

Real GDP

For 2019 **real** GDP we use prices paid in **base** year



2019 **Real** GDP use
quantities purchased in
2019 but uses prices paid in
the **base year**



Since prices are **fixed at base year prices**, we know changes in **Real** GDP are due to a change in **quantities** not prices

= \$11,000B

$$(Q_{\text{apples}}^{2019} \times P_{\text{apples}}^{\text{base year}})$$

$$+ (Q_{\text{computers}}^{2019} \times P_{\text{computers}}^{\text{base year}})$$

$$+ (Q_{\text{haircuts}}^{2019} \times P_{\text{haircuts}}^{\text{base year}})$$

$$+ (Q_{\text{cars}}^{2019} \times P_{\text{cars}}^{\text{base year}})$$

$$+ (Q_{\text{houses}}^{2019} \times P_{\text{Houses}}^{\text{base year}})$$

+ . . .

For 2019 **real** GDP we use prices paid in **base year**

$$\begin{aligned} & (Q_{\text{apples}}^{2019} \times P_{\text{apples}}^{\text{base year}}) + (Q_{\text{computers}}^{2019} \times P_{\text{computers}}^{\text{base year}}) + (Q_{\text{haircuts}}^{2019} \times P_{\text{haircuts}}^{\text{base year}}) \\ & + (Q_{\text{cars}}^{2019} \times P_{\text{cars}}^{\text{base year}}) + (Q_{\text{houses}}^{2019} \times P_{\text{Houses}}^{\text{base year}}) + \dots = \$11,000\text{B} \end{aligned}$$

Real GDP

2019 **Real** GDP use **quantities** purchased in **2019** but uses prices paid in the **base year**

Since prices are **fixed at base year prices**, we know changes in **Real** GDP are due to a change in **quantities** not prices

Nominal GDP

Real GDP