

The missing link in the BoC's macro forecast

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As economic statistics go, the unemployment rate is rather elemental. It's a simple enough concept—the number of unemployed expressed as a share of a given country or region's active labour force—to be broadly understood. That's partly why the jobless rate is so widely reported on in the mass media. It passes your average "woman/man on the street test" in terms of translatability. The unemployment rate may not be the single best indicator when it comes to labour market performance; many economists consider the employment rate a truer measure of labour utilization, since an e-rate controls for labour force participation (better capturing the discouraged would-be worker effect).

No question then, as a statistical concept, the unemployment rate has limitations. But name a major statistic that's nuance-free, unsaddled with technicalities, drawbacks, nits? GDP and resulting output gaps, inflation in all its various forms, even the surveyed level of employment are all fraught with complexities, statistical baggage and estimation error. Such is life with the dismal science that is economics.

Interesting fact: The unemployment rate is one of the more vital inputs when stress-testing and projecting financial health in the banking sector, being so-closely correlated with consumer behavior, housing activity, loan losses, etc. Beyond this banking-centric angle, consider that in today's more ESG-sensitive world—where social considerations like income equality are impossible to ignore—an unemployment rate (while imperfect) may paint a truer picture of how an economy and its citizenry are faring than the more esoteric output gap.

Bottom line, there's enough utility/usefulness in the unemployment rate that in whatever country you call home, you're apt to find it right near the top of the list in terms of most-broadly and consistently forecasted economic variables. There isn't a major private sector economics department that fails to include the unemployment rate as a core forecast element. Private sector economists are hardly the only ones focusing on joblessness; the unemployment rate has pride-of-place in government budgets too (in Canada and elsewhere).

Monetary authorities likewise see value. Take a look at the world's most venerable central banks and you'll find most offering up forecasts for the unemployment rate right alongside inflation and real GDP. Yes, we realize, some central banks have mandates that extend beyond price stability. The Fed, famously, has a dual mandate that includes attainment of maximum employment. Thus, it makes perfect sense that the Fed includes the unemployment rate as one of only four core macro variables in its quarterly Summary of Economic Projections. The RBNZ, with its dual mandate (price stability + maximum employment), also offers up an unemployment rate forecast (along with a host of other key variables).

But there are high-profile cases where, despite a more narrowly defined policy mandate (focused on price stability), central banks deign the unemployment rate important enough to forecast. We're thinking of the European Central Bank, the Bank of England (which offers up the full monty in terms of macro forecasts), the Reserve Bank of Australia, Sweden's Riksbank, Norges Bank and the Bank of Israel to name but a few.

Then there's the Bank of Canada, with its quarterly Monetary Policy Report. Your standard MPR is replete with forecasts for global growth, Canadian GDP (including all the main expenditure-based components), potential output and headline CPI. But you won't find an unemployment rate forecast here. If the BoC has a view on unemployment (and presumably they do) they're not putting it down on paper.

Again, we appreciate that the Bank of Canada's mandate relates to price stability, specifically targeting the mid-point of a 1%-to-3% inflation control band. We're not necessarily advocating for a change in the monetary policy mandate either, seeing the existing framework as working reasonably well. But there are nonetheless some good reasons—from both a monetary policy and financial system perspective—to consider adding the unemployment rate to the BoC's macro forecast table. Indeed, you might even argue that the Bank's forward guidance would be made more credible if it revealed its underlying outlook for the labour market. After all, in a post-pandemic world a key arbiter of success/recovery will surely be how many Canadians have gone back to work and what share remain jobless. That just might be as vital an ingredient in the future stance of monetary policy as how far real GDP remains from its theoretical potential level.

As it stands, the unemployment rate is something of a missing link in the Bank's economic outlook. Adding this variable to the official forecast could (in our view) be implemented without too much difficulty. So file this in the "unsolicited feedback" category, but this is one forecasting team/firm that would appreciate greater visibility from our central bank on the key issue of labour market health.

