Forecast report

Round: 2024 March main round, time: 11-Jun-2024 15:46:54.

1 Forecast tables

Main indicators

	2022Q4	1 2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	. 2025Q1	2025Q2	2025Q3	2025Q4	. 2026Q1	2026Q2	2 2026Q3	2026Q4
CPI, y-on-y change	21.13	3 20.23	15.18	12.68	8.95	8.07	8.86	8.91	8.34	7.26	6.21	5.41	4.80	0 4.40	4.20	4.16	4.24
	21.13	3 20.23	15.18	12.69	9.96	8.36	8.16	6.89	4.69	3.56	3.01	2.81	2.80	2.98	3.31	3.76	4.25
GDP, y-on-y change	7.28	9.20	6.31	7.46	10.00	9.00	8.46	3.25	0.15	-1.63	-1.85	0.49	1.71	2.94	4.06	3 4.54	4.85
	7.28	9.20	6.27	5.20	5.00	7.43	10.57	9.87	12.58	9.48	8.28	9.91	10.29	9 10.63	3 10.87	7 10.49	10.02
Interbank rate, pct	6.84	7.36	7.74	7.99	8.25	8.00	8.93	9.38	9.53	9.46	9.27	9.03	8.77	7 8.54	8.36	8.21	8.08
	6.84	7.36	7.74	7.99	8.00	7.58	7.24	6.91	6.66	6.49	6.40	6.39	6.47	6.59	6.75	6.92	7.08
Exchange rate, y-on-y change	5.25	7.61	11.25	15.49	17.74	18.04	14.49	10.08	6.70	4.31	4.50	4.48	4.37	7 4.15	3.90	3.66	3.45
	5.25	7.61	11.25	15.49	15.99	13.34	9.83	5.32	3.25	3.06	2.76	2.41	2.04	1.72	2 1.48	3 1.36	1.35
Deficit, pct. of GDP	6.99	0 10.74	14.30	11.05	9.80	11.80	11.80	9.90	9.80	9.60	9.50	9.50	9.81	9.99	10.09	10.13	10.13
	6.70	11.51	13.34	9.80	9.80	11.80	11.80	9.90	9.80	9.60	9.50	9.57	9.84	9.99	10.06	10.09	10.08

GDP growth, y-on-y percentage changes

	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	$2025\mathrm{Q4}$	2026Q1	2026Q2	2026Q3	2026Q4
GDP, y-on-y change in %	7.28	9.20	6.31	7.46	10.00	9.00	8.46	3.25	0.15	-1.63	-1.85	0.49	1.71	2.94	4.06	4.54	4.85
	7.28	9.20	6.27	5.20	5.00	7.43	10.57	9.87	12.58	9.48	8.28	9.91	10.29	10.63	10.87	10.49	10.02
Consumption, y-on-y change	13.88	7.96	-3.08	11.97	9.39	18.33	15.93	3.44	4.26	2.73	1.63	2.05	2.82	3.77	4.75	5.53	6.03
	14.20	8.42	-4.37	3.05	0.03	9.93	12.86	7.38	10.57	9.02	7.81	7.98	8.33	8.75	9.14	9.29	9.18
Investment, y-on-y change	27.95	4.38	-24.50	46.35	11.58	29.56	70.56	-4.46	-0.36	-0.82	-0.35	0.87	2.10	3.32	4.43	5.29	5.88
	13.37	-1.62	-21.26	-4.11	-12.32	8.06	32.69	22.44	19.03	14.53	11.52	10.34	9.78	9.58	9.54	9.41	9.17
Gov. dem., y-on-y change	-24.66	-9.14	36.05	-10.94	12.44	11.31	-17.31	4.48	2.73	-8.06	-8.65	3.15	6.01	8.40	10.31	8.79	7.72
	-19.67	-6.33	24.79	-14.59	8.70	8.30	-7.79	13.43	15.85	2.62	1.04	13.03	15.08	16.56	17.53	14.97	13.03
Export, y-on-y change	19.64	27.37	22.58	11.23	22.62	1.41	2.28	2.95	-3.44	0.96	2.24	3.35	4.23	4.93	5.45	5.80	6.01
	19.64	27.37	22.58	23.37	19.76	6.43	7.26	7.53	11.56	11.45	11.39	11.33	11.20	10.98	10.68	10.32	9.94
$\mathbf{Import},\ \mathbf{y}\text{-}\mathbf{on}\text{-}\mathbf{y}\ \mathbf{change}$	9.88	1.08	6.67	20.48	17.52	27.61	15.01	2.11	8.78	5.60	4.26	7.75	8.82	9.82	10.76	10.67	10.55
	10.67	2.25	-3.74	-5.95	-3.29	7.33	6.32	9.57	11.89	6.82	5.37	8.60	9.32	10.02	10.61	10.18	9.73

GDP growth, q-on-q change in %

	$2022\mathrm{Q4}$	$2023\mathrm{Q}1$	2023Q2	2023Q3	2023Q4	$2024\mathrm{Q}1$	2024Q2	2024Q3	2024Q4	$2025\mathrm{Q}1$	2025Q2	2025Q3	$2025\mathrm{Q4}$	$2026\mathrm{Q}1$	2026Q2	$2026\mathrm{Q}3$	$2026\mathrm{Q4}$
GDP, q-on-q change in %	1.30	10.90	3.29	14.23	11.89	6.92	1.26	-6.17	-0.97	-0.49	0.39	3.08	3.91	4.43	4.80	5.01	5.14
	0.24	11.60	1.82	7.52	-0.52	22.29	14.24	4.84	9.67	9.38	9.32	11.30	11.17	10.75	10.27	9.77	9.29

	909904	909201	202202	202202	202204	909401	202402	909402	202404	909501	202502	202502	202504	202601	202602	2026 ()2	202604
	2022Q4	2023Q1	2023Q2	2023Q3	ZUZ3Q4	ZUZ4Q1	2024Q2	ZUZ4Q3	2024Q4	Z0Z5Q1	2025Q2	zuzaQ3	2025Q4	ZUZ0Q1	2026Q2	2026Q3	2020Q4
Consumption, q-on-q change	8.34	-21.28	15.64	60.12	-1.75	7.75	6.56	1.48	1.42	1.54	2.06	3.20	4.50	5.37	5.95	6.29	6.50
	8.09	-21.86	1.48	31.58	-4.06	14.00	12.72	7.86	7.84	7.73	7.82	8.54	9.22	9.43	9.36	9.12	8.81
Investment, q-on-q change	144.04	-43.81	-66.90	894.04	-16.16	2.13	-0.57	-2.13	-0.81	0.24	1.32	2.76	4.13	5.10	5.77	6.19	6.47
	79.32	-44.20	-46.38	57.61	25.35	28.75	21.86	14.28	11.94	10.39	9.52	9.53	9.67	9.58	9.36	9.04	8.70
Gov. dem., q-on-q change	-57.19	62.02	239.32	-72.66	6.33	55.59	3.34	-30.30	-0.63	-0.17	0.73	13.27	10.87	9.17	8.00	7.16	6.56
	-61.34	81.26	122.65	-65.89	1.39	78.65	16.98	-21.89	10.33	10.01	9.92	22.33	18.60	15.75	13.63	12.01	10.78
Export, q-on-q change	-8.41	84.11	-4.47	-2.31	31.59	-13.88	-1.16	0.30	1.82	2.93	3.92	4.73	5.34	5.73	5.98	6.13	6.21
	8.33	79.32	8.10	10.33	-3.83	11.86	11.53	11.41	11.44	11.41	11.31	11.16	10.91	10.52	10.11	9.72	9.39
Import, q-on-q change	-8.04	-13.52	70.58	56.39	-17.31	20.20	12.55	-2.82	6.50	6.76	6.93	10.86	10.79	10.76	10.65	10.48	10.33
	-11.28	-14.55	18.08	-12.60	-0.79	29.62	13.69	-1.42	7.91	7.67	7.61	11.25	10.81	10.44	9.97	9.50	9.03

