# Conditioning assumptions, forecast summary, and indicative projections November 2022

This document contains three tables of projections:

- Table 1 shows the conditioning assumptions used for the MPC's projections;
- Table 2 shows a summary of the headline forecast variables; and
- Table 3 shows indicative projections produced for the MPC by Bank staff to be consistent with the MPC's modal projections for GDP, inflation and unemployment.

The November 2022 projections in Tables 2 and 3 have been conditioned on the paths shown in Table 1, as well as a broad range of asset prices, which embody, among other things, market expectations of Bank of England policies.

The 'Monetary Policy Report fan charts' document and the quarterly market interest rate paths are available at '**Monetary Policy Report – Download the chart slides and data – November 2022**'.

## Table 1: Forecast conditioning assumptions [(a) (b)]

| | Averages | | | Projections | | | |
|---|---|---|---|---|---|---|---|
| | 1998–2007 | 2010–19 | 2020–21 | 2022 | 2023 | 2024 | 2025 |
| Bank Rate [(c)] | 5.0 | 0.5 | 0.1 | 3.0 (2.4) | 5.2 (2.9) | 4.7 (2.4) | 4.0 |
| Sterling effective exchange rate [(d)] | 100 | 82 | 80 | 77 (79) | 77 (78) | 76 (78) | 75 |
| Oil prices [(e)] | 39 | 78 | 62 | 92 (97) | 81 (93) | 76 (93) | 73 |
| Gas prices [(f)] | 29 | 53 | 137 | 231 (420) | 356 (327) | 265 (327) | 195 |
| Nominal government expenditure [(g)] | 7½ | 2¼ | 9¼ | 3½ (3½) | 2¾ (2¼) | 2½ (2½) | 3½ |

Sources: Bank of England, Bloomberg Finance L.P., Office for Budget Responsibility (OBR), ONS, Refinitiv Eikon from LSEG and Bank calculations.

(a) The table shows the projections for financial market prices, wholesale energy prices and government spending projections that are used as conditioning assumptions for the MPC's projections for CPI inflation, GDP growth and the unemployment rate. Figures in parentheses show the corresponding projections in the August 2022 Monetary Policy Report.
(b) Financial market data are based on averages in the seven working days to 25 October 2022. Figures show the average level in Q4 of each year, unless otherwise stated.
(c) Per cent. The path for Bank Rate implied by forward market interest rates. The curves are based on overnight index swap rates.
(d) Index. January 2005 = 100. The convention is that the sterling exchange rate follows a path that is half way between the starting level of the sterling ERI and a path implied by interest rate differentials.
(e) Dollars per barrel. November projection based on monthly Brent futures prices. August projection based on monthly Brent futures prices for two quarters, then held flat.
(f) Pence per therm. November projection based on monthly natural gas futures prices. August projection based on monthly natural gas futures prices for two quarters, then held flat.
(g) Annual average growth rate. Nominal general government consumption and investment. Projections are based on the OBR's March 2022 Economic and Fiscal Outlook. Historical data based on NMRP+D7QK.

## Table 2: Forecast summary [a]

| | Projections | | | |
|---|---|---|---|---|
| | 2022 Q4 | 2023 Q4 | 2024 Q4 | 2025 Q4 |
| GDP [b] | 0.2 (0.1) | -1.9 (-1.2) | -0.1 (0.1) | 0.7 |
| GDP including the backcast | 0.2 (0.1) | -1.9 (-1.2) | -0.1 (0.1) | 0.7 |
| CPI inflation [c] | 10.9 (13.1) | 5.2 (5.5) | 1.4 (1.4) | 0.0 |
| LFS unemployment rate | 3.7 (3.7) | 4.9 (4.7) | 5.9 (5.7) | 6.4 |
| Excess supply/ **Excess demand** [d] | **+¾** (-¼) | -2½ (-2½) | -3 (-3¼) | -3 |
| Bank Rate [e] | 3.0 (2.4) | 5.2 (2.9) | 4.7 (2.4) | 4.4 |

(a) Modal projections for GDP, CPI inflation, LFS unemployment and excess supply/excess demand. Figures in parentheses show the corresponding projections in the August 2022 Monetary Policy Report.
(b) Four-quarter growth in real GDP.
(c) Four-quarter inflation rate.
(d) Per cent of potential GDP. A negative figure implies output is below potential and a positive that it is above.
(e) Per cent. The path for Bank Rate implied by forward market interest rates. The curves are based on overnight index swap rates.