Table: A number of major central banks consider the unemployment rate a key economic variable to be forecast

Comparison of key macroeconomic forecast elements at select central banks

Country/region	Canada	United States	Euro-area	Japan	United Kingdom	Australia	New Zealand	Switzerland	Sweden	Norway	Israel
Central Bank	BoC	Fed	ECB	BoJ	BoE	RBA	RBNZ	SNB	Riksbank	Norges	BoI
Currency	CAD	USD	EUR	JPY	GBP	AUD	NZD	CHF	SEK	NOK	ILS
Primary MP goal	PS	PS+MSE	PS	PS	PS	PS	PS+MSE	PS	PS	PS	PS
<i>Quick comparison of major economic forecast elements presented in official monetary policy documents:</i>											
Inflation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Real GDP	✓	✓	✓	✓	✓	✓	✓	Range	✓	✓	✓
Unemployment rate	✗	✓	✓	✗	✓	✓	✓	✗*	✓	✓	✓

Source: NBF, official central banks (monetary policy reports/statements) | Note: 'Primary MP goal' refers to primary monetary policy mandate/objective, which in most cases is focused on some form of price stability (PS) implemented via inflation rate targeting; in the case of the U.S. Fed and RBNZ, maximum sustained employment (MSE) is also a formal monetary policy objective, resulting in a dual mandate; in many cases, economic forecasts are not limited to inflation, real GDP and the unemployment rate, with some providing comprehensive guidance; in the case of the SNB, unemployment rates forecasts are not presented, although directional guidance is offered (e.g., "unemployment is likely to rise again...")

Excerpt: Comparing BoC's MPR forecast to major central banks routinely providing unemployment rate/labour market forecasts
 Note: What follows is a sample of selected forecast disclosures; in some cases, greater detail and/or scenarios are made available

Bank of Canada (example from *Monetary Policy Report*, presented quarterly)

Table 2: Contributions to average annual real GDP growth
 Percentage points[†]

	2019	2020	2021	2022	2023
Consumption	1.0 (1.0)	-3.7 (-3.9)	1.7 (2.4)	3.1 (2.3)	1.9
Housing	0.0 (0.0)	0.3 (0.1)	0.7 (0.6)	0.0 (0.0)	0.0
Government	0.4 (0.4)	0.0 (0.0)	1.3 (1.3)	0.6 (0.2)	0.4
Business fixed investment	0.1 (0.0)	-1.2 (-1.2)	0.3 (0.1)	0.8 (0.7)	0.5
Subtotal: final domestic demand	1.5 (1.3)	-4.6 (-5.0)	4.0 (4.4)	4.5 (3.2)	2.8
Exports	0.5 (0.4)	-3.0 (-3.0)	1.7 (1.3)	1.9 (1.5)	1.0
Imports	-0.2 (-0.2)	3.9 (3.5)	-2.8 (-2.4)	-1.9 (-1.4)	-1.3
Subtotal: net exports	0.3 (0.2)	0.9 (0.5)	-1.1 (-1.1)	0.0 (0.1)	-0.3
Inventories	0.2 (0.1)	-1.8 (-1.2)	1.1 (0.9)	0.3 (0.4)	0.0
GDP	1.9 (1.7)	-5.5 (-5.7)	4.0 (4.2)	4.8 (3.7)	2.5
Memo items (percentage change)					
Range for potential output	1.5–2.1 (1.5–2.1)	0.1–1.3 (0.1–1.3)	0.2–1.6 (0.2–1.6)	0.3–1.9 (0.3–1.9)	0.2–2.2 (0.2–2.2)
Real gross domestic income (GDI)	1.9 (1.6)	-6.5 (-6.3)	5.2 (4.6)	4.9 (3.6)	2.3
CPI inflation	1.9 (1.9)	0.7 (0.6)	1.6 (1.0)	1.7 (1.7)	2.1

INSERT HERE: For the Bank of Canada, an unemployment rate forecast would be a useful addition to the main Canadian economic forecast tables presented in the Monetary Policy Report

Table 3: Summary of the projection for Canada
 Year-over-year percentage change^{*}

