UK Assignment Example

UK University
Database

HAVER ANALYTICS®

Example One

The Phillips Curve

A core analysis for economic study is the Phillips Curve. Highlighting the correlation between inflation and unemployment rates, it offers insight into how monetary and fiscal policy can influence behaviors.

Supported by a dynamic data-driven illustration accessible from Haver, educators can easily present the model's strengths and weaknesses while delving into the underlying conditions, monetary and fiscal policy behaviors and subsequent outcomes over various time periods. Students can interactively engage with the data and overlay other factors to support independent research – both theoretical and econometric in nature.

Many Options for Engagement

In an intermediate level macroeconomics tutorial, the lecturer might employ Haver data to show the tradeoff between inflation and unemployment to:

- Demonstrate the dynamic relationship between these two variables

- Plot inflation and unemployment over the past 50 years for example

From this basic information, the study can delve deeper...

Phillips Curve (Q1-1973: Q4-2021)

UK: LFS: Unemployment Rate: Aged 16 and Over (X-Axis)

UK: RPI Inflation: Y/Y % Change (Y-Axis)
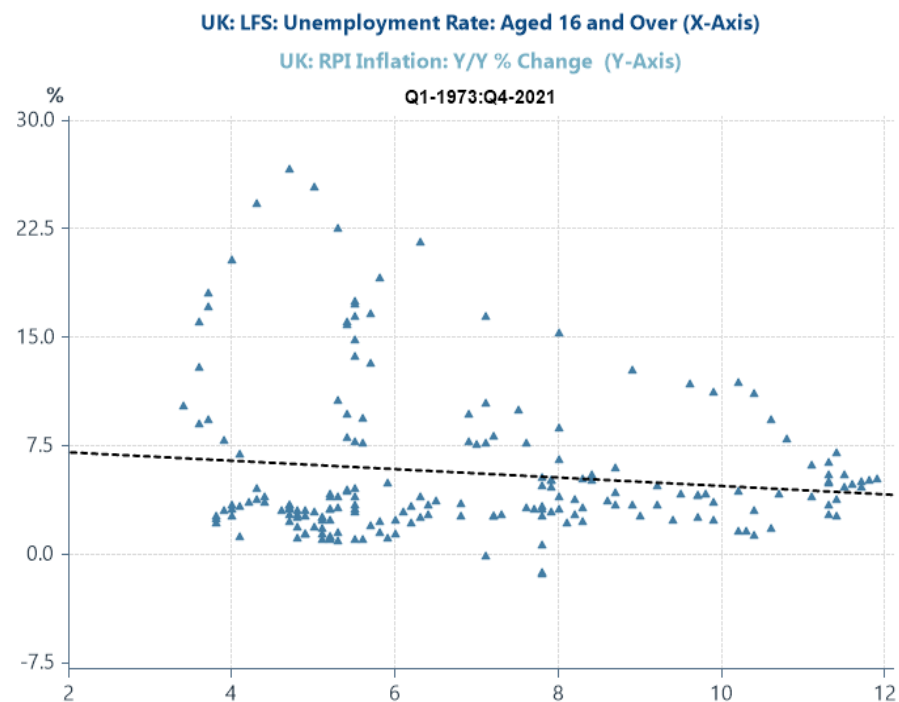
Sources Office for National Statistics / Haver Analytics

1979-2019 Focus

To better view the relationship, a class could focus on the 1979 to 2019 period.

Interactive Analysis

The HaverView™ platform allows students to visualize the data and spot key points. Students can easily:

- Trace the path of the Phillips curve

- Put the cursor over the dots to discern periods of clear tradeoff and other periods of transition

- See the spiraling nature of changes in inflation regimes, especially in the period from 1979-2019.

Phillips Curve (1979-2019)

UK: LFS: Unemployment Rate: Aged 16 and Over (X-Axi

UK: RPI Inflation: Y/Y % Change (Y-Axis

Q1-1979:Q4-2021

Source: Office for National Statistics / Haver Analytics

Sensitivity to Unemployment

Viewing the data in an even more compressed timeframe highlights the lessening sensitivity of inflation to the unemployment rate.

