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# Reproduce economic indicators from 'The Economist'

**Published on** October 20, 2020 **by** Thomas Brand (</author/thomas-brand.html>)

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TEXT=REPRODUCE%20ECONOMIC%20INDICATORS%20FROM%20THE%20ECONOMIST%20MACROECONOMIC%20OBSERVATORY&URL=%2FARTICLE%2F2020-10%2FECONOMIC-INDICATORS%2F)

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	Gross domestic product				Industrial production	
	latest	quarter*2021†2022†			latest	
<b>United States</b>	+0.4 Q1 ( <a href="https://db.nomics.world/OECD/MEI/USA.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/USA.NAEXKP01.GYSA.Q</a> )	+1.6	+6.4	+3.5	+16.9 Apr	( <a href="https://db.nomics.world/OECD/MEI/USA.PRINTOC">https://db.nomics.world/OECD/MEI/USA.PRINTOC</a> )
<b>China</b>	+21.2 Q1 ( <a href="https://db.nomics.world/OECD/MEI/CHN.NAEXCP01.STSA.Q">https://db.nomics.world/OECD/MEI/CHN.NAEXCP01.STSA.Q</a> )	-15.9	+8.4	+5.6	+5.4 Nov	( <a href="https://db.nomics.world/IMF/IFS/M.CN.AIP_PC_I">https://db.nomics.world/IMF/IFS/M.CN.AIP_PC_I</a> )
<b>Japan</b>	-1.5 Q1 ( <a href="https://db.nomics.world/OECD/MEI/JPN.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/JPN.NAEXKP01.GYSA.Q</a> )	-1.0	+3.3	+2.5	+14.1 Apr	( <a href="https://db.nomics.world/OECD/MEI/JPN.PRINTOC">https://db.nomics.world/OECD/MEI/JPN.PRINTOC</a> )
<b>Britain</b>	-6.1 Q1 ( <a href="https://db.nomics.world/OECD/MEI/GBR.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/GBR.NAEXKP01.GYSA.Q</a> )	-1.6	+5.3	+5.1	+27.5 Apr	( <a href="https://db.nomics.world/OECD/MEI/GBR.PRINTOC">https://db.nomics.world/OECD/MEI/GBR.PRINTOC</a> )
<b>Canada</b>	+0.3 Q1 ( <a href="https://db.nomics.world/OECD/MEI/CAN.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/CAN.NAEXKP01.GYSA.Q</a> )	+1.4	+5.0	+4.7	+1.7 Mar	( <a href="https://db.nomics.world/OECD/MEI/CAN.PRINTOC">https://db.nomics.world/OECD/MEI/CAN.PRINTOC</a> )
<b>Euro area</b>	-1.3 Q1 ( <a href="https://db.nomics.world/OECD/MEI/EA19.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/EA19.NAEXKP01.GYSA.Q</a> )	-0.3	+4.4	+3.8	+38.9 Apr	( <a href="https://db.nomics.world/OECD/MEI/EA19.PRINTOC">https://db.nomics.world/OECD/MEI/EA19.PRINTOC</a> )
<b>Austria</b>	-4.5 Q1 ( <a href="https://db.nomics.world/OECD/MEI/AUT.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/AUT.NAEXKP01.GYSA.Q</a> )	-1.1	+3.5	+4.0	+12.6 Mar	( <a href="https://db.nomics.world/OECD/MEI/AUT.PRINTOC">https://db.nomics.world/OECD/MEI/AUT.PRINTOC</a> )
<b>Belgium</b>	-0.6 Q1 ( <a href="https://db.nomics.world/OECD/MEI/BEL.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/BEL.NAEXKP01.GYSA.Q</a> )	+1.0	+4.0	+3.1	+28.3 Apr	( <a href="https://db.nomics.world/OECD/MEI/BEL.PRINTOC">https://db.nomics.world/OECD/MEI/BEL.PRINTOC</a> )
<b>France</b>	+1.2 Q1 ( <a href="https://db.nomics.world/OECD/MEI/FRA.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/FRA.NAEXKP01.GYSA.Q</a> )	-0.1	+5.8	+4.2	+43.9 Apr	( <a href="https://db.nomics.world/OECD/MEI/FRA.PRINTOC">https://db.nomics.world/OECD/MEI/FRA.PRINTOC</a> )
<b>Germany</b>	-3.1 Q1 ( <a href="https://db.nomics.world/OECD/MEI/DEU.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/DEU.NAEXKP01.GYSA.Q</a> )	-1.8	+3.6	+3.4	+34.4 Apr	( <a href="https://db.nomics.world/OECD/MEI/DEU.PRINTOC">https://db.nomics.world/OECD/MEI/DEU.PRINTOC</a> )
<b>Greece</b>	-2.3 Q1 ( <a href="https://db.nomics.world/OECD/MEI/GRC.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/GRC.NAEXKP01.GYSA.Q</a> )	+4.4	+3.8	+5.0	+21.7 Apr	( <a href="https://db.nomics.world/OECD/MEI/GRC.PRINTOC">https://db.nomics.world/OECD/MEI/GRC.PRINTOC</a> )
<b>Italy</b>	-0.8 Q1 ( <a href="https://db.nomics.world/OECD/MEI/ITA.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/ITA.NAEXKP01.GYSA.Q</a> )	+0.1	+4.2	+3.6	+78.6 Apr	( <a href="https://db.nomics.world/OECD/MEI/ITA.PRINTOC">https://db.nomics.world/OECD/MEI/ITA.PRINTOC</a> )