CPI, y-on-y change in %

	$\overline{2022\mathrm{Q4}}$	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	$2025\mathrm{Q4}$	2026Q1	2026Q2	2026Q3	2026Q4
Headline CPI, y-on-y change	21.13	20.23	15.18	12.68	8.95	8.07	8.86	8.91	8.34	7.26	6.21	5.41	4.80	4.40	4.20	4.16	6 4.24
	21.13	20.23	15.18	12.69	9.96	8.36	8.16	6.89	4.69	3.56	3.01	2.81	2.80	2.98	3.31	3.76	4.25
Core CPI, y-on-y change	16.27	15.70	11.52	10.01	7.62	7.89	9.52	10.50	10.32	9.19	7.83	6.58	5.57	4.87	4.45	4.26	4.21
	16.27	15.70	11.52	10.04	8.91	8.53	9.04	8.39	6.08	4.78	4.03	3.56	3.34	3.34	3.54	3.92	4.35
Food CPI, y-on-y change	48.08	48.89	40.42	31.57	18.93	10.52	6.11	1.75	-0.59	-1.71	-1.66	-0.68	0.40	1.28	2.06	2.82	3.51
	48.08	48.89	40.42	31.46	19.30	9.52	4.45	-0.32	-2.65	-3.38	-3.12	-2.15	-1.09	0.03	1.12	2.16	3.11
Energy CPI, y-on-y change	21.24	13.42	5.06	3.37	2.18	4.56	7.86	8.11	7.65	7.25	6.91	6.68	6.52	6.41	6.32	6.25	6.20
	21.24	13.42	5.06	3.33	1.48	3.87	6.90	7.24	6.68	6.40	6.22	6.08	5.97	5.89	5.83	5.78	5.76

CPI, q-on-q change in %

	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	$2025\mathrm{Q4}$	2026Q1	2026Q2	2026Q3	2026Q4
Headline CPI, q-on-q change	24.50	13.62	6.03	7.45	8.83	10.02	9.15	7.64	6.60	5.69	4.93	4.41	4.16	4.08	4.13	4.27	4.46
	23.51	13.83	5.70	8.52	11.96	7.37	4.90	3.53	3.03	2.79	2.72	2.69	3.01	3.50	4.03	4.52	4.94
Core CPI, q-on-q change	16.93	11.13	3.95	8.45	9.23	11.53	11.25	10.00	8.54	7.02	5.80	4.98	4.48	4.22	4.14	4.19	4.31
	17.17	10.99	4.05	7.51	13.54	8.89	6.35	4.97	4.16	3.66	3.34	3.09	3.27	3.66	4.14	4.60	4.98
Food CPI, q-on-q change	59.43	38.87	17.61	14.59	6.90	3.57	-0.09	-3.11	-2.58	-1.04	0.11	0.84	1.70	2.51	3.22	3.87	4.46
	56.10	41.16	17.64	15.21	5.88	0.27	-2.68	-4.43	-3.68	-2.72	-1.64	-0.55	0.57	1.77	2.74	3.59	4.36
Energy CPI, q-on-q change	14.18	-1.20	-4.73	6.38	8.85	8.33	7.91	7.37	6.98	6.73	6.57	6.45	6.35	6.27	6.20	6.17	6.16
	16.68	-2.27	-4.88	5.09	8.56	7.25	6.72	6.46	6.28	6.13	6.01	5.91	5.84	5.80	5.76	5.74	5.73

Fiscal indicators

	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	2025Q4	2026Q1	2026Q2	2026Q3	2026Q
Deficit, percent of GDP	6.99	10.74	14.30	11.05	9.80	11.80	11.80	9.90	9.80	9.60	9.50	9.50	9.81	9.99	10.09	10.13	10.1
	6.70	11.51	13.34	9.80	9.80	11.80	11.80	9.90	9.80	9.60	9.50	9.57	9.84	9.99	10.06	10.09	10.0
Str. deficit, percent of GDP	11.85	11.80	11.74	11.75	11.61	11.47	11.35	11.22	11.11	10.99	10.88	10.78	10.68	10.58	10.49	10.40	10.3
	11.96	11.92	11.87	11.73	11.59	11.46	11.33	11.21	11.09	10.98	10.87	10.77	10.67	10.57	10.48	10.39	10.3
Cyc. deficit, percent of GDP	0.28	0.30	0.19	-0.14	-0.21	-0.29	-0.28	-0.13	-0.06	0.01	0.06	0.08	0.08	0.07	0.06	0.05	0.0
	0.25	0.34	0.43	0.40	0.56	0.35	0.25	0.31	0.28	0.27	0.25	0.20	0.15	0.10	0.06	0.03	0.0
Discr. deficit, percent of GDP	-5.14	-1.36	2.37	-0.56	-1.60	0.62	0.74	-1.20	-1.25	-1.40	-1.45	-1.35	-0.95	-0.66	-0.46	-0.32	-0.2
	-5.51	-0.75	1.04	-2.33	-2.35	-0.01	0.22	-1.61	-1.58	-1.64	-1.62	-1.40	-0.98	-0.69	-0.48	-0.34	-0.2
Fiscal impulse, percent of GDP	-5.20	-1.41	2.31	-0.55	-1.74	0.48	0.61	-1.32	-1.37	-1.52	-1.56	-1.46	-1.05	-0.76	-0.56	-0.41	-0.3
	-5.57	-0.79	0.99	-2.47	-2.49	-0.14	0.09	-1.74	-1.69	-1.76	-1.73	-1.50	-1.08	-0.78	-0.57	-0.42	-0.3

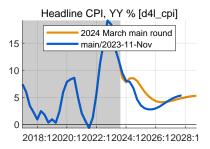
Auxiliary model results

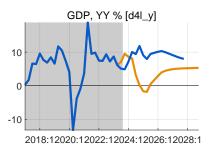
2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	$2025\mathrm{Q4}$	2026Q1	$2026\mathrm{Q}2$	2026
6.99	10.74	14.30	11.05	9.80	11.80	11.80	9.90	9.80	9.60	9.50	9.50	9.81	9.99	10.09	10
6.70	11.51	13.34	9.80	9.80	11.80	11.80	9.90	9.80	9.60	9.50	9.57	9.84	9.99	10.06	10
4.09	3.02	6.57	5.03	4.01	3.51	3.25	3.13	3.06	3.03	3.02	3.01	3.00	3.00	3.00	3
3.86	3.17	6.03	4.52	3.76	3.38	3.19	3.09	3.05	3.02	3.01	3.01	3.00	3.00	3.00	3
1.55	12.45	7.07	2.47	4.35	6.60	7.76	6.21	6.10	5.88	5.75	5.72	5.95	6.07	6.13	6
1.51	15.26	9.36	4.04	5.55	8.06	8.08	6.58	6.46	6.26	6.13	6.14	6.32	6.39	6.40	6
1.35	-4.72	0.66	3.55	1.43	1.69	0.79	0.56	0.64	0.69	0.73	0.77	0.86	0.91	0.96	0
1.33	-6.92	-2.05	1.24	0.49	0.36	0.53	0.23	0.29	0.32	0.35	0.42	0.51	0.60	0.67	0
48.00		51.80	54.23	55.63	56.97	56.27	56.94	58.01	59.35	60.84	62.07	63.23	64.25	65.09	65
48.02	48.39	50.29	52.18	53.78	54.40	54.66	54.66	54.56	54.87	55.31	55.53	55.68	55.75	55.72	55
16.10		16.74	14.91	14.74	14.59	13.97	13.74	13.64	13.62	13.66	13.67	13.67	13.66	13.64	13
16.11	16.44	16.36	16.14	15.89	15.40	14.88	14.35	13.85	13.52	13.25	12.97	12.71	12.45	12.21	11
-14.65	-10.99	-18.76	-17.55	-13.72	-16.71	-17.90	-17.81	-18.42	-18.95	-19.43	-20.19	-20.87	-21.49	-22.05	-22
-14.65	-11.00	-14.33	-12.48	-12.60	-13.64	-13.72	-12.73	-12.50	-12.27	-12.03	-12.05	-12.03	-11.95	-11.85	-11
353.94	-245.40	308.34	-7.66	-88.46	287.17	150.00	73.25	93.16	76.22	78.43	89.83	108.90	117.86	123.95	128
372.00	-200.71	280.20	-147.63	192.19	106.86	90.95	82.07	100.21	108.61	117.29	131.63	150.17	152.27	151.67	146
	6.70 4.09 3.86 1.55 1.51 1.35 1.33 48.00 48.02 16.10 16.11 -14.65 -14.65 353.94	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$											