For instance, the data from 2007-2021 suggests it take would much labour market slack (unemployment) to drive down the inflation rate by a point.

Phillips Curve (2007-2021)

UK: LFS: Unemployment Rate: Aged 16 and Over (X-Axis)
UK: RPI Inflation: Y/Y % Change (Y-Axis)
Q1-2007:Q4-2021
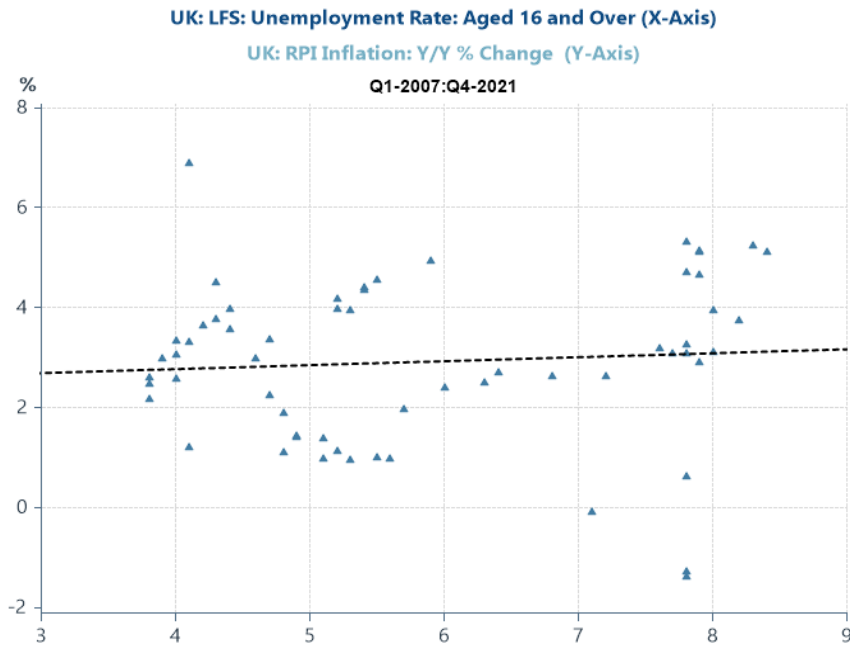
Source: Office for National Statistics / Haver Analytics

Diving Deeper

The Phillips Curve is broadly illustrative.

Discussions can center on the factors underlying a flattening Phillips curve, such as: more services in the consumption basket, globalisation, the tendency of lower inflation rates to be less volatile, and anchored inflation expectations.

- Class discussion could cover the impact on monetary policy of a decline in and flattening of the Phillips curve and the challenge of entrenched inflation

- An econometrics class could derive a relationship by segmenting the data into stable periods to derive the true relationships at various times and measure their strength and direction, perhaps conducting an F-test to demonstrate whether the relationship measurably changed in a statistical sense.

- Students might use various inflation gauges to which might be the best measure of underlying inflation. Or compare wages vs. unemployment.

- Also, students could derive Phillips Curves by finding short-term unemployment and the various alternative measures of labour market slack.

The Taylor Rule

An essential analysis for intermediate economic study is the Taylor Rule. A rule meant to be prescriptive, it helps gauge the overall stance of policy, whether tight or easy.

Haver provides the data and tools to foster discussion around policy appropriateness at various points in time based on this benchmark. One could begin by discussing the Global Financial Crisis and the effectiveness of the ensuing accommodative policy over time.

Educators can readily demonstrate policy inputs and impacts with an Excel file populated with time series data measuring inflation and slack (e.g. output gap, unemployment rate) allowing students to calculate several Taylor rule rates with illustrative charts.