	2020			2021	2019	2020	2021	2022	2023
	Q2	Q3	Q4	Q1	Q4	Q4	Q4	Q4	Q4
CPI inflation	0.0 (0.0)	0.2 (0.2)	0.7 (0.2)	0.9	2.1 (2.1)	0.7 (0.2)	1.5 (1.3)	1.9 (1.8)	2.1
Real GDP	-12.5 (-13.0)	-5.2 (-4.4)	-4.1 (-4.3)	-2.9	1.7 (1.5)	-4.1 (-4.3)	4.6 (3.8)	2.9 (3.0)	2.7
Quarter-over-quarter percentage change at annual rates[†]	-38.1 (-38.7)	40.5 (47.5)	4.8 (1.0)	-2.5					

U.S. Federal Reserve (example from *Summary of Economic Projections*, presented quarterly)

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, December 2020

Percent

Variable	Median ¹					Central Tendency ²					Range ³				
	2020	2021	2022	2023	Longer run	2020	2021	2022	2023	Longer run	2020	2021	2022	2023	Longer run
Change in real GDP	-2.4	4.2	3.2	2.4	1.8	-2.5–2.2	3.7–5.0	3.0–3.5	2.2–2.7	1.7–2.0	-3.3–1.0	0.5–5.5	2.5–4.0	2.0–3.5	1.6–2.2
September projection	-3.7	4.0	3.0	2.5	1.9	-4.0–3.0	3.6–4.7	2.5–3.3	2.4–3.0	1.7–2.0	-5.5–1.0	0.0–5.5	2.0–4.5	2.0–4.0	1.6–2.2
Unemployment rate	6.7	5.0	4.2	3.7	4.1	6.7–6.8	4.7–5.4	3.8–4.6	3.5–4.3	3.9–4.3	6.6–6.9	4.0–6.8	3.5–5.8	3.3–5.0	3.5–4.5
September projection	7.6	5.5	4.6	4.0	4.1	7.0–8.0	5.0–6.2	4.0–5.0	3.5–4.4	3.9–4.3	6.5–8.0	4.0–8.0	3.5–7.5	3.5–6.0	3.5–4.7
PCE inflation	1.2	1.8	1.9	2.0	2.0	1.2	1.7–1.9	1.8–2.0	1.9–2.1	2.0	1.1–1.4	1.2–2.3	1.5–2.2	1.7–2.2	2.0
September projection	1.2	1.7	1.8	2.0	2.0	1.1–1.3	1.6–1.9	1.7–1.9	1.9–2.0	2.0	1.0–1.5	1.3–2.4	1.5–2.2	1.7–2.1	2.0
Core PCE inflation ⁴	1.4	1.8	1.9	2.0		1.4	1.7–1.8	1.8–2.0	1.9–2.1		1.3–1.5	1.5–2.3	1.6–2.2	1.7–2.2	
September projection	1.5	1.7	1.8	2.0		1.3–1.5	1.6–1.8	1.7–1.9	1.9–2.0		1.2–1.6	1.5–2.4	1.6–2.2	1.7–2.1	
Memo: Projected appropriate policy path															
Federal funds rate	0.1	0.1	0.1	0.1	2.5	0.1	0.1	0.1	0.1–0.4	2.3–2.5	0.1	0.1	0.1–0.4	0.1–1.1	2.0–3.0
September projection	0.1	0.1	0.1	0.1	2.5	0.1	0.1	0.1	0.1–0.4	2.3–2.5	0.1	0.1	0.1–0.6	0.1–1.4	2.0–3.0

European Central Bank (example from *Macroeconomic projections, presented quarterly*)

