



German  
Economic  
Team

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**POLICY BRIEFING**  
**MOLDOVA**

# Accelerating growth in Moldova: opportunities and constraints

by Valeriu Pronitchi

# Executive Summary

- » Potential growth in Moldova weakened substantially in the recent two decades, from about 6% in 2000-2006 to about 2.5% in 2020-2022
- » Sluggish development of efficiency factor has been particularly disappointing. Its contribution to growth went from 8 p.p. in the early 2000s to only 1.3 p.p. in 2021
- » We model potential output for 5 growth scenarios: baseline, labour-based growth, investment-based growth, efficiency-based growth, combined scenario
- » Contrary to the prevailing opinion, increased investment alone is not sufficient for a sustainable growth at faster rate
- » Accelerated growth should rely on enhanced efficiency combined with higher employment rate and higher investment rate, as modelled in the combined scenario
- » The combined scenario enables a yearly GDP growth rate of 7% from 2030 on
- » To achieve the outcomes of this scenario, policy should focus on:
  - Increasing the labour force participation rate (esp. among women and through return of migrants from abroad)
  - Improving sources of financing to decrease the project implementation times for investment projects
  - Increasing efficiency in public sector firms
  - Increasing competitiveness and resilience of private sector firms

# Structure

1. Motivation
2. Moldova's growth accounting
3. Key constraints
  - I. A declining labor force
  - II. Low employment rate and working hours
  - III. Inefficient SOEs make significant investment
4. Scenarios
5. Conclusions and recommendations

# Motivation

## Background

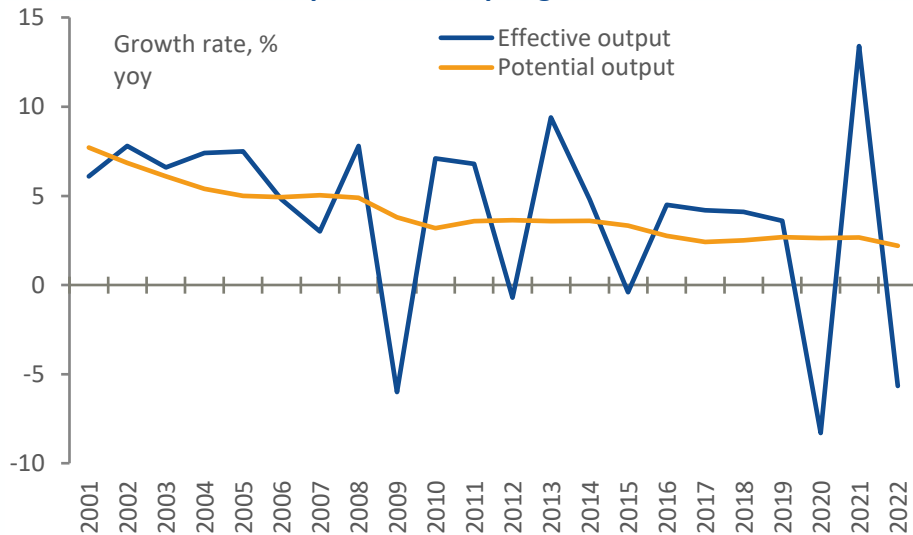
- » A key objective stated by the Moldovan government is acceleration of economic growth
- » Various targets have been discussed going to as high as 10% GDP growth per year
- » There are, however, natural and physical limits to growth
- » Actual growth cannot continue to be too long above potential growth without jeopardizing other goals, such as inflation and consumption

## Purpose of this Policy Briefing

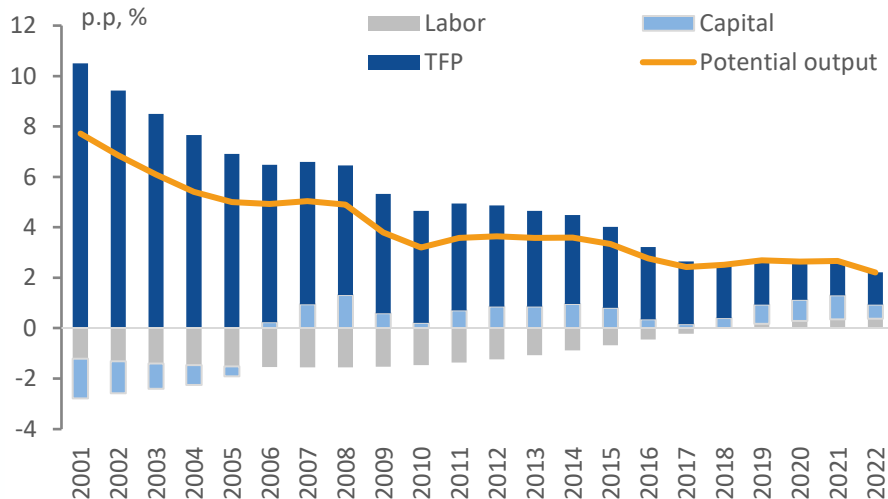
- » Present results of growth accounting in Moldova
- » Discuss key constraints to growth
- » Present results of analysis of how to achieve higher growth

# Moldova's growth accounting

## Actual versus potential output growth in Moldova



## Decomposition of Moldova's potential growth

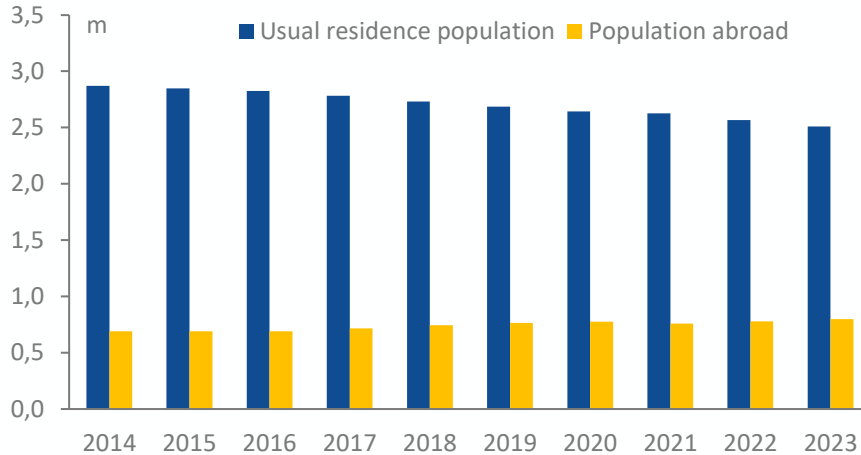


Source: own modelling

- » We estimate the potential growth using a Cobb-Douglas production function which accounts for three factors:
  - Capital
  - Labor
  - Total factor productivity (TFP)
- » Potential growth declined continuously since early 2000s
- » Growth visibly slowed down after the financial crisis mainly due to losses in productivity
  - Negative contribution of labor until 2019, but barely positive afterwards
  - Positive but modest contribution of capital after 2006
- Potential growth in Moldova weakened substantially in the recent two decades
- Development of productivity has been particularly disappointing

