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Assessing threats to Mongolia's economic recovery

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Contents

Rationale and Research objective

Context:

- Economic slowdown led to a **budget deficit (17% of GDP)** and a **public debt (88% of GDP**) in 2016

- IMF's Extended Fund Facility (EFF) program (May 2017)
    - **Fiscal consolidation:** increase taxes and cut expenditure

- Since 2017, economic growth have been encouraged by both:
    - Mining sector (Increasing commodity prices)
    - Improving fiscal performence (IMF's EFF)

IMF forecast until 2023 is optimistic

However, this bright economic outlook could be temporary because of underlying risks

Research objective

- **We consider the impacts of three possible risks to the outlook of economy**

Methodology

- Decaluwé, B., A. Lemelin, V. Robichaud, and H. Maisonnave (2013), 'The PEP Standard Single Country, Recursive Dynamic CGE model', PEP-1-t

- **Modifications and Extensions to the model**
    - Wage curve (Phillips curve - unemployment rate & wage rate)
    - Dynamics of budget deficit and public debt
    - Investment expenditure separated: public, private, mining
    - Time-lag between investment and productive capital

Data

- **Mongolian Social Accounting Matrix 2014**
  - 23 sectors, 25 commodities
  - Institutions (Households, Government, Rest of the world)
  - Production factors (Labor, Capital)
  - Investment (fixed capital formation – public, private, mining and inventory changes)
  - Taxes

Scenarios

Three potential risks

BAU scenario

Scenario 1: Political risk

Scenario 2: Stopping Oyu Tolgoi's (OT) underground mine development

Scenario 3: Coal sector's risk

Scenarios

BAU scenario

- What is likely to happen? (2017-2025)

  "It replicates the IMF's projections under the EFF arrangement with the Government of Mongolia (2017-2022)"

  - 3 main assumptions:

    i. Fiscal consolidation (EFF program)

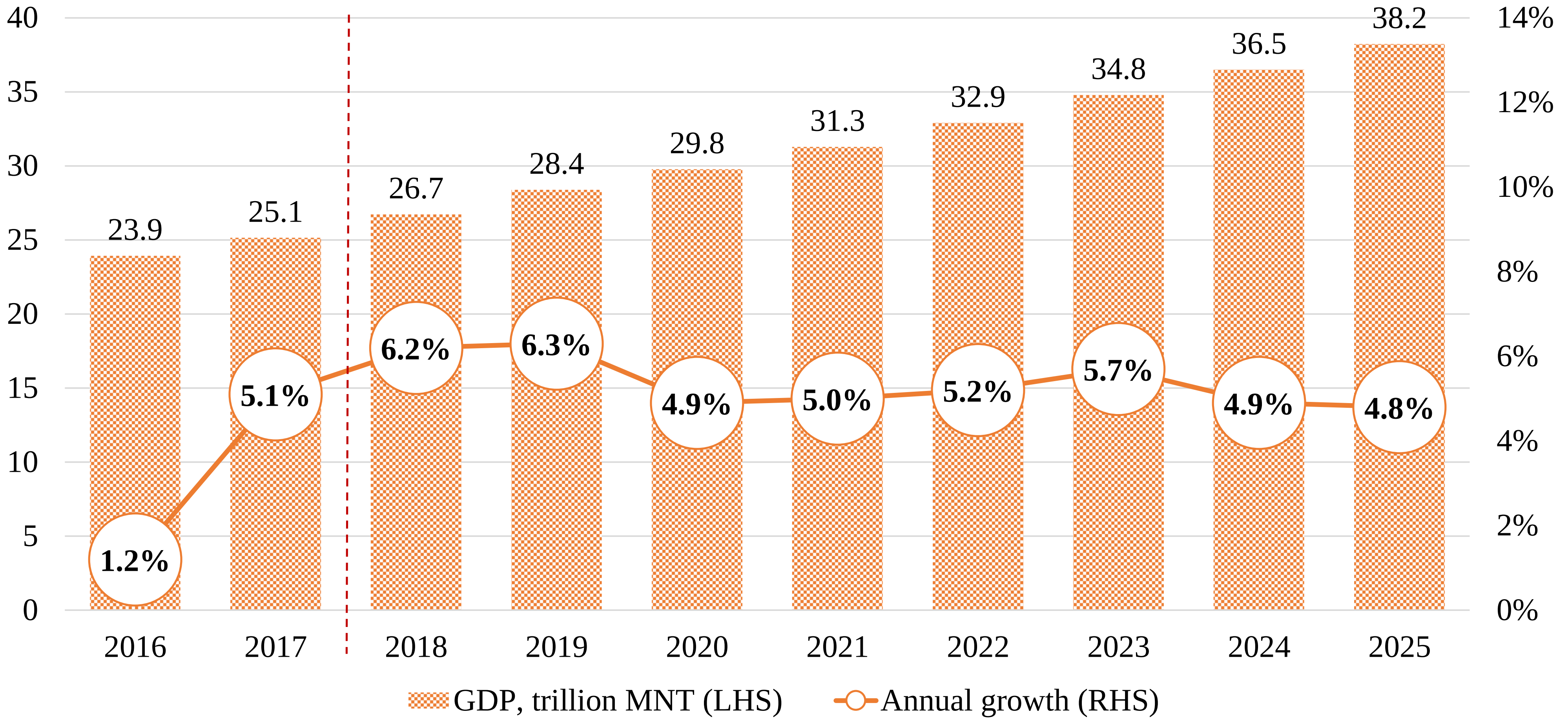
    ii. OT's underground mine development (FDI and operations start in 2021)

    iii. Stable commodity prices (copper and coal)