	December 2020				September 2020		
	2020	2021	2022	2023	2020	2021	2022
Real GDP	-7.3	3.9	4.2	2.1	-8.0	5.0	3.2
Private consumption	-8.3	4.3	5.7	1.8	-8.0	5.9	3.4
Government consumption	1.5	2.5	0.6	1.1	1.7	1.7	1.0
Gross fixed capital formation	-10.1	5.0	6.5	3.7	-12.3	6.3	6.1
Exports ¹⁾	-11.0	6.5	4.9	3.5	-13.7	7.4	4.5
Imports ¹⁾	-10.7	6.3	6.1	3.8	-11.7	7.0	5.0
Employment	-1.8	-0.9	1.8	1.0	-2.3	0.1	1.3
Unemployment rate (percentage of labour force)	8.0	9.3	8.2	7.5	8.5	9.5	8.8
HICP	0.2	1.0	1.1	1.4	0.3	1.0	1.3
HICP excluding energy	1.0	1.0	1.1	1.3	1.1	1.0	1.2
HICP excluding energy and food	0.7	0.8	1.0	1.2	0.8	0.9	1.1
HICP excluding energy, food and changes in indirect taxes ²⁾	0.8	0.7	1.0	1.2	0.9	0.8	1.1
Unit labour costs	4.8	-1.1	-0.3	1.2	4.3	-1.7	0.1
Compensation per employee	-1.1	3.6	2.1	2.3	-1.8	3.1	2.0
Labour productivity	-5.6	4.8	2.4	1.1	-5.8	4.9	1.9
General government budget balance (percentage of GDP)	-8.0	-6.1	-3.9	-3.0	-8.8	-4.9	-3.6
Structural budget balance (percentage of GDP) ³⁾	-5.5	-3.8	-2.8	-2.6	-2.0	-2.5	-2.6
General government gross debt (percentage of GDP)	98.4	99.9	98.3	97.8	100.7	100.0	98.9
Current account balance (percentage of GDP)	1.9	2.1	1.9	1.9	2.0	2.6	2.6

Bank of England (example from *Monetary Policy Report*, presented quarterly)

	Averages		Projections			
	1998–2007	2010–19	2020	2021	2022	2023
World GDP (UK-weighted) ^(c)	3	2¼	-4¾ (-5¼)	4¾ (5½)	5 (3¾)	2¼ (2½)
World GDP (PPP-weighted) ^(d)	4	3½	-4 (-4½)	6 (7)	5¼ (4¾)	3½ (3¾)
Euro-area GDP ^(e)	2¼	1½	-7 (-6¾)	3½ (6)	6½ (3¼)	1¾ (2)
US GDP ^(f)	3	2¼	-3½ (-3¾)	6½ (4)	3¼ (3¾)	1¾ (2¼)
Emerging market GDP (PPP-weighted) ^(g)	5½	5	-3 (-4)	6¾ (8¼)	5¾ (5½)	4½ (4¾)
of which, China GDP ^(h)	10	7¾	2¼ (1½)	8½ (8½)	5½ (5½)	5¼ (5¼)
UK GDP⁽ⁱ⁾	3	1¾	-10 (-11)	5 (7¼)	7¼ (6¼)	1¼ (1¾)
Household consumption ^(j)	3¼	1¾	-12¼ (-11¼)	4¼ (8¼)	11¾ (4¼)	1 (2)
Business investment ^(k)	2¾	3¾	-15 (-18¾)	4 (5¾)	12 (13¾)	4½ (4¾)
Housing investment ^(l)	3¼	3¾	-10½ (-19¼)	10¾ (13¼)	3½ (12½)	6¼ (5¾)
Exports ^(m)	4¼	3¼	-13½ (-11¾)	-3 (-1¼)	5½ (3¼)	4¼ (3)
Imports ⁽ⁿ⁾	5¾	3½	-19 (-18¼)	5¼ (7¾)	12¾ (6)	3½ (3)
Contribution of net trade to GDP ^(o)	-¼	-¼	2 (2¼)	-2½ (-2¾)	-2¼ (-1)	0 (0)
Real post-tax labour income ^(p)	3¼	1¼	1½ (0)	-1 (¼)	1 (2¼)	1¾ (2)
Household saving ratio ^(q)	8	8½	17¾ (15¼)	15¼ (10¾)	6½ (8½)	6½ (8)
Credit spreads ^(r)	¾	2½	2 (2¼)	2¼ (2¼)	2¼ (2¼)	2 (2)
Excess supply/Excess demand^(s)	0	-1¾	-1¼ (-2)	-1¼ (-1¼)	+¼ (+¼)	0 (+¼)
Hourly labour productivity ^(t)	2¼	½	2¾ (1¾)	-3¼ (-2¼)	2 (1¾)	½ (½)
Employment ^(u)	1	1¼	-1¼ (-3)	-¾ (¾)	2¼ (2¾)	1¼ (1¼)
Average weekly hours worked ^(v)	32¼	32	29¾ (29½)	32¼ (32)	32 (32)	32 (32)
Unemployment rate ^(w)	5¼	6	5¼ (6¼)	6½ (6¾)	5 (5)	4½ (4¼)
Participation rate ^(x)	63	63½	63¾ (63½)	63¾ (64)	64 (64)	64 (64)
CPI inflation^(y)	1½	2¼	½ (½)	2 (2)	2¼ (2)	2 (2)
UK import prices ^(z)	0	1½	1¾ (1¼)	-½ (-¼)	0 (¼)	0 (¼)
Energy prices – direct contribution to CPI inflation ^(aa)	¼	¼	-½ (-½)	½ (¼)	0 (0)	0 (0)
Average weekly earnings ^(ab)	4¼	2¼	4¼ (1)	¾ (2¼)	2½ (2½)	2¼ (3¼)
Unit labour costs ^(ac)	3	1½	13½ (11)	-8¼ (-7)	2½ (2¼)	2¼ (2¾)
Private sector regular pay based unit wage costs ^(ad)	1¾	1¾	14 (10¾)	-5¾ (-5¼)	2 (3¼)	3 (3¼)

