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Notes to the Student

(i) Do all the activities set by your teacher, making sure you mark these accurately and correct any errors. Ask questions and ask for assistance with topics or questions that you have difficulty with, it is the way to improve your understanding of topics or questions you are unsure of.

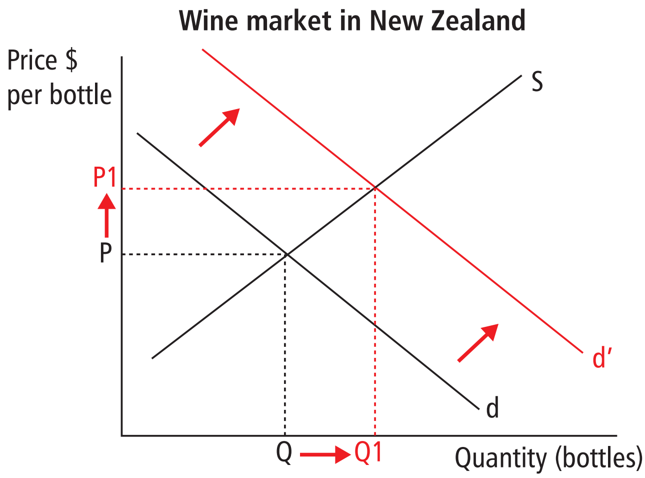
(ii) The solutions to all activities are in the Teachers' Guide. All the best.

(iii) For further help, notes and activities visit www.elearneconomics.com and become a premium member.

Contents

Questions

A change in tastes over the years has seen consumers buy more wine and less beer.



1 **a** Illustrate the effect of increased demand for wine in New Zealand. Label the new equilibrium price and quantity as P1 and Q1 respectively.

b **(i)** State the situation that would exist in the market if the price remained at the original equilibrium P.

Shortage or excess demand

(ii) Explain the market forces that result in the new equilibrium price and quantity, at P1 and Q1.

The increase in demand creates excess demand or a shortage at the original equilibrium P. Consumers will bid prices up to price P1. The increase in price to P1 causes an increase in quantity supplied to Q1. Equilibrium is restored at P1 because quantity demanded equals quantity supplied.

c Complete the table.

Possible cause of a price rise in the market for wine in New Zealand	
Demand factor	Supply factor
increase in disposable incomes	adverse growing season
decrease in direct tax	increase in costs of production
an increase in the price of a substitute	a fall in workers' productivity
a fall in the price of a complement	an increase in indirect tax

d Complete the table.

Time period	Percentage change in the general price level	Term(s)
Year 5	–1.50	Deflation
Year 6	2.75	Inflation
Year 7	2.50	Disinflation. A figure less than 2.75 but not less than zero

e Is a price rise in a particular market the same as a rise in the general price level? Justify your answer.

No. A price rise in a particular market indicates a rise in the price of a single good or service whereas a rise in the general price level means that inflation is occurring and the average price level of all goods and services has increased.

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3 REAL VALUES
Inflation

Nominal and real values

A **nominal value** is the money value in current year prices and can be used for comparison within a year. A **real value** is in constant dollars and can be used for comparison over a number of years. Real values are adjusted to take into account changes in the general (average) price level.

Nominal and real wages

The **nominal wage** is the return to labour measured in current dollars or the money wage received by wage and salary earners in the workforce and can be used for a comparison within a year.

The **real wage** or purchasing power of wages is the nominal wage adjusted for changes in inflation. Real wages are measured in constant dollars and can be used for comparison over a number of years.

If inflation increases and nominal wages remain constant, individuals can buy fewer goods and services than before. Their purchasing power or real wage has fallen. To calculate real wages when the inflation rate is given, the real wage equals the nominal wage minus the inflation rate, for example, if nominal wages increased by 4.2% and the inflation rate is 2.8%, then real wages have increased by 1.4% (4.2%–2.8%).

It is possible for an individual to have an increase in nominal wages but a fall in real wages, e.g., if nominal wages increase by 2% while the price level (or inflation) increased by 2.5%, then real wages have declined by 0.5%. When inflation occurs real wages must be falling is not always necessarily true, because if nominal wage rates are rising faster than the inflation rate then real wages will in fact be increasing.

Changes in real wages depend on the relative change between nominal wages and changes in the price level. A nil wage settlement means no change, therefore, if there is an increase in the general price level (inflation) in the same time period, real wages will fall because the purchasing power of an individual's wage will fall. If there is a decrease in the general price level (deflation) and unions are able to get a wage settlement in the same time period (or even if there is no settlement), real wages will rise because the purchasing power of an individual's wage will increase.

Nominal and real interest rates

The **nominal rate of interest** is the price paid for the use of money.

The **real rate of interest** is the rate of return after inflation (the price level) has been allowed for. The real rate of interest may be calculated by subtracting the rate of inflation from the nominal rate of interest. If the nominal interest rate is 5% and the inflation rate is 2%, then the real interest rate is 3% (that is, 5%–2%).

When there is an increase in the general price level (inflation) future prices will be greater, therefore the real value of savings (its puchasing power) and the real interest rate are likely to decrease. Both these factors will discourage savings. An increase in the general price level is likely to encourage borrowing because the repayment of interest and the sum borrowed (i.e., the principal) is with lower-valued money. Inflation reduces the real value of the amount owed, because the sum repaid has less purchasing power. Households that are able to get a wage increase greater than the rate of inflation find that real incomes will increase, making debt repayments easier. Inflation may encourage households to borrow more now for spending to beat expected increases in the general price level.

Nominal and real GDP

The value of national output (GDP) and the total incomes in producing that output can be shown in nominal terms or in real terms (i.e., the values are deflated using a price index).

Nominal GDP refers to the value of output at current market prices.