<b>Netherlands</b>	-2.3 Q1 ( <a href="https://db.nomics.world/OECD/MEI/NLD.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/NLD.NAEXKP01.GYSA.Q</a> )	-0.8	+3.5	+3.0	+8.4 Apr	( <a href="https://db.nomics.world/OECD/MEI/NLD.PRINTOC">https://db.nomics.world/OECD/MEI/NLD.PRINTOC</a> )
<b>Spain</b>	-4.2 Q1 ( <a href="https://db.nomics.world/OECD/MEI/ESP.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/ESP.NAEXKP01.GYSA.Q</a> )	-0.4	+6.4	+4.7	+48.2 Apr	( <a href="https://db.nomics.world/OECD/MEI/ESP.PRINTOC">https://db.nomics.world/OECD/MEI/ESP.PRINTOC</a> )
<b>Czech Republic</b>	-2.1 Q1 ( <a href="https://db.nomics.world/OECD/MEI/CZE.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/CZE.NAEXKP01.GYSA.Q</a> )	-0.3	+4.2	+4.3	+53.3 Apr	( <a href="https://db.nomics.world/OECD/MEI/CZE.PRINTOC">https://db.nomics.world/OECD/MEI/CZE.PRINTOC</a> )
<b>Denmark</b>	-1.3 Q1 ( <a href="https://db.nomics.world/OECD/MEI/DNK.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/DNK.NAEXKP01.GYSA.Q</a> )	-1.3	+2.8	+2.9	+6.6 Apr	( <a href="https://db.nomics.world/OECD/MEI/DNK.PRINTOC">https://db.nomics.world/OECD/MEI/DNK.PRINTOC</a> )
<b>Norway</b>	-0.2 Q1 ( <a href="https://db.nomics.world/OECD/MEI/NOR.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/NOR.NAEXKP01.GYSA.Q</a> )	-0.6	+3.9	+4.0	+0.7 Mar	( <a href="https://db.nomics.world/OECD/MEI/NOR.PRINTOC">https://db.nomics.world/OECD/MEI/NOR.PRINTOC</a> )
<b>Poland</b>	-1.4 Q1 ( <a href="https://db.nomics.world/OECD/MEI/POL.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/POL.NAEXKP01.GYSA.Q</a> )	+1.1	+3.5	+4.5	+29.7 May	( <a href="https://db.nomics.world/OECD/MEI/POL.PRINTOC">https://db.nomics.world/OECD/MEI/POL.PRINTOC</a> )
<b>Russia</b>	-2.0 Q1 ( <a href="https://db.nomics.world/OECD/MEI/RUS.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/RUS.NAEXKP01.GYSA.Q</a> )	-0.0	+3.8	+3.8	+0.5 Mar	( <a href="https://db.nomics.world/OECD/MEI/RUS.PRINTOC">https://db.nomics.world/OECD/MEI/RUS.PRINTOC</a> )
<b>Sweden</b>	-0.1 Q1 ( <a href="https://db.nomics.world/OECD/MEI/SWE.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/SWE.NAEXKP01.GYSA.Q</a> )	+0.8	+3.1	+3.0	+22.7 Apr	( <a href="https://db.nomics.world/OECD/MEI/SWE.PRINTOC">https://db.nomics.world/OECD/MEI/SWE.PRINTOC</a> )
<b>Switzerland</b>	-0.5 Q1 ( <a href="https://db.nomics.world/OECD/MEI/CHE.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/CHE.NAEXKP01.GYSA.Q</a> )	-0.5	+3.5	+2.8	+5.4 Q4	( <a href="https://db.nomics.world/OECD/MEI/CHE.PRINTOC">https://db.nomics.world/OECD/MEI/CHE.PRINTOC</a> )
<b>Turkey</b>	+6.7 Q1 ( <a href="https://db.nomics.world/OECD/MEI/TUR.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/TUR.NAEXKP01.GYSA.Q</a> )	+1.7	+6.0	+3.5	+65.4 Apr	( <a href="https://db.nomics.world/OECD/MEI/TUR.PRINTOC">https://db.nomics.world/OECD/MEI/TUR.PRINTOC</a> )
<b>Australia</b>	+1.1 Q1 ( <a href="https://db.nomics.world/OECD/MEI/AUS.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/AUS.NAEXKP01.GYSA.Q</a> )	+1.8	+4.5	+2.8	-1.6 Q1	( <a href="https://db.nomics.world/OECD/MEI/AUS.PRINTOC">https://db.nomics.world/OECD/MEI/AUS.PRINTOC</a> )
<b>Hong Kong</b>	+8.0 Q1 ( <a href="https://db.nomics.world/IMF/IFS/Q.HK.NGDP_R_SA_XDC">https://db.nomics.world/IMF/IFS/Q.HK.NGDP_R_SA_XDC</a> )	+5.4	+4.3	+3.8	-6.0 Q4‡	( <a href="https://db.nomics.world/IMF/IFS/Q.HK.AIPMA_PC">https://db.nomics.world/IMF/IFS/Q.HK.AIPMA_PC</a> )
<b>India</b>	+1.8 Q1 ( <a href="https://db.nomics.world/OECD/MEI/IND.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/IND.NAEXKP01.GYSA.Q</a> )	+2.1	+12.5	+6.9	+2.6 Dec	( <a href="https://db.nomics.world/OECD/MEI/IND.PRINTOC">https://db.nomics.world/OECD/MEI/IND.PRINTOC</a> )

