

## **AN ANALYSIS OF THE IMPACT OF FISCAL MEASURES ON THE INDUSTRIAL SECTOR OF THE REPUBLIC OF MOLDOVA DURING AND AFTER THE COVID-19 CRISIS**

**ANDREI PESTEREV**

British International School of Timisoara  
Timisoara, Romania

e-mail: [andrei.pesterev@britishschool-timisoara.ro](mailto:andrei.pesterev@britishschool-timisoara.ro)  
ORCID ID: 0009-0003-0214-0891

**ELENA CARA**

Assoc. Prof., PhD

Department of Economic Theory and Policies  
Academy of Economic Studies of Moldova  
Chisinau, Republic of Moldova  
e-mail: [cara.elena.petru@ase.md](mailto:cara.elena.petru@ase.md)  
ORCID ID: 0000-0003-2482-8622

**Abstract:** This paper quantitatively assesses how government measures adopted in 2020 affected the Republic of Moldova’s industrial sector during and after the COVID-19 pandemic. A monthly Industrial Health Index (IHI) was constructed using nine indicators: Industrial Production Index, employment levels, productivity, active firms, producer prices, wages, energy costs, exports, and fixed investments. Data were standardized to z-scores over a 2017-2019 baseline period. A linear continuation of the pre-pandemic slope serves as a counterfactual path against which the actual IHI was compared.

The IHI fell by 1.13 standard deviations (SD) in the April 2020 trough but recovered half of that loss within two months. The index overshot and peaked at +2.71 SD in 2021 - 2022, and by the end of 2023, it eased back to a modest shortfall, with the IHI lying 0.46 SD below the projected path. Wages, productivity, and exports primarily drove the rebound in the industrial sector, while energy costs and incomplete recovery in output reduced long-term convergence. The alignment of the industrial sector recovery synchronized with the April - June 2020 government support package. This suggests that changes in fiscal policies and measures promoted by policymakers cushioned the trough in the industrial sector and supported the rebound to an upward trajectory; however, persistent cost pressures limited full trend re-emergence.

**Keywords:** Industrial Sector, COVID-19, Republic of Moldova, Economic Efficiency, Productivity, Output Costs.

**JEL Classification:** E65, L60, O52

### **Introduction**

In December 2019, the first cases of a novel coronavirus were reported in Wuhan, China. (World Health Organization, 2020) Originally, what appeared to be a local crisis rapidly escalated into the most severe global pandemic of the twenty-first century, disrupting supply chains, depressing consumer demand, and prompting unprecedented government interventions. In early 2020, COVID-19 managed to reach the Republic of Moldova, with the first case confirmed on 7 March 2020. (Ministry of Health, Labour and Social Protection of the Republic of Moldova, 2020)

The economic impact of the pandemic was felt most acutely by countries whose industrial sectors are tightly integrated into the global economy. Worldwide, rising unemployment, lower incomes, and diminished consumer confidence reduced demand for goods and services. Countries specialised in industry were strongly affected, while new trade restrictions further constrained access to export markets and imported inputs. (World Trade Organization, 2020)

*Annual International Scientific Conference*  
*“Competitiveness and Innovation in the Knowledge Economy”*  
*September 26-27, 2025*  
*Chisinau, Republic of Moldova*

---

The Republic of Moldova was not spared these shocks. National GDP contracted by 7%, exports and imports fell by 11.5% and 8.6% respectively, and approximately 62,000 jobs were lost. Most enterprises reported sales declines of 75%–100%, amplifying the economy’s overall vulnerability. (United Nations Development Programme Moldova, 2020) Given Moldova’s economic structure and the severity of the shock, the fiscal response was calibrated primarily to support the supply side by reducing tax and compliance burdens, safeguarding firm liquidity, compensating payroll during technical stoppages, and streamlining administrative procedures. The policies were aimed at preserving productive capacity and the continuity of supply chains.

Against this backdrop, the industrial sector was one of the most affected. Accounting for roughly 16% of national GDP and employing about 13.4% of Moldova’s labour force in 2024, the industrial sector plays a key role in the country’s economy. (National Bureau of Statistics of the Republic of Moldova, 2024) Its contribution to GDP cannot be overlooked.

The importance of industry has been recognised since the early stages of economic thought. Thomas Mun argued that industrial development is essential to promoting trade and strengthening a nation’s wealth. (Mun, 1664) Similarly, William Petty emphasised that national prosperity derives not only from trade, but from production itself. Both perspectives underscore the need for active government support to stimulate industrial activity. (Petty, 1690/2017)

International research highlights how effective fiscal policy can revive an economy during a downturn by stimulating demand and ensuring business continuity. (Auerbach and Gorodnichenko, 2011) At the same time, such policy carries risks of inefficient resource allocation or dependence on government intervention. (Friedman, 1962) In the case of the Republic of Moldova, studies on the impact of fiscal policy on economic recovery are scarce, and analyses focused on the industrial sector are even rarer. This gap hinders the formulation of fiscal measures tailored to local market realities. The aim of this paper is to address that gap and to ensure that future policymakers are able to use fiscal policy effectively to support a key industry during periods of heightened stress.

### **Methodology**

To better understand the role of government policies on the industrial sector during periods of crisis, this study uses a descriptive and comparative time-series approach to evaluate how the COVID-19 pandemic and the fiscal measures undertaken during this period influenced the industrial sector of the Republic of Moldova. The analysis focuses on answering three main questions:

How did key performance indicators for the industrial sector change during different periods of the pandemic?

What was the impact of fiscal policy measures on industrial activity?

What trends emerge in the activity of the industrial sector when analysing the recovery trajectory over a two-year period following the initial lockdown?

As a reference point for all subsequent comparisons, the period January 2017-February 2020 serves as the pre-pandemic baseline and establishes the normal levels for industrial indicators.

The period March 2020-May 2020 covers the first confirmed case and the start of the nationwide quarantine. During this period, strict quarantine measures were implemented, and production was halted, which significantly disrupted the industrial sector. (Legis.md, 2020)

June 2020-December 2020 covers the introduction of fiscal measures. The quarantine ended and multiple financial support measures were implemented.

January 2021-December 2021 will be used to monitor the short-term recovery of the industrial sector. As restrictions eased and vaccination campaigns began, the economy started to recover.

January 2022-December 2023 will be used to monitor the long-term recovery of the industrial sector. This period will be used to assess whether the industrial sector managed to reach

*Annual International Scientific Conference*  
*“Competitiveness and Innovation in the Knowledge Economy”*  
*September 26-27, 2025*  
*Chisinau, Republic of Moldova*

---

pre-pandemic trends. It will also be used to analyse the efficiency of fiscal policies and the sector’s reliance on government intervention during periods of high pressure.

To analyse the health of the industrial sector during the periods mentioned above, nine quantitative indicators were used. These indicators reflect different dimensions of industrial performance, cost structure, and structural resilience.

**Industrial Production Index (IPI)**

Relevance: IPI is an accurate estimate of industrial production. It reflects changes in production volume. It serves as a reference point to determine how fiscal measures affect production.

**Employment**

Relevance: Employment stability goes hand in hand with sectoral resilience. Alterations in employment can reveal structural imbalances, while stable or rising figures suggest recovery or expansion.

**Productivity in the industrial sector**

Relevance: Reveals how efficiently inputs are converted into outputs. In the context of the pandemic, productivity fluctuations may have been caused by the implementation of workplace safety measures.

**Number of active industrial firms**

Relevance: Reflects the structural capacity of the sector. Significant changes can reveal business closures due to unfavourable conditions or sectoral strength.

**Industrial Production Price Index (IPPI)**

Relevance: IPPI encapsulates cost and price dynamics at the producer level. Monitoring IPPI helps identify the effects of inflation on industry.

**Average wages in the industrial sector**

Relevance: Wages reflect labour cost pressure and the welfare of workers. Even though higher wages may increase production costs, this paper considers such an increase as a positive signal for industrial health, as it may indicate higher skill levels, increased labour demand, and better living standards for workers in the industrial sector.

**Energy prices for enterprises**

Relevance: Energy is a critical component for the industrial sector. It is one of the largest expenses in production costs, and electricity prices directly affect profitability and investment capacity.

**Exports of industrial goods**

Relevance: Export value indicates the competitiveness of industrial goods produced in Moldova and the external demand for such goods. This figure provides an important perspective on sectoral health during and after the pandemic.

**Investment in fixed tangible assets**

Relevance: Investment in fixed assets is a sign of long-term confidence. Sustained investment during the crisis can be a sign of the effectiveness of policies in maintaining business confidence.

These variables are obtained from the National Bureau of Statistics, reports of the Ministry of Economy, and EU4Business. Data is collected at monthly intervals, and annual data was used to contextualize broader trends.

**Results and Findings**

The collected data allowed each indicator to have the mean and standard deviation calculated for the pre-pandemic reference period. Each monthly value was then transformed into a standardized z-score using:

$$Z_t = \frac{X_t - \mu}{\sigma} \quad (1)$$

Where:

$Z_t$  is the standardized value for the month  $t$

$X_t$  is the original value for the month

$\mu$  is the mean value for the baseline period

$\sigma$  is the standard deviation value for the baseline period

Once all indicators were standardized, the IHI value for each month  $t$  was calculated using:

$$IHI_t = \frac{\sum_{i=1}^n Z'_{i,t}}{n} \quad (2)$$

Where:

$IHI_t$  is the composite Industrial Health Index for month  $t$

$Z'_{i,t}$  is the normalized value of indicator  $i$  in month  $t$

$n$  is the total number of indicators (9)

By using the Z-score method, an IHI index was created where a value of 0 represents the baseline average, positive values indicate an increase in the performance above the baseline, and negative values indicate a negative performance below the baseline. The monthly IHI values obtained will be used to calculate the average monthly IHI change rate using:

$$IHI_t(\text{predicted}) = IHI_{Dec\ 2019} + IHI\ Change\ Rate \times t \quad (3)$$

Where:

$t$  is the time in months

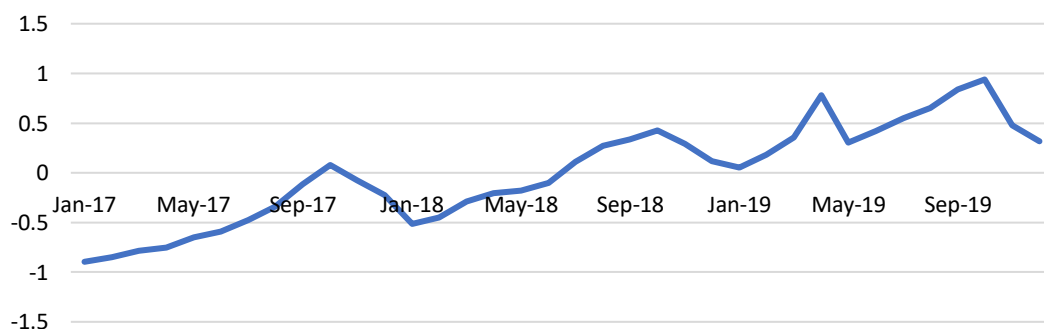
$IHI\ Change\ Rate$  is the average monthly IHI Change

$IHI_{Dec\ 2019}$  is the IHI value for December 2019

The difference between the monthly IHI values was averaged and then used to create a hypothetical “no-pandemic” scenario from January 2020 onward. The projection\* assumes that the industrial sector would have continued to grow at the pre-pandemic average monthly rate if the pandemic had not occurred.

*\*From here onward, “projection” or “counterfactual” means the linear continuation of that pre-pandemic slope.*

Pre-pandemic IHI trends are represented in Figure 1. From this, we observe that the baseline IHI traces a steady and moderate growth from the beginning of 2017 until the end of 2019, with some short-lived troughs followed by rapid recoveries. The values remain within approximately one standard deviation from the baseline for the given period, with peaks in mid-2018 and mid-2019. The chart provides two anchors for all subsequent inferences.



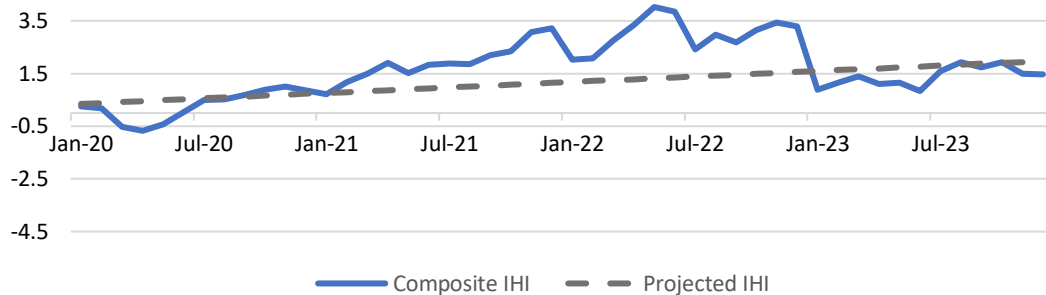
**Figure 1. Industrial Health Index (IHI) baseline trend in Moldova, 2017–2019 (Industrial Health Index vs Time)**