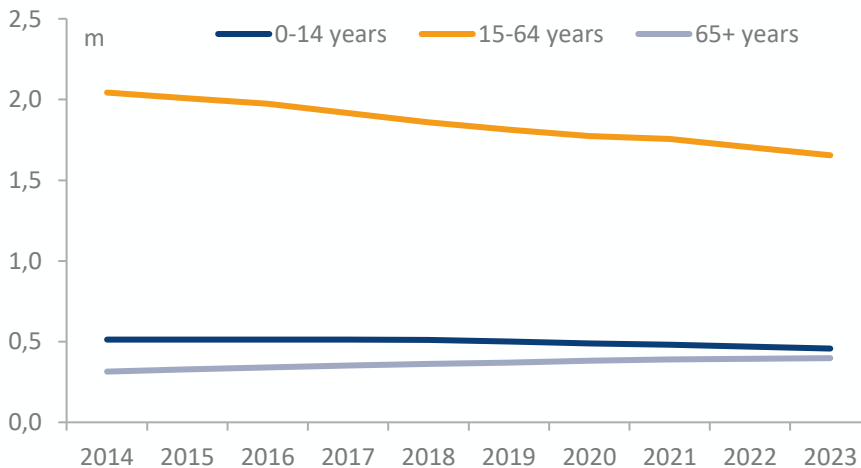
# A declining labour force

Population with usual residence and population abroad



Source: NBS data, own modelling for population abroad

Population with usual residence by age groups



Source: own modelling

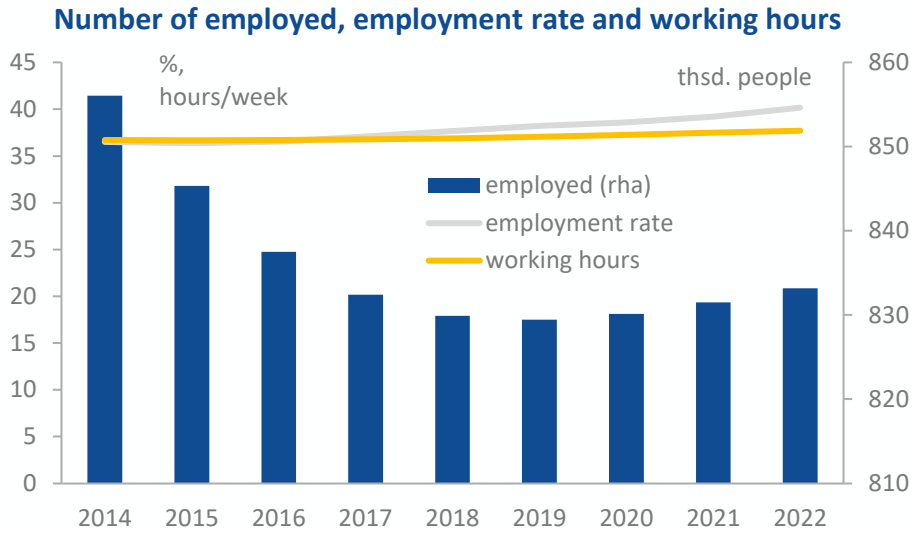
- » Resident population declined in 2014-23 by 12%, while population abroad increased
- » Main causes are high rates of emigration and low rates of returning migrants

Migration and return rates by age groups

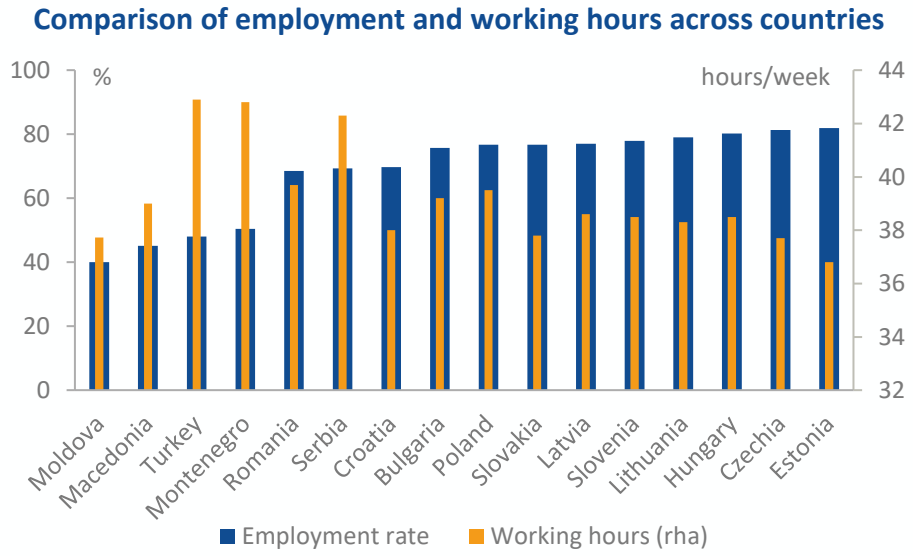
Age group	Migration rate	Return rate
0-14 years	4.5	16.5
15-64 years	5.5	13.3
65+ years	1.3	13.2

- » Emigration is particularly high among working age people; this age cohort declined by almost 20% in 2014-2023
- » Population 65+ grew by 27%, while the number of children declined by 10%
- » As a result, the economically dependent population increased by 4% in one decade
- “Populational scissors” increased fiscal pressure on working age population and weakened aggregate consumption