Key findings

BAU scenario

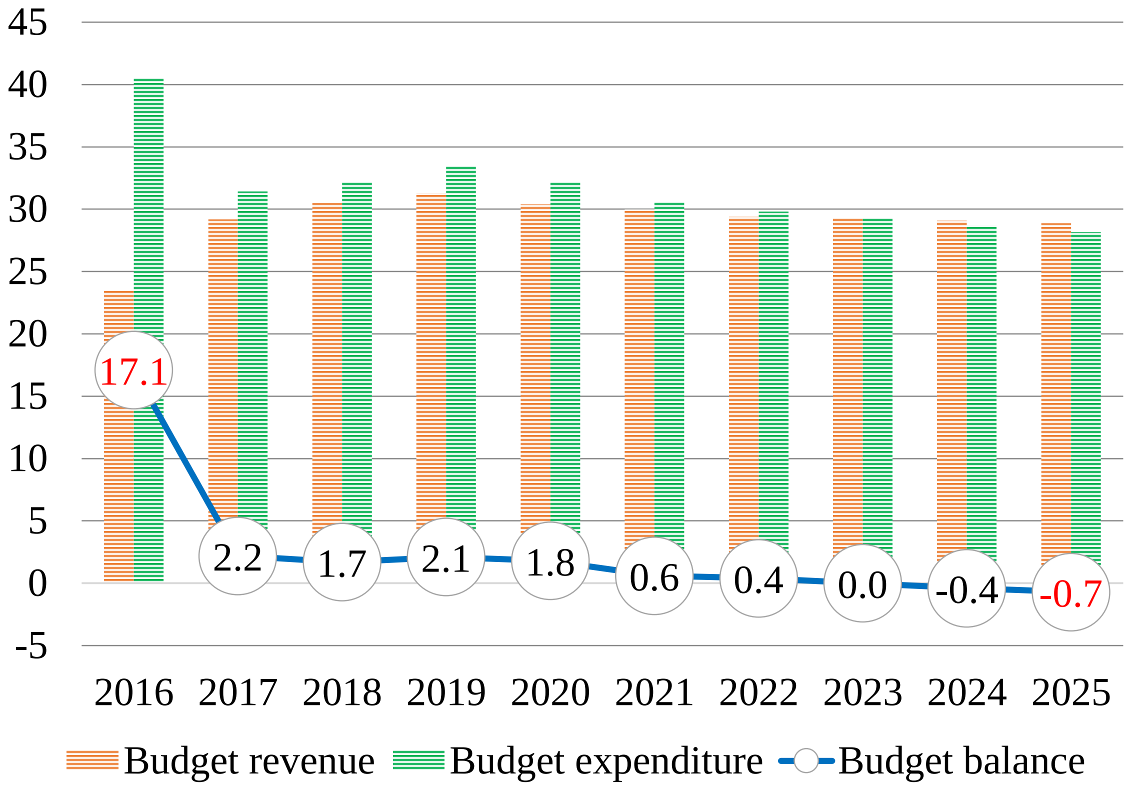
Real GDP in trillion MNT and annual growth %



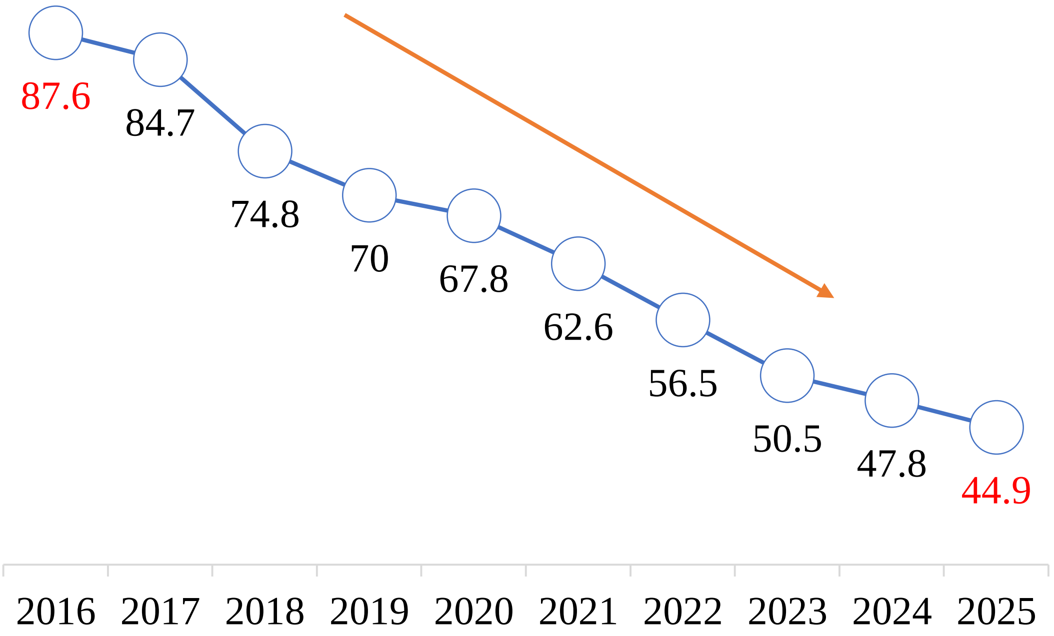
Key findings

BAU scenario

Budget indicators as GDP share (%)



Public debt as GDP share (%)



Scenarios

Risk scenarios

1. Political risk – budget expenditure expansion

- Politicians may expand public spending
  - Upcoming 2020 Parliament election
  - End of the IMF's EFF program (2020)
  - Actions of public sector workers (strike, demonstration)

We consider: (2021-2025)

- Spending on goods and services 20% > BAU
- Transfers to private sector 20% > BAU
- Capital expenditure 15% > BAU