Real GDP refers to the nominal GDP adjusted for price changes relative to some base year. It is the changes in real GDP that allow for measuring economic growth in real terms and determining increases in the standard of living. When there is an increase in real output GDP, this means that an economy has produced more goods and services than the previous year and the economy has experienced economic growth.

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Questions

1 **a** Distinguish between nominal wages and real wages.

Nominal wages are the return to labour measured in current dollars, whereas real wages are wages adjusted for change in the level of prices.

b Complete the table.

Nominal wage rate %	Inflation rate %	Real wage %
(i) 6.75	2.45	4.30
(ii) 5.50	4.10	1.40
(iii) 4.00	2.45	1.55

c Define the terms below.

(i) Rate of interest: price paid for the use of money

(ii) Real interest rate: rate of return after inflation has been allowed for

d Complete the table.

Nominal interest rate %	Inflation rate %	Real interest rate %
(i) 10.75	2.25	8.50
(ii) 10.25	1.25	9.00

e Complete the table.

Year	Nominal GDP $m	Real GDP # $m	Percentage change in Nominal GDP	Percentage change in Real GDP
1	73 100	80 000	—	—
2	72 900	79 100	–0.27	–1.13
3	75 600	80 400	3.70	1.64

in constant prices

f Explain the difference between nominal GDP and real GDP.

Nominal GDP measures GDP in current prices whereas real GDP measures the value of output using base year or constant prices, to see if there is an actual increase in output.

g Economic growth is best measured by changes in:

Nominal GDP   Real GDP   (Circle your choice)

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High rates of inflation can have an adverse impact on producers.

3 **a** Explain the effects of high rates of inflation on businesses. In your answer you should explain the impact on revenue, costs of production, profit and the effect on investment.

An increase in the general price level (inflation) will result in workers seeking higher wages to keep pace with the higher prices. Other inputs used by firms in the production process are likely to cost more. As costs of production increase, producers will have to increase prices to maintain profit margins. Higher priced goods may be unable to compete with cheaper imported products, so sales fall. As costs increase and revenue decreases, profits will decline. Firms that have difficulties covering costs will cut back production, hire fewer workers and may even shut down.

When firms are less confident about the future they are likely to invest less because they are less certain about the profitability of new ventures because of the greater risks involved. High rates of inflation are likely to see interest rates increase so it will be more expensive for firms to borrow and invest. Higher interest rates will result in higher costs to firms which will increase the risk of failure and lower the profitability of ventures, so investment spending will decrease.

b Explain the impact of unions seeking a wage increase on inflation and businesses. In your answer you should explain the impact of wage increases on inflation and how wage increases and inflation will affect employment levels and output of businesses.

In times of inflation, wages may fail to keep pace with the increases in the general price level so real wages fall. Unions will seek wage awards to keep up with inflation which will increase costs to the firm. As costs of production increase, profits decrease and the AS curve shifts inward causing cost-push inflation.

With inflation occurring because of wage increases, firms' costs will increase and the firms will increase prices to retain profit margins. As prices increase the quantity demanded by consumers will fall. Firms may find that stock (inventory) levels build up so they will reduce output and cut back production. As production falls, firms will need fewer resources and they will cut back on workers' hours or even make some workers redundant, therefore employment will fall.

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5 **a** Indicate which component or components of aggregate demand is affected for the situation or event in the table below and whether aggregate demand will increase or decrease. If aggregate demand does not shift place a double cross (XX) in the space provided.

Situation		Component of AD (or XX does not affect AD)	AD increases or decreases
(i)	Insurance costs increase.	(XX)	
(ii)	Capital expenditure on irrigation increases.	I	increases
(iii)	Business confidence falls.	I	decreases
(iv)	Interest rates increase.	C, I, X	decreases
(v)	Direct tax cuts.	C	increases
(vi)	Transfer payments are cut.	C	decreases
(vii)	Expansionary fiscal policy.	G	increases
(viii)	A government operating deficit.	G	increases
(ix)	Petrol prices fall.	(XX)	
(x)	Increased emigration to Australia.	C	decreases
(xi)	Greater uptake of KiwiSaver.	C	decreases
(xii)	An increase in business confidence.	I	increases
(xiii)	Interest rates decrease.	C, I, X	increases
(xiv)	The payout to dairy producers is higher than forecast.	I, X	increases
(xv)	Contractionary fiscal policy.	G	decreases
(xvi)	The New Zealand dollar depreciates.	X	increases

b State, for each situation, which event or situation will have a larger impact on economic activity and explain why.

(i) A decrease in interest rates or an increase in wool export earnings.

A decrease in interest rates will have a larger impact on economic activity because it will impact on consumption spending, investment spending and net exports. An increase in wool exports only impacts the wool industry and therefore only a small part of exports overall.

(ii) A decrease in transfer payments or an increase in direct taxes.

An increase in direct taxes will have a greater impact on economic activity because most households earn an income while there are fewer people on a benefit (transfer payments).

(iii) An increase in capital expenditure or an appreciation of the New Zealand dollar.

An appreciation of the New Zealand dollar will have a larger impact on economic activity because it will affect both AD (exports) and AS (imports), while an increase in capital expenditure (investment) only affects one component of aggregate demand (AD).

The Consumer Price Index (CPI) fell 0.5% in the March quarter. In the June quarter it increased 0.4% and it is predicted to increase by 0.2% in the September quarter.

The price of cellphone calls went up in the March quarter 1.3%.

4 a Explain the changes in the general price level and the rise in a particular market.

In your answer you should:

- State and explain the economic term that describes what the change in the CPI indicates about the general price level in the March, June and September quarters.
- Explain why an increase in cellphone calls is not considered inflation.

When the CPI fell by 0.5% in the March quarter deflation took place, this means that inflation is negