises and identification of net-financial flows, when state intervention is allowed/prohibited, and rules on bail-out clauses to mitigate state exposure due to extending various kinds of fiscal support (subsidies, other transfers, grants, loans and on-lending schemes, government guarantees and loan criteria, other debts, etc.)

- **Reduce fragmentation in the respective roles and responsibilities of MoF, all line ministries, the legislature, and other relevant bodies in their management and interactions with state-owned enterprises**. This includes clarifying lines of authority and subordination, managerial responsibility and accountability, the split between oversight responsibilities, etc.

- **Strengthen oversight over the PPA's role and function; hold its management accountable; and upgrade its institutional capacity with necessary resources** (human and financial) for it to be able to execute its mandate effectively.

- **Create a level playing field between public enterprises and private corporations** to raise market efficiency, boost competition and nurture a vibrant private business sector as the main engine of growth.

    - ***Review and amend relevant legislation to address the extent of over or under-regulation that governs privileged access to government resources*** by public companies. This includes access to land, utilities, infrastructure, other irregularities related to lack of transparency and complicated procedures in public procurement contracts and project selection—including weak follow-up and inspections—and in the extension of loans, credit, grants and other forms of support.

    - ***Review and amend relevant laws*** to enhance domestic and foreign private investments

    - ***Review relevant anti-monopoly legislation*** to cut down on harmful and inefficient practices of monopolistic (and oligopolistic) activity.

    - ***Balance the merits of economic vs. social returns*** in public companies vis-à-vis their private counterparts.

At the Level of the PPA

- **Undertake a comprehensive review of existing institutional arrangements** governing public enterprises operating at all levels of government. Clearly identify their management structures (including private and controlling ownership), address opaqueness in institutional set-ups, and establish and ensure clear codes of conduct for management to hold them accountable for actions and performance,

- **Undertake a comprehensive review of existing legal and regulatory frameworks** governing public enterprises operating at all levels of government, with a view to:

- ***Root out corruption and conflicts of interest*** by closing loopholes that aid corrupt practices and enforcing stringent penalties to make it more difficult and costly to be corrupt through the use of public office for private gain.

- ***Review and clarify rules for remuneration policy*** of company boards ***and for dividend payout policies***.

- ***Strengthen rules and regulations to safeguard policy independence and integrity*** in public companies. Review the heavy presence of state representatives on company boards and management and report to MoF with proposals for reform.

- **Strengthen operational efficiency and incentives to improve company performance.**

  - ***Strengthen risk management practices*** at the company level by requiring companies to set clear forward-looking performance targets (KPIs) and limits on liabilities to allow for scenario analysis, stress testing, and adequate continencies in budget.[34]

  - ***Enforce accounting standards and sound data and record keeping.***

  - ***Hire and retain members of BoDs and BoAs through transparent processes upholding the highest levels of merit-based competencies.***

  - ***Ensure that remuneration is commensurate with expertise***.

- **Enhance and enforce best practice transparency and disclosure principles:**

  - ***Strengthen the annual consolidated report:*** expand the analysis of companies to include information on employment; key changes to company ownership policy (state shares in capital); a synopsis on intended reforms to be implemented in selected enterprises (in line with ownership policy and sectoral reform priorities); strengthen the breakdown of analysis between commercial and non-commercial enterprises; include website links to all companies mentioned in the report, and report instances of mismanagement in any company during the year alongside proposed remedies to address it (e.g. conflicts of interests, political interference in decision making, etc.)

[34] Disclosing projections of financing requirements for the largest enterprises is critical to establish prudent risk management practices and to ascertain with greater clarity the evolution of companies' financial performance, the risks they face, and to identify potential mitigating measures well in advance of any vulnerabilities materializing (e.g., highly leveraged firms usually face higher risks from exposure to potential adverse shocks than less leveraged counterparts). For example, in South Africa, regulations require public corporations to "*…submit corporate plans annually, covering a period of three years, and outlining the strategic objectives, agreed with the government, key performance indicators for assessing the entities performance, a risk management plan, and a financial plan. The financial plan must include projections of revenue, expenditure and borrowings, asset and liability management, capital expenditure programs and dividend policies*" (IMF, June 2016).

- **Adopt a strategy to strengthen accountability over the use and management of public funds.** Undertake a cost/benefit analysis of the use of state resources to determine the efficiency of the use of the state's assets, in order to improve its management.

37. Proper sequencing of reform objectives and priorities, in addition to political will and stability, and ownership of the reform process will be key to its success (Annex 2). A comprehensive assessment of the financial position of all SOEs operating at all levels of government is a key first step to identify public corporations at a risk of generating fiscal costs. Results should feed into and inform the development and adoption of a time-bound and explicit state-ownership strategy. This document will identify enterprises chosen to undergo restructuring by means of reorganization (mergers and acquisitions, or recapitalization), privatization[35] or liquidation, as well as plans to strengthen their governance structures. Given the long tenure associated with reforming SOEs and the scope of reforms likely to be needed in Moldova (see Annex 2), a stable political environment and government that owns the reform process and oversees its completion is vital.

38. Moldova stands to gain from leveraging international best practices and learning from reform experiences in other countries, including on mitigating measures (Annex 3). Experience elsewhere indicates gains to productivity of between 6-14 percent in strategic sectors and labor cost savings of up to 2.5 percent as a result of public corporate governance reforms.[36] Reform policies that may have socio-economic implications on labor or commodity markets (e.g. relocating furloughed or overstaffed workers, redesigning tariffs or abolishing administered or below-market prices) are often based on an upfront detailed assessment and review of the potential effects of restructuring public companies. This helps to mitigate costs and ensures that adequate safety nets are in place. In all cases, Moldova will not need to reinvent the wheel, and should rely on the existing overabundance of international expertise.

39. Additional Recommendations for Future Consideration:

- **Update the assessment using latest data for 2020 for a more comprehensive analysis and to gauge the impact of the COVID-19 pandemic on enterprise performance**, both at the firm and sectoral levels (sensitivity analysis). This paper highlighted the extent to which the performance of many enterprises was already weak prior to the pandemic (2020), which is expected to lead to even deeper scarring of their operations. The anticipated build-up of further fiscal risks during 2020 reiterates the urgency of governance reforms in these enterprises.

- **Strengthen disclosure of critical missing data.** Reliability of the assessment of financial performance of enterprises depends on the quality of underlying data and accounting standards. Strengthening disclosure on missing data gaps is needed, such as having comprehensive data on employment in all companies at all levels (central and municipal; both

[35] Moldova's existing regulations allow for privatization via sales through commercial or investment competition, auction, or via the stock exchange. Natural and legal persons in Moldova; private foreign natural and legal persons; stateless persons; and certain associations are allowed to participate in the privatization process as buyers.

[36] IMF Fiscal Monitor (April 2020).

on staff figures and remuneration); data on all enterprises in which the state claims less than 50 percent of ownership, value added by sector, enterprise's shares held by majority vs. minority shareholders, cross ownership across companies/sectors, and data on all other enterprises in general (the remaining 600 or so companies not analyzed).[37]

- **Further deeper analysis of the net financial flows from the government to public enterprises in Moldova,** given the data gaps at the time this paper was drafted. Strong financial interlinkages related to indebtedness, guarantees, externally funded projects, transfers, subsidies—to name a few—were not reported/available for all enterprises. This undermines a true understanding of risks to profitability, liquidity, and solvency, and the overall financial viability and performance of these companies. An assessment of such missing information *for all enterprises at all levels of government* is vital to help identify the degree of dependence of such companies on government funding, and the role of government in their financial management.
- **Strengthen the assessment by reviewing and understanding intra-company debts**, which could pose serious financial risks across sectors (e.g., between companies providing a service and others providing a good as input to such a service, e.g., the telecommunications sector.
- **Undertake a comprehensive Public Sector Balance Sheet (PSBS) approach** in the future to provide a complete assessment of the financial performance and net worth of all public enterprises operating at various levels of government in Moldova, in addition to all other entities that the government controls (e.g., pension funds) to give a full picture of public wealth (or fiscal solvency).[38]

[37] Among key data gaps identified in a survey used in a cross-country study of SOEs (see IMF, November 2019).

[38] See IMF, Georgia TA report (July 2020).

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Annex I. Benchmarking Methodology

To determine the profitability, liquidity and solvency risks of public enterprises, the following risk thresholds have been assumed in the analysis. The thresholds were provided by an expert in the IMF's Fiscal Affairs Department (FAD) as part of an FAD-led Technical Assistance (TA) workshop delivered to the Moldovan authorities in November 2020.

		Thresholds			
Profitability	**Very Low Risk**	**Low Risk**	**Moderate Risk**	**High Risk**	**Very High Risk**
Return on Assets	greater than	8.00	4.00	0.00	-5.00
Return on Equity	greater than	15.00	8.00	0.00	-10.00
Cost Recovery	greater than	1.50	1.25	1.00	0.75
Liqudity					
Current Ratio	greater than	2.00	1.50	1.25	1.00
Quick Ratio	greater than	1.20	1.00	0.80	0.70
Debtor Turnover Days	less than	30.00	40.00	50.00	75.00
Creditor Turnover Days	less than	30.00	60.00	90.00	120.00
Solvency					
Debt to Assets	less than	0.25	0.50	0.75	1.00
Debt to Equity	less than	0.50	1.00	1.50	2.00
Debt to EBITDA	less than	1.50	2.00	3.00	5.00
Interest Coverage	greater than	2.00	1.50	1.20	1.00
Cash Interest Coverage	greater than	3.00	2.00	1.50	1.00
Debt Coverage	greater than	0.50	0.30	0.20	0.10

Definitions

- Return on assets = earnings before interest, tax, depreciation, amortization (EBITDA) / assets
- Return on equity = net profit (loss) after tax / equity
- Cost recovery = total revenue / (cost of goods sold + other expenses)
- Current ratio = current assets / current liabilities
- Quick ratio = (current assets - inventory) / current liabilities
- Debtor turnover (days) = trade receivables*365 / total revenue
- Creditor turnover (days) = trade payables*365 / cost of goods sold
- Debt to assets = liabilities / assets
- Debt to equity = liabilities / equity
- Debt to EBITDA = liabilities / EBITDA

Annex II. How Does Moldova's Existing Governance Framework Compare to International Best Practices?

Governance Area and Best Practice Principle	Moldova's status relative to best practices			Comments
	Aligned	Partially aligned	Not aligned	
State ownership				
Adopt an explicit ownership policy (define objective of state ownership)			●	The authorities have been developing a strategy document to look into ownership policy, which is under discussion. Its alignment to best practices is yet to be fully determined (see IMF, March 2021 report).
Rationale for establishing and terminating SOEs		●		The legal framework is clear on steps and regulations to terminate public enterprises but is less clear on the rationale for establishing companies. Reorganization or dissolution of SOEs and JSCs is governed by (Articles 12-15 of Law 246 and chapters 19 and 20 for JSCs) (voluntarily or forced dissolution) as well as distribution of company assets at the liquidation stage. For SOEs, Liquidations require a liquidator (liquidation commission of minimum 3 people appointed by the PPA. The decision to liquidate by the commission is adopted by majority vote. Reorganization or dissolution is by government decision… Based on the PPA's request, in some instances an enterprise can be subject to forced dissolution by a court decision (e.g. an enterprise has no assets or has not operated or reported financial statements for three years). For JSCs, their law stipulates reorganization according to mergers, split up of enterprises, transforming their legal form (e.g. from non-commercial to commercial), and dissolution/liquidation. The decision following general meeting of shareholders on the reorganization or dissolution of the enterprise is grounded in the Charter. Special provisions apply in case of privatization (Article 100 of JSC law). In line with the Laws for SOEs and JSCs, Dissolution is possible if "the entity's equity reported in the yearly balance sheet, for three years in a row, is lower than its share capital, in which case the PPA shall take action under the law (cut the share capital, contribute funds to share capital, close down the company, etc.)." Circumstances under which a JSC can be dissolved (Article 53 of the law): "The non-convening by the company for 2 consecutive years of the general meeting of shareholders constitutes a ground for dissolution of the company based on the decision of the court…". Also, "Any shareholder has the right to apply to the court for the dissolution of the company".
Aggregate reporting, including audits (facilitate transparency, disclosure)		●		The Law on SOEs mandates disclosure of annual financial reports of enterprises, as well as the audit report to be published both on the enterprises' webpage and on the website of the PPA (chapter VI, and Article 18). However, it is unclear if all companies abide by such mandates or if such legal requirements on financial and non-financial disclosures are met in practice (according to a media article many companies do not. See also IMF, March 2021 report). On financial audits: (Article 7) of the law notes that the BoD selects the audit entity, which may be strengthened by delegating such a responsibility to the PPA as the oversight body. Article 8 (5) notes that "the member of the board of directors shall be exempt from compensation for damage caused during the performance of his duties if he has acted in accordance with the written instructions of the founder", which needs to be reviewed in light of mitigating any likelihood of top down corruption. While (Article 10) notes that the Audit report includes an evaluation/assessment of activity/performance relative to the preceding year, it would be prudent for the assessment to be conducted relative to pre-set targets/objectives. (Article 11) states: "The annual financial statements of the state / municipal enterprises that have been subject to the audit of the Court of Accounts of the Republic of Moldova shall not be subject to the mandatory audit provided in paragraph (1) for the audited year", which weakens the objective of the audits. For the Law on JSCs—on accounting, reporting, audits and disclosure of information—the law explicitly ascribes responsibility to the company and its officers for negligence in keeping accounting records and/or preparation and submission of financial and other reports, inclusive of any unauthentic or erroneous data, as well as the publication (or the lack thereof) of untrue information about the enterprise's activities (Chapters 16 to 18; Article 87). However, the JSC law does not specify regular intervals for performing the audits. Also, in the case of JSCs, the audits are only obligatory to be undertaken in companies where the share of the state exceeds 50 percent of its capital, instead of being mandatory for all other companies as well regardless of the share of the state.

Governance Area and Best Practice Principle	Moldova's status relative to best practices			Comments
	Aligned	Partially aligned	Not aligned	
Competitive Neutrality: Ensuring a Level-playing Field and Fair Competition				
Separate responsibilities for ownership and regulation		●		The involvement of—and role playing among—the PPA, the MoF, and line ministries blurs lines of responsibility between ownership and regulation, fragmenting the overall institutional arrangement (see IMF, March 2021 report).
Separate competitive from non-competitive activity			●	Unknown / unclear from relevant legislation.
Fiscal (tax) and regulatory treatment akin to private companies			●	Unknown / unclear from relevant legislation.
Clear basis for financing decisions			●	Unknown / unclear from relevant legislation.
Access to debt financing from the market is non-preferential			●	Unknown / unclear from relevant legislation.
Set clear financial performance targets (e.g. establish or align required rates of return close to those in the private sector)		●		While the law on SOEs mandates the BoDs to establish performance indicators for the enterprise (Article 8, sub-bullet 7b) and regulates procedures related to post-operational management of bottom line results (e.g. distribution and use of the net profit and the manner of covering losses—Article 2, sub bullet 4j:), the Law on JSCs is less clear on the setting of performance targets. Both laws are vague on the extent of alignment of expected rates of returns in public corporations with those in the private sector.
Direct state support calibrated to the cost of fulfilling public policy objectives			●	Unknown / unclear from relevant legislation
Separate accounts of commercial and non-commercial activities			●	Unknown / unclear from relevant legislation
Dividend payout: align levels with private sector			●	Not mentioned in the Law on SOEs. The Law on JSCs has several articles outlining in detail dividend payouts depending on asset classes (e.g. Articles 15, 25, 35, 48, 49), but does not have provisions in relation to aligning dividend payments with the private sector.
Dividend payout: set in guidelines vs. negotiated annually	●			Negotiated.

Governance Area and Best Practice Principle	Moldova's status relative to best practices			Comments
	Aligned	Partially aligned	Not aligned	
Professionalizing the Board of Directors				
Set clear (minimum) qualifications for board members			●	The Law on SOEs sets minimum qualifications for member of BoAs (audit committee—Article 10), but not for members companies' BoDs. The Law on JSCs provides for minimum qualifications for members of companies' audit committees (article 71), but not for members of BoDs.
Rules governing board representation and composition (including diversity)	●			
Establish criteria for executive remuneration (mark-to-market, limits, etc)			●	Unknown / unclear from relevant legislation
Regular board evaluations	●			
Adopt and apply prudent financial and operational risk management systems (tools) and internal controls			●	The Law on SOEs and the Law on JSCs do not explicitly provide clarity on application of relevant financial and operational risk management tools or systems in public enterprises.
Other				
Asset management		●		While the Law on SOEs provides a number of articles dealing with management of state assets, it leaves operational aspects to be established by other undefined legislation (e.g. Chapter Two, Article 3 (3) : "possession, use and disposition over the assets of the state / municipal enterprise shall be established by the legislation" ; and Article 3 (5) : "transmission, commercialization, leasing / leasing or loaning and scrapping of the state / municipal enterprise assets shall be carried out in the manner established by the Government".) The law on JSCs has several references to assets in the context of definitions of operational nature (e.g. types of asset classes for the purposes of dividend pay-outs) but lacks specificities as far as prudent management of state assets are concerned.
Combating corruption and resolving conflicts of interest	●			The Law on SOEs has a number of articles dealing with resolving conflict of interests (Chapter One, Article 2 sub-bullet 4k; Chapter Five, Articles 16-17). The Law on JSCs (Article 74) covers conflict of interest from the lens of personal liability, i.e. damage to the company e.g. due to premeditated actions that led to bankruptcy, willfully distorting or concealing or furnishing misleading information, contravention of regulations (e.g. payment or failure to pay dividends/interest), over-pricing of securities purchased, (mis)abuse of company assets, allowing or willfully violating other procedures (e.g. concluding large transactions that exceed 25 percent of company assets in value (Article 83 and Chapters 15 and 18). The law provides some safeguards such as protection of whistleblowers who vote against violation of procedures, the prevalence of joint liability of persons in the event of adoption of joint decisions in violation of company charters, and the non-release of liability in the event of a delegation of decision making power. On disclosure, the Law mandates financial reports to include information on large transactions and others where there is a conflict of interest (Article 91)

Source: OECD (2018).

Annex III. Cross Country Experiences at SOE Governance Reforms

Cross-country experiences in reforming public enterprises focused on targeted policies to strengthen governance and financial performance, deepen private sector participation, and mitigate externalities from reforms (annex table). A number of countries targeted to achieve clarity on their ownership policy (rationale) following a comprehensive review of all enterprises. Countries such as Morocco, Barbados, and Uzbekistan revamped governance through strengthening their legal frameworks and management and separating management from supervision, while enhancing oversight and audit functions, financial reporting and oversight, and continuous monitoring. Others like Ukraine reduced state interference and strengthened independence of company boards to uproot corruption and improved internal controls and transparency (disclosure) requirements. Countries such as North Macedonia, Serbia, Belarus and Georgia tackled the viability of corporate financial performance ("commercial viability") through both operational revenue enhancements[1] and cost-effectiveness (e.g. structural reduction in expenditure financed through central government funding or support, in addition to risk mitigation measures like better monitoring and management of fiscal risks and liabilities). Poland included in its reforms improvements in asset management; putting state assets to the better productive use to earn higher returns. To strengthen the level playing field, some countries introduced a stronger role for competition councils, and decisive reforms often involved restructuring enterprises via mergers and divestments, selling state assets, and increasing private sector participation.

Experiences have shown that improvements in corporate governance can enhance SOE performance, both operationally and institutionally. Lithuania's experience during its phase of corporate governance reform of SOEs during 2012-13 is one example. Other studies have also asserted the degree to which strengthened governance is instrumental to overall improvements in public corporate efficiency and performance.[2] Strengthening the governance of public enterprises in Moldova is particularly relevant given the systemic underperformance of the majority of enterprises, their elevated financial risk profiles, dominance across all levels of government and sectors, and the magnitude of assets invested in these companies and managed by the state.

[1] For example, in Barbados, a comprehensive review of all tariffs and fees charged by SOEs was conducted.

[2] See IMF study (November 2019).

Country	Reform Priority Area(s)
Morocco	• Restructure SOEs through two draft laws, aiming at eliminating enterprises "deemed no longer essential" and merging others operating within their sector to exploit synergies. • Introducing a "National Agency responsible for the valorization and strategic management of SOEs, as well as the continuous monitoring of their performance". • Efforts to strengthen the national anti-corruption strategy and to reform public administration. • A stronger role for the Competition Council to address anti-competitive behavior.[1]
Uzbekistan	• Improve governance through restructuring of non-financial SOEs. • Strengthen and clearly separate management and supervision. • Potential set-up of an Agency to "monitor and provide financial oversight of all SOEs".[2]
Barbados	• Improve commercial viability and strengthen monitoring and oversight. • Mergers and divestment • SOE reforms already implemented include staff layoffs at SOEs, renegotiation of supplier contracts, an increase in some tariffs (bus fares, water rates), and new levies on sanitation, health services, and tourism. [3]
Poland	• Introduced several governance reforms such as a *Management by objective* framework in railway sector to enhance supervision and strengthen and centralize internal audit functions. • Sold real estate assets and created a company tasked with property development. • Eventually restructured failing railways through cost-cutting measures (labor shedding), followed by legal reforms to (a) establish a holding company, and (b) allow private sector participation in provision of selected rail services. [4]
Slovak republic	• Corporate governance reform that focused on strengthened management practices via a private investment in a large state-owned monopoly (aluminum). [5]
Ukraine	• Comprehensive reform of corporate governance practices in the largest natural gas producer and distributor that focused on shielding the enterprise's management from state interference; separating ownership from regulatory and policy-making functions; establishing a qualified and independent supervisory board; and strengthening transparency and internal controls in line with international best practices. • Involvement of key international partners was key to success.[6]
North Macedonia	• Reform of institutional and regulatory frameworks governing the operations of a state owned electricity company, including via improved internal management systems, reporting and monitoring, restructuring the tariff system and strengthening collection rates, investments, privatization of assets, and enhanced competition by acceding to best practice EU directives on energy.
Serbia	Reform areas were advised in areas related to: • Adopting an ownership policy document. • Appointing permanent professional management. • Publishing a comprehensive list of SOEs. • Expanding capacity to analyze fiscal risks from SOEs. [7]
Belarus	Reforms covering the following were advised: • A systematic, risk-based assessment of SOEs' viability, followed by an actionable plan to guide restructuring, including through strengthened corporate governance, reduced transfers, and better monitoring of contingent fiscal risks. • Enhanced social safety nets to cushion the impact of restructuring on vulnerable groups. • Improving the business environment to ensure a level playing field between public and private companies and facilitate private sector activity were also deemed important. [8]
Georgia	• Finalize an SOE Governance Law. • Strengthen the fiscal risk statement to better cover SOE risks, including by reviewing the sectoral classification of SOEs and including a risk analysis of the top 10 SOEs. • Determine the extent to which restructuring of SOEs (including recapitalizations) are reflected in the fiscal envelope. [9]
South Africa	• Address SOE weaknesses (e.g. indebtedness, structural inefficiencies and governance-related) via an improved governance framework and promoting competition and private sector participation. • A case in point is reforms to the macro-critical national electricity company, which underwent clean up efforts, including for the company's Board and Management. [10]

[1] Morocco, Staff Report for the 2020 Article IV Consultation. IMF, January 2021.
[2] Uzbekistan, Staff Concluding Statement of an IMF Staff Visit, July 31, 2018.
[3] Barbados, Staff Report for the Fourth Review under the Extended Arrangement. IMF, November 2020. As part of the IMF program with Barbados, a structural benchmark was proposed to prepare a dashboard to analyze financial performance of the government's 19 priority oversight SOEs as input to quarterly progress updates to Cabinet.
[4] IMF (November 2019).
[5] IMF (November 2019).
[6] IMF (November 2019).
[7] Serbia: Concluding Statement of the Mission for the 2019 Article IV Consultation and the Second Review under the Policy Coordination Instrument (PCI). IMF, May 2019.
[8] Belarus, 2018 Article IV Consultation Report. IMF, January 2019.
[9] Georgia, Technical Assistance Report on the Public Sector Balance Sheet and State Owned Enterprises. IMF, July 2020.
[10] South Africa, 2019 Article IV Consultation. IMF, January 2020.

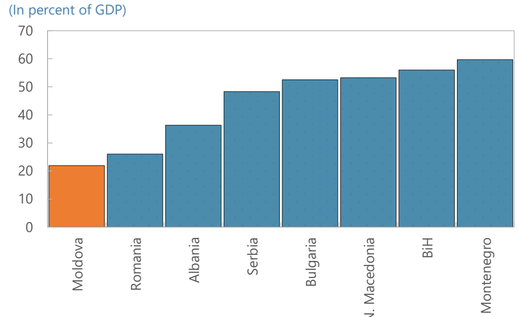
NON-BANK CREDIT ORGANIZATIONS AND FINANCIAL INCLUSION: OPPORTUNITIES AND CHALLENGES[1]

Moldova lags many of its peers in important metrics of financial inclusion, affecting especially consumers and small- and medium-sized enterprises (SMEs). The high-profile 2014 banking fraud saw a retreat of the banking sector from the credit market, while the role of nonbanks, especially of Non-Bank Credit Organizations (NBCOs) as a source of credit for consumers and for SMEs has significantly increased since 2014. The planned transfer of the regulation and supervision of Non-Bank Financial Institutions (NBFIs) to the National Bank of Moldova (NBM) provides an opportunity to make regulation and supervision more consistent across banks and NBCOs. At the same time, Moldova's authorities should ascertain that this reset in financial oversight responsibilities will not result in an inappropriate tightening of credit provision to consumers and SMEs. The streamlining of the supervisory framework also presents an opportunity to strengthen financial consumer protection as it applies to credit provision.

A. Challenges to Private Sector Access to Credit

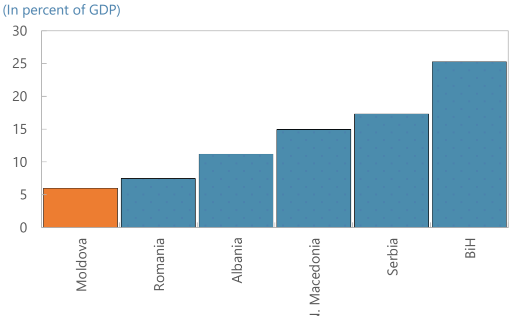
1. **Moldova lags peers on key financial inclusion metrics, including those relating to the private sector's access to credit.** Credit extended by commercial banks as a share of GDP at around 22 percent of GDP is the lowest amongst regional peers. Limited access to commercial bank loans applies to the low volume of lending to both households and SMEs relative to the size of the economy, with Moldova trailing peers on both metrics.

Outstanding Loans From Commercial Banks, 2020
(In percent of GDP)



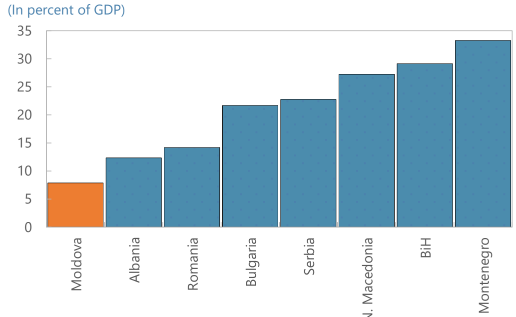
Sources: IMF Financial Access Survey

Outstanding Commercial Bank Loans to SMEs, 2020
(In percent of GDP)



Sources: IMF Financial Access Survey

Outstanding Commercial Bank Loans to Households, 2020
(In percent of GDP)



Sources: IMF Financial Access Survey

2. **While access to credit has been historically low, the current situation also reflects the legacy of the 2014 banking fraud episode.** The aftermath of the 2014 banking fraud incident saw appropriate actions being taken that resulted in significant tightening of lending standards,

[1] Prepared by Fazurin Jamaludin and Peter Lindner.

including a more stringent loan application process, submission of quarterly financial reports by commercial borrowers to banks, minimum requirements for loan amortizations, and limitations on refinancings (see Box 1). However, an increase in the cost of credit administration and the need for borrowers to provide collateral and proof of financial history have emerged as key barriers for consumers' and SMEs' access to bank credit after 2014.

3. **Complex credit application and credit maintenance processes impose a particularly heavy burden on SMEs.** Failure to comply with quarterly financial reporting requirements is penalized, with delays of 30 days or more in submitting these documents resulting in the reclassification of affected loans to a reduced quality category requiring 30 percent provisioning. These financial statements are generally only prepared for no other purpose than for submission to banks and are disproportionately costly for smaller firms. The NBM's prudential provisioning requirements are about one-third higher than those stipulated by the International Financial Reporting Standards (IFRS), increasing the cost of lending further. Against the totality of these requirements, SMEs are discouraged from applying for loans, while commercial banks are disincentivized from extending credit to many SMEs. When they do, SMEs are often required to pay higher interest rates vis-à-vis larger companies.

4. **Complicated processes and procedures also hamper credit access on the part of consumers.** For individuals and households, onerous paperwork and a complex and lengthy loan approval process have been cited by market participants as key barriers to credit access. Online onboarding of new clients, which could simplify the credit application process, reportedly remains cumbersome and difficult to operationalize. A combination of these sectors contributes towards limiting access to financial services, particularly among low-income consumers whose financial literacy is often limited.[2]

5. **Challenges to the private sector's access to credit are exacerbated by the high level of informality in the economy.** Transactions by microenterprises and consumers are mostly conducted on a cash basis, outside the formal structures of the economy and the financial system.[3] Despite recent progress, tax compliance is low, accounting practices are weak, and general record-keeping on income and earnings is limited. These factors render the assessment of creditworthiness of potential borrowers difficult, thus further contributing to the low provision of, and access to, credit.

[2] However, some customers can have relatively easy access to credit. For instance, one bank reported that it provides selected retail customers with a credit line starting at €15,000. Maturities of consumer loans can range up to five years for standard consumer loans to 20 or 25 years for mortgages with and without government guarantees, respectively.

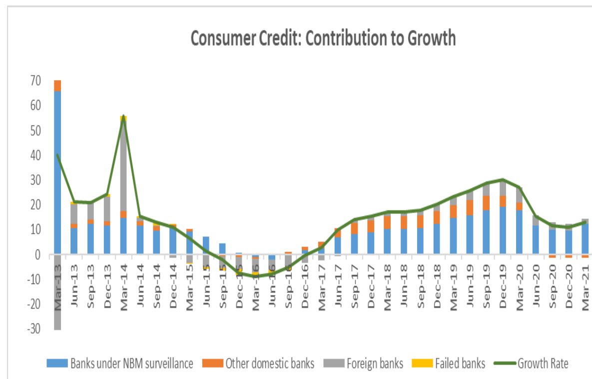
[3] 25 percent of Moldova's labor force works in the informal economy, with the agricultural sector providing employment to 64 percent of those individuals. See: The International Labor Organization, *Overview of the Informal Economy in the Republic of Moldova*, 2018.

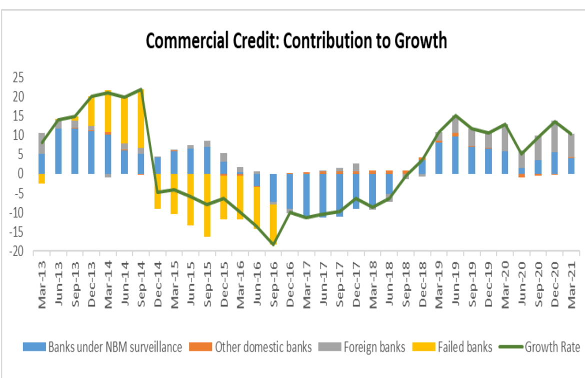
Box 1. The Impact of the 2014 Banking Fraud Episode on Bank Lending

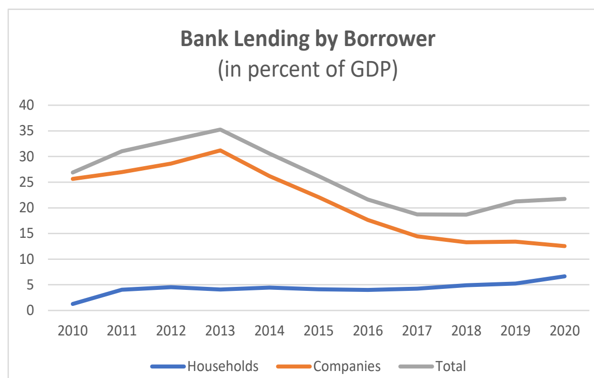
In 2014, US$1 billion disappeared from Moldova's banking system following a coordinated effort involving several banks to fraudulently provide large amounts of financing to various related entities and parties. Much of these funds were moved outside the country. The total loss from this incident was estimated to be equivalent to 12 percent of Moldova's GDP at the time.

The National Bank of Moldova responded to the fraud by tightening lending standards for commercial banks, including by requiring commercial borrowers to provide quarterly financial statements to banks (or risk having their loans classified as substandard), and for all commercial loans to start amortizing no later than three months after disbursement. Refinancing or repaying existing loans through a new loan with the same lender was also prohibited, hampering the consolidation of loans. The credit application process was also made more stringent to better safeguard the quality of bank assets. While the regulatory and supervisory actions taken after 2014 were appropriate, they had some unintended consequences.

With the closure of three banks at the center of the scandal, lending to corporates declined notably. Against a backdrop of strengthened regulations and supervision; the NBM closely supervising three other large banks; and foreign investors increasing their activity in Moldovan banking, the remaining market players adjusted their strategies, with a resultant de-emphasis on commercial lending, Commercial bank lending as a share of GDP went from above 30 pecent to below 15 in recent years. Growth in consumer lending by banks turned positive again in 2017 with consumer lending driving an increase in banks' total lending as a share of GDP.





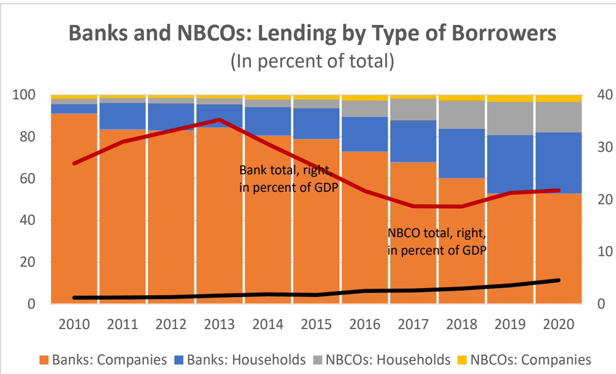


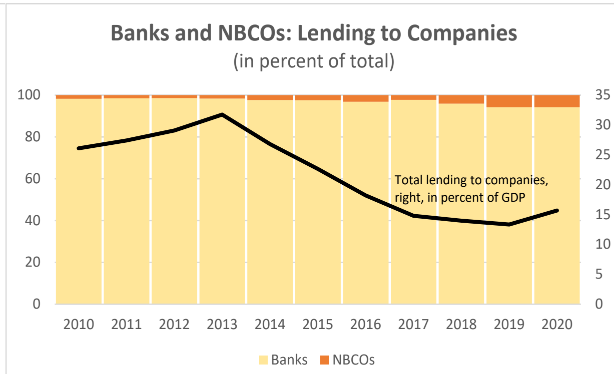
B. Non-Bank Credit Organizations: Trends and Drivers

Against the backdrop of a banking sector that underwent a significant adjustment, latent credit demand by consumers and SMEs, and an abundant supply of capital, NBCOs became a major force in the financial system.

6. Non-Bank Credit Organizations (NBCOs) have become an increasingly important source of financing in Moldova in recent years, especially for consumers and SMEs.[4] NBCO lending grew by an average of around 20 percent annually over the last decade, accelerating in 2019 before slowing in the wake of the COVID-19 pandemic. Between 2010 and 2020, NBCOs have gained a growing share of Moldova's credit market—from around 7 percent in 2010 to almost one-fifth at end-2020. At the end of 2019, 570,000 individuals and firms in Moldova had established a credit relationship with an NBCO.[5]

7. NBCOs' gains in market share occurred across consumer and commercial markets. Most of the gains have been made possible by in-roads into the consumer lending market: NBCO lending to consumers as a share of total lending to consumers grew from under 2 percent in 2010 to around one-third in 2020.[6] Commercial lending by NBCOs, while notable, grew far less, from a 2 percent share of all commercial lending in 2010 to 6 percent in 2020. Similar gains in market share by NBCOs can be seen in both the local currency and foreign currency-linked segments of the credit market.





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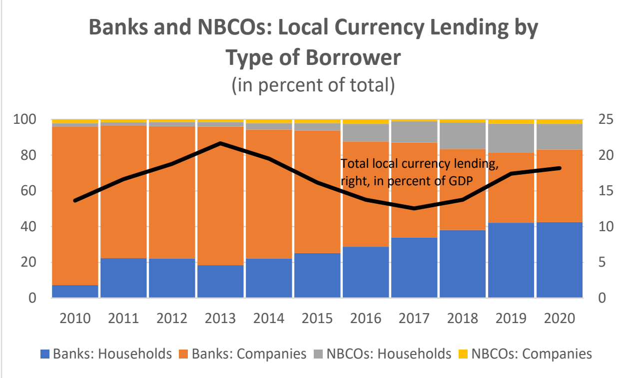
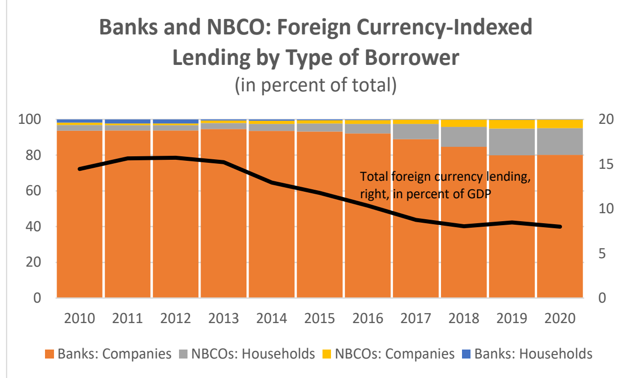
4 "Non-banks" in Moldova include non-bank credit organizations (NBCOs) and Savings and Credit Associations (SCAs). Given the SCAs' small footprint, this paper only focuses on NBCOs. In some contexts, NBCOs are also referred to as "microfinance organizations."

5 This means that about 20 percent of Moldova's citizens had borrowed from one or more NBCOs.

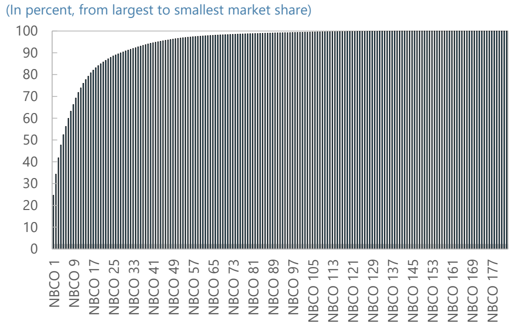
6 Some consumer loans may actually be used to fund small businesses, blurring the lines between consumer and commercial lending. For instance, a car purchased on credit could be used for both personal and business purposes.





NBCOs: Cumulative Market Share

(In percent, from largest to smallest market share)

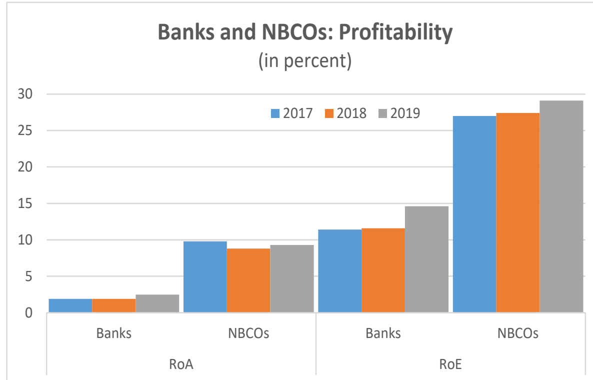


Sources: NCFM, IMF staff calculations

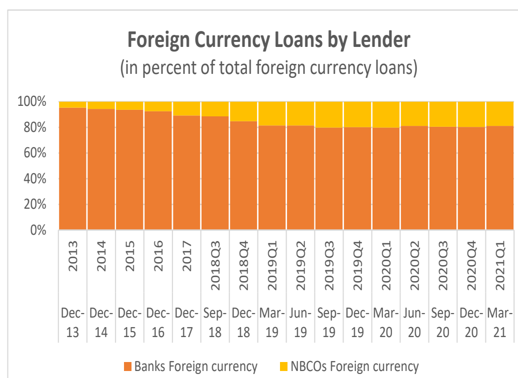
8. **The vast majority of NBCOs have low levels of capital and assets, and lending is concentrated among a relatively small number of players.** Out of almost 200 NBCOs on record, 144 NBCOs have equity amounting to less than MDL 10 million (USD 569,000), and of these, 63 have less than MDL 1 million (USD 56,900) in equity, and 12 have negative equity. Fewer than 40 NBCOs have assets exceeding MDL 30 million, and of those below this threshold, total assets average less than MDL 5 million. NBCO lending is concentrated among the largest institutions: the 30 NBCOs with the largest market shares account for around 90 percent of the market. The remaining NBCOs have market shares below 1 percent, with an average that is smaller than 0.1 percent. Of those, around 40 have zero loan assets at the end of the first quarter of 2021.

9. **On the demand side, the growth of NBCO lending was spurred by increasing credit-financed consumption spending.** As alluded to above, access to credit in Moldova has historically been low, even by regional standards. Reduced bank lending in the wake of the 2014 banking fraud scandal further constrained access to credit, in contrast to the greater willingness of consumers to finance consumption with debt amid strong GDP per capita growth (averaging 4 percent during 2009–2020). This growth in consumer credit was further bolstered by the cooperation between some NBCOs and retailers in the origination of consumer loans at the time of purchase. Supporting this growth in NBCO consumer loan origination was the NBCOs' willingness to provide relatively small-sized loans, with an average size of MDL 20,800 (about USD 1,200, or a quarter of GDP per capita) in 2020.

10. The supply of NBCO credit was driven by the high profitability NBCOs enjoyed, which in turn, attracted additional funding for the industry. The differences in profitability between banks and NBCOs were sizeable: banks' returns on assets and on equity during 2017–19 averaged around 2.5 percent and 14.6 percent, respectively, compared to the 9.3 percent and 27.8 percent reported by NBCOs. The key cause of this difference was interest income, with interest rates on NBCO loans averaging almost *four* times the average rate on bank loans as of early 2021. NBCOs' profitability also benefited from high fees, including large penalties for late payments compared to those charged by banks. The NBCOs' large profit margins attracted further funding, with much of it coming from non-residents (see below).



11. NBCOs' high profitability can be partly explained by regulatory arbitrage, which arguably enabled NBCOs to pursue aggressive business strategies compared to banks. For a start, banks and NBCOs are supervised by different regulatory bodies (National Bank of Moldova (NBM) for banks; National Commission for Financial Markets (NCFM) for NBCOs).[7] Until 2020, loan loss provisioning rates that applied to NBCOs were appreciably lower than those that obtained for banks. To expand their market share, NBCOs targeted mainly the underbanked part of the population and enterprises, who, due to a lack of collateral and proof of income faced difficulties in qualifying for bank credit.[8] Credit provision to segments of individuals and firms not eligible for bank credit was naturally much riskier and included simplified loan application and approval procedures. For instance, while NBCOs do provide secured loans, most consumer loans are extended without collateral. Some NBCOs base their assessment of borrowers' creditworthiness on proprietary credit scores. In some cases, consumer loan applications are swift, taking up as little as 10 minutes. NBCOs have also shown a greater willingness than banks to extend foreign currency-indexed loans, which expose borrowers to exchange rate risks. NBCOs' share of the foreign currency-linked credit market has grown, reaching as much as one-fifth of the total foreign currency-linked market in 2020.[9]



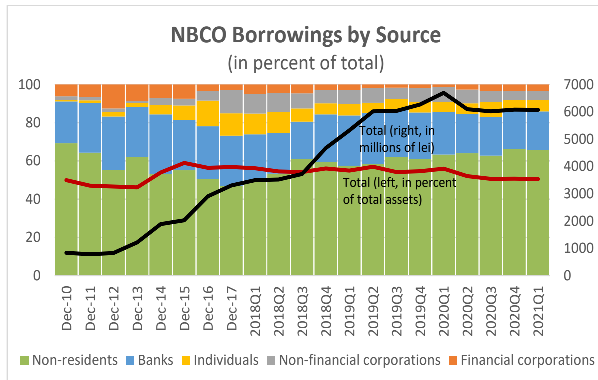
[7] Plans are currently underway to transfer the supervision of non-banks from the National Commission of Financial Markets under the purview of the National Bank of Moldova. The transition is expected to be completed in 2023.

[8] Many smaller enterprises as well as individuals in Moldova participate in the informal economy, hampering their access to bank services. See also paragraph 5 and footnote 2.

[9] Providing FX-linked loans can constitute a natural hedge for some the NBCOs that provide FX-linked loans.

12. In their expansion drive, some NBCOs have targeted consumers with low financial literacy, raising consumer protection concerns in the process. Conversations with market participants and the expert community point to significant reliance on abusive practices by NBCOs. Consumers are reportedly not always informed of the full cost of their loans, or those costs were buried in the 'fine print' of loan agreements. Penalty interest rates and fees for late or non-payments were not disclosed. A recent example includes the advertising of zero interest rates on loans, not disclosing the 'all-in' loan costs that include fees or future interest rate increases, as required by law. Also, many loan contracts and lenders' promotional materials leave borrowers in the dark about their repayment responsibilities, taking advantage of those with limited financial literacy.

13. Borrowing is the single largest source of funding for NBCOs, with nonresidents as the largest group of creditors. Borrowed funds have long been an important source of NBCO funding, equivalent to roughly 50 percent of NBCOs' assets over the last ten years. In terms of absolute value, NBCO borrowing has risen by a factor of more than seven in the last decade, rising from MDL 832 million in 2010 to almost MDL 6.1 billion at end-2020. Non-residents have consistently been the largest source of lending to NBCOs, with an average share of around 60 percent of the total, while banks have been the second largest source at an average of 24 percent.



C. Regulation and Supervision

While the regulation and supervision of NBCOs has been significantly strengthened in recent years, the planned move of regulation and supervision under the auspices of the NBM can provide additional benefits for the regulation and supervision of the sector, as well as for macro-financial stability.

14. A law regulating NBCOs was enacted in 2018, with later amendments that came into effect in April 2020, strengthening the NCFM's powers. The amendments provided for an increase in the minimum capital requirement of an NBCO from MDL 100,000 to MDL 1,000,000 from 2021 onwards, with further increases being envisioned. This resulted in a reduction in the number of active NBCOs to 144 that were active as of the end of the first quarter of 2021. Other measures included in the amendments eliminated the ability of NBCOs to accept deposits and strengthened consumer protection. Key provisions include:

- Lending by individuals to NBCO's is restricted to existing shareholders. The lending must be subordinated to other debt, have a maturity of at least three years, and be for a minimum of MDL 600,000 (around USD 34,000);

- The total payments—interest plus fees—that a consumer makes on debt with an original maturity of two years or less, or an original principal value of MDL 50,000 or less, cannot exceed the original loan principal;[10] and

- Marketing materials and loan documentation have to contain the all-in cost of a loan, inclusive of all fees.

15. NBCOs are subject to different capital and provisioning requirements versus banks. Given that NBCOs cannot accept deposits, it is appropriate to tailor regulations accordingly vis-à-vis banks. NBCOs are not subject to some requirements that apply to banks, including large exposure supervisory review and evaluation process, and capital buffer requirements. However, they must hold capital of at least 5 percent of assets, or a 10 percent minimum if they borrow from banks.[11] If information from credit bureaus is not used in the provision of credit, a loan must be classified as substandard from the outset. Loans that are 30 days or more overdue are subject to higher provisioning rates than for banks.

16. The current framework that places banks and NBCOs under different regulatory entities has clear shortcomings. A fragmented approach to supervision may limit visibility over systemic vulnerabilities stemming from lending activity in the economy, including the true extent of leverage among borrowers. Under the current arrangement, financial stability measures that cover banks, NBCOs, and insurers must be agreed on by the Financial Stability Council, which in the past has led to implementation delays. Supervisory fragmentation has also created space for regulatory arbitrage.

D. Consumer Protection and Financial Inclusion

17. While the consumer protection measures included in the amendments to the NBCO law are beneficial, notable deficiencies regarding their enforcement exist. Oversight responsibilities are distributed across the NCFM and the Consumer Protection Agency (CPA). The latter handles consumer complaints relating to all sectors of the economy and does not have the capacity to appropriately address complaints related to often more complex financial sector issues. The NCFM or the CPA often do not possess the necessary enforcement powers, and dispute resolution processes are underdeveloped. Overlap between CPA and NCFM has led to duplicative and uncoordinated efforts in the past.

18. The lack of effective channels to adjudicate financial consumer protection (FCP) complaints has led to deficiencies in enforcement. Consumers with limited financial literacy may end up signing contracts that are not in line with the law. Debt collectors visit family members of borrowers who are not current on their debt service, often outlining consequences for the defaulters

[10] With the bulk of NBCO loans carrying maturities of two years or less, most outstanding loans are covered by this provision.

[11] With most NBCOs using bank funding, this provision covers the bulk of the industry. With NBCOs' capitalization generally exceeding 10 percent of assets by a large margin, this provision is not binding.

that have no legal basis. While the aggressive collection practices kept defaults relatively low, even during the pandemic, they come at a social cost, potentially affecting debtors who are unable to pay, as well as their families, with detrimental effects at a personal level. Banks, on the other hand, generally exhibit close compliance with legal provisions governing FCP.

19. Financial inclusion gaps in Moldova have a strong regional dimension. While wealthier consumer and large firms generally have access to formal banking services, there also exists a regional divide in regard to financial inclusion. Moldova's population has declined from a high of 2.98 million in 1992 to a low of 2.66 million in 2019, with a disproportionate decrease in population occurring outside the greater Chișinău area. This has led to a general decline in economic activity in the rural areas, reducing banks' incentives to operate actively in these areas.[12] As a consequence, many banks' business strategy is regionally focused on the greater Chișinău area and a few other urban hubs. With rural employment relationships to a greater degree informal in nature than in other sectors of the economy, NBCOs have moved to fill the resulting gap in credit provision.

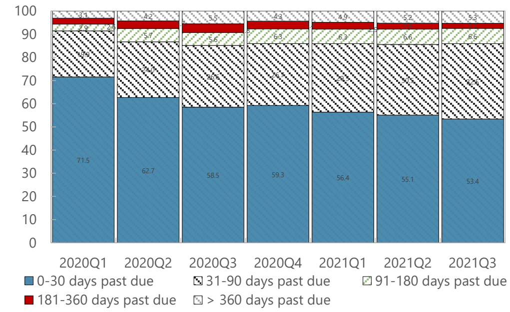
20. Moldova has no national financial inclusion strategy. With Moldova lagging on many financial inclusion measures versus peers (see paragraph 1), Moldova's lack of a national financial inclusion strategy represents an important policy gap. Given banks' tendency to focus on financially better-positioned customers and certain regions within Moldova where informality is lower, the large underbanked part of the population will likely have to rely increasingly on credit provided by NBCOs and SCAs for the foreseeable future.

21. Inconsistent use of credit bureaus by NBCOs can lead to overindebtedness among certain segments of borrowers, potentially posing financial stability risks. Currently, three credit bureaus operate in Moldova, with a fourth slated to be approved for operation soon. Each bank has to report credit information to at least one bureau, with NBCOs and SCAs required to do the same since April 2021. While the credit bureaus are supposed to exchange information with each other since July 2021, it is unclear whether full and timely information sharing is taking place. The current system, in which NBCOs are not required to consider information from the credit bureaus, and where no overall limits on debt-to-income ratios exist, implies the risk of large numbers of borrowers becoming overindebted. This could have systemic implications during an economic downturn that leaves many individuals unable to service their debts.

[12] Mortgages will be hard to obtain since bankers fear an erosion of housing prices due to reduced demand.

E. Risks

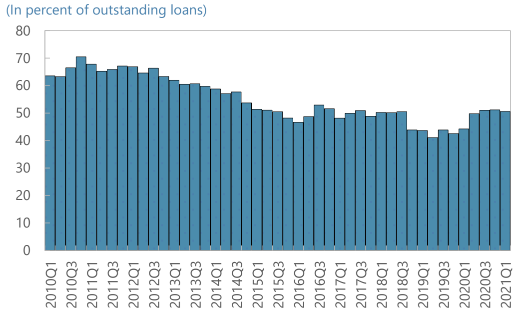
NBCOs: Credit Outstanding by Quality
(In percent of total NBCO loan outstanding)



Sources: Moldovan authorities, IMF staff calculations

22. NBCO asset quality has deteriorated during 2020 but the full impact of the pandemic on loan quality remains to be seen. The share of loans between 31 and 90 days past due has increased by more than 10 percentage points since the March 2020 through end-2021Q3, a reflection of the continuous erosion in the quality of the top-performing loan category. While the shares of loans that reflect delinquencies above 90 days have also increased, their increase have so far remained relatively contained.[13]

NBCOs: Buffer Against Loan Losses
(In percent of outstanding loans)



Sources: Staff calculations
Note: Buffers consist of loan loss provision and shares and other assets

23. However, there are factors that can help mitigate borrower risks. For instance, NBCOs tend to extend loans with relatively short maturities—between 1 and 2 years—thus limiting prolonged exposure.[14] Aggressive collection practices on non-performing debt that leverage on close-knit family connections of borrowers also help limit loan losses. At the aggregate level, NBCOs appear to have relatively high buffers against loan losses, with total buffers (including equity capital and loan loss provisions) accounting for around half of outstanding loans, although differences exist at the company level.

24. With NBCOs unable to accept deposits, a potentially important source of systemic risk has been removed. Moldova's NBCOs cannot accept deposits from the general population, contrary to the situation in some other countries.[15] Systemic risks from substantial deposits used to finance highly risky NBCOs that may go under in a crisis cannot emerge in Moldova.

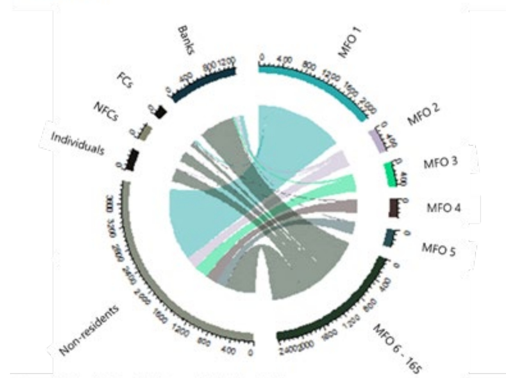
25. While risks stemming from lending activities appear broadly contained, NBCOs' heavy reliance on borrowing and especially on non-resident funding represent sources of vulnerabilities. The considerable dependence on borrowing exposes NBCOs to maturity mismatch

[13] These numbers reflect a more serious impact from the pandemic on NBCO loan portfolios than on bank loan portfolios. While both types of institutions were guided by their respective regulators to offer payment deferrals to their borrowers if needed, the greater risk exposure of NBCO clients might have led them to cease debt service. Industry representatives also mentioned the possibility that the ability to forgo debt service was overused, with borrowers who had made use of loan deferments unable or unwilling to resume payments in early 2021.

[14] For instance, in a 2-year loan that carries a 20 percent interest rate, 50 percent of the loan's principal will be repaid at month 13, reducing the damage from default to the lender, while also reducing the incentive to default on the part of the borrower.

[15] The law on NBCOs that came into effect in early 2020 prescribed that individuals are very much restricted in their ability to provide loans to NBCO's. See paragraph 14 for details.

Funding Sources for Microfinance Organizations, 2021Q1
(Million Lei)



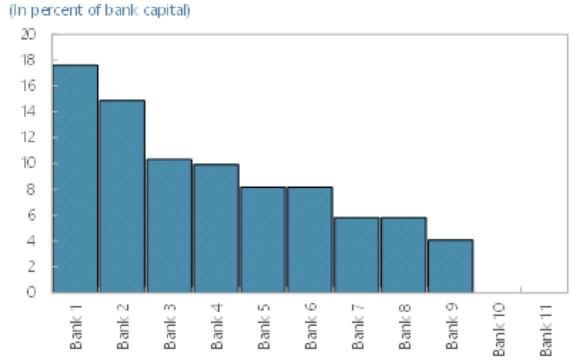
Sources: National Bank of Moldova and IMF staff calculations.
Note: Non-financial corporations (NFCs), Financial corporations (FCs).
Microfinance organizations include MICROINVEST (MFO1), IUTE CREDIT (MFO2), BT LEASING (MFO3), SEBO CREDIT (MFO4), MIKRO KAPITAL COMPANY (MFO5).

risks, and the role played by nonresidents suggests potential vulnerability to changes in global financial conditions. The NBCOs' high reliance on external funding can make them subject to the "risk on, risk off" mood prevailing in foreign markets. A sudden stop could lead many NBCOs to lose the ability to roll over debt during times of crises or tightened liquidity. However, the flow of nonresident funding is not evenly spread among NBCOs, with a handful of entities receiving the lion's share of nonresident lending, suggesting that risks are concentrated in specific segments of the market. The large flow of funds from non-residents into NBCOs also could give rise to AML/CFT concerns. While the NCFM has received UBO information from NBCOs, it is far from clear that the high level of foreign equity and debt funding that many NBCOs receive could not provide reasons such concerns.

26. **Exposure to exchange rate fluctuations is also a potential source of risk.** NBCOs' reliance on nonresidents' funding potentially exposes them to currency mismatch risks, a fact that is partially mitigated by NBCOs' growing share of the foreign currency-indexed credit market (see paragraph 12.

27. **Bank funding represents a source of risk for both the banks as well as the NBCOs involved, potentially presenting an important supervisory challenge.** In aggregate, banks' total lending to NBCOs is very small, equivalent to under 2 percent of the banking system's total assets as at the end of the first quarter of 2021. However, in the case of three banks, lending to NBCOs constitutes 17.6, 14.9, and 10.4 percent of their regulatory capital respectively (as of the end of the first quarter of 2021). This lending is very concentrated, with 93 percent going to the top 14 NBCOs by assets. In the cases of five NBCOs, loans from a single bank exceeds 60 percent of their bank borrowing. While this represents notable single-borrower exposure, a close-up view shows that some large loans are extended to financially very healthy NBCOs, leading to low incremental risk. For some NBCOs, the potential remains that their bank funding could cease on short notice based on the decision of one bank. The complexity stemming from these bilateral funding relationships, combined with FX-related risks, suggests that supervisors responsible for banks and NBCOs should cooperate when assessing institution-specific as well as systemic risks posed by NBCOs' activities (see paragraph 17 and footnote 12).

Bank Financing of NBCOs, end-2021Q1
(In percent of bank capital)



Sources: National Bank of Moldova, IMF staff calculations

28. A stress test of NBCOs' balance sheets suggests that despite potentially high-risk exposure, most NBCOs have sufficient capital to weather a number of downside scenarios (Box 2). Among the largest NBCOs accounting for around 80 percent of total market share, loan portfolios with significantly deteriorated asset quality appear to be concentrated in only a handful of players, with most NBCOs having sufficient capital to handle negative shocks. While some NBCOs will potentially fail during a downturn—with some ending up with their entire equity wiped out—these institutions are estimated to account for a relatively small portion of the market (around 6 percent of the total market share). However, adverse market events can be expected to increase leverage at the industry level drastically, suggesting increased vulnerability during prolonged downturns.

Box 2. NBCOs: A Stress Test

Due to data limitations, dynamic multiperiod simulations of adverse events affecting NBCOs are not feasible in the context of this paper. However, as a starting point, it is useful to consider the potential impact of different degrees of deterioration of NBCOs' loan portfolio under selected downside scenarios.

For this exercise, we consider delinquent loans with a duration exceeding 90 days, which for the purposes here will be referred to as "bad loans". This category was chosen since loans in this category require 100 percent provisioning compared to loans subject to shorter periods of delinquency. Higher levels of "bad loans" would sap NBCOs' equity as they need to make provisioning for these loans.

We consider five downside scenarios, in which the existing levels of "bad loans" at each individual NBCO increase by different magnitudes. In the first three scenarios, it is assumed that specific portions of better-performing loans deteriorate into "bad loans". To consider truly extreme conditions, the last two scenarios involve the simple assumptions of the level of "bad loans" doubling and tripling, respectively. In these scenarios, NBCOs with an exisiting low-quality loan portfolio will experience greater portfolio deterioration and higher relative increases in loan loss provisions. These assumptions align well with the experience during past credit crises. Specifically, the five downside scenarios are summarized as below:

- Scenario 1: 25 percent of loans delinquent for 60 to 90 days turn into "bad loans"
- Scenario 2: 50 percent of loans delinquent for 60 to 90 days turn into "bad loans"
- Scenario 3: 75 percent of loans delinquent for 60 to 90 days turn into "bad loans"
- Scenario 4: "Bad loans" double in level
- Scenario 5: "Bad loans" triple in level

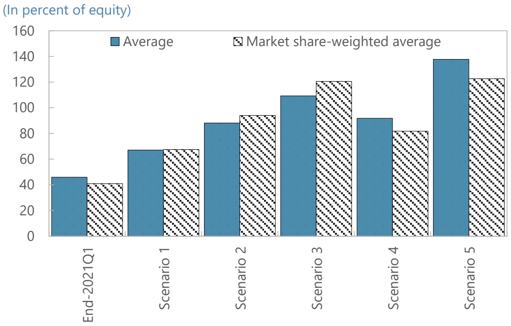
For the most part, the stress test focused on the 15 and 30 largest NBCOs, which accounted for around 80 and 90 percent of NBCOs' total market share, respectively, as of at the end of the first quarter of 2021. The impact on individual banks' equity is then estimated and aggregated. The key findings are:

- At the aggregate level, NBCOs in Moldova have sufficient equity to absorb further deterioration in asset quality, with the exception of extreme losses (scenarios 3 and 5);

Box 2. NBCOs: A Stress Test (concluded)

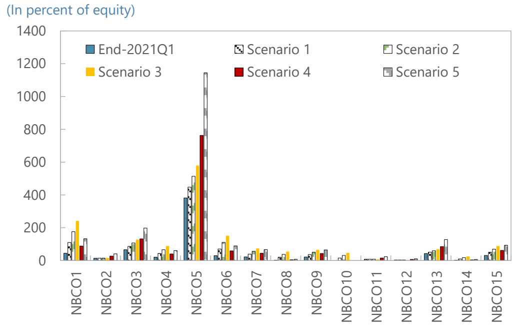
- The impact of the downside scenarios is mainly concentrated in NBCOs with high levels of lower-quality loan portfolio or limited equity currently;
- In the most extreme scenarios, a few NBCOs would see their equity wiped out, but these NBCOs are likely to account for a relatively small portion of the market share (around 6 percent).
- While NBCOs at the aggregate level are expected to be able to withstand most economic downturns, extreme shocks would increase leverage at the industry level measurably.

NBCOs: NPLs > 90 Days Under Various Scenarios
(In percent of equity)



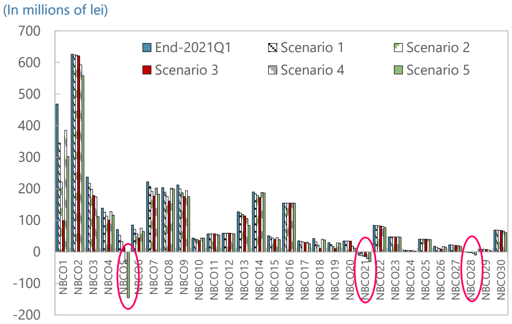
Sources: Staff calculations

NBCOs: NPLs Exceeding 90 Days Under Various Scenarios
(In percent of equity)



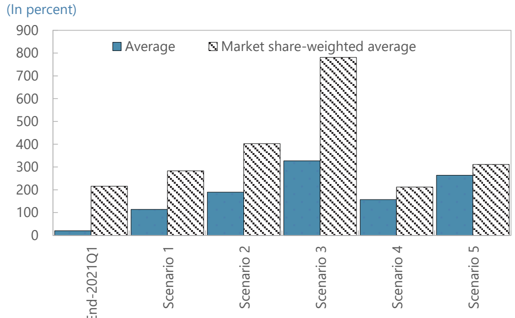
Sources: Staff calculations

NBCOs: Equity After Provisioning Under Various Scenarios
(In millions of lei)



Sources: IMF staff calculations

NBCOs: Debt-Equity Ratio Under Various Scenarios
(In percent)



Sources: IMF staff calculations

F. Policy Considerations

29. The role of NBCOs as a source of credit for the private sector can help address financial inclusion gaps, with further growth welcome as long as related risks are managed. Large swathes of consumers and enterprises in Moldova remain financially underserved and have limited access to credit. The fast growth in NBCOs' market share over the last 10 years reflects the large demand for credit in the economy that was not met by traditional banks, including in the rural areas, where banks are less active. NBCOs' increased activity however may generate new risks that need to be monitored and managed.

30. Plans for making the NBM as the sole regulator of banks and non-banks mark a step in the right direction. Having the NBM as the sole regulator of commercial banks and NBCOs can increase the consistency and speed in the implementation of macroprudential measures. Having a single regulator can lead to improved information sharing and better pooling of data and IT resources, which will bring greater clarity regarding systemic risks and vulnerabilities, as well as help foster a unified approach to financial consumer protection across banks and non-banks.

31. Forthcoming changes to the regulatory and supervisory regime governing NBCOs however should not lead to reduced access to credit for financially underserved consumers and firms. So far, NBCOs have operated safely and successfully. Subjecting NBCOs to the same regulations governing banks could jeopardize their current business model, likely leading to a mass exodus from the industry. As no substitutes for the services currently provided by NBCOs are likely to emerge in the short-to-medium term, curtailing NBCOs' role in credit provision would drive some underserved borrowers into the arms of shadow lenders completely outside the authorities' regulatory purview. In the worst-case scenarios, many consumers and SMEs probably would not be able to receive credit at all. With the integration of the underserved parts of the population and firms likely a long-term process that depends on reducing economic informality and increasing financial literacy, NBCO supervision and regulation should be tailored to that particular sector, distinct from the regime that governs banks.

32. The transition of the NCFM's oversight responsibilities to the NBM should follow a set of key principles that preserve credit access while strengthening NBCO regulation and supervision:

- Regulate and supervise NBCOs distinctly from banks, to preserve their positive impact on credit provision.
- Do not subject NBCOs' borrowers to the same strict credit approval and reporting requirements that some bank borrowers are subject to.
- Develop capital and provisioning requirements that reflect the higher risks of NBCO loans.
- Develop macroprudential and systemic risk-related requirements that are aligned between banks and NBCOs.
- Develop procedures that help to track and analyze certain NBCO-specific risks, including risks caused by FX- and maturity-misalignments between loans and funds, sudden stop risks from foreign funding, as well as risks emanating from the NBCO-bank nexus.
- AML/CFT concerns should be addressed by analyzing UBO and the ultimate source of foreign funding of NBCOs.
- Prioritize on-site supervision once pandemic-related restrictions have been removed. Supervision should put appropriate emphasis on governance and risk management of the institutions.

33. Further consolidation of the NBCO sector can be considered, with the view to increasing NBCOs' resilience and efficiency. The proliferation of NBCOs, many of which are undercapitalized and have inadequate capital and negligible assets may exert strains on regulators with relatively limited resources. Consolidating the market into a smaller number of players can potentially simplify supervision as well as ensure that borrowers are catered to by NBCOs with adequate resources, expertise, and capacity, which can provide high-quality services and are able to better withstand shocks. A significant reduction in the number of NBCOs—for example to the 30-40 large players that account for 90 or more percent of market share—can be done while maintaining a healthy level of competition.[56]

34. The authorities should develop a targeted approach on FCP that should be integrated into a national financial inclusion strategy. A national financial inclusion strategy that covers all financial market participants is urgently needed, given the lack of integration of many citizens and SMEs into the formal economy and the formal financial system. The consolidation of financial sector supervision under the auspices of the NBM can also facilitate planning and implementation of such a strategy, which should properly address FCP concerns. Data on indebtedness should be compiled and analyzed in ways that allow for easy sharing with the CPA or other agencies that partake in consumer protection. Common requirements on the sharing of information across banks, NBCOs, SCAs, and the credit bureaus, as well as caps on debt-to-income ratios could become more easily enforced under a common supervisor.

[56] Consolidating the industry to the top 30 players would have a limited impact on market concentration as measured by the Herfindahl Hirschman Index, which currently stands at around 9 percent and would increase to 11 percent, still significantly below, for instance, the 25 percent threshold used in the US in assessing oligopolistic conditions.