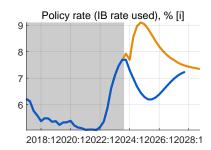
	$2022\mathrm{Q4}$	$2023\mathrm{Q}1$	$2023\mathrm{Q}2$	$2023\mathrm{Q}3$	2023Q4	$2024\mathrm{Q}1$	2024Q2	2024Q3	$2024\mathrm{Q4}$	2025Q1	$2025\mathrm{Q}2$	2025Q3	$2025\mathrm{Q4}$	2026Q1	$2026\mathrm{Q}2$	2026
Money demand, annualized growth in %	11.93	7.74	19.80	28.70	28.62	25.76	20.79	14.33	11.52	9.58	8.41	8.40	8.76	9.25	9.79	10
	13.20	7.23	19.64	27.99	25.67	23.80	21.01	16.75	15.52	14.67	14.13	14.33	14.77	15.24	15.64	15
log change GDP deflator (from CPI, PM)	17.44	9.49	-20.77	32.72	6.69	7.84	9.27	7.55	6.45	5.63	4.76	4.20	3.97	3.97	4.09	4
	19.26	7.28	6.59	5.74	11.53	7.75	4.86	3.27	2.73	2.48	2.48	2.54	3.00	3.79	4.43	Ę

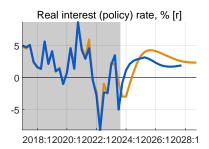
2 Forecast charts

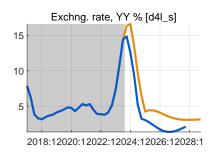
Main indicators

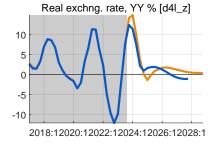


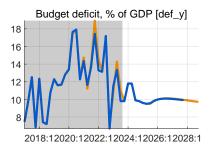




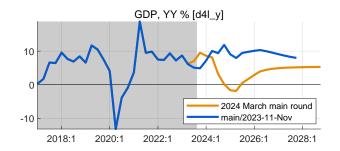


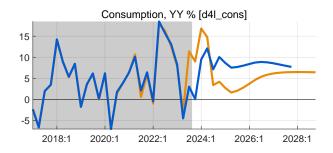


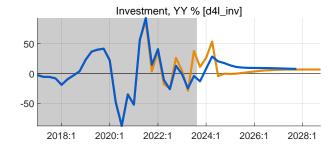


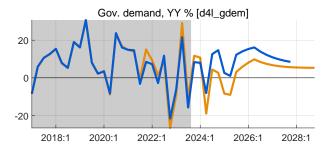


GDP growth, y-on-y

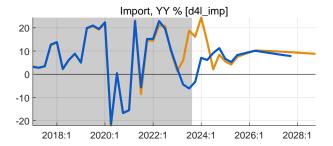




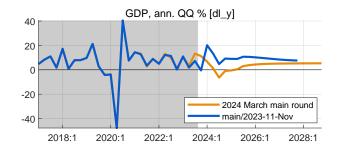


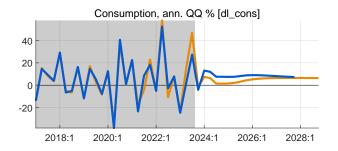


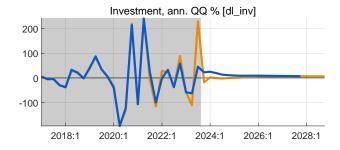


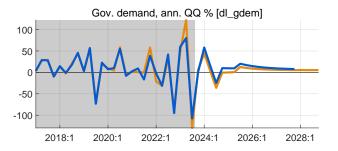


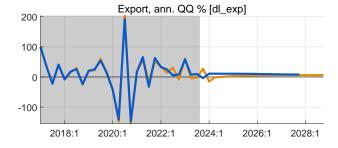
GDP growth, q-on-q

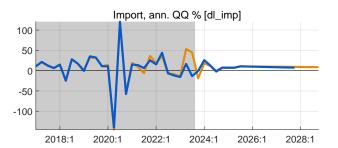




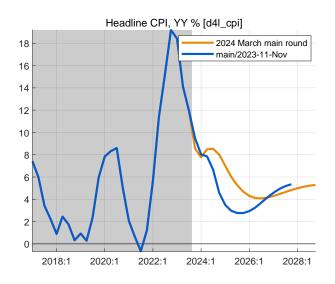


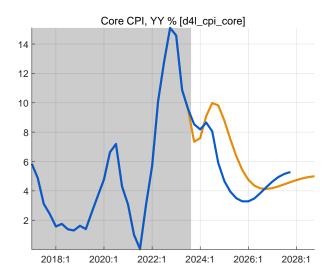


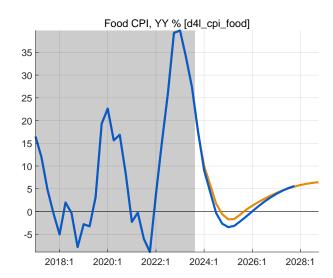


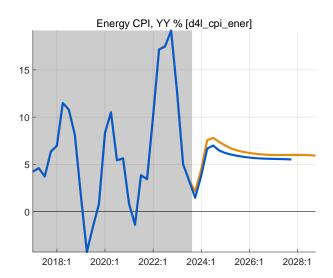


Inflation, y-on-y