Source: DBnomics (Eurostat, ILO, IMF, OECD and national sources). Click on the figures in the 'latest' columns to see the full time series.

\* % change on previous quarter, annual rate † IMF estimation/forecast ‡ 2020 § 2019

	Gross domestic product				Industrial production	
	latest	quarter*2021†2022†			latest	
Indonesia	-0.5 Q1 ( <a href="https://db.nomics.world/OECD/MEI/IDN.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/IDN.NAEXKP01.GYSA.Q</a> )	+1.6	+4.3	+5.8	( <a href="https://db.nomics.world/IMF/IFS/M.ID.AIPMA_PC">https://db.nomics.world/IMF/IFS/M.ID.AIPMA_PC</a> )	-3.7 Apr <sup>§</sup>
Malaysia	+4.4 Q4 <sup>§</sup> ( <a href="https://db.nomics.world/BI/TABEL9_1/21.Q">https://db.nomics.world/BI/TABEL9_1/21.Q</a> )	NA	+6.5	+6.0	( <a href="https://db.nomics.world/IMF/IFS/M.MY.AIP_PC">https://db.nomics.world/IMF/IFS/M.MY.AIP_PC</a> )	+3.1 Mar <sup>§</sup>
Pakistan	-0.4 Year <sup>‡</sup> ( <a href="https://db.nomics.world/IMF/WEO:2021-04/PAK.NGDP_RPCH.pcent_change">https://db.nomics.world/IMF/WEO:2021-04/PAK.NGDP_RPCH.pcent_change</a> )	NA	+1.5	+4.0	( <a href="https://db.nomics.world/IMF/IFS/M.PK.AIPMA_PC">https://db.nomics.world/IMF/IFS/M.PK.AIPMA_PC</a> )	+23.0 Mar
Philippines	-0.1 Q1 <sup>‡</sup> ( <a href="https://db.nomics.world/IMF/IFS/Q.PH.NGDP_R_SA_XDC">https://db.nomics.world/IMF/IFS/Q.PH.NGDP_R_SA_XDC</a> )	-5.1	+6.9	+6.5	( <a href="https://db.nomics.world/IMF/IFS/M.PH.AIPMA_PC">https://db.nomics.world/IMF/IFS/M.PH.AIPMA_PC</a> )	-73.4 Mar
Singapore	+1.1 Q4 <sup>§</sup> ( <a href="https://db.nomics.world/IMF/IFS/Q.SG.NGDP_R_SA_XDC">https://db.nomics.world/IMF/IFS/Q.SG.NGDP_R_SA_XDC</a> )	+0.2	+5.2	+3.2	( <a href="https://db.nomics.world/IMF/IFS/M.SG.AIPMA_PC">https://db.nomics.world/IMF/IFS/M.SG.AIPMA_PC</a> )	+8.6 Jan
South Korea	+1.9 Q1 ( <a href="https://db.nomics.world/OECD/MEI/KOR.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/KOR.NAEXKP01.GYSA.Q</a> )	+1.7	+3.6	+2.8	( <a href="https://db.nomics.world/OECD/MEI/KOR.PRINTO">https://db.nomics.world/OECD/MEI/KOR.PRINTO</a> )	+8.9 Apr
Taiwan	+3.0 Q4 <sup>§</sup> ( <a href="https://db.nomics.world/BI/TABEL9_1/17.Q">https://db.nomics.world/BI/TABEL9_1/17.Q</a> )	NA	+4.7	+3.0		NA
Thailand	-2.6 Q1 ( <a href="https://db.nomics.world/IMF/IFS/Q.TH.NGDP_R_SA_XDC">https://db.nomics.world/IMF/IFS/Q.TH.NGDP_R_SA_XDC</a> )	+0.2	+2.6	+5.6	( <a href="https://db.nomics.world/IMF/IFS/Q.TH.AIPMA_PC">https://db.nomics.world/IMF/IFS/Q.TH.AIPMA_PC</a> )	-6.6 Q1 <sup>‡</sup>
Argentina	+2.2 Q1 ( <a href="https://db.nomics.world/Eurostat/naidq_10_gdp/Q.SCA.KP_110.B1GQ.AR">https://db.nomics.world/Eurostat/naidq_10_gdp/Q.SCA.KP_110.B1GQ.AR</a> )	+2.6	+5.8	+2.5	( <a href="https://db.nomics.world/IMF/IFS/Q.AR.AIPMA_PC">https://db.nomics.world/IMF/IFS/Q.AR.AIPMA_PC</a> )	+4.4 Q3