## Table 3: Indicative projections consistent with the MPC's forecast [a] [b]

| | Averages | | | Projections | | | |
|---|---|---|---|---|---|---|---|
| | 1998–2007 | 2010–19 | 2020–21 | 2022 | 2023 | 2024 | 2025 |
| **World GDP (UK-weighted)** [c] | **3** | **2½** | **¾** | **2¾ (2½)** | **1 (1)** | **1½ (1½)** | **2** |
| World GDP (PPP-weighted) [d] | 4 | 3¾ | 1½ | 3 (3) | 2¼ (2¾) | 3 (3) | 3¼ |
| Euro-area GDP [e] | 2¼ | 1½ | -½ | 3¼ (2¾) | 0 (-1) | 0 (¼) | 1¼ |
| US GDP [f] | 3 | 2¼ | 1½ | 1¾ (2) | ¼ (1½) | 1¼ (1¾) | 2 |
| Emerging market GDP (PPP-weighted) [g] | 5½ | 5 | 2¼ | 3½ (3¾) | 3½ (4) | 4½ (4¼) | 4½ |
| of which, China GDP [h] | 10 | 7¾ | 5¼ | 3¼ (3¼) | 4½ (5¼) | 5 (4½) | 5 |
| **UK GDP** [i] | **2¾** | **2** | **-1¾** | **4¼ (3½)** | **-1½ (-1½)** | **-1 (-¼)** | **½** |
| Household consumption [j] | 3¼ | 2 | -3½ | 4¾ (4¼) | -1 (-¾) | -½ (1) | ½ |
| Business investment [k] | 3 | 3¾ | -6 | 5¼ (6) | -3½ (-2) | -6½ (-7¼) | -1¾ |
| Housing investment [l] | 3 | 4¼ | 0 | 6¾ (6¾) | -8¼ (-5¾) | -8¾ (-2½) | ¼ |
| Exports [m] | 4¼ | 3½ | -6¼ | 5¼ (3½) | -1½ (-¼) | ¾ (0) | ¾ |
| Imports [n] | 6¼ | 4 | -6½ | 13¼ (14¾) | -1 (0) | 0 (¼) | 1¼ |
| Contribution of net trade to GDP [o] | -½ | -¼ | ¼ | -2½ (-3¼) | 0 (0) | ¼ (0) | -¼ |
| Real post-tax labour income [p] | 3¼ | 1½ | ¾ | -2¾ (-3½) | -3 (-4¼) | 1 (¾) | ¾ |
| Real post-tax household income [q] | 3 | 1½ | 0 | -¼ (-1½) | -1½ (-2¼) | ¾ (¾) | 1 |
| Household saving ratio [r] | 7¼ | 7¾ | 14¼ | 8 (5¼) | 7½ (3¾) | 8¾ (3½) | 9 |
| Credit spreads [s] | ¾ | 2½ | 1¾ | ¾ (1¼) | ¾ (1¼) | 1 (1½) | 1 |
| Excess supply/**Excess demand** [t] | 0 | -1¾ | -¾ | **1¼ (¾)** | -1¾ (-2) | -2¾ (-3) | -3 |
| Hourly labour productivity [u] | 2 | ¾ | ¼ | ¼ (-1) | 0 (¼) | ¼ (1) | ½ |
| Employment [v] | 1 | 1¼ | -½ | ¾ (1¼) | -1½ (-1½) | -½ (-¾) | 0 |

| | Averages | | | Projections | | | |
|---|---|---|---|---|---|---|---|
| | 1998–2007 | 2010–19 | 2020–21 | 2022 | 2023 | 2024 | 2025 |
| Average weekly hours worked [w] | 32¼ | 32 | 30¾ | 31¾ (31¾) | 31½ (31½) | 31½ (31½) | 31½ |
| Unemployment rate [x] | 5¼ | 6 | 4¾ | 3¾ (3¾) | 5 (4¾) | 5¾ (5¾) | 6½ |
| Participation rate [y] | 63 | 63½ | 63¼ | 63¼ (63¼) | 62¾ (62¾) | 62½ (62½) | 62¾ |
| **CPI inflation** [z] | **1½** | **2¼** | **2¾** | **10¾ (13)** | **5¼ (5½)** | **1½ (1½)** | **0** |
| UK import prices [aa] | -½ | 1¼ | 2 | 12 (8½) | -3¾ (-3¼) | -2¼ (-1¾) | -1¾ |
| Energy prices – direct contribution to CPI inflation [ab] | ¼ | ¼ | ½ | 3¾ (6½) | 1(¾) | 0 (0) | -¾ |
| Average weekly earnings [ac] | 4¼ | 2¼ | 4½ | 5¾ (5¼) | 4¼ (5¼) | 2¾ (2¾) | 2 |
| Unit labour costs [ad] | 3 | 1¼ | 5¼ | 6 (8) | 4¾ (5) | 2¼ (2) | 1¼ |
| Private sector regular pay based unit wage costs [ae] | 1¾ | 1½ | 3¾ | 7¼ (7½) | 6¾ (6½) | 2¾ (2) | 1¾ |

Sources: Bank of England, Bloomberg Finance L.P., Department for Business, Energy and Industrial Strategy, Eurostat, IMF World Economic Outlook (WEO), National Bureau of Statistics of China, ONS, US Bureau of Economic Analysis and Bank calculations.