Reserve Bank of Australia (example from *Statement on Monetary Policy*, presented quarterly)

Table 5.1: Output Growth and Inflation Forecasts ^{(a)(b)}

Per cent

	Year-ended					
	Dec 2020	June 2021	Dec 2021	June 2022	Dec 2022	June 2023
GDP growth	-2	8	3½	3½	3½	3
(previous)	(-4½)	(6)	(4½)	(3½)	(3½)	(n/a)
Unemployment rate ^(c)	6.8	6½	6	5½	5½	5¼
(previous)	(7¾)	(7¼)	(6¾)	(6½)	(6¼)	(n/a)
CPI inflation	0.9	3	1½	1½	1½	1¾
(previous)	(½)	(2¼)	1	(1¼)	(1½)	(n/a)
Trimmed mean inflation	1.2	1¼	1¼	1½	1½	1¾
(previous)	(1)	(1¼)	(1)	(1¼)	(1½)	(n/a)
Year-average						
	2020	2020/21	2021	2021/22	2022	2022/23
GDP growth	-2½	0	4	4	3½	3
(previous)	(-3½)	(-2)	(3)	(4½)	(3½)	(n/a)

Reserve Bank of New Zealand (example from *Monetary Policy Statement*, presented quarterly)

TABLE 6.5

Summary of baseline scenario

(annual percent change for March years unless specified otherwise)

March year	Actuals									Baseline scenario		
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Price measures												
CPI	0.9	1.5	0.3	0.4	2.2	1.1	1.5	2.5	0.6	0.9	1.5	
Labour costs	1.8	1.7	1.8	1.8	1.5	1.9	2.0	2.4	1.2	1.2	2.1	
Export prices (in New Zealand dollars)	-4.8	11.5	-9.2	-0.3	3.9	3.2	1.3	7.4	-6.0	2.0	2.0	
Import prices (in New Zealand dollars)	-3.9	-3.0	-3.4	1.2	0.7	1.9	4.3	2.6	-3.6	0.1	0.2	
Monetary conditions												
OCR (year average)	2.5	2.5	3.4	2.9	2.0	1.8	1.8	1.2	0.3			
TWI (year average)	74.0	77.6	79.3	72.6	76.5	75.6	73.4	71.7	71.2	71.5	71.5	
Output												
GDP (production, annual average % change)	2.2	2.6	3.6	3.6	3.7	3.1	3.1	1.5	-4.2	4.3	3.7	
Potential output (annual average % change)	2.1	2.6	3.0	3.1	3.1	3.0	2.6	2.0	-1.7	4.2	1.4	
Output gap (% of potential GDP, year average)	-1.5	-1.4	-0.8	-0.4	0.2	0.3	0.8	0.3	-2.2	-2.1	0.1	
Labour market												
Total employment (seasonally adjusted)	0.1	4.0	3.6	2.3	5.9	3.0	1.5	2.4	-1.8	0.4	2.0	
Unemployment rate (March qtr, seasonally adjusted)	5.8	5.6	5.5	5.3	4.9	4.4	4.2	4.2	6.2	6.1	5.4	
Trend labour productivity	0.9	0.7	0.5	0.4	0.2	0.1	0.2	0.3	0.6	0.9	0.9	