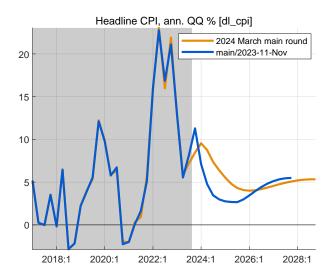


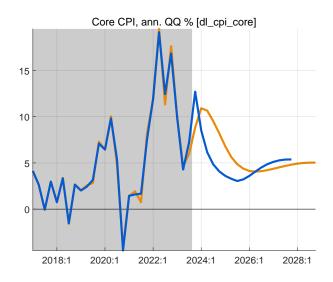


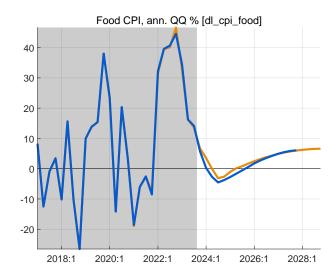


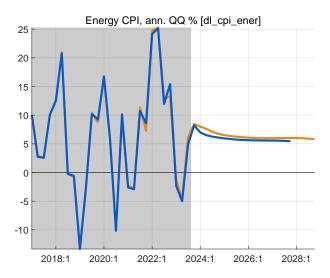


Inflation, q-on-q

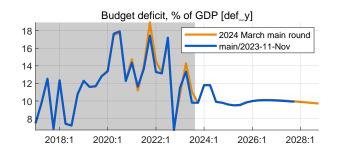


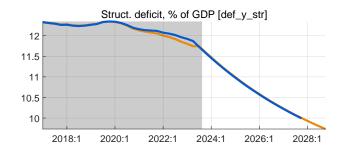


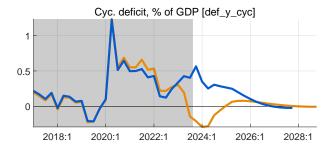


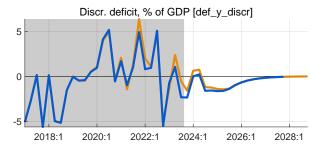


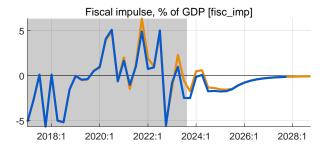
Budget deficit



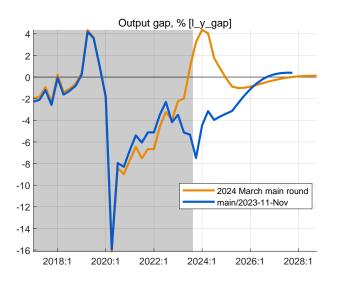


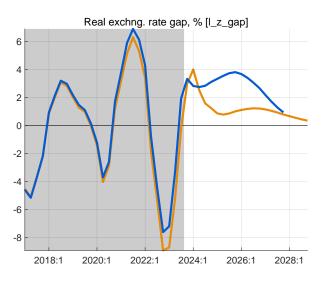


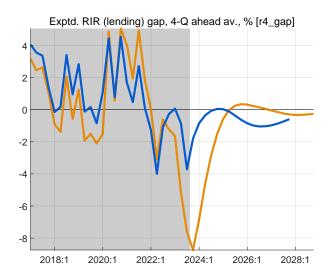




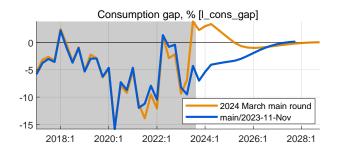
Main cyclical indicators

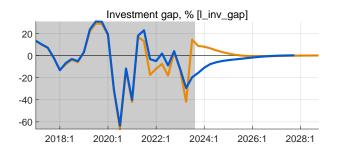


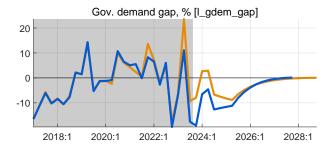




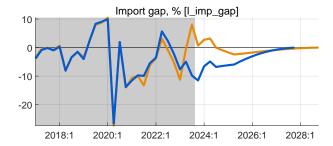
GDP cyclical indicators



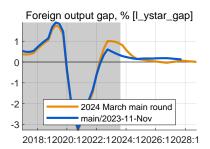


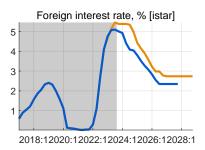


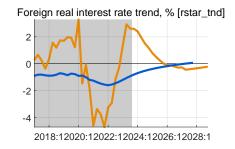


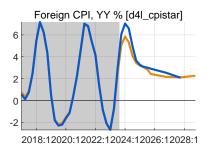


External variables



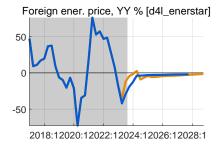


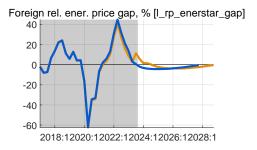








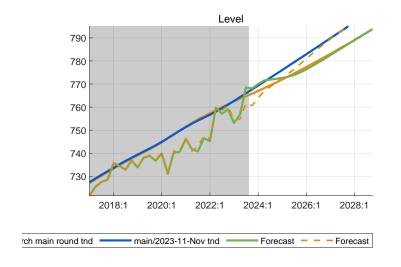


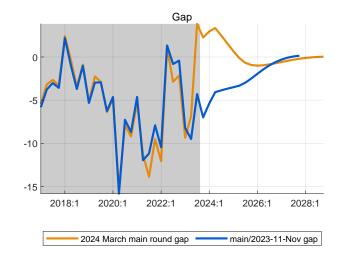


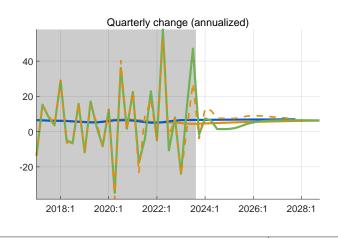
3 Trends and gaps

Consumption, $100*\log [l_cons]$

2024 March main round tnd



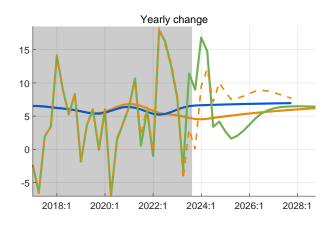




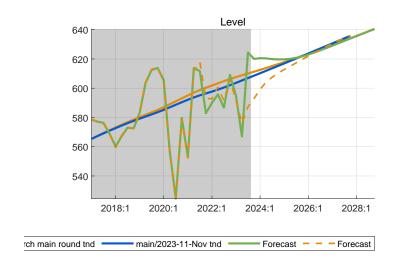
Forecast -

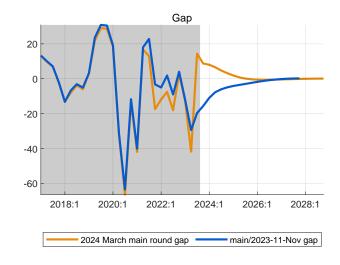
main/2023-11-Nov tnd

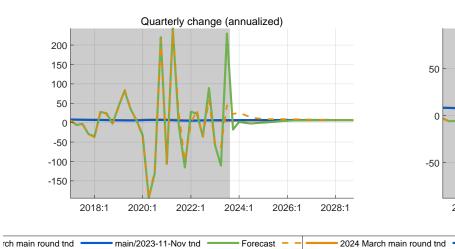
rch main round tnd

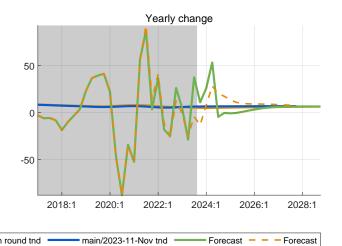


Investment, $100*\log [l_inv]$