- **Assess the economic impact of budget expenditure expansion**

Simulation results

Political risk

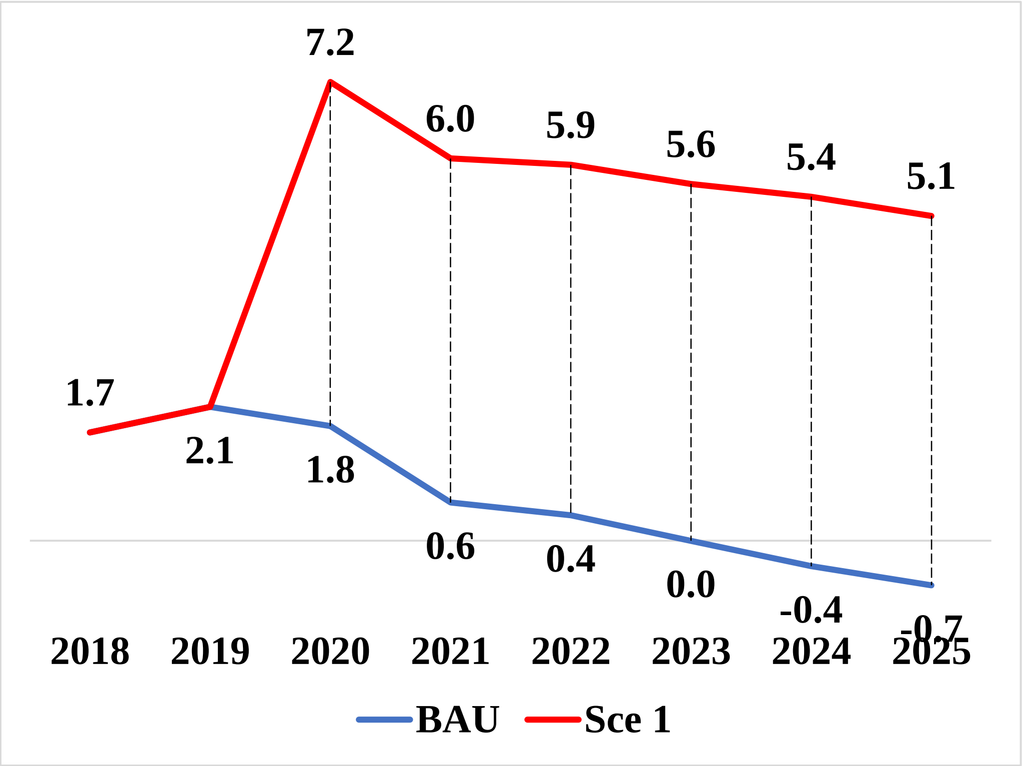
Macroeconomic variables, % changes with respect to BAU

	Real GDP	Real private consumption	Investment	Exports	Imports	CPI
2020	-0.3	2.0	**-8.4**	-0.2	-0.3	0.4
2021	-0.6	1.8	**-8.9**	-0.3	-0.6	0.6
2022	-0.9	1.5	**-9.1**	-0.3	-0.8	0.7
2023	-1.3	1.2	**-8.5**	-0.3	-0.9	0.7
2024	-1.5	0.9	**-8.8**	-0.4	-1.1	0.8
2025	-1.7	0.7	**-9.0**	-0.4	-1.3	0.9

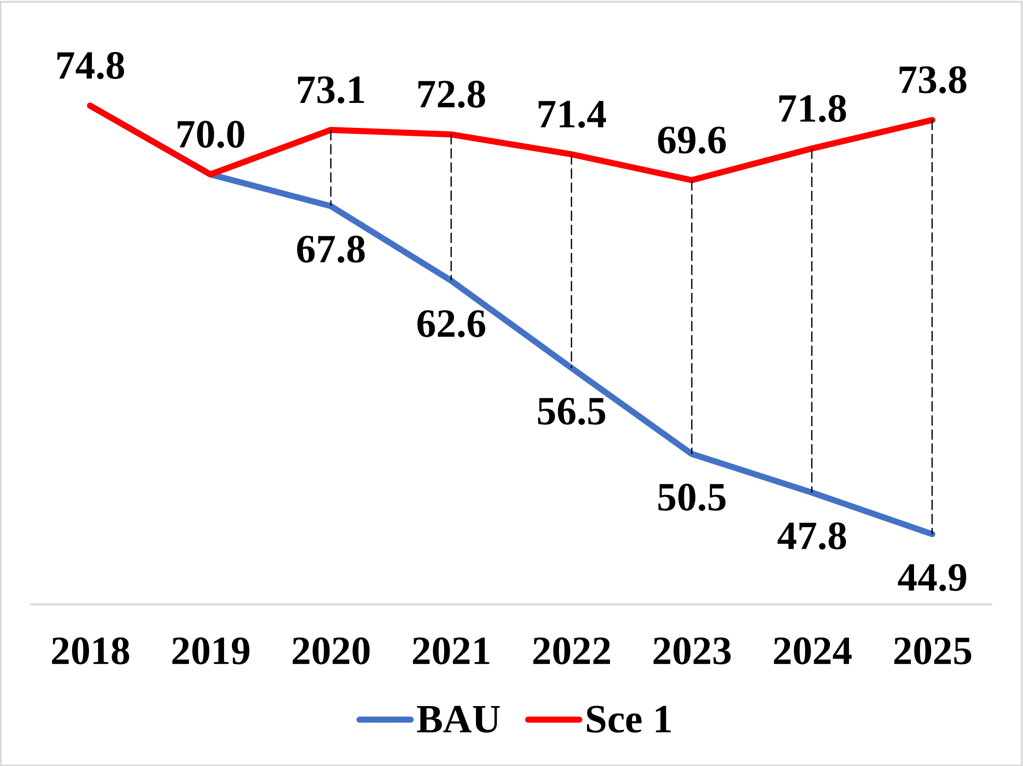
Simulation results

Political risk

Deficit-to-GDP ratio (%)