Source:

Calculations by A. Pesterev based on data from the National Bureau of Statistics of the Republic of Moldova

In Figure 1 a value of 0 on the z-score scale corresponds to the “normal baseline value.” The baseline slope is +0.0346 z-units per month. The value was obtained by averaging the monthly difference for the composite IHI index. This value will be used to construct the counterfactual trajectory from December 2019 onward.

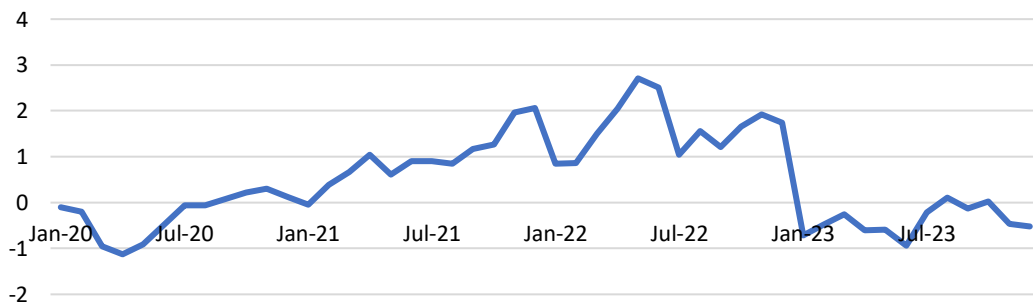
*Annual International Scientific Conference  
 “Competitiveness and Innovation in the Knowledge Economy”  
 September 26-27, 2025  
 Chisinau, Republic of Moldova*



**Figure 2. Predicted vs. Actual Industrial Health Index (IHI) values, 2020–2023**

Source: Calculations by A. Pesterev based on data from the National Bureau of Statistics of the Republic of Moldova

From Figure 1 and Figure 2, the most important characteristics are the short and deep deficit in 2020, compared with the longer and more superficial overperformance in the period 2021–2022, and a modest net underperformance that persists until the end of 2023.



**Figure 3. Gap between predicted and actual Industrial Health Index (IHI) vs Time in Moldova, 2020–2023**

Source: Calculations by A. Pesterev based on data from the National Bureau of Statistics of the Republic of Moldova

The actual IHI falls sharply below the projected trajectory with the start of the quarantine. The gap is largest in April 2020, when the decline reaches a trough of -1.127 standard deviations relative to the counterfactual, remaining large in May 2020 with a value of -0.917 standard deviations. The projection continues to increase in certain intervals.

Since the end of 2020, the composite IHI has risen again, and during the period 2021–2022, the actual IHI is at or above the projection in 23 of 24 months. The overshoot culminates in May 2022, when the gap reaches its most positive value of +2.709 standard deviations. The beginning of 2023 shows a decline: the gap becomes negative again, indicating a gap of -0.713 in January 2023, showing that the actual index fell below the counterfactual. For the rest of 2023, the composite IHI fluctuates around the projected trajectory and ends with a negative gap.

Overall, the model shows that a shock is followed either by a recovery/overshoot, then ends with a correction. By the end of 2023, the sector is closer to its pre-pandemic trajectory than to the growth minimum, but it has not fully reintegrated into it.

The timeline of fiscal and support policies adopted between March 2020 and December 2020 is presented in Table 1.

The effectiveness of government fiscal policies was evaluated by analyzing changes in the industrial sector. The introduction of major fiscal policies was overlaid on these comparisons to evaluate whether notable improvements occurred. This approach does not establish definitive causality, but it evaluates alignment and timing consistency.