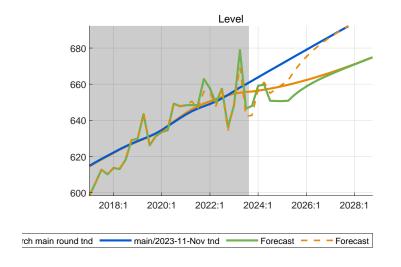


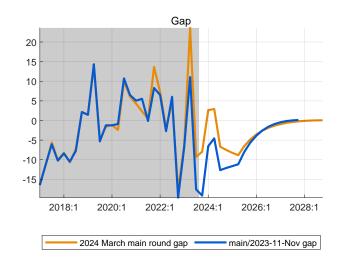


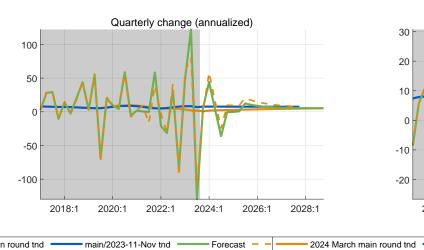




Gov. demand, $100*\log [l_gdem]$



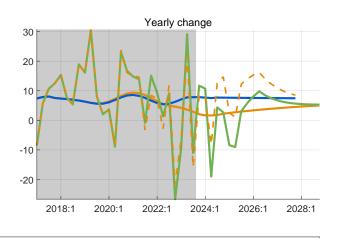




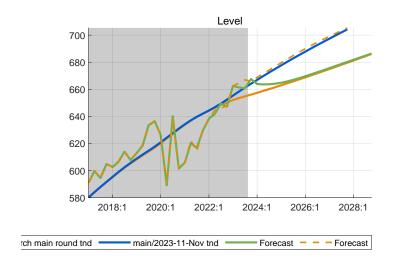
Forecast -

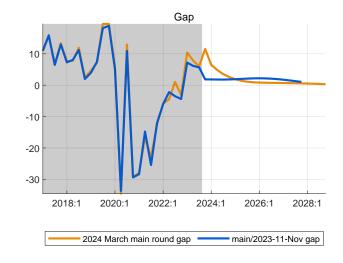
main/2023-11-Nov tnd

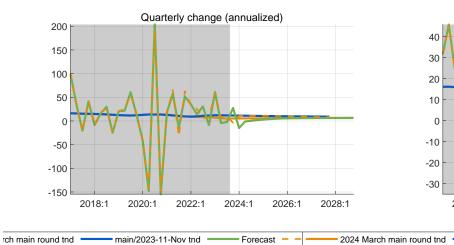
rch main round tnd

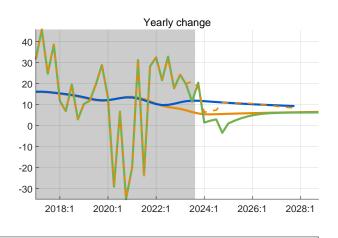


Export, $100*\log [l_exp]$



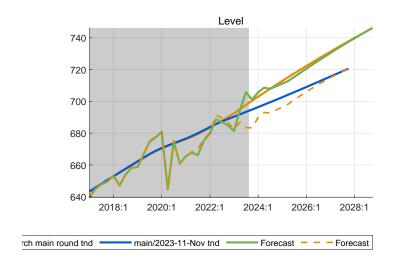


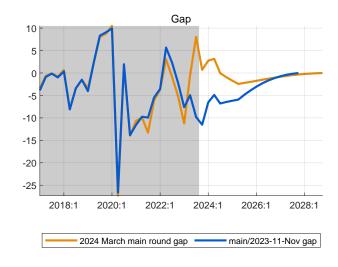


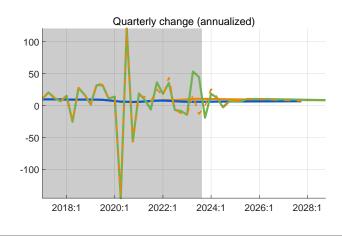


$Import,\,100*log\;[l_imp]$

2024 March main round tnd



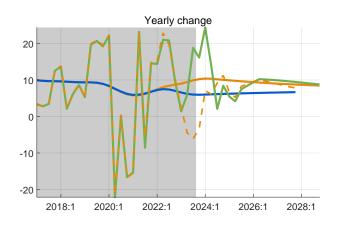




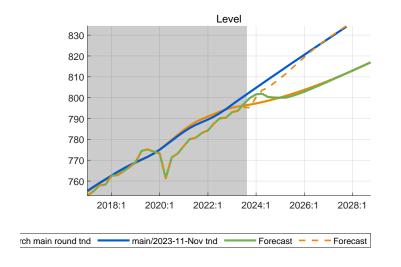
Forecast -

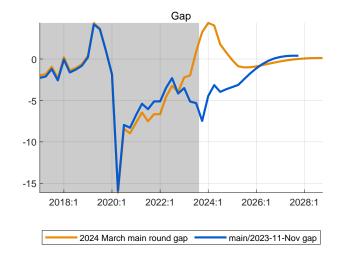
main/2023-11-Nov tnd

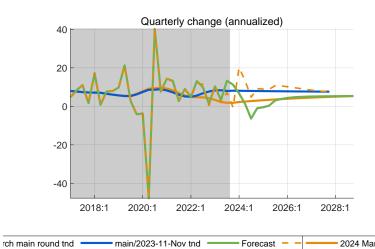
rch main round tnd

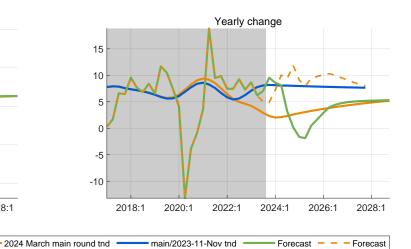


GDP, $100*\log [l_y]$

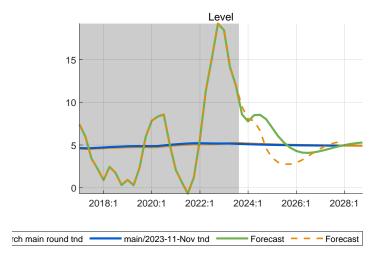




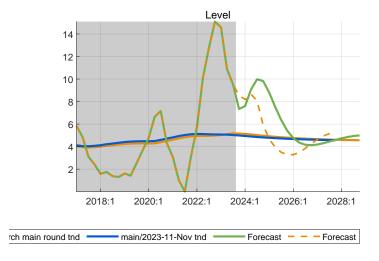




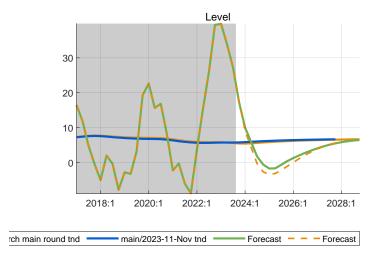
Headline CPI, YY % [d4l_cpi]



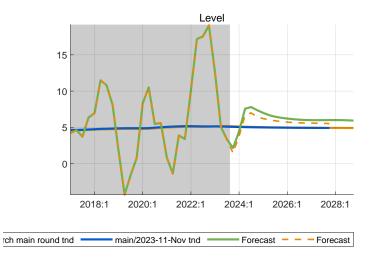
Core CPI, YY % [d4l_cpi_core]



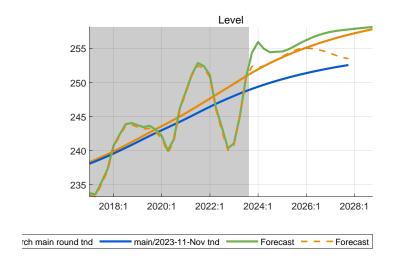
Food CPI, YY % [d4l_cpi_food]

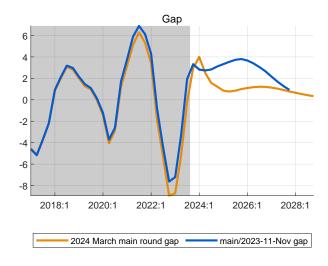


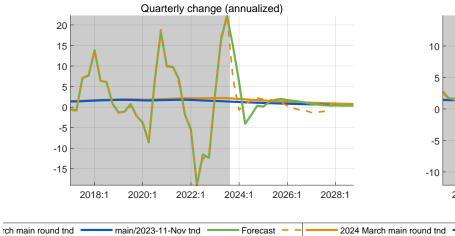
Energy CPI, YY % [d4l_cpi_ener]

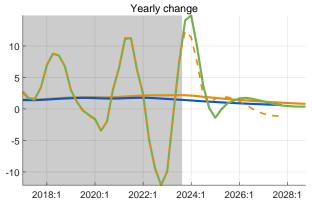


Real exchag. rate, 100*log [l_z]

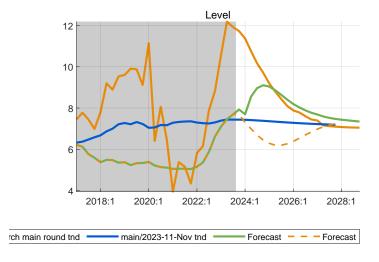




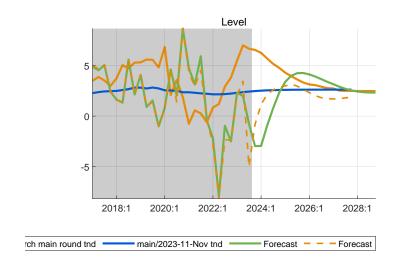


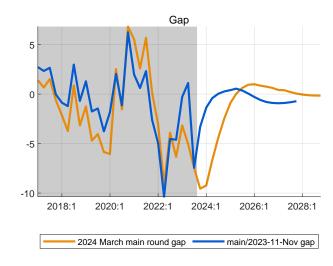


Policy rate (IB rate used), % [i]