(a) The profiles in this table should be viewed as broadly consistent with the MPC's projections for GDP growth, CPI inflation and unemployment (as presented in the fan charts).
(b) Figures show annual average growth rates unless otherwise stated. Figures in parentheses show the corresponding projections in the August 2022 Monetary Policy Report. Calculations for back data based on ONS data are shown using ONS series identifiers.
(c) Chained-volume measure. Constructed using real GDP growth rates of 188 countries weighted according to their shares in UK exports.
(d) Chained-volume measure. Constructed using real GDP growth rates of 189 countries weighted according to their shares in world GDP using the IMF's purchasing power parity (PPP) weights.
(e) Chained-volume measure. Forecast was finalised before the release of the preliminary flash estimate of euro-area GDP for Q3, so that has not been incorporated.
(f) Chained-volume measure. Forecast was finalised before the release of the advance estimate of US GDP for Q3, so that has not been incorporated.
(g) Chained-volume measure. Constructed using real GDP growth rates of 155 EME countries, as defined by the IMF WEO, weighted according to their relative shares in world GDP using the IMF's PPP weights.
(h) Chained-volume measure.
(i) Excludes the backcast for GDP.
(j) Chained-volume measure. Includes non-profit institutions serving households. Based on ABJR+HAYO.
(k) Chained-volume measure. Based on GAN8.
(l) Chained-volume measure. Whole-economy measure. Includes new dwellings, improvements and spending on services associated with the sale and purchase of property. Based on DFEG+L635+L637.

(m) Chained-volume measure. The historical data exclude the impact of missing trader intra-community (MTIC) fraud. Since 1998 based on IKBK-OFNN/(BOKH/BQKO). Prior to 1998 based on IKBK.
(n) Chained-volume measure. The historical data exclude the impact of MTIC fraud. Since 1998 based on IKBL-OFNN/(BOKH/BQKO). Prior to 1998 based on IKBL.
(o) Chained-volume measure. Exports less imports.
(p) Wages and salaries plus mixed income and general government benefits less income taxes and employees' National Insurance contributions, deflated by the consumer expenditure deflator. Based on [ROYJ+ROYH-(RPHS+AIIV-CUCT)+GZVX]/[(ABJQ+HAYE)/(ABJR+HAYO)]. The backdata for this series are available at '**Monetary Policy Report – Download the chart slides and data – November 2022**'.
(q) Total available household resources, deflated by the consumer expenditure deflator. Based on [RPQK/((ABJQ+HAYE)/(ABJR+HAYO))].
(r) Annual average. Percentage of total available household resources. Based on NRJS.
(s) Level in Q4. Percentage point spread over reference rates. Based on a weighted average of household and corporate loan and deposit spreads over appropriate risk-free rates. Indexed to equal zero in 2007 Q3.
(t) Annual average. Per cent of potential GDP. A negative figure implies output is below potential and a positive figure that it is above.
(u) GDP per hour worked. GDP data based on the mode of the MPC's GDP backcast. Hours worked based on YBUS.
(v) Four-quarter growth in LFS employment in Q4. Based on MGRZ.
(w) Level in Q4. Average weekly hours worked, in main job and second job. Based on YBUS/MGRZ.
(x) LFS unemployment rate in Q4. Based on MGSX.
(y) Level in Q4. Percentage of the 16+ population. Based on MGWG.
(z) Four-quarter inflation rate in Q4.
(aa) Four-quarter inflation rate in Q4 excluding fuel and the impact of MTIC fraud.
(ab) Contribution of fuels and lubricants and gas and electricity prices to four-quarter CPI inflation in Q4.
(ac) Four-quarter growth in whole-economy total pay in Q4. Growth rate since 2001 based on KAB9. Prior to 2001, growth rates are based on historical estimates of AWE, with ONS series identifier MD9M.
(ad) Four-quarter growth in unit labour costs in Q4. Whole-economy total labour costs divided by GDP at constant prices. Total labour costs comprise compensation of employees and the labour share multiplied by mixed income.
(ae) Four-quarter growth in private sector regular pay based unit wage costs in Q4. Private sector wage costs divided by private sector output at constant prices. Private sector wage costs are average weekly earnings (excluding bonuses) multiplied by private sector employment.