Brazil	+2.3 Q1 ( <a href="https://db.nomics.world/OECD/MEI/BRA.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/BRA.NAEXKP01.GYSA.Q</a> )	+1.2	+3.7	+2.6	( <a href="https://db.nomics.world/OECD/MEI/BRA.PRINTO">https://db.nomics.world/OECD/MEI/BRA.PRINTO</a> )	+32.2 Apr
Chile	+1.2 Q1 ( <a href="https://db.nomics.world/OECD/MEI/CHL.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/CHL.NAEXKP01.GYSA.Q</a> )	+3.2	+6.2	+3.8	( <a href="https://db.nomics.world/OECD/MEI/CHL.PRINTO">https://db.nomics.world/OECD/MEI/CHL.PRINTO</a> )	+5.2 Apr
Colombia	+2.0 Q1 ( <a href="https://db.nomics.world/OECD/MEI/COL.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/COL.NAEXKP01.GYSA.Q</a> )	+2.9	+5.2	+3.6	( <a href="https://db.nomics.world/OECD/MEI/COL.PRINTO">https://db.nomics.world/OECD/MEI/COL.PRINTO</a> )	-1.1 Dec
Mexico	-2.8 Q1 ( <a href="https://db.nomics.world/OECD/MEI/MEX.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/MEX.NAEXKP01.GYSA.Q</a> )	+0.8	+5.0	+3.0	( <a href="https://db.nomics.world/IMF/IFS/M.MX.AIP_PC">https://db.nomics.world/IMF/IFS/M.MX.AIP_PC</a> )	-29.3 Apr <sup>‡</sup>
Peru	-11.1 Year <sup>‡</sup> ( <a href="https://db.nomics.world/IMF/WEO:2021-04/PER.NGDP_RPCH.pcent_change">https://db.nomics.world/IMF/WEO:2021-04/PER.NGDP_RPCH.pcent_change</a> )	NA	+8.5	+5.2	( <a href="https://db.nomics.world/IMF/IFS/M.PE.AIPMA_PC">https://db.nomics.world/IMF/IFS/M.PE.AIPMA_PC</a> )	+20.3 Apr
Egypt	+3.6 Year <sup>‡</sup> ( <a href="https://db.nomics.world/IMF/WEO:2021-04/EGY.NGDP_RPCH.pcent_change">https://db.nomics.world/IMF/WEO:2021-04/EGY.NGDP_RPCH.pcent_change</a> )	NA	+2.5	+5.7	( <a href="https://db.nomics.world/IMF/IFS/M.EG.AIP_PC">https://db.nomics.world/IMF/IFS/M.EG.AIP_PC</a> )	+6.2 Mar
Israel	-0.4 Q1 ( <a href="https://db.nomics.world/OECD/MEI/ISR.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/ISR.NAEXKP01.GYSA.Q</a> )	-1.6	+5.0	+4.3	( <a href="https://db.nomics.world/OECD/MEI/ISR.PRINTO">https://db.nomics.world/OECD/MEI/ISR.PRINTO</a> )	+11.6 Mar
Saudi Arabia	-2.3 Q1 ( <a href="https://db.nomics.world/IMF/IFS/Q.SA.NGDP_R_SA_XDC">https://db.nomics.world/IMF/IFS/Q.SA.NGDP_R_SA_XDC</a> )	-0.5	+2.9	+4.0	( <a href="https://db.nomics.world/IMF/IFS/Q.SA.AIPMA_PC">https://db.nomics.world/IMF/IFS/Q.SA.AIPMA_PC</a> )	+1.6 Q3
South Africa	-2.7 Q1 ( <a href="https://db.nomics.world/OECD/MEI/ZAF.NAEXKP01.GYSA.Q">https://db.nomics.world/OECD/MEI/ZAF.NAEXKP01.GYSA.Q</a> )	+1.1	+3.1	+2.0	( <a href="https://db.nomics.world/IMF/IFS/M.ZA.AIPMA_PC">https://db.nomics.world/IMF/IFS/M.ZA.AIPMA_PC</a> )	+1.3 Aug