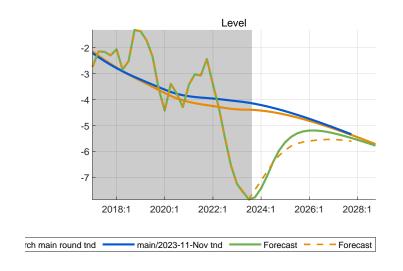


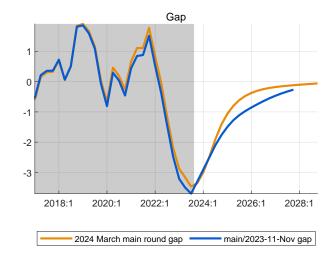
Real interest (policy) rate, % [r]

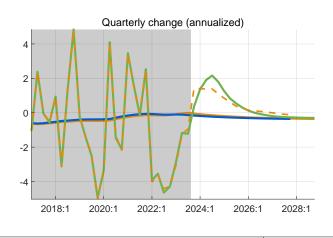




Core rel. price, $100*\log [l_rp_cpi_core]$



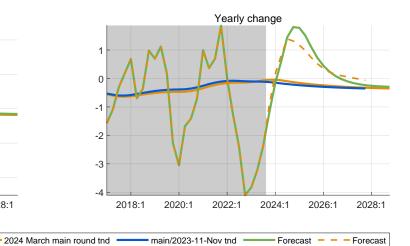




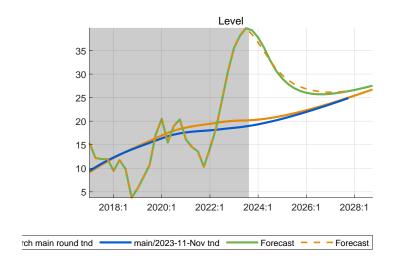
Forecast - -

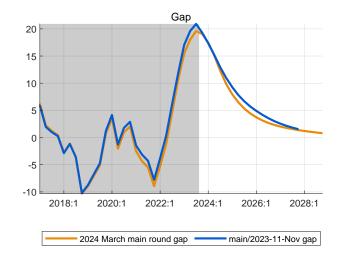
main/2023-11-Nov tnd

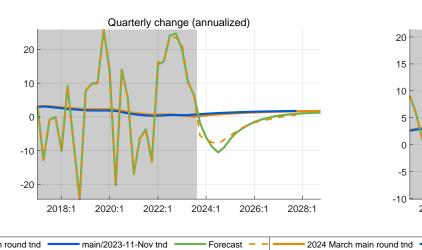
rch main round tnd



Food rel. price, 100*log [l_rp_cpi_food]



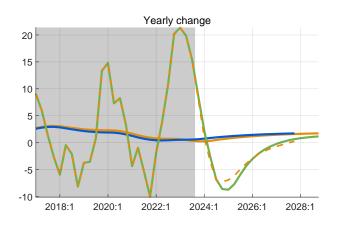




Forecast -

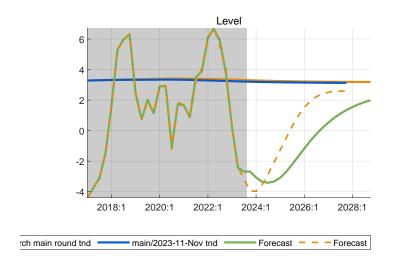
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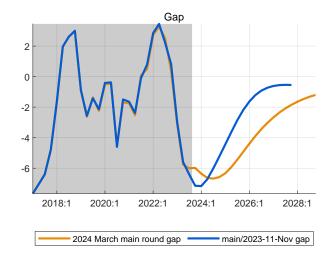
rch main round tnd

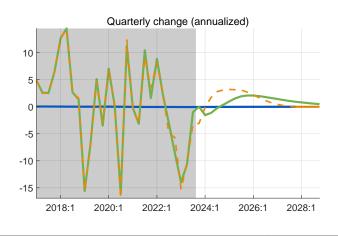


Energy rel. price, 100*log [l_rp_cpi_ener]

2024 March main round tnd



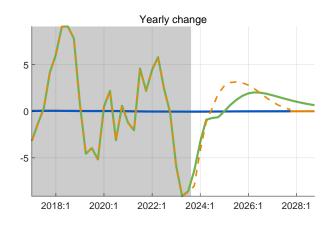




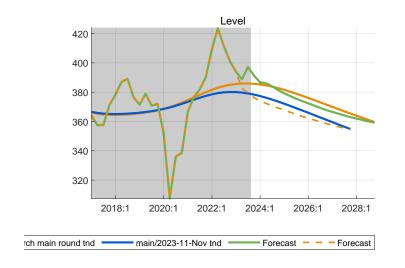
Forecast - -

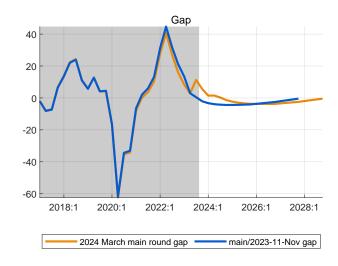
main/2023-11-Nov tnd

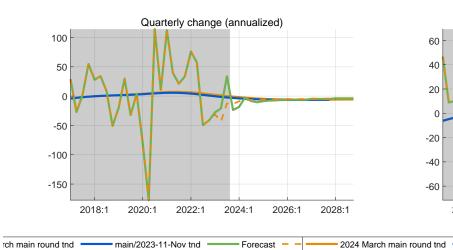
rch main round tnd

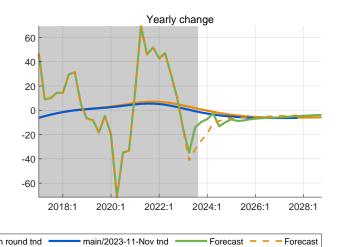


Foreign rel. ener. price, 100*log [l_rp_enerstar]