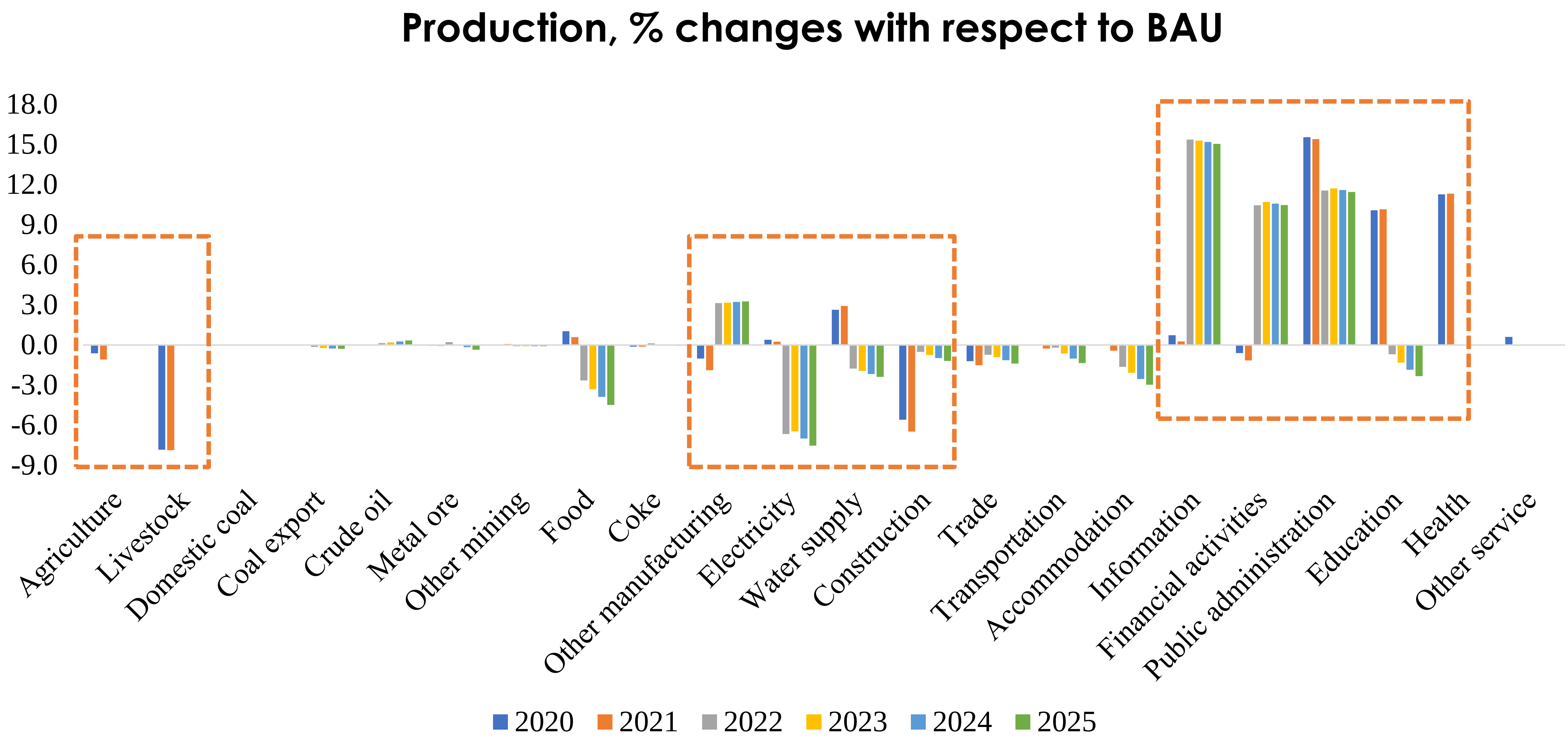


Public debt-to-GDP ratio (%)



Simulation results

Political risk



Results

- **Loosening fiscal policy leads to**
  - Household consumption to increase
  - Total investment/saving to fall
  - Budget deficit to increase - leads to a high public debt
  - Economic growth to be slowed down

Scenarios

2. Stopping Oyu Tolgoi's (OT) underground mine development

- Highly significant mining project
- If the underground mine project does not continue as planned
- **Examine the impact of the OT's underground mine**

We consider:

- FDI inflow in metal ore sector (2019-2021)
  - 5.9 trillion MNT (BAU) → 0 MNT
- Production of OT mine → current level