Source: DBnomics (Eurostat, ILO, IMF, OECD and national sources). Click on the figures in the 'latest' columns to see the full time series.  
 \* % change on previous quarter, annual rate † IMF estimation/forecast ‡ 2020 § 2019

The aim of this blog post is to reproduce part of the economic indicators table from 'The Economist' (<https://www.economist.com/economic-and-financial-indicators/2018/03/20/economic-and-financial-indicators>) using only free tools. We take data directly from DBnomics (<https://db.nomics.world/>). The DBnomics API can be accessed through R with the `rdbnomics` (<https://cran.r-project.org/web/packages/rdbnomics/index.html>) package. All the following code is written in R, thanks to the [RCoreTeam \(2016\)](#) and the [RStudioTeam \(2016\)](#). To update the table, just download the code [here](#) (<https://git.nomics.world/macro/indicators>) and re-run it.

```
if (!"pacman" %in% installed.packages()[,"Package"]) install.packages("pacman", re
pos='http://cran.r-project.org')
pacman::p_load(tidyverse,rdbnomics,magrittr,zoo,lubridate,knitr,kableExtra,formatt
able)

opts_chunk$set(fig.align="center", message=FALSE, warning=FALSE)

currentyear <- year(Sys.Date())
lastyear <- currentyear-1
beforelastyear <- currentyear-2
CountryList <- c("United States","China","Japan","Britain","Canada",
"Euro area","Austria","Belgium","France","Germany","Greece","Ital
y","Netherlands","Spain",
"Czech Republic","Denmark","Norway","Poland","Russia","Sweden","S
witzerland","Turkey",
"Australia","Hong Kong","India","Indonesia","Malaysia","Pakista
n","Philippines","Singapore","South Korea","Taiwan","Thailand",
"Argentina","Brazil","Chile","Colombia","Mexico","Peru",
"Egypt","Israel","Saudi Arabia","South Africa")
```