# Low employment rate and working hours



Source: NBS data reconciled by author

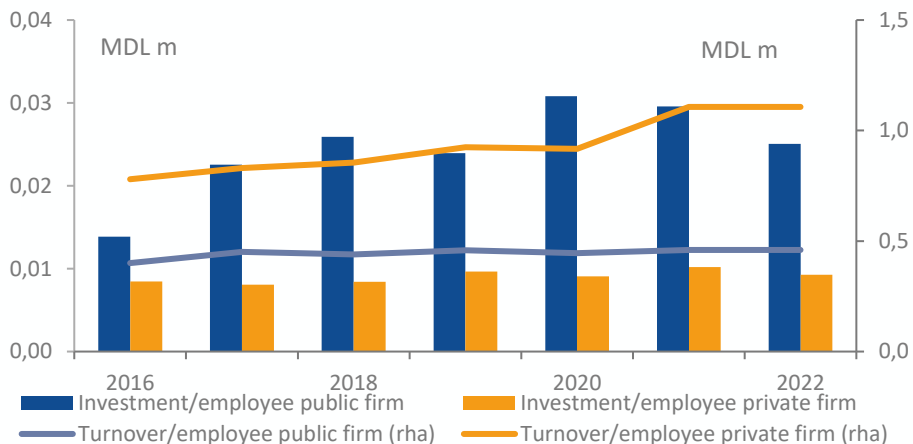


Source: Eurostat, NBS; data for 2022

- » Despite declining working age population, the employment rate grew from 36.5% in 2014 to 40.2% in 2022
- » As a result, the number of employed started to grow since 2019, from 829 thsd. people to 833 thsd. in 2022
  - The indicator grew even during the COVID-19 pandemic
- » In addition, there has been a small increase in working hours, from 36.7 hours/week in 2014 to 37.7 in 2022
- » Despite growth in the employment rate and working hours, Moldova falls behind in a regional comparison
  - The next country in the top, Macedonia, had an employment rate 5 p.p. above Moldova
  - Closest Western neighbour, Romania, had an employment rate of 65% and almost 40 working hours per week
- **Moldova’s employment rate and working hours fall behind in regional comparison**

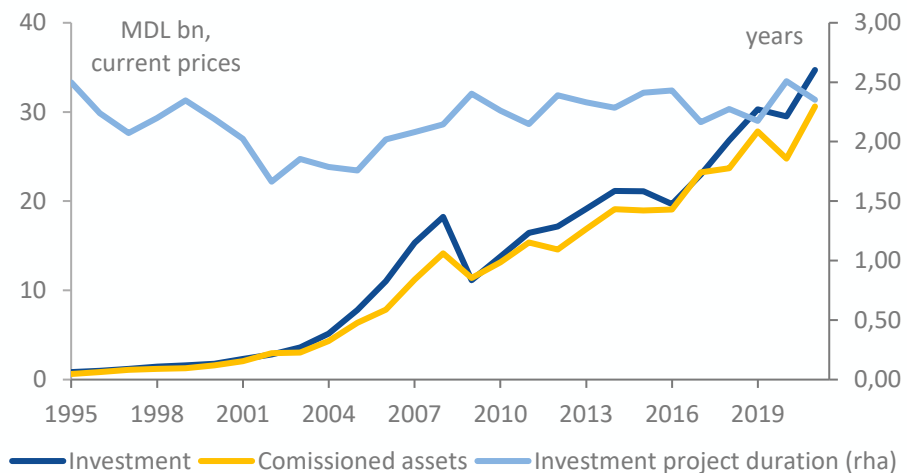
# Inefficient SOEs make significant investment

## Investment and turnover by firm ownership



Source: own calculation based on NBS data

## Fixed assets investment and commissioned assets gap



Source: own calculation based on NBS data

- » Public (state-owned) firms provide about 1/3 of the total capital investment in Moldova
- » Average investment per employee in a SOE is about 8 times larger than in a private firm
- » But: private firms are on average 3 times more efficient than SOEs as measured by turnover/employee
- » Thus, there is a macroeconomic tradeoff between volume of investment and overall efficiency in the economy
  - Too many SOEs lead to losses in efficiency, too few – to losses in investment
- » Another source of inefficiency comes from the slow execution of investment
  - It takes about 2.5 years between starting the financing for and commissioning the new fixed assets
  - The lag is due to financing constraints, regulatory hurdles and intrinsic technical complexity
- Inefficient SOEs and slow execution of investment are two significant problems