Simulation results

Stopping OT's underground mine development

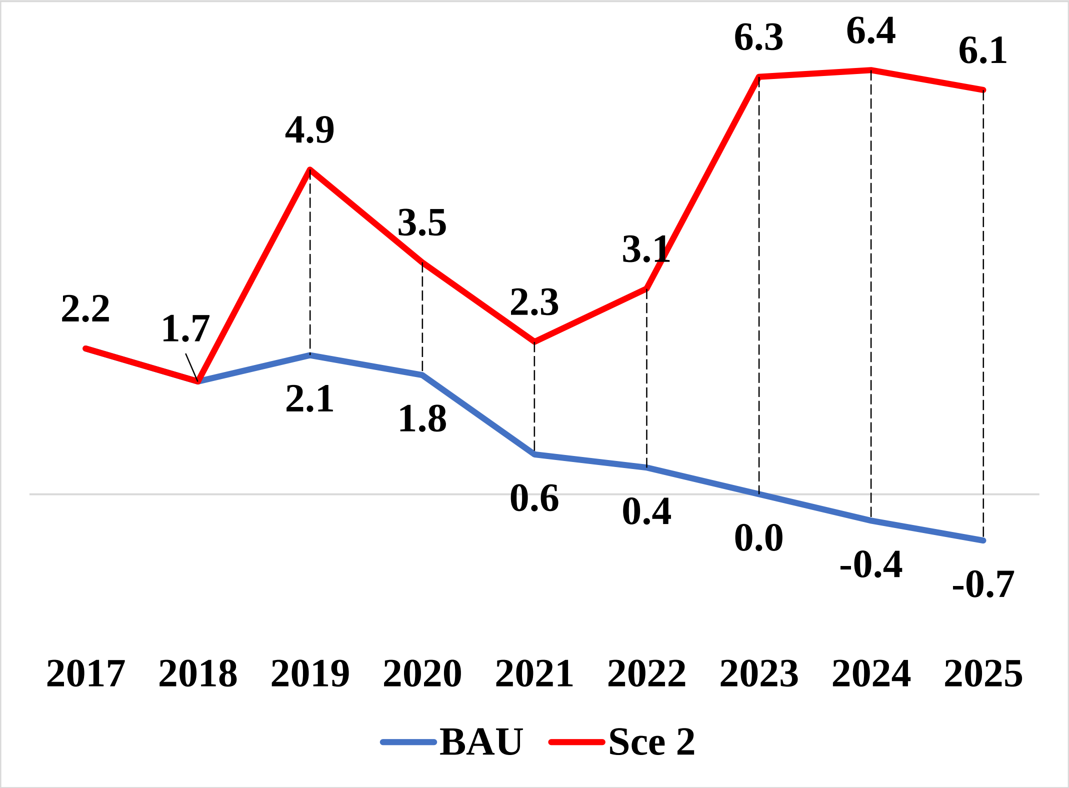
Macroeconomic variables, % changes with respect to BAU

	Real GDP	Real private consumption	Real public consumption	Investment	Exports	Imports	CPI
2019	-2.4	-1.6	8.1	-35.4	3.1	-14.0	-5.3
2020	-1.2	-0.7	5.5	-20.8	2.1	-8.6	-3.5
2021	-1.3	-0.9	5.4	-19.0	-0.2	-8.6	-3.6
2022	-3.0	-2.3	9.3	-12.4	-12.7	-10.7	-6.2
2023	**-7.0**	**-5.3**	**20.9**	**-25.3**	**-27.3**	**-22.8**	**-13.1**
2024	**-7.3**	**-5.6**	**22.8**	**-26.8**	**-28.5**	**-24.0**	**-13.9**
2025	**-7.6**	**-5.8**	**22.5**	**-26.9**	**-28.1**	**-23.9**	**-13.7**

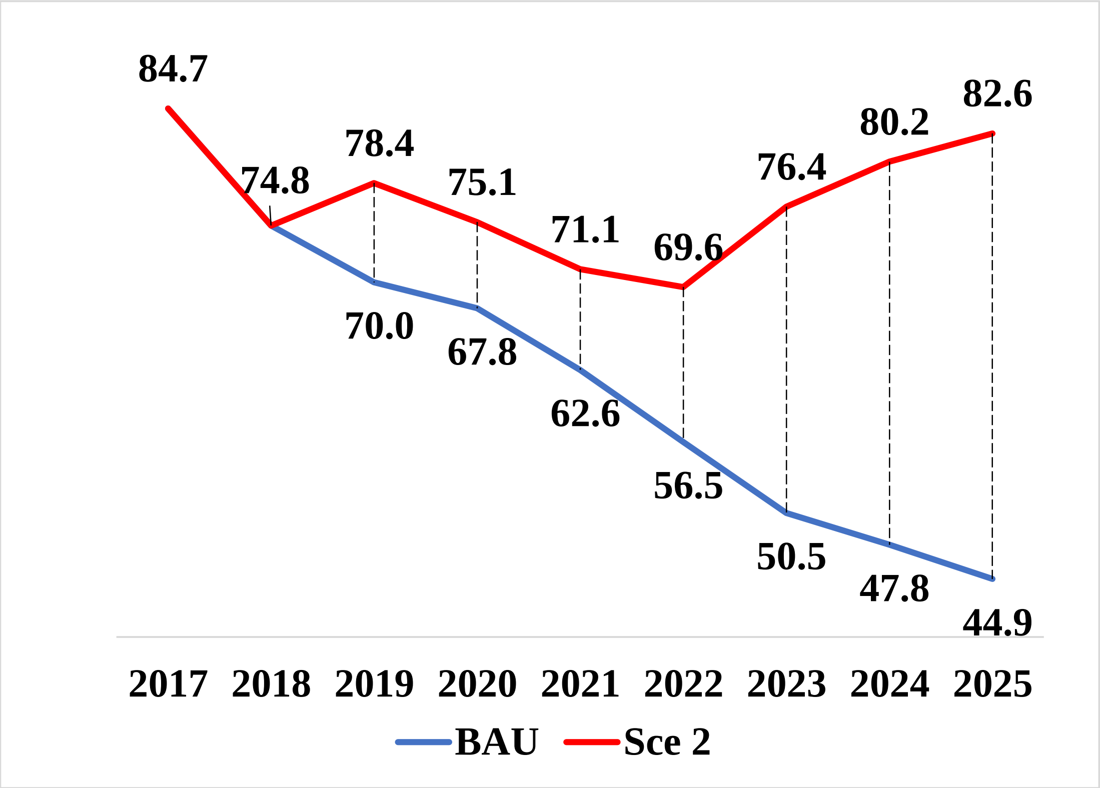
Simulation results

Stopping OT's underground mine development

Deficit-to-GDP ratio (%)