## Download

```

gdp <- rdb("OECD", "MEI", ids=".NAEXKP01.GPSA+GYSA.Q")
hongkong_philippines_thailand_saudi_singapore_gdp_level <-
  rdb("IMF", "IFS", mask="Q.HK+PH+TH+SA+SG.NGDP_R_SA_XDC") %>%
  rename(Country=`Reference Area`) %>%
  mutate(Country=case_when(Country=="Hong Kong, China" ~ "Hong Kong",
    TRUE ~ Country))
gdp_qoq_hongkong_philippines_thailand_saudi_singapore <-
  hongkong_philippines_thailand_saudi_singapore_gdp_level %>%
  arrange(Country, period) %>%
  group_by(Country) %>%
  mutate(value=(value/lag(value)-1)*100,
    MEASURE="GPSA")
gdp_yoy_hongkong_philippines_thailand_saudi_singapore <-
  hongkong_philippines_thailand_saudi_singapore_gdp_level %>%
  arrange(Country, period) %>%
  mutate(quarter=quarter(period)) %>%
  group_by(Country, quarter) %>%
  mutate(value=(value/lag(value)-1)*100,
    MEASURE="GYSA")
malaysia_gdp <-
  rdb("BI/TABEL9_1/21.Q") %>%
  mutate(Country="Malaysia",
    MEASURE="GYSA")
taiwan_gdp <-
  rdb("BI/TABEL9_1/17.Q") %>%
  mutate(Country="Taiwan",
    MEASURE="GYSA")
egypt_pakistan_peru_gdp <-
  rdb("IMF", "WEO:latest", mask="EGY+PAK+PER.NGDP_RPCH") %>%
  rename(Country=`WEO Country`) %>%
  mutate(MEASURE="GYSA") %>%
  filter(year(period)<currentyear)
china_gdp_level <-
  rdb(ids="OECD/MEI/CHN.NAEXCP01.STSA.Q")
gdp_qoq_china <-
  china_gdp_level %>%
  arrange(period) %>%
  mutate(value=(value/lag(value)-1)*100,
    MEASURE="GPSA")
gdp_yoy_china <-
  china_gdp_level %>%
  arrange(period) %>%
  mutate(quarter=quarter(period)) %>%
  group_by(quarter) %>%
  mutate(value=(value/lag(value)-1)*100,
    MEASURE="GYSA")
argentina_gdp_level <-
  rdb(ids="Eurostat/naidq_10_gdp/Q.SCA.KP_I10.B1GQ.AR") %>%
  rename(Country=`Geopolitical entity (reporting)`)
gdp_qoq_argentina <-
  argentina_gdp_level %>%
  arrange(period) %>%
  mutate(value=(value/lag(value)-1)*100,
    MEASURE="GPSA")
gdp_yoy_argentina <-
  argentina_gdp_level %>%
  arrange(period) %>%
  mutate(quarter=quarter(period)) %>%
  group_by(quarter) %>%
  mutate(value=(value/lag(value)-1)*100,
    MEASURE="GYSA")
gdp <- bind_rows(gdp,
  gdp_qoq_hongkong_philippines_thailand_saudi_singapore,
  gdp_yoy_hongkong_philippines_thailand_saudi_singapore,
  malaysia_gdp,
  taiwan_gdp,
  egypt_pakistan_peru_gdp,

```

```

gdp_yoy_china,
gdp_qoq_china,
gdp_yoy_argentina,
gdp_qoq_argentina)

indprod <- rdb("OECD", "MEI", ids=".PRINT001.GYSA.M")
australia_swiss_indprod <- rdb("OECD", "MEI", "AUS+CHE.PRINT001.GYSA.Q")
china_egypt_mexico_malaysia_indprod <-
  rdb("IMF", "IFS", mask="M.CN+EG+MX+MY.AIP_PC_CP_A_PT") %>%
  rename(Country=`Reference Area`)
indonesia_pakistan_peru_philippines_singapore_southafrica_indprod <-
  rdb("IMF", "IFS", mask="M.ID+PK+PE+PH+SG+ZA.AIPMA_PC_CP_A_PT") %>%
  rename(Country=`Reference Area`)
argentina_hongkong_saudi Arabia_thailand_indprod <-
  rdb("IMF", "IFS", mask="Q.AR+HK+SA+TH.AIPMA_PC_CP_A_PT") %>%
  rename(Country=`Reference Area`) %>%
  mutate(Country=case_when(Country=="Hong Kong, China" ~ "Hong Kong",
                           TRUE ~ Country))

indprod <- bind_rows(indprod, australia_swiss_indprod, china_egypt_mexico_malaysia_i
ndprod, indonesia_pakistan_peru_philippines_singapore_southafrica_indprod, argentina
_hongkong_saudi Arabia_thailand_indprod)

cpi <- rdb("OECD", "MEI", ids=".CPALTT01.GY.M")
australia_cpi <- rdb("OECD", "MEI", ids="AUS.CPALTT01.GY.Q")
taiwan_cpi <-
  rdb("BI/TABEL9_2/17.Q") %>%
  mutate(Country="Taiwan")
other_cpi <-
  rdb("IMF", "IFS", mask="M.EG+HK+MY+PE+PH+PK+SG+TH.PCPI_PC_CP_A_PT") %>%
  rename(Country=`Reference Area`) %>%
  mutate(Country=case_when(Country=="Hong Kong, China" ~ "Hong Kong",
                           TRUE ~ Country))

cpi <- bind_rows(cpi, australia_cpi, taiwan_cpi, other_cpi)

unemp <- rdb("OECD", "MEI", ids=".LRHUTTTT.STSA.M")
swiss_unemp <- rdb("OECD", "MEI", mask="CHE.LMUNRRTT.STSA.M")
brazil_unemp <- rdb("OECD", "MEI", mask="BRA.LRUNTTTT.STSA.M")
southafrica_russia_unemp <- rdb("OECD", "MEI", mask="ZAF+RUS.LRUNTTTT.STSA.Q")
china_unemp <-
  rdb(ids="BUBA/BXL3/Q.CN.N.UNEH.TOTAL0.NAT.URAR.RAT.I00") %>%
  mutate(Country="China")
saudi Arabia_unemp <-
  rdb(ids="ILO/UNE_DEAP_SEX_AGE_RT/SAU.BA_627.AGE_AGGREGATE_TOTAL.SEX_T.A") %>%
  rename(Country=`Reference area`) %>%
  filter(year(period)<currentyear)
india_unemp <-
  rdb(ids="ILO/UNE_2EAP_SEX_AGE_RT/IND.XA_1976.AGE_YTHADULT_YGE15.SEX_T.A") %>%
  rename(Country=`Reference area`) %>%
  filter(year(period)<currentyear)
indonesia_pakistan_unemp <-
  rdb("ILO", "UNE_DEAP_SEX_AGE_EDU_RT", mask="IDN+PAK..AGE_AGGREGATE_TOTAL.EDU_AGGRE
GATE_TOTAL.SEX_T.Q") %>%
  rename(Country=`Reference area`)
other_unemp <-
  rdb("ILO", "UNE_DEA1_SEX_AGE_RT", mask="ARG+EGY+HKG+MYS+PER+PHL+SGP+THA+TWN..AGE_Y
THADULT_YGE15.SEX_T.Q") %>%
  rename(Country=`Reference area`) %>%
  mutate(Country=case_when(Country=="Hong Kong, China" ~ "Hong Kong",
                           Country=="Taiwan, China" ~ "Taiwan",
                           TRUE ~ Country))

unemp <- bind_rows(unemp, brazil_unemp, southafrica_russia_unemp, swiss_unemp, china_u
nemp, saudi Arabia_unemp, india_unemp, indonesia_pakistan_unemp, other_unemp)

forecast_gdp_cpi_ea <-
  rdb("IMF", "WEOAGG:latest", mask="163.NGDP_RPCH+PCPIPCH") %>%
  rename(`WEO Country`=`WEO Countries group`)
forecast_gdp_cpi <-