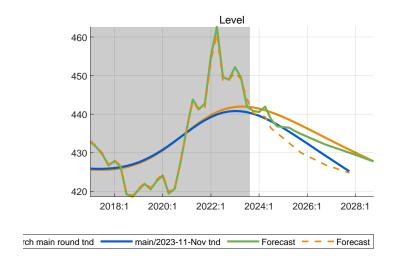


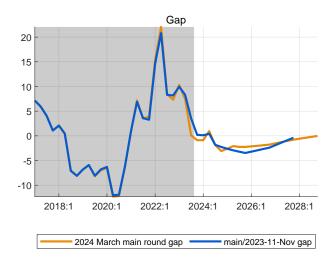


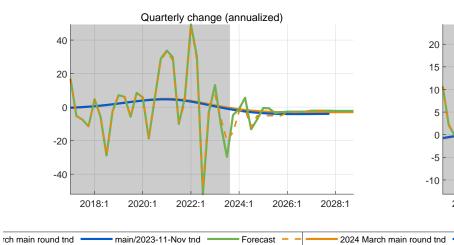


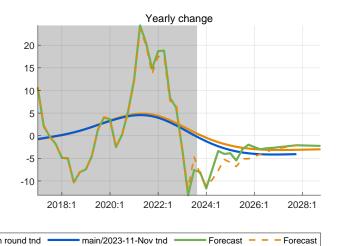


Foreign rel. food price, $100*\log [l_rp_foodstar]$

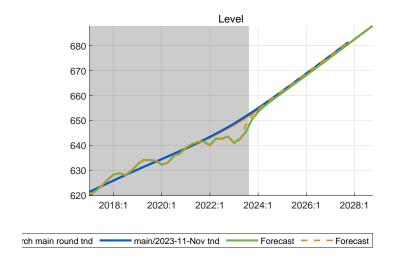


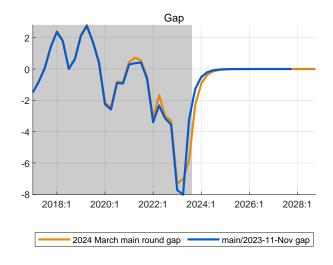


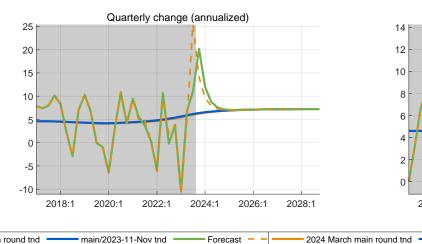




Agric. GDP, $100*\log [l_y_agr]$



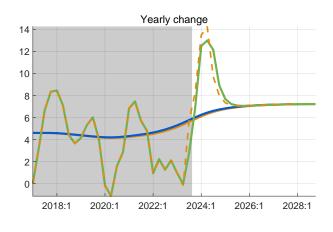




Forecast -

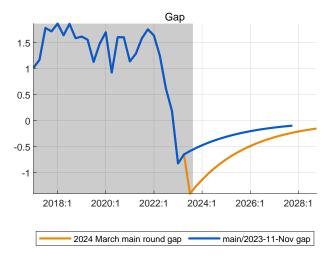
main/2023-11-Nov tnd

rch main round tnd

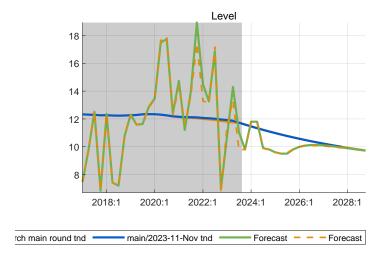


main/2023-11-Nov tnd

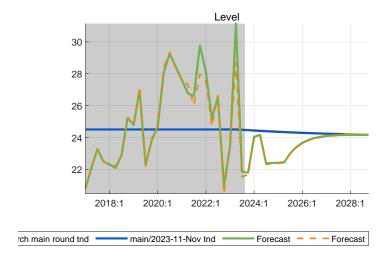
Lending premium, % [prem_d]



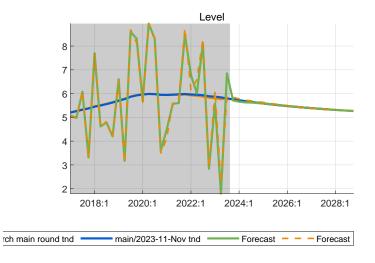
Budget deficit, % of GDP [def_y]



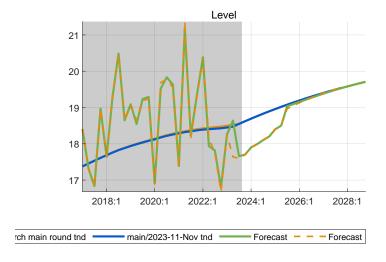
Govt. demand (G&S), % GDP [gdem_y]



Other govt. exp., % to GDP [oexp_y]

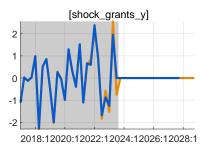


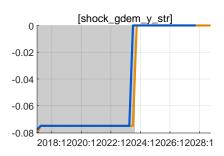
Govt. rev., % of GDP [grev_y]

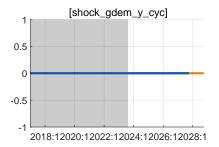


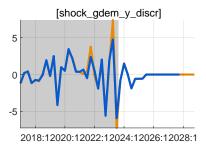
4 Shocks

Shocks (page 1)

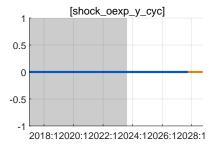


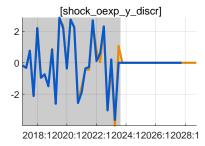




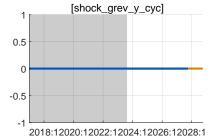






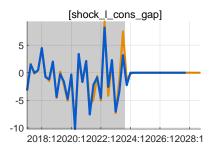


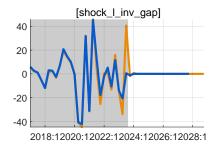




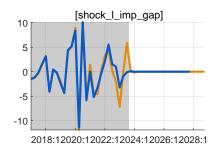
Shocks (page 2)

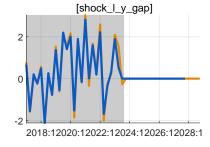


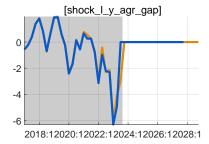


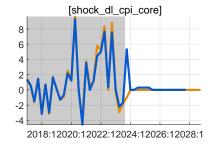






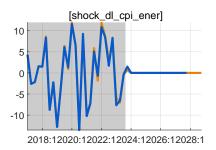


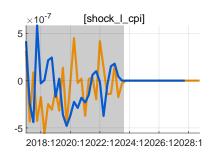


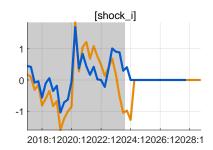


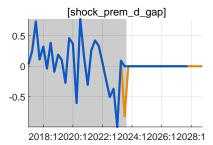


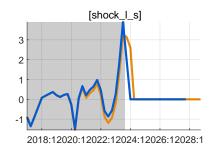
Shocks (page 3)

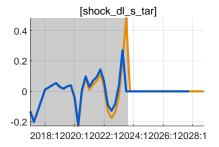


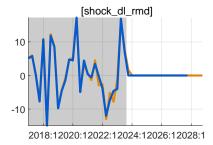


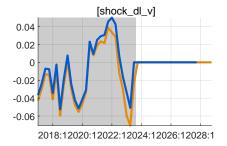






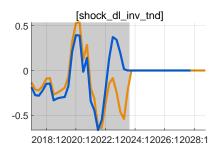


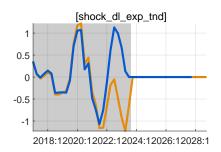


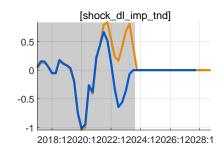


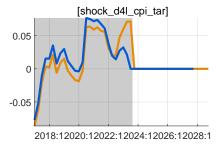


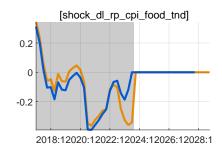
Shocks (page 4)

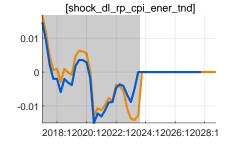


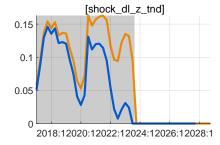


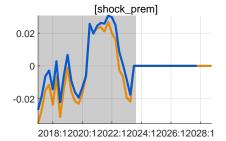


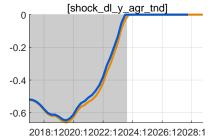




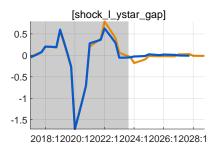


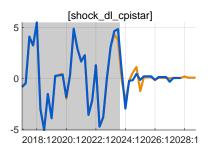




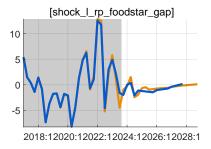


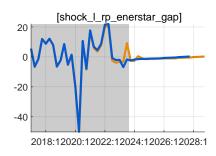
Shocks (page 5)