*Annual International Scientific Conference  
 “Competitiveness and Innovation in the Knowledge Economy”  
 September 26-27, 2025  
 Chisinau, Republic of Moldova*

**Table 1. Timeline of fiscal and support measures adopted  
 in the Republic of Moldova in 2020**

Normative Acts / Date	Implemented measures
Gov. Decision No. 55 17 March 2020	Declared a nationwide state of emergency for 17 March 2020-15 May 2020. The CSE immediately enforced orders, enabled border entry/exit controls, internal movement restrictions, quarantine and mandatory sanitary measures. Authorized special work regimes for all entities – including suspension/limitation of activity, banned public gatherings. Allowed temporary changes on leadership in public bodies/SOEs and restrictions on employee resignation to maintain critical services; also provided a legal basis to coordinate official communication.
CSE Disposition No. 3 23 March 2020	Introduced a moratorium on all state inspection until 1 June 2020, reducing compliance pressure for businesses. Extended tax filing and payment deadlines for local and income taxes, providing short term liquidity relief. Suspended mandatory audits of 2019 financial statements for medium and large firms, cutting compliance costs.
Law No. 56 – 2 April 2020	Established an Interest Rate Subsidy Program to cover interest payments on businesses and loans. Established a VAT Refund Program to improve the return of VAT Credits, injecting liquidity into firms’ cash flows. Allowed full deductibility of COVID-19 donations from corporate income tax.
CSE Disposition No. 16 – 10 April 2020	Provided a one-time unemployment benefit of 2,775 MDL to unemployed citizens. Covered state social insurance contributions for self-employed persons whose activity stopped, this preserved social coverage without necessitating out-of-pocket expenses during periods of inactivity.
Law No. 60 – 23 April 2020	Started the Interest Rate Subsidy Program and VAT Back Program to reduce financial constraints. Extended the full tax deductibility of COVID-19 related donations, used private sector donations to relief efforts.
Law No. 61 – 23 April 2020	Revised the 2020 Government Budget to allocate 1.03 billion MDL for economic support, used funds for the Interest Rate Subsidy Program and VAT Back Program.
CSE Disposition No. 25 - 5 May 2020	Provided 2,775 MDL to patent holders and independent traders whose activity was halted. This reduced income losses for small entrepreneurs affected by the lockdown
CNESP Decision No. 10 – 16 May 2020	Declared a nationwide State of Public Health Emergency. Maintained border entry controls with 14-days self-isolation, while expanding exemptions to ease economic friction. Began re-opening under sanitary protocols: international passenger transport resumed from 26 May; municipal markets, libraries and museums reopened from 1 June. Fitness and food service reopened on 15 <sup>th</sup> of June with strict health rules. Overall, it shifted from blanket shutdown to risk-managed operations.
Law No. 68 – 21 May 2020	Approved a €52.9 million financial agreement from the World Bank and IDA, increasing budget for fiscal government support programs.
Law No. 69 – 21 May 2020	Modified the Labor Code to allow remote work and flexible scheduling during lockdowns, enabling the continuity of business operations. Allowed electronic submission of export certificates, simplifying trade transactions and reducing delays.

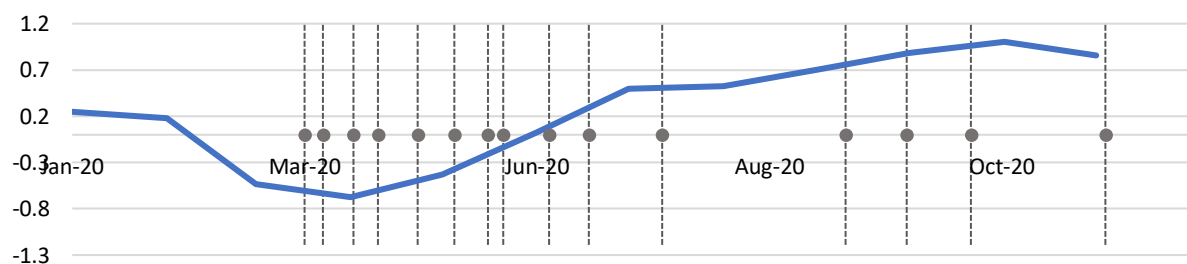
*Annual International Scientific Conference  
 “Competitiveness and Innovation in the Knowledge Economy”  
 September 26-27, 2025  
 Chisinau, Republic of Moldova*