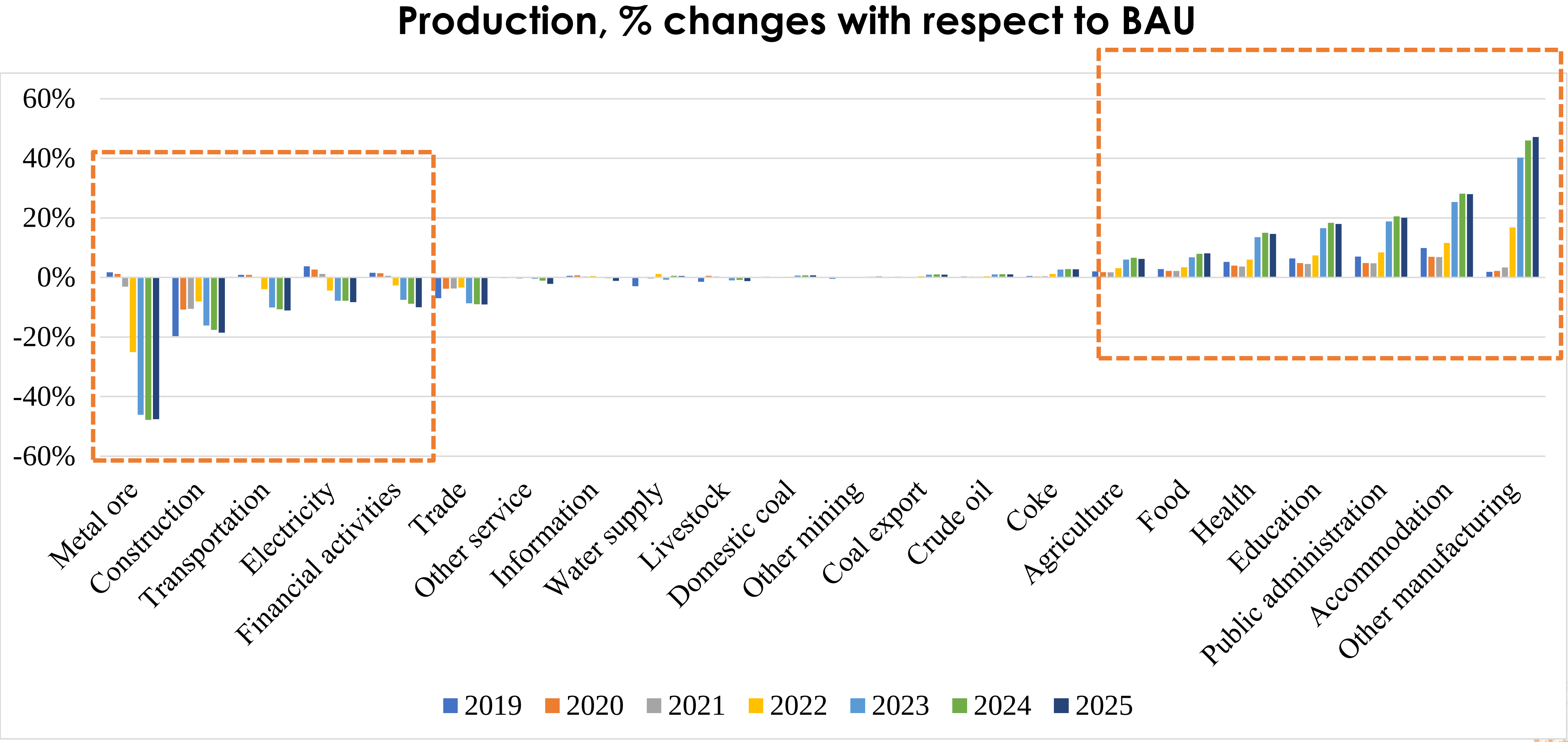


Public debt-to-GDP ratio (%)



Simulation results

Stopping OT's underground mine development



Results

Stopping OT's underground mine development

Stopping the development of the OT underground mine would have negative impact on the economy

- The impact of shock is much bigger in 2023 - 2025 (cancelled FDI and operation of underground mine)
- GDP (7-8%) and investment (20-23%) are lower than that of BAU scenario from 2023
- Fiscal performances will worsen (debt burden will increase)

Scenarios

3. Coal sector's risk

- Demand for Mongolian export coal is mainly driven by China
- Chinese environmentally friendly policy reform
- Ongoing trade war between China and USA
- Could halt demand for Mongolian coal

We consider: (2019-2025)

- World price of coal (and coke) 10% ↓ (2019-20 & stay at 2020 levels)
- Production and export of coal 20% ↓ (from 2019)