Estimating Parameters

In an intermediate level macroeconomics tutorial, the lecturer might employ Haver data to estimate the parameters for the Taylor Rule to:

- Assess prescriptively whether a policy direction is optimal

- Derive parameters for the Taylor rule relationships to see how closely UK policymakers follow the rule and gain insight into their reactions and responses

UK: Official Bank Rate
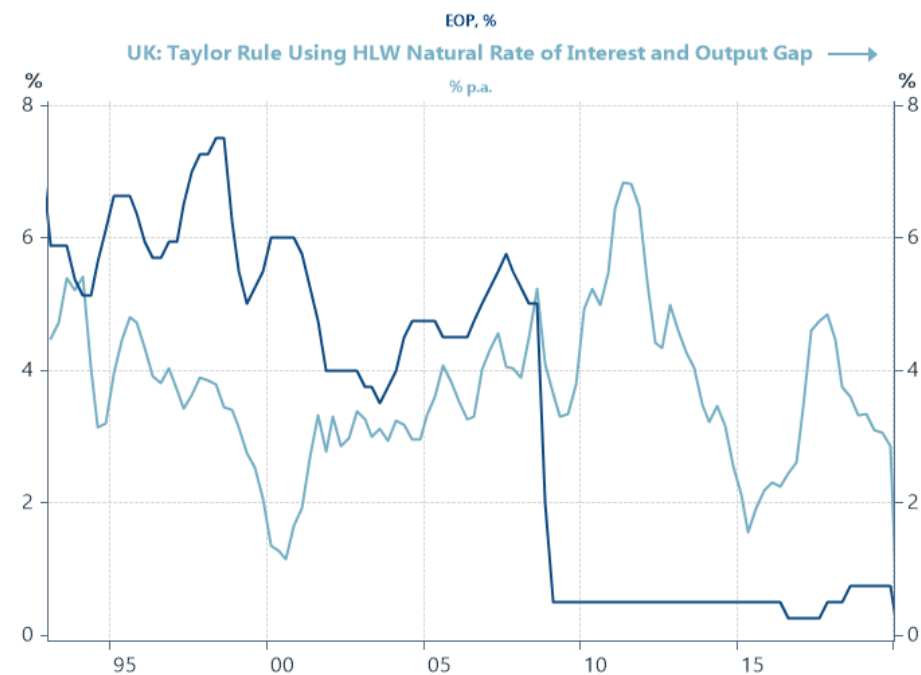
Source: Bank of England / Haver Analytics

Example Three

Unemployment & Labour Market Health

Labour market health is central to economic study and offers important nuances for discussion. While monthly employment numbers (especially factory hiring) may be considered as a leading or coincident indicator of economic health, unemployment is a lagging indicator and helps to illustrate longer-term direction. Why?

Employers, especially of skilled labour, are loathe to reduce staff, they will often keep employees even as sales and profitability are declining. Even then, employment might shift from full-time to part-time or contract labour.

With Haver data, lecturers and students can gain insight into unemployment — short-term, long-term, voluntary, involuntary and duration — to discuss the health of the labour market.

Exploring LFS Data

Encourage students to explore detailed labour market data from the UK LFS survey to discern historical trends, such as;

- Unemployment rates by age, gender, and education

- Labour force participation rates by gender and how increasing female participation over the past fifty years has impacted labour overall