```

```
rdb("IMF","WEO:latest",mask=".NGDP_RPCH+PCPIPCH") %>%
bind_rows(forecast_gdp_cpi_ea) %>%
transmute(Country=`WEO Country`,
           var=`WEO Subject`,
           value,
           period) %>%
mutate(Country=str_trim(Country),
       var=str_trim(var)) %>%
mutate(Country=case_when(Country=="United Kingdom" ~ "Britain",
                         Country=="Hong Kong SAR" ~ "Hong Kong",
                         Country=="Korea" ~ "South Korea",
                         Country=="Taiwan Province of China" ~ "Taiwan",
                         TRUE ~ Country),
       var=case_when(var=="Gross domestic product, constant prices" ~ "GDP",
                     var=="Inflation, average consumer prices" ~ "CPI",
                     TRUE ~ var))
forecast_gdp_cpi <- left_join(data.frame(Country=CountryList),forecast_gdp_cpi,by
                              ="Country")
```

## Transform

```

gdp_yoy_latest_period <-
  gdp %>%
  filter(MEASURE=="GYSA") %>%
  filter(!is.na(value)) %>%
  group_by(Country) %>%
  summarise(period=max(period))
gdp_yoy_latest <-
  gdp %>%
  filter(MEASURE=="GYSA") %>%
  inner_join(gdp_yoy_latest_period) %>%
  mutate(var="GDP",measure="latest")

gdp_qoq_latest_period <-
  gdp %>%
  filter(MEASURE=="GPSA") %>%
  filter(!is.na(value)) %>%
  group_by(Country) %>%
  summarise(period=max(period))
gdp_qoq_latest <-
  gdp %>%
  filter(MEASURE=="GPSA") %>%
  inner_join(gdp_qoq_latest_period) %>%
  mutate(var="GDP",
         measure="quarter")

gdp_2021_2022 <-
  forecast_gdp_cpi %>%
  filter(var=="GDP" & (period=="2021-01-01" | period=="2022-01-01")) %>%
  mutate(measure=as.character(year(period)))

indprod_latest_period <-
  indprod %>%
  filter(!is.na(value)) %>%
  group_by(Country) %>%
  summarise(period=max(period))
indprod_latest <-
  indprod %>%
  inner_join(indprod_latest_period) %>%
  mutate(var="indprod",measure="latest")

cpi_latest_period <-
  cpi %>%
  filter(!is.na(value)) %>%
  group_by(Country) %>%
  summarise(period=max(period))
cpi_latest <-
  cpi %>%
  inner_join(cpi_latest_period) %>%
  mutate(var="CPI",measure="latest")

cpi_2021 <-
  forecast_gdp_cpi %>%
  filter(var=="CPI" & period=="2021-01-01") %>%
  mutate(measure=as.character(year(period)))

unemp_latest_period <-
  unemp %>%
  filter(!is.na(value)) %>%
  group_by(Country) %>%
  summarise(period=max(period))
unemp_latest <-
  unemp %>%
  inner_join(unemp_latest_period) %>%
  mutate(var="unemp",measure="latest")

