PROJECT TEMPLATE ON GNP AND GDP

GNP and GDP are measures of economic activity.

● GDP, or Gross Domestic Product, is economic activity by persons working in the country, including foreigners. It does not include citizens working abroad or the income from foreign capital. GDP is the measure now used for a country's economic activity.
● GNP, or Gross National Product, is economic activity by the country's citizens. It includes income by citizens from working abroad (or capital invested abroad) but not income by foreigners working in the country.

GNP and GDP are measured on a real or a nominal level. The raw indices are seasonal, and the index is seasonally adjusted for use with other indices.

Take heed: The indices on the discussion forum are quarterly, seasonally adjusted, in nominal dollars.

You can do a student project on a GNP or GDP index. You may also use GDP or GDP to form structural models.

Illustration: Your student project fits an ARIMA process to new car sales or new home sales. Sales of durable goods, such as autos and homes, vary with economic activity.

● In prosperous years, when the economy is strong, consumers use their savings (or take loans) to buy durable goods.
● In recessions, sales of durable goods decline.

New car sales and new home sales vary from year to year, and no ARIMA process fits well. For your student project, regress auto sales or home sales on GDP or GNP and fit the ARIMA process to the residuals of the regression.

Many of the project templates discuss structural models by regressing the time series on GDP (and other macroeconomic indices). If the time series you are examining is monthly, interpolate the quarterly GDP series to a monthly series.

Illustration: Suppose the first quarter 20X7 GDP is $210 trillion and the second quarter 20X7 GDP is $222 trillion. Use these figures for February and May 20X7. Interpolate for March 20X7 as $214 trillion and for April 20X7 as $218 trillion.