Sweden's Riksbank (example from *Monetary Policy Report*, presented five times a year)

Table 6. Production and employment

Annual percentage change unless otherwise specified

	2019	2020	2021	2022	2023
Population, 15–74 years	0.7 (0.7)	0.4 (0.4)	0.3 (0.4)	0.4 (0.4)	0.4 (0.4)
Potential hours worked	0.8 (0.8)	0.7 (0.7)	0.6 (0.6)	0.6 (0.5)	0.5 (0.5)
Potential GDP	1.7 (1.7)	1.6 (1.6)	1.6 (1.6)	1.6 (1.6)	1.7 (1.7)
GDP, calendar-adjusted	1.4 (1.3)	-3.1 (-4.2)	2.9 (2.5)	3.9 (5.0)	2.6 (2.4)
Hours worked, calendar-adjusted	-0.3 (-0.3)	-3.8 (-4.3)	1.4 (0.6)	2.8 (3.6)	1.6 (1.6)
Employed, 15–74 years	0.7 (0.7)	-1.3 (-1.5)	0.4 (-0.3)	1.2 (1.5)	1.1 (1.4)
Labour force, 15–74 years	1.1 (1.2)	0.3 (0.3)	0.6 (0.7)	0.6 (0.6)	0.5 (0.5)
Unemployment, 15–74*	6.8 (6.8)	8.3 (8.4)	8.5 (9.4)	7.9 (8.5)	7.4 (7.7)
GDP gap**	0.9 (0.9)	-3.7 (-4.8)	-2.5 (-4.1)	-0.3 (-0.8)	0.6 (-0.1)
Hours gap**	0.8 (0.8)	-3.8 (-4.2)	-3.0 (-4.2)	-0.7 (-1.2)	0.2 (-0.2)

Norway's Norges Bank (example from *Monetary Policy Report*, presented quarterly)

Table 3 Projections for main economic aggregates

Change from projections in <i>Monetary Policy Report 3/20</i> in brackets	Percentage change from previous year (unless otherwise stated)					
	In billions of NOK	Projections				
		2019	2020	2021	2022	2023
Prices and wages						
CPI	2.2	1.3 (-0.3)	2.2 (-0.9)	2.0 (0.1)	1.7 (0.1)	
CPI-ATE	2.2	3.0 (-0.1)	2.1 (-0.2)	1.4 (-0.3)	1.5 (0.0)	
Annual wages	3.5	2.2 (0.3)	2.0 (-0.1)	2.3 (0.0)	2.8 (0.0)	
Real economy¹						
Gross domestic product (GDP)	3568	0.9	-1.3 (0.5)	4.0 (0.2)	3.1 (0.2)	1.6 (-0.3)
GDP, mainland Norway	3068	2.4	-3.5 (0.1)	3.7 (0.0)	3.1 (0.4)	1.5 (-0.3)
Output gap, mainland Norway (level)	0.2	-3.3 (0.1)	-1.6 (0.2)	0.0 (0.6)	0.2 (0.4)	
Employment, persons, QNA	1.6	-1.6 (0.4)	0.3 (-0.2)	1.8 (0.1)	0.9 (-0.1)	
Registered unemployment rate (level)	2.3	5.0 (0.0)	3.2 (0.0)	2.5 (-0.2)	2.4 (-0.1)	
Demand¹						
Mainland demand	3191	2.2	-4.8 (0.1)	3.7 (-1.3)	4.5 (0.7)	2.2 (-0.4)
- Household consumption	1590	1.5	-8.3 (-0.8)	5.9 (-1.8)	7.5 (2.1)	3.1 (-0.1)
- Business investment	325	5.6	-7.3 (5.3)	-6.3 (1.3)	5.4 (-0.4)	4.3 (-1.1)
- Housing investment	195	-1.7	-7.5 (-1.8)	4.7 (-0.6)	3.8 (-0.3)	2.3 (-1.0)
- Public demand	1081	2.9	1.6 (-0.1)	3.4 (-1.1)	0.2 (-0.6)	0.2 (-0.7)
Petroleum investment	178	12.6	-6.0 (-3.0)	-6.0 (6.0)	-4.0 (-2.0)	10.0 (2.0)
Mainland exports	701	4.7	-8.6 (0.1)	3.8 (1.2)	5.6 (0.1)	3.6 (-0.6)
Imports	1242	4.7	-12.5 (0.0)	5.1 (0.4)	7.9 (1.2)	4.8 (0.0)
House prices and debt						
House prices	2.6	4.4 (0.7)	6.7 (1.5)	2.4 (-1.3)	1.8 (-0.8)	
Credit to households (C2)	5.0	4.9 (0.1)	4.8 (0.5)	4.4 (0.2)	4.4 (0.2)	
Interest rate, exchange rate and oil price						
Policy rate (level)	1.1	0.4 (0.0)	0.0 (0.0)	0.3 (0.2)	0.8 (0.3)	