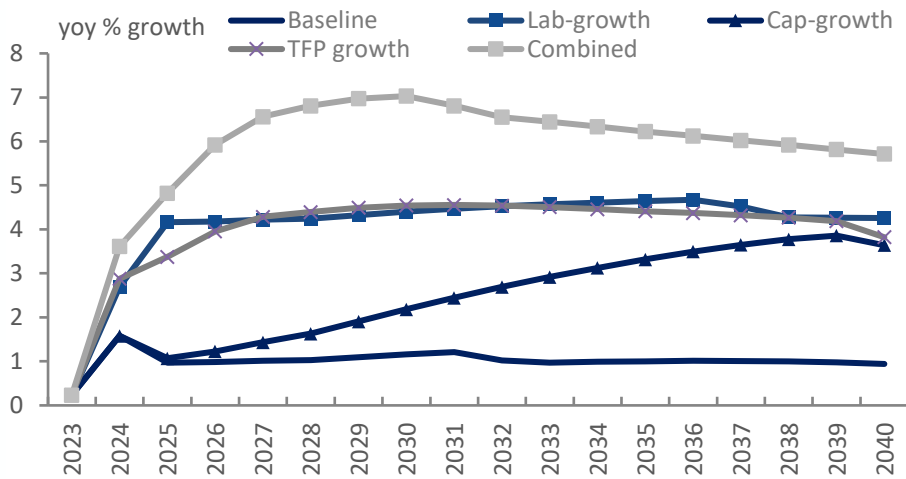
# Five growth scenarios: the policy parameters

Parameter	Initial values 2022	Final values in 2040				
		Baseline	Labour-based growth	Investment-based growth	Efficiency-based growth	Combined growth
Employment rate	40.2	48.8	72.1	48.8	48.8	72.1
Average working hours	37.7	40.0	42.0	42.0	42.0	40.0
Public firms' creation rate, %	1.6	0.9	0.9	0.9	0.7	0.8
Public firms' closure rate, %	7.5	6.5	6.5	6.5	7.7	7.4
Private firms' creation rate, %	14.8	14.5	14.5	14.5	16.0	15.5
Average investment per public firm, MDL m, constant prices	1.94	6.46	6.46	12.05	6.46	7.56
Average investment per private firm, MDL m, constant prices	0.09	0.14	0.14	0.37	0.14	0.20
Average duration of investment project implementation, years	2.3	2.3	2.3	2.3	1.7	1.6

Source: own modelling

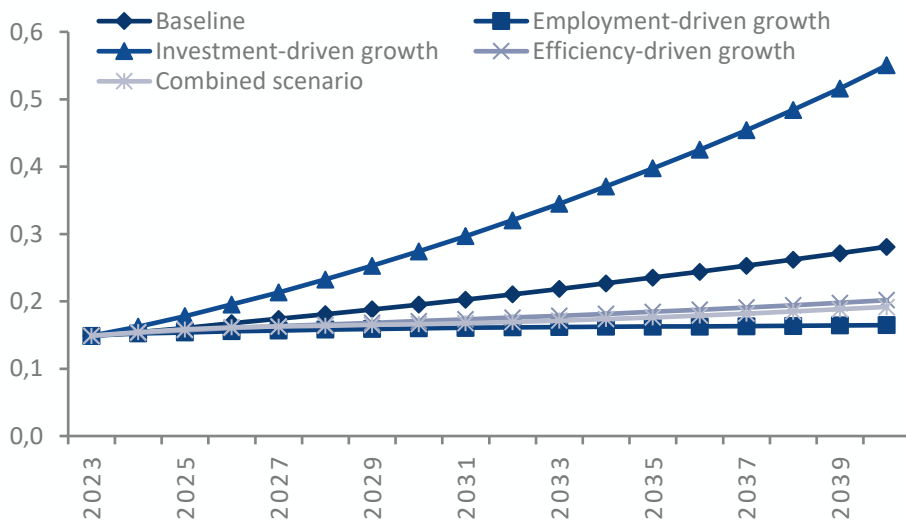
# Economic growth in different scenarios