UK: LFS: Economically Active Population: Men
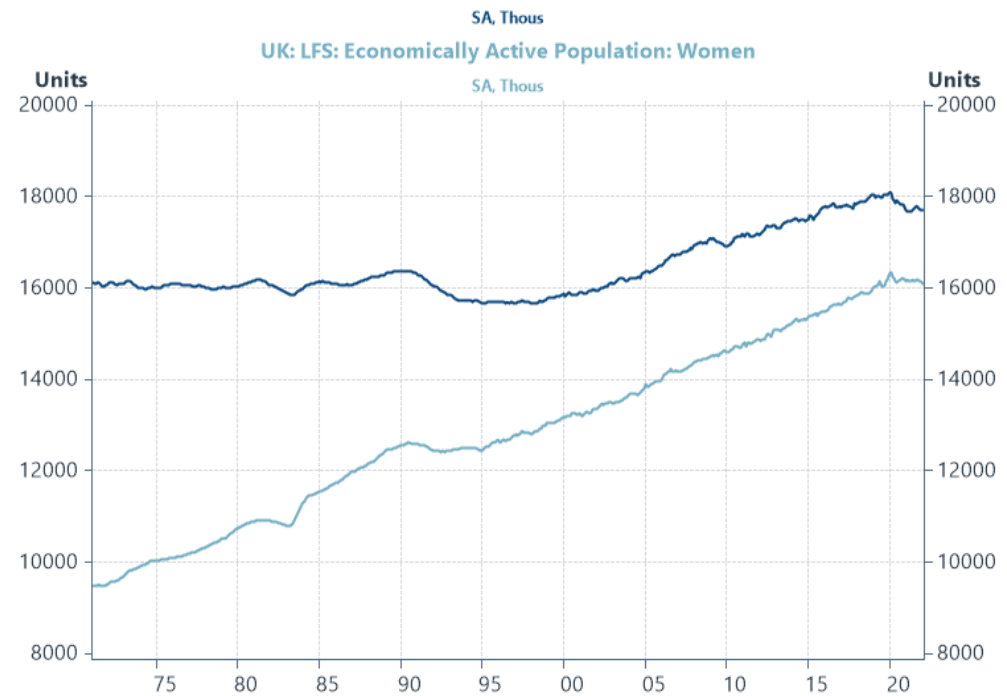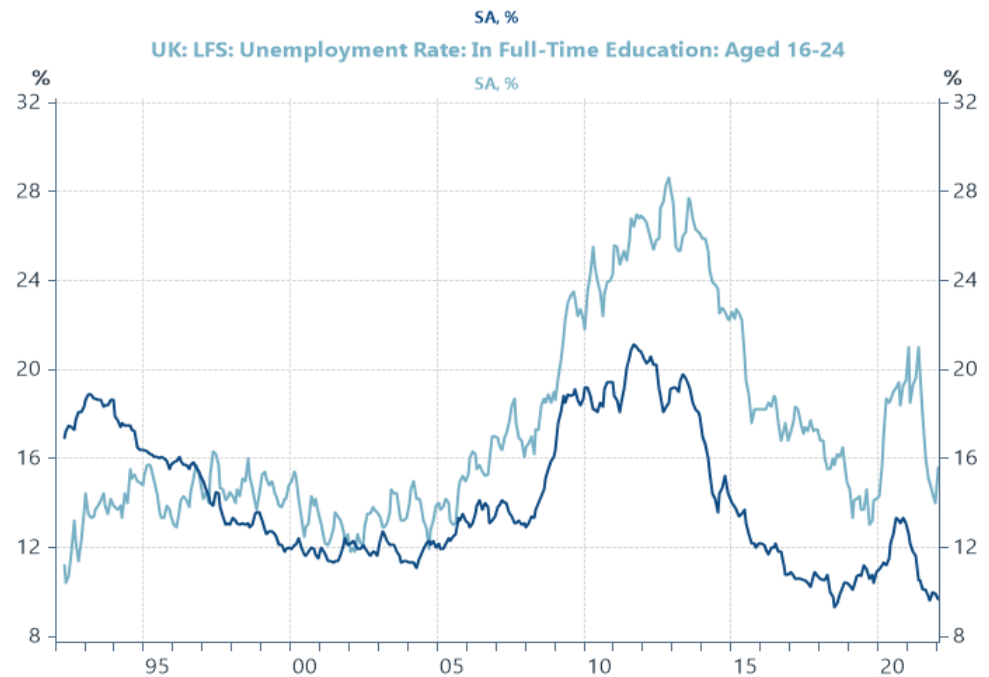

Source: Office for National Statistics / Haver Analytics

Demographics

UK: LFS: Unemployment Rate: Not in Full-Time Education: Age 16-24

Encourage students to direct their search of the data with various questions:

- What differences are visible in labour market status for various demographics, including gender, age, and education?

- How many people are employed, unemployed, in the labour force, not in the labour force, and in the overall population?

With Haver, students will be able to calculate and graph the unemployment rate, participation rate, employment to population rate, and more.