Simulation results

Coal sector's risk

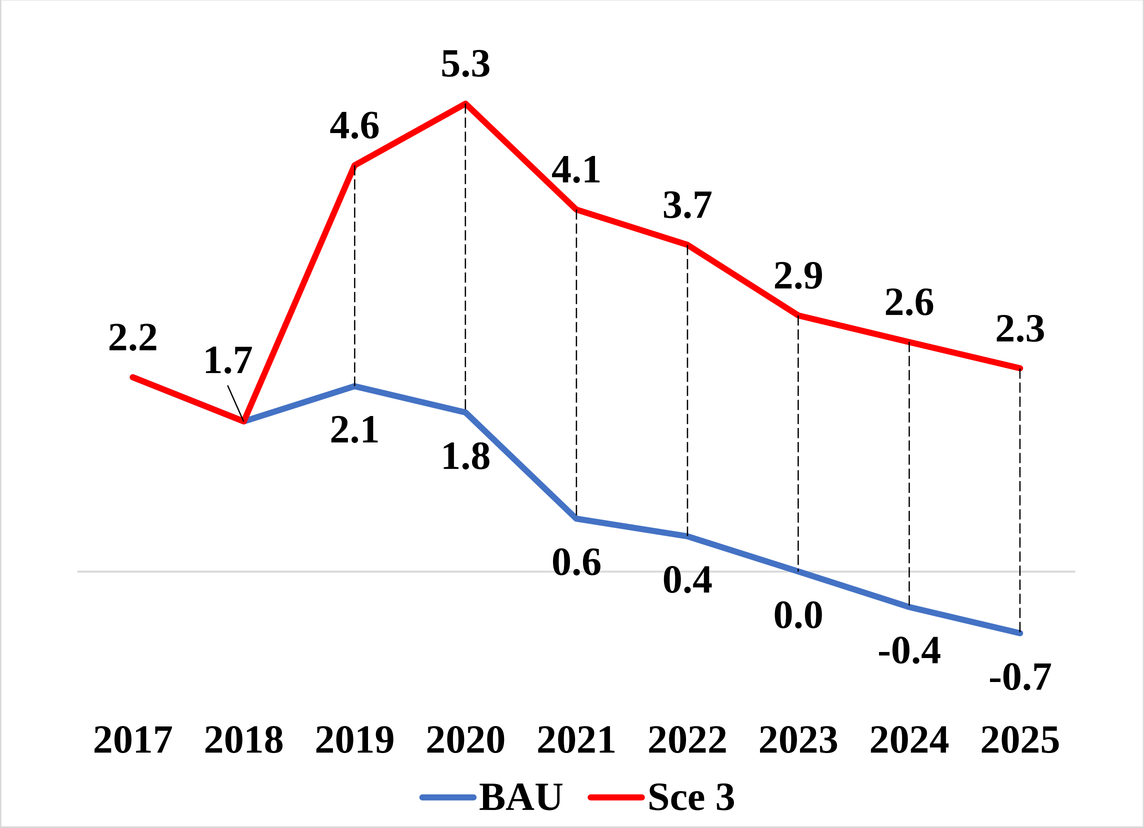
Macroeconomic variables, % changes with respect to BAU

	Real GDP	Real private consumption	Real public consumption	Investment	Exports	Imports	CPI
2019	-4.5	-3.7	5.2	-9.8	-2.7	-6.3	-3.7
2020	-6.1	-5.0	7.3	-13.3	-2.3	-8.2	-5.1
2021	-6.4	-5.2	7.6	-14.5	-2.2	-8.6	-5.2
2022	-6.2	-5.0	7.1	-14.6	-1.6	-8.1	-4.7
2023	-5.7	-4.7	5.9	-12.4	-1.1	-6.7	-3.8
2024	-5.9	-4.9	5.8	-12.5	-1.3	-6.9	-3.7
2025	-6.1	-5.1	5.8	-12.9	-1.5	-7.2	-3.7

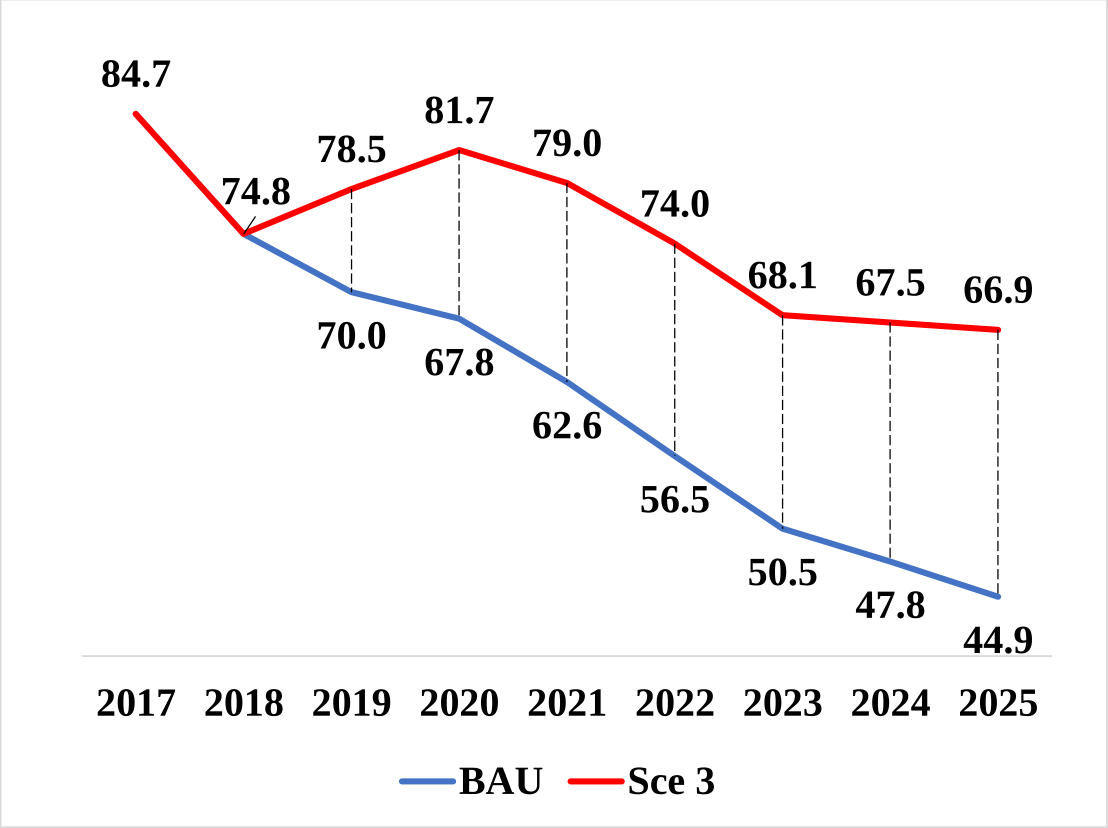
Simulation results

Coal sector's risk

Deficit-to-GDP ratio (%)