## Output growth rate in simulated scenarios



Source: own modelling

## Investment-to-output ratio in simulated scenarios

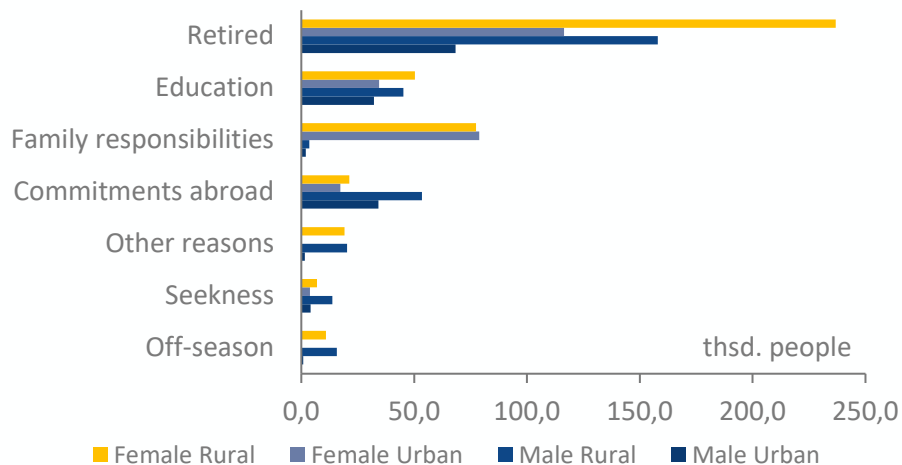


Source: own modelling

- » Baseline growth rates remain in lower digits, despite the modestly growing employment rate and investment
- » Employment-driven growth resembles the efficiency-driven growth
- » Growth rate reaches 4.5% by 2030, with the efficiency-driven growth losing momentum towards the end of the simulations horizon due to limiting 42 hours/week condition
- » Investment-driven growth begins slower and remains below the employment-driven and efficiency-driven scenarios.
  - It is also costly, as investment-to-output ratio continuously grows ...
  - ... which is possible only if final consumption declines.
- » **Combined scenario is the most attractive and allows 7% growth levels by 2030**
  - It is also more acceptable in terms of work-life balance (fewer working hours needed) and in terms of investment-consumption balance

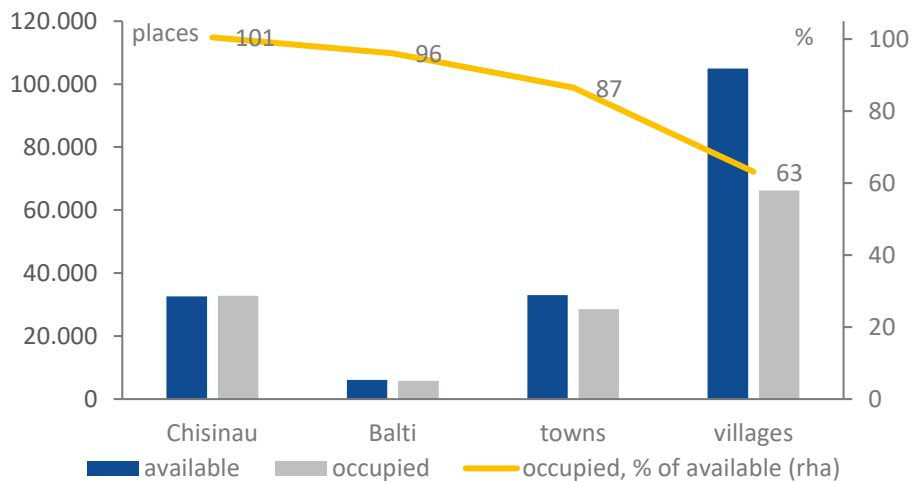
# Conclusions and recommendations (1/3)