SA, %
UK: LFS: Unemployment Rate: In Full-Time Education: Aged 16-24
SA, %

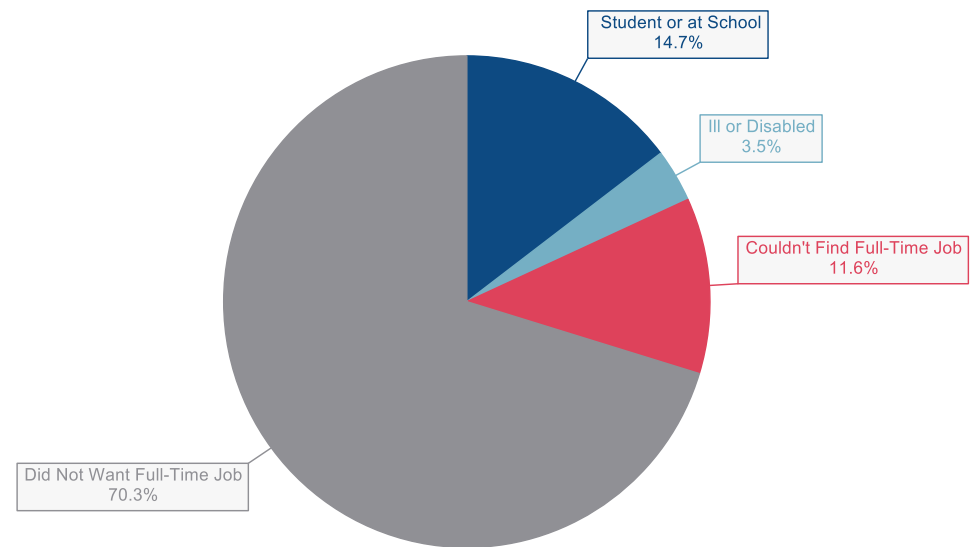Source: Office for National Statistics / Haver Analytics

Labour Market Health

Instructors can leverage Haver data and tools to encourage students to explore additional barometers of labour market health, such as:

- Employment – find the number of people working part-time versus full-time for economic reasons (slack work, unable to find full-time).

The chart at right illustrates that the majority of part-time workers actually preferred that arrangement.

Labour Market Health: Jan-2022

Student or at School
14.7%

Ill or Disabled
3.5%

Couldn't Find Full-Time Job
11.6%

Did Not Want Full-Time Job
70.3%

Source: Office for National Statistics / Haver Analytics

Example Four

Understanding Leads & Lags

Knowing what indicators lead, lag or are coincident to the business cycle is vital to economic study. Clear understanding of what leads, and why, is key to predicting the trends driving the future state of an economy. In-depth study of data illustrating leads, lags and coincident factors helps budding economists avoid circular thinking – e.g. making statements that the unemployment rate is high (lagger) so payroll employment will fall (coincident), or debt is high (lagger) so consumer spending will fall (coincident).

Supported by a dynamic data-driven illustration accessible from Haver, educators can easily present the leads, lags and coincident indicators while delving into the underlying correlations and typical timeframe of each input. Students can interactively engage with the data and overlay other factors to support additional research.

