Deloitte.

Business problem

Productivity is key to the development of local businesses and the wider economy. Over the past decade, productivity has slowed down globally with the UK lagging behind some other developed economies.

*"**Productivity** is commonly defined as a ratio between the output volume and the volume of inputs. In other words, it measures how efficiently production inputs, such as labour and capital, are being used in an economy to produce a given level of output." - OECD*

In this project you'll be looking at how productivity and GDP are related. You'll be comparing a range of countries to understand what factors influence both GDP and productivity. What can we learn from high productivity nations?

Our main business question is generally: How can we improve productivity within Scotland and the UK overall?

Some targeted questions we are interested in for this specific project:

- How does the UK compare to other developed economies in terms of GDP and exports?

- What factors might be important in predicting a country's GDP?

- Can you predict GDP estimates/growth for the upcoming year(s) from any of these factors?

Challenges

This data was donated by Deloitte, which comes from the Equifax Ignite Direct data platform which hosts over 50 open data sources.

As this is real data, there are some challenges to bear in mind, and the data will need cleaned and narrowed down appropriately. You will be provided with the full open source dataset list in excel format. On the following page are a list of some of the potential estimates & factors for productivity that could be explored. Your

task will be to figure out how to answer the questions above using the wealth of data provided.

You should consider the following as part of the challenges:

- **Data & Challenge Insight** – the depth of your investigation into the data and the maturity of your understanding of how productivity can be improved.

- **Insight Quality** – the quality and level of detail expressed in your data insight including visualisations.

- **Concept Feasibility** – the viability of your solution/concept in the wider context of the market such as practicality, cost & impact.

Audience
For this project, please consider the audience to be a general audience who aren't familiar with the project.

Productivity Estimates: UK
• Historical Productivity Estimates • Regional Productivity • Productivity by Industry division • Productivity in rural and urban areas • Public Service Productivity • Education Productivity • Labour Productivity

Productivity Estimates: International
• OECD Labour Productivity • OECD Multifactor Productivity • G7 Labour Productivity

Factors which affect Productivity
• Adult Education Levels • Tertiary Spending Expenditure • Cross country Infrastructure • Intangible Assets • Private Sector • Flexible Working • Quality of Human Capital • Research and Development spending • Employment protection • Trade Unions • Gross lending to big and small businesses • Weekly and average Wages • Technology Adoption • Employment • Ease of doing business • Mental Health • Openness to Markets • Economic Growth • Competitiveness

Useful links:
https://www.oecd.org/sdd/productivity-stats/40526851.pdf