Gov. Decision No. 340 – 5 June 2020	Exempted imported and local purchases from VAT and customs duties, reducing costs for firms involved in such projects (e.g. suppliers of industrial goods for pandemic response)
Law No. 102 – 18 June 2020	Voided Law 56 and introduced e-invoicing for all taxable supplies in public acquisitions, improving payment traceability and reducing administrative delays.
Law No. 131 – 12 July 2020	Revised the 2020 Government Budget to increase funding for government support programs, this ensured that support programs continued without introducing new mechanisms
Law No. 168 – 10 September 2020	Approved a Council of Europe Development Bank Loan for COVID – 19 Recovery, indirectly financing government support programs
Law No. 173 – 11 September 2020	Revised the 2020 Government Budget to reallocate funds towards drought relief and ongoing business government support programs.
Gov. Decision No. 732 – 30 September 2020	Extended Law 69/2020 until 30 Oct 2020, easing operations for exporters and suppliers.
Gov. Decision No. 771 – 21 October 2020	Extended Law 69/2020 to 30 Nov 2020 sustaining eased trade certification and bureaucratic procedures
Law No. 224 – 4 December 2020	Modified fiscal legislation so employer-paid COVID-19 testing is exempt from tax and made it deductible for companies, reducing cost burden for workplace health safety measures

Source: Compiled by A. Pesterev based on legislative documents from Legis.md

Figure 4 presents the IHI in the Republic of Moldova over 2020, together with the timing of fiscal policy interventions. Each dotted vertical line represents a government measure, with interventions shown in chronological order. The first line corresponds to the declaration of the state of emergency on 17 March 2020, and the eighth line corresponds to the declaration of the public health emergency on 16 May 2020.

The remaining vertical markers correspond, in order, to the fiscal measures listed in Table 1. CSE Disposition No. 3 appears after the imposition of the quarantine, during the index’s decline. Law No. 56 and CSE No. 16 introduced measures aimed at increasing liquidity for firms and providing support for household incomes. The evolution of the Composite Industrial Health Index (Figure 4) clearly shows this. Owing to implementation lags, the chart does not stabilize quickly. Laws No. 60–61 reallocate the government budget to support government programs and to scale up interest/VAT support. The IHI flattens in May and turns upward through June. Laws No. 68–69, Government Decision No. 340, and Law No. 102 add external financing, allow remote work, simplify export certification, and reduce VAT-related frictions for certain purchases.



**Figure 4. Composite Industrial Health Index (IHI) with major fiscal policy interventions vs Time, 2020 (policies are shown in consecutive order as listed in Table 1)**

Source: Calculations by A. Pesterev based on data from the National Bureau of Statistics of the Republic of Moldova (2025) and legislative documents from Legis.md

Law No. 131, Law No. 168, Law No. 173, and Government Decision No. 732 introduced additional measures aimed at supplementing support and extending simplified procedures. The index continues to rise gradually toward the end of Q3 2020. Government Decision No. 771 aimed

*Annual International Scientific Conference*  
*“Competitiveness and Innovation in the Knowledge Economy”*  
*September 26-27, 2025*  
*Chisinau, Republic of Moldova*

to reduce trade barriers, while Law No. 224 targeted the reduction of fiscal frictions related to employer-paid testing. The index then stagnates in Q4, ending the year slightly above the pre-crisis reference levels and considerably higher than the Q2 trough. The sequencing is consistent with policies that helped limit the decline and supported measured growth with a realistic lag of 1–2 months, without claiming strict causality. A visual inspection of the data series suggests that the Q2 2020 drop was driven by production-sensitive indicators such as the IPI and exports, with employment following the trend. By contrast, lower energy prices helped offset the decline. The 2021–2022 recovery was driven mainly by IPI/exports, with investment lagging; the early-2023 correction coincided with a renewed fall in both IPI and exports. The data in Table 2 represent a generalization of the outcomes that are possible in reviving the industrial sector after a crisis caused by unforeseen economic shocks such as COVID-19.

From a theoretical perspective, fiscal policies operate with inevitable lags—of decision, implementation, and impact. Consequently, effects cannot be expected instantaneously. In our dataset, the profile in Figure 4 is compatible with an operational lag of approximately 1–2 months between the announcement of measures and their materialization in sectoral indicators; this finding is associative and does not imply a strict causal relationship. Furthermore, the effectiveness of measures depends on the credibility and intertemporal consistency of the policy framework: if economic agents perceive measures as reversible or incoherent, adjustments in production, investment, and hiring tend to be postponed, weakening the transmission channel and reducing effective multipliers. In the context of the Republic of Moldova, a relatively low level of confidence in the stability of the policy framework, together with exogenous shocks, may delay and dampen the sector’s response. The partial non-convergence observed in 2023 can thus be interpreted as the cumulative result of these institutional frictions and the business sector’s cautious expectations.