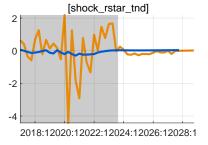


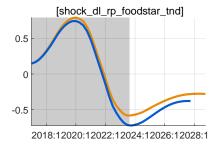


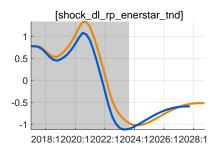












Shocks

	2022Q4	2023Q1	2023Q2	2023Q3	$2023\mathrm{Q4}$	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	2025Q4	2026Q1	2026Q2	2026Q3	$2026\mathrm{Q4}$
shock_grants_y	-0.57	-1.52	2.56	-0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.87	-1.26	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_gdem_y_str}$	-0.08	-0.07	-0.08	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.08	-0.07	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_gdem_y_cyc}$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${ m shock_gdem_y_discr}$	-5.02	1.41	7.40	-7.25	-0.77	1.52	0.04	-1.87	-0.58	-0.57	-0.56	0.00	0.00	0.00	0.00	0.00	0.00
	-5.60	1.93	4.76	-5.93	-0.83	1.47	0.01	-1.89	-0.59	-0.58	-0.56	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_oexp_y_str}$	-0.05	-0.04	-0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.04	-0.02	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_oexp_y_cyc}$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_oexp_y_discr}$	-3.04	-0.24	-4.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-3.03	0.21	-3.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_grev_y_str}$	-0.01	-0.00	0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.01	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_grev_y_cyc$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_grev_y_discr}$	-1.54	-0.01	0.24	-1.00	-1.02	-0.93	-0.91	-0.79	-0.72	-0.55	-0.48	0.00	0.00	0.00	0.00	0.00	0.00
	-1.64	0.01	-0.59	-0.73	-0.62	-0.60	-0.63	-0.56	-0.54	-0.41	-0.38	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_l_cons_gap}$	1.68	-7.32	-1.46	7.48	-1.32	-0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2.30	-7.04	-3.46	3.19	-2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_l_inv_gap}$	15.99	-14.28	-33.88	40.71	-1.87	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	11.52	-13.98	-20.69	0.50	-1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_l_exp_gap}$	-2.31	13.89	1.83	0.66	6.82	-2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.78	11.34	2.02	1.20	-2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_l_imp_gap}$	-2.13	-7.19	0.06	5.87	-0.00	-0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.01	-3.22	-0.93	-0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_l_y_gap$	0.23	2.10	1.56	-0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.31	1.90	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_l_y_agr_gap}$	-2.13	-5.99	-4.12	-2.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-2.30	-6.31	-4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${ m shock_dl_cpi_core}$	8.80	-0.25	-2.92	-1.79	-1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7.52	0.06	-2.20	-1.68	5.34	0.00	0.00	0.30	0.30	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_dl_cpi_food}$	18.51	-3.63	-9.72	-2.93	-3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	2025Q4	2026Q1	2026Q2	2026Q3	2026Q4
	15.96	-1.80	-12.68	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${ m shock_dl_cpi_ener}$	6.73	-5.80	-7.06	-0.38	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8.30	-7.67	-6.53	-0.35	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${ m shock}_{-}{ m l}_{-}{ m cpi}$	-0.00	0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${ m shock_i}$	0.69	0.18	-0.52	-1.05	-0.98	-1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.01	0.91	0.88	0.30	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_prem_d_gap}$	-0.37	-0.99	0.09	-0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.37	-0.99	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_l_s$	-0.94	-0.21	1.35	3.27	3.14	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.56	0.26	1.84	3.90	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_dl_s_tar$	-0.14	-0.03	0.20	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.08	0.04	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${ m shock_dl_rmd}$	-7.85	-1.26	16.55	7.75	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-4.59	-4.03	16.94	7.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_dl_v$	-0.03	-0.06	-0.07	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.02	-0.03	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${\rm shock_dl_cons_tnd}$	-0.22	-0.40	-0.48	-0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.35	0.22	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
${ m shock_dl_inv_tnd}$	-0.24	-0.46	-0.54	-0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.34	0.20	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_dl_exp_tnd$	-0.48	-0.92	-1.23	-0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.99	0.67	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_dl_imp_tnd$	0.41	0.68	0.81	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 1 141	-0.56	-0.36	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_d4l_cpi_tar$	0.05	0.06	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_dl_rp_cpi_food_tnd$	-0.25	-0.33	-0.36	-0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-11- 11: 41	-0.14	-0.19	-0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_dl_rp_cpi_ener_tnd$	-0.01 -0.01	-0.01 -0.01	-0.01	-0.01		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-1111 41			-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$\rm shock_dl_z_tnd$	$0.12 \\ 0.02$	0.14 0.03	0.13 0.02	0.09	0.00	0.00	0.00	0.00	0.00	0.00 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
shock prem	-0.02	-0.03	-0.02	0.00 0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00	0.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	0.00 0.00
snock_brem	-0.01 0.00	-0.02 -0.01	-0.02 -0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
$shock_dl_y_agr_tnd$	-0.24	-0.01 -0.17	-0.02 -0.08	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
snock_di_y_agi_thd	-0.24 -0.20	-0.17 -0.13	-0.08 -0.05	-0.03 0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.20	-0.13	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	$\overline{2022\mathrm{Q4}}$	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	2025Q4	2026Q1	2026Q2	2026Q3	$\overline{2026\mathrm{Q4}}$
shock_l_ystar_gap	0.40	0.06	0.03	-0.01	-0.04	-0.18	-0.15	-0.12	-0.09	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	0.29	-0.05	-0.05	-0.05	-0.05	-0.03	-0.02	-0.02	-0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.01
${\rm shock_dl_cpistar}$	-0.13	3.11	4.28	3.79	-0.20	-2.32	-0.25	0.54	1.11	-1.27	0.09	0.09	0.09	-0.17	0.04	0.04	0.04
	0.06	3.08	4.62	4.82	0.72	-2.98	-0.27	-0.19	0.43	-0.16	0.18	0.18	0.18	-0.17	0.11	0.11	0.11
${\rm shock_istar}$	1.43	0.68	0.60	0.48	0.10	0.17	0.17	0.13	-0.19	-0.41	-0.16	-0.13	-0.22	-0.28	-0.18	0.05	-0.15
	1.43	0.77	0.45	0.18	0.06	0.07	-0.37	-0.20	0.07	-0.14	-0.19	-0.16	-0.14	-0.19	-0.24	-0.17	0.02
$shock_l_rp_foodstar_gap$	2.07	5.79	1.07	-4.53	-0.96	-0.32	1.50	-2.44	-1.94	-0.67	-0.48	-0.95	-0.85	-0.75	-0.70	-0.65	-0.60
	3.04	4.88	2.14	-1.61	-1.99	-0.01	0.36	-2.08	-1.13	-1.22	-1.31	-1.39	-1.47	-1.05	-0.95	-0.84	-0.74
$shock_l_rp_enerstar_gap$	-3.94	-3.23	-3.24	9.18	-2.64	-2.64	0.45	-0.83	-1.54	-1.36	-1.26	-1.26	-1.16	-1.05	-1.03	-1.02	-1.01
	-2.10	-2.00	-6.86	-1.70	-2.42	-1.75	-1.52	-1.36	-1.32	-1.18	-1.11	-1.05	-0.99	-0.73	-0.62	-0.52	-0.42
$shock_rstar_tnd$	0.78	1.64	1.67	-0.03	0.24	0.07	-0.22	-0.25	-0.17	-0.28	-0.20	-0.20	-0.21	-0.12	-0.02	-0.11	-0.11
	-0.03	0.00	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
$shock_dl_rp_foodstar_tnd$	-0.45	-0.51	-0.56	-0.58	-0.58	-0.57	-0.55	-0.54	-0.51	-0.48	-0.45	-0.42	-0.40	-0.38	-0.35	-0.33	-0.32
	-0.55	-0.63	-0.68	-0.71	-0.72	-0.71	-0.70	-0.67	-0.64	-0.60	-0.57	-0.53	-0.50	-0.47	-0.44	-0.42	-0.40
$shock_dl_rp_enerstar_tnd$	-0.66	-0.78	-0.88	-0.94	-1.00	-1.02	-1.03	-1.01	-0.99	-0.95	-0.91	-0.87	-0.82	-0.77	-0.73	-0.68	-0.64
	-0.99	-1.09	-1.12	-1.12	-1.09	-1.05	-1.01	-0.96	-0.91	-0.86	-0.81	-0.77	-0.73	-0.69	-0.66	-0.64	-0.62