```

## Merge

```

df_all <-
  bind_rows(gdp_yoy_latest,gdp_qoq_latest,gdp_2021_2022,indprod_latest,cpi_latest,
cpi_2021,unemp_latest) %>%
  mutate(value=ifelse(value>=0,
                        paste0("+",sprintf("%.1f",round(value,1))),
                        sprintf("%.1f",round(value,1)))) %>%
  unite(measure,c(var,measure))

df_latest <-
  df_all %>%
  filter(measure %in% c("GDP_latest","indprod_latest","CPI_latest","unemp_lates
t")) %>%
  mutate(value=case_when(`@frequency`=="quarterly" ~ paste(value," Q",quarter(peri
od),sep=""),
                        `@frequency`=="monthly" ~ paste(value," ",month(period,la
bel = TRUE, abbr = TRUE, locale = "en_US.utf8"),sep=""),
                        `@frequency`=="annual" ~ paste(value," Year",sep=""),
                        TRUE ~ value)) %>%
  mutate(value=text_spec(ifelse(year(period)==lastyear,paste0(value,footnote_marke
r_symbol(3)),
                          ifelse(year(period)==beforelastyear,paste0(value,f
ootnote_marker_symbol(4)),value)),
        link = paste("https://db.nomics.world",provider_code,data
set_code,series_code,sep = "/"),
        color = "#333333",escape = F,extra_css="text-decoration:n
one"))

df_final <-
  df_all %>%
  filter(measure %in% c("GDP_quarter","GDP_2021","GDP_2022","CPI_2021")) %>%
  bind_rows(df_latest) %>%
  mutate(Country=case_when(Country=="United Kingdom" ~ "Britain",
                           Country=="Euro area (19 countries)" ~ "Euro area",
                           Country=="China (People's Republic of)" ~ "China",
                           Country=="Korea" ~ "South Korea",
                           TRUE ~ Country)) %>%
  select(Country,value,measure) %>%
  spread(measure,value) %>%
  select(Country,GDP_latest,GDP_quarter,GDP_2021,GDP_2022,indprod_latest,CPI_lates
t,CPI_2021,unemp_latest)

df_final <- left_join(data.frame(Country=CountryList),df_final,by="Country")

```

## Display

```

names(df_final)[1] <- ""
names(df_final)[2] <- "latest"
names(df_final)[3] <- paste0("quarter", footnote_marker_symbol(1))
names(df_final)[4] <- paste0("2021", footnote_marker_symbol(2))
names(df_final)[5] <- paste0("2022", footnote_marker_symbol(2))
names(df_final)[6] <- "latest"
names(df_final)[7] <- "latest"
names(df_final)[8] <- paste0("2021", footnote_marker_symbol(2))
names(df_final)[9] <- "latest"

df_final %>%
  kable(row.names = F, escape = F, align = c("l", rep("c", 8)), caption = "Economic data (% change on year ago)") %>%
  kable_styling(bootstrap_options = c("striped", "hover", "responsive"), fixed_header = T, font_size = 13) %>%
  add_header_above(c(" " = 1, "Gross domestic product" = 4, "Industrial production" = 1, "Consumer prices" = 2, "Unemployment rate, (%=1)") %>%
    column_spec(1, bold = T) %>%
    row_spec(seq(1, nrow(df_final), by=2), background = "#D5E4EB") %>%
    row_spec(c(5, 14, 22, 33, 39), extra_css = "border-bottom: 1.2px solid") %>%
    footnote(general = "DBnomics (Eurostat, ILO, IMF, OECD and national sources). Click on the figures in the `latest` columns to see the full time series.",
             general_title = "Source: ",
             footnote_as_chunk = T,
             symbol = c("% change on previous quarter, annual rate ", "IMF estimation/forecast", paste0(lastyear), paste0(beforelastyear)))

```

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