Correlation on Leads

With access to Haver data, students can identify leading indicators and dig deeper into understanding correlation between indicators to verify a leading series leads the coincident index and by how much. They can also quantify how many months lead each series provides.
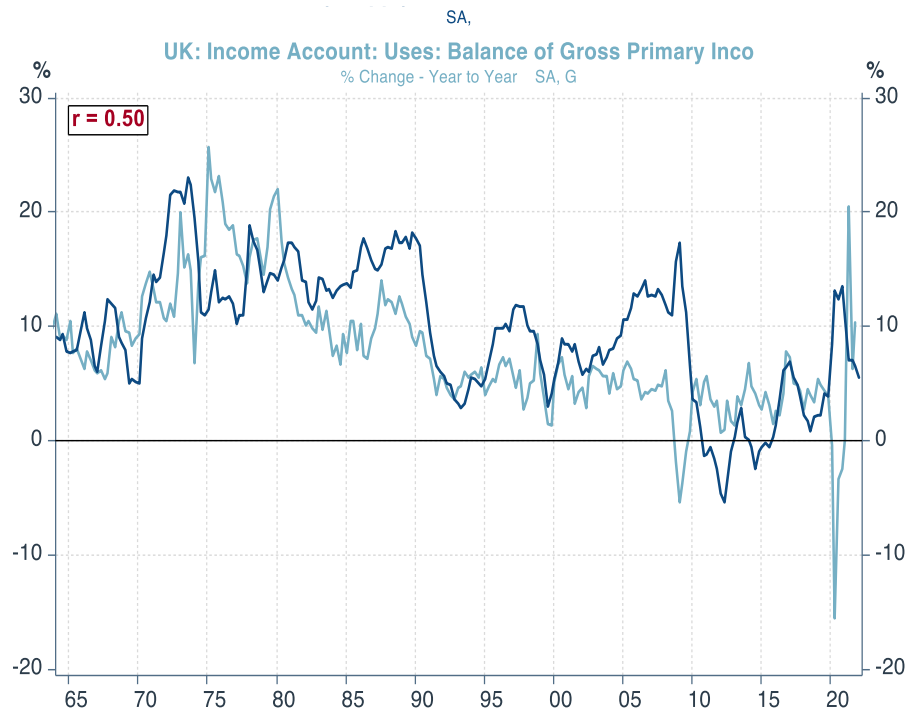
UK: GfK Consumer Confidence Barometer [-1]
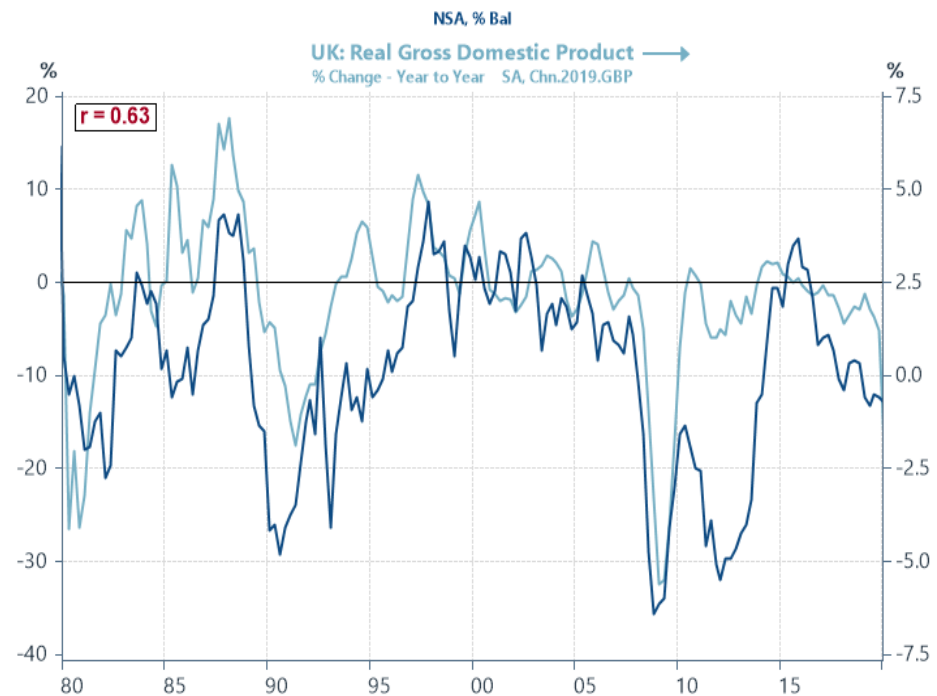
Sources: GfK/EC. ONS/Haver Analytics

Correlation on Lags

With access to Haver data, students can identify lagging indicators and dig deeper to discern the importance of leading vs. lagging indicators to uncover what inferences can or cannot be accurately made from the data.

UK: Money Supply: M4 12-Month Growth Rate

SA,

UK: Income Account: Uses: Balance of Gross Primary Inco
% Change - Year to Year   SA, G

r = 0.50

Sources: Bank of England, Office for National Statistics / Haver Analytics

Contact Us

We welcome your inquiries.

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