Bank of Israel (example from *Monetary Policy Report*, presented no less than twice annually)

Table 4
Research Department Forecast
(Rate of change in percent, unless otherwise noted)

Forecast for year:	2020						2021						2022			
Date of forecast	07/20	08/20		10/20		01/21	07/20	08/20		10/20		01/21		01/21		
Scenario	Control		Severe		Control		Severe		Control		Severe		Rapid vaccination	Slow vaccination	Rapid vaccination	Slow vaccination
GDP	-6.0	-4.5	-7.0	-5.0	-6.5	-3.7	7.5	6	3	6.5	1	6.3	3.5	5.8	6.0	
Private consumption	-6.5	-7.5	-10.5	-8.9	-10.5	-11.0	8.5	9	6.5	9.9	4.9	12.5	7.5	8.0	10.5	
Fixed capital formation (excluding ships and aircraft)	-13.5	-7.5	-8.5	-7.7	-8.2	-7.5	5.5	4.5	1.0	3.9	0.3	3.5	-1.5	8.5	7.5	
Public consumption (excluding defense imports)	4.5	7.0	7.0	-7.1	7.1	3.0	2.5	1.0	1.5	0.9	1.2	6.5	6.5	-1.0	-1.0	
Exports (excluding diamonds and startups)	-13.0	-4.0	-6.5	-3.6	-4.4	1.5	7.5	4.0	2.0	3.9	1.3	3.0	2.0	4.5	4.5	
Civilian imports (excluding diamonds, ships and aircraft)	-14.0	-7.5	-10.0	-8.0	-8.7	-12.0	6.5	7.0	4.5	6.5	4.9	11.0	6.5	1.5	10.5	
Unemployment rate (ages 25-64, yearly average)	6.2	4.9	5.9	4.2	4.5		7.4	6.9	9.2	6.9	9.4					
Employment rate (ages 25-64, yearly average)	74.9	74.2	75.5	75.2			72.6	70.8	72.6	70.6						
Broad unemployment rate (ages 15+, yearly average)	13.9	15.0	15.7	16.6	15.8		9.5	12.6	10	16.7	9.6	12.5	6.2	8.5		
Broad unemployment rate - end of year (ages 15+, yearly average)	11.6	13.6	16.7	20.2	16.3		7.7	12.1	7.8	13.9	7.7	11.0	5.4	7.0		
Government deficit (percent of GDP)			13.0	13.0	12.0					8.0	11.0	8.0	11.0	3.6-4	6.0	
Inflation rate ^a	-1.1	-1.0	-1.5				0.7	0.4	0.9	0.6	0.1					
Date of forecast	07/20	08/20		10/20		01/21										
Scenario	Control		Severe		Control		Severe		Rapid vaccination	Slow vaccination						
Inflation in the coming year ^b	-0.1	0	-0.6	0.3	-0.2	0.6	0.1									
Inflation in 1 year from now ^c	0-0.1	0-0.1	0-0.1	0-0.1	0-0.1	0-0.1	0-0.1									



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