## Economically inactive by sex, residence and reason



Source: NBS

## Available and occupied places in kindergartens



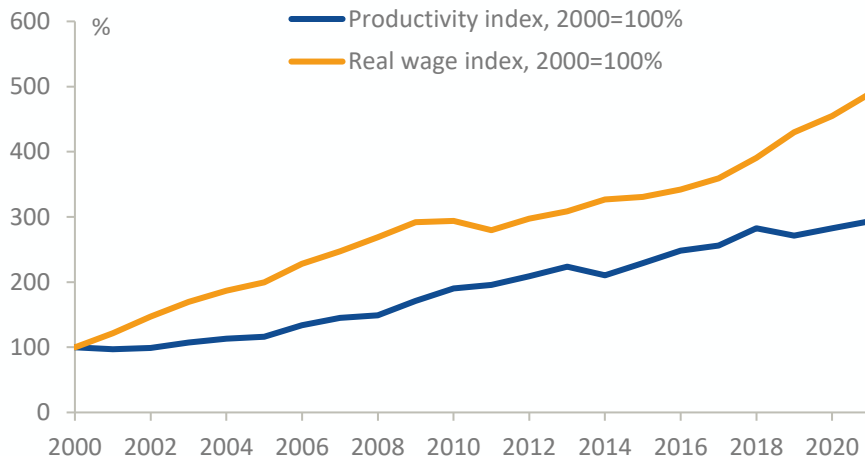
Source: NBS

## Labour

- » Firms can draw labour from:
  - Economically inactive people
  - Labour immigrants
  - Returning Moldovan migrants
  - Nonproductive sectors/firms
- » Economically inactive are difficult to persuade to get employed
  - Of 1.24 m: 1.1 thsd. are looking for jobs but not available to start, 8.7 thsd. are available to start but not looking for jobs, 8.6 thsd are willing but not looking nor available
- » 150 thsd. Women are inactive due to family responsibilities; need access to affordable and acceptable community care services:
  - Kindergartens – mild constraint, insufficient in every 10<sup>th</sup> community
  - Elderly and disabled care – possibly a more serious problem in all communities
- » Social aid beneficiaries (20 thsd. bodily-able adults) might seek empl. if aid is conditional upon beneficiaries being economically active
- » Immigrants: difficult to assimilate and retain, often only in low-skilled jobs

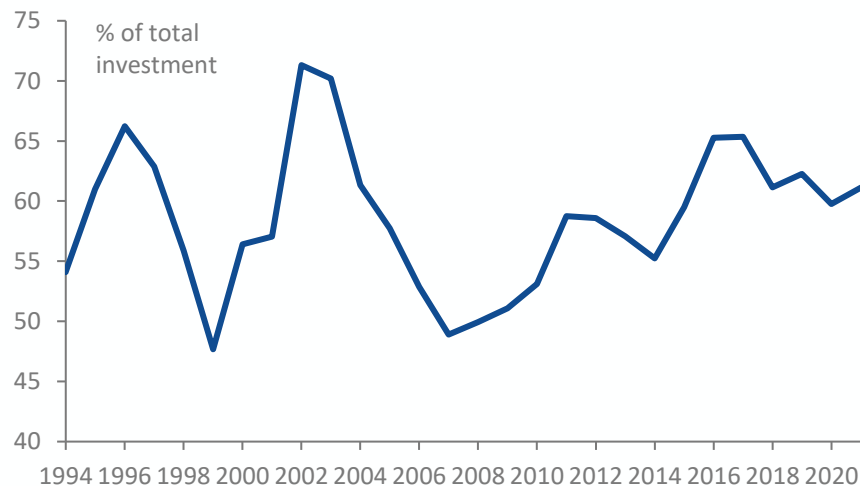
# Conclusions and recommendations (2/3)

## Productivity index versus real wage index



Source: own calculation based on NBS data

## Share of own sources in capital investment financing



Source: own calculations based on NBS data

- Moldovans abroad most promising source:
  - High number
  - No social-cultural integration issues
  - Potential for creation of new firms
- » But: Only if promising profit/wage perspectives
- » Rapid increase in domestic wages is difficult as productivity lags behind
- » Profitable and productive sectors with jobs-creation potential should be given priority

## Investment

- » 2/3 of investment financed by firms' own sources. Reflects unavailable/unaffordable banks financing
- Alternative financing sources are imperative (capital market, pension funds, crowdfunding, fintech etc.)
- » This will also allow reduction in projects' implementation period

# Conclusions and recommendations (3/3)

## Productivity

- » SOEs policy. **Strategic goal: increasing efficiency**
  - Closing down inefficient companies
  - Provision of support for professional rehabilitation/retraining/reconversion of the employees to match private firms labour market demand
  - Privatising companies operating on competitive markets
  - Professionalisation of the supervisory boards and executive management of the SOEs
  - Mandatory good governance standards in firms remaining in public property (fit-and-proper test checks of the executives, annual audits, transparent public acquisition, etc.)
- » Private firms' development. **Strategic goal: increasing competitiveness and resilience**
  - Emphasis on support to young entrepreneurs and start-ups
  - Emphasizing market orientation for beneficiaries of agricultural subsidies
  - Emphasizing export orientation and innovation for beneficiaries of financial assistance through the Organization for Entrepreneurship Development
  - Development of the 'second-chance' (business recovery) programs for returning migrants-entrepreneurs
  - Development of industrial programs for diversification of the economic basis in rural areas

# About the German Economic Team

Financed by the Federal Ministry for Economic Affairs and Climate Action, the German Economic Team (GET) advises the governments of Ukraine, Belarus\*, Moldova, Kosovo, Armenia, Georgia and Uzbekistan on economic policy matters. Berlin Economics has been commissioned with the implementation of the consultancy.

*\*Advisory activities in Belarus are currently suspended.*

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