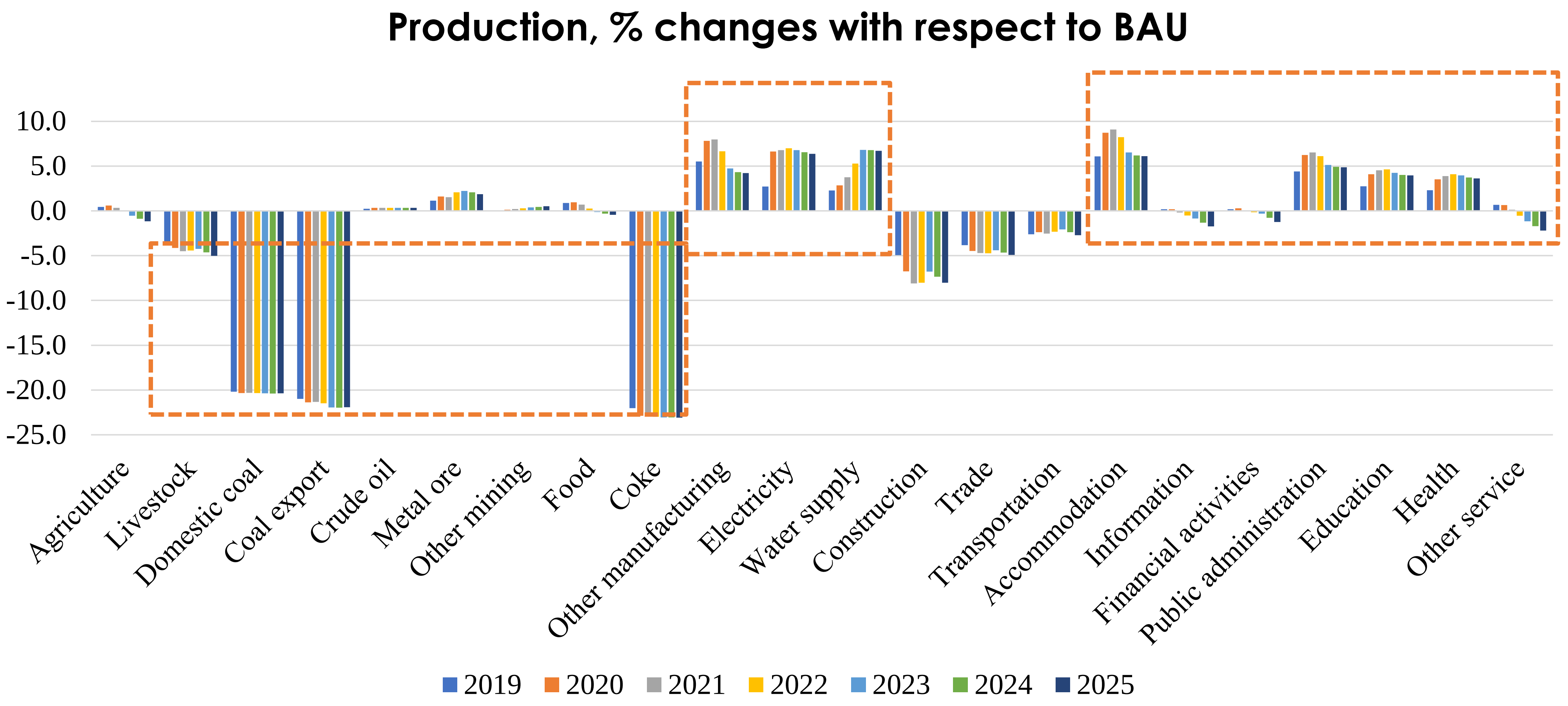


Public debt-to-GDP ratio (%)



Simulation results

Coal sector's risk



Results

Coal sector's risk

10% price drop and 20% production reduction in coal sector have significant impact on both economy and budget condition

- Real GDP decreases by 6% and total investment decreases by 13-14% from 2019
- Budget deficit-to-GDP ratio increases by 3 percentage points compared to the BAU
- Coal sector's shock affects sectors at different degrees

Conclusions and Policy recommendations

- Overall, these three risks can be considered as significant given the results of the simulations and deserve full attention of policy makers and general public

- Moreover, one could say that if these negative shocks occur simultaneously, the economy will be hit very hard

- Benefits of IMF's EFF program on fiscal condition would dissappear

- Authorities should be aware that any political pressure on the budget will have a severe negative impact on the economy, and debt burden will become a more salient issue

Thank you for attention!

Appendix

Macro Mongolian SAM 2014 (% of GDP)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	**Labor**								0.4	44.8					**45.3**
2	**Capital**								0.03	45.3					**45.3**
3	**Households**	43.9	39.1		10.4				2.4						**95.7**
4	**Government**			4.7		13.3	1.6	7.7	0.3	0.5		0.0			**28.2**
5	**TD**			13.3											**13.3**
6	**TM**										1.6				**1.6**
7	**TI**										7.7				**7.7**
8	**ROW**	1.4	6.3	1.5	0.8						56.4				**66.4**
9	**Sectors**										137.7	48.1			**185.8**
10	**Commodities**			56.6	13.0					95.1	16.7	3.5	28.6	6.6	**220.1**
11	**Export**								51.6						**51.6**
12	**Investment**			19.6	4.1				11.6						**35.2**
13	**VSTK**												6.6		**6.6**
14	**TOTAL**	**45.3**	**45.3**	**95.7**	**28.2**	**13.3**	**1.6**	**7.7**	**66.4**	**185.8**	**220.1**	**51.6**	**35.2**	**6.6**	