**Table 2. Performance benchmarks of the Industrial Health Index (IHI) gap, 2020–2023**

<b>IHI Gap Performance Highlights</b>		
<b>Metric</b>	<b>Value</b>	<b>Notes</b>
Maximum Gap	+2.70894 SD	Best overperformance of actual relative to predicted
Minimum Gap	-1.12717 SD	Worst underperformance of actual relative to predicted
Time to Halve Peak Gap	2 Months	From Apr 2020 (1.1272) to Jun 2020 (0.4925)
%Change in Gap	59.3%	Relative improvement from Apr 2020 to Dec 2023
Final Gap Value	-0.46 SD	Dec 2023, predicted slightly above actual

Source: Calculations by A. Pesterev based on data from the National Bureau of Statistics of the Republic of Moldova

### **Conclusion**

This study aims to answer the three main questions stated in the methodology section. The IHI served as the common yardstick for the periods analysed. A pre-pandemic linear trend anchored the counterfactual trajectory used for comparison.

During the periods analysed, the industrial sector experienced a sharp and short-lived disruption in spring 2020, a two-year recovery that closed and then exceeded pre-pandemic levels, and a 2023 correction that left a modest shortfall by year-end. Three figures anchor the magnitudes of these shifts:

- Peak net shortfall: -1.127 SD (April 2020), halving within two months (0.49 by June 2020).
- Peak net overshoot: +2.709 SD (May 2022).

*Annual International Scientific Conference*  
*“Competitiveness and Innovation in the Knowledge Economy”*  
*September 26-27, 2025*  
*Chisinau, Republic of Moldova*

---

End-2023 gap: -0.46 SD (December 2023).

In levels, the composite index not only recovers from the 2020 decline but also exceeds the counterfactual through much of 2021–2022, before settling slightly below the projected path in 2023.

The composite index rises by approximately 1.210 SD, with asymmetric contributions. Positive drivers include Wages +0.814, Productivity +0.528, Exports +0.508, Investment +0.170, IPPI +0.108, Active Firms +0.007. Negative drivers include Energy -0.558, IPI -0.274, Employment -0.093.

Wages, Productivity, and Exports accounted for most of the improvement; wages alone explain about 67% of the net IHI gain and, together with productivity and exports, contribute a cumulative +1.850 SD to the improvement of the index. Moreover, Energy pulled the IHI down (-0.558) and represented the largest offset (approximately 46% of the net change in magnitude). Together, Energy and IPI accounted for about 90% of the total negative drag, consistent with cost pressures and the incomplete normalization of production volume.

The impact of fiscal policy measures is clearly observable in the industrial sector of the Republic of Moldova. In 2020, the turning point aligned in time with the implementation of specific policies (see Table 1 and Figure 4). The trough lies between the start of the first State of Emergency (17 March 2020) and the State of Public Health Emergency (16 May 2020). Stabilization becomes visible roughly 4–8 weeks after 16 May, synchronizing with the late-April to June package of liquidity, tax, and administrative easing. Later measures and extensions in July–September coincide with an ascent, and in October–December the trend flattens, with minimal variation from preceding months. The exact levels of divergence are shown in Figure 3: a short, deep fall in Q2 (-1.127, -0.917), a sustained overshoot peaking in May 2022 (+2.709), and a decrease through December 2023 (-0.458).

After the lockdown period, not least due to the fiscal policy measures undertaken by the authorities, a recovery phase of activity emerges in the industrial sector. The recovery window is defined as 2021–2022, inclusive. The actual IHI is above the counterfactual in 23 of 24 months, as shown in Figure 3, culminating in the 2022 overshoot (+2.709 SD). This indicates not only gap closure but also positive momentum beyond trend. The positive dominants (wages, productivity, and exports) explain the logic of the overshoot. By contrast, employment and the IPI had negative contributions. This reflects a crisis-induced decline and the fact that, by the end of the analysed period, headcounts and production had not fully returned to pre-pandemic levels despite higher earnings and efficiency. This combination indicates intense margin adjustments rather than broad margin expansion.

The contribution of changes in energy costs was also large but negative; and when energy costs become an issue, the composite index moves back toward the counterfactual, which is clearly observed in 2023. The gap becomes negative at the beginning of the year, reaches a trough mid-year, and narrows to -0.458 by the end of December.

Taken together, all these figures tell a coherent story. The 2020 policy timeline coincides with the shift from contraction to stabilization. The 2021–2022 period is quantitatively underpinned by wage growth, productivity gains, and export performance; and the 2023 decline is caused by negative contributions from energy costs, production volume (IPI), and employment. By the end of December, the sector is close to its pre-pandemic level: the recovery was real and broad in terms of price and efficiency, but incomplete due to cost difficulties and under-recovered volume.

By comparison with pre-pandemic levels, the data show that government fiscal policies cushioned the decline and supported a two-year rebound that exceeded the baseline but did not fully neutralize longer-run pressures by the end of 2023. The shortfall at the trough was halved within two months, coinciding with the April–June liquidity, tax, and administrative packages.

*Annual International Scientific Conference*  
*“Competitiveness and Innovation in the Knowledge Economy”*  
*September 26-27, 2025*  
*Chisinau, Republic of Moldova*

---

During 2021–2022, the sector not only closed the gap but also significantly surpassed the counterfactual. By the end of 2023, a modest gap remained, caused by the post-pandemic increase in energy costs and the incomplete normalization of production and employment. The analysis conducted in the industrial sector of the Republic of Moldova indicates that, through stimulative fiscal measures, it is possible to encourage economic agents in this sector toward productive and efficient activity, provided a favourable investment climate and conducive conditions for the export of production are created.

**References:**

1. World Health Organization. “Coronavirus disease (COVID-19) pandemic.” 2020. World Health Organization (2020). *Coronavirus disease (COVID-19) pandemic*. [online] Available at: <<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>> [Accessed 2 sep. 2025].
2. Ministry of Health, Labour and Social Protection of the Republic of Moldova (2020). *First confirmed case of COVID-19 in the Republic of Moldova*. [online] Available at: <<https://ms.gov.md>> [Accessed 7 Aug. 2025].
3. World Trade Organization (2020). *Trade set to plunge as COVID-19 pandemic up-ends global economy*. [online] Available at: <[https://www.wto.org/english/news\\_e/pres20\\_e/pr855\\_e.htm](https://www.wto.org/english/news_e/pres20_e/pr855_e.htm)> [Accessed 2 Sep. 2025].
4. United Nations Development Programme (UNDP) Moldova (2020). *The socio-economic impact of the COVID-19 pandemic on SMEs and the support measures for this sector*. [online] Available at: <<https://www.undp.org/ro/moldova/news/impactul-socio-economic-al-pandemiei-de-covid-19-asupra-imm-urilor-si-masurile-de-suport-pentru-acest-sector-au-fost-abordate-intr-un>> [Accessed 5 Aug. 2025].
5. National Bureau of Statistics of the Republic of Moldova (n.d.). *Statbank: Industrial production, employment, wages, exports, and investment data*. [online] Available at: <<https://statbank.statistica.md>> [Accessed 12 Aug. 2025].
6. Mun, T. (1664). *England’s Treasure by Foreign Trade*. London. [online] Available at: <<https://la.utexas.edu/users/hcleaver/368/368MunTreasuretable.pdf>> [Accessed 7 Aug. 2025].
7. Petty, W. (1690/2017). *Political Arithmetick*. Originally published 1690. Reprinted by Routledge, 2017. [online] Available at: <[https://archive.org/details/bim\\_early-english-books-1641-1700\\_political-arithmetick\\_petty-sir-william\\_1690/page/28/mode/2up](https://archive.org/details/bim_early-english-books-1641-1700_political-arithmetick_petty-sir-william_1690/page/28/mode/2up)> [Accessed 7 Aug. 2025].
8. Auerbach, A.J. and Gorodnichenko, Y. (2011). *Fiscal Multipliers in Recession and Expansion*. University of California, Berkeley. [online] Available at: <<https://eml.berkeley.edu/~ygorodni/FiscalMultipliersInRecessionAndExpansion.pdf>> [Accessed 11 Aug. 2025].
9. Legis.md (2020). *Collection of legislative acts of the Republic of Moldova*. [online] Available at: <<https://www.legis.md>> [Accessed 10 Aug. 2025].
10. EU4Business (2023). *Moldova – EU4Business: Connecting Companies*. [online] Available at: <<https://connectingcompanies.eu/moldova/>> [Accessed 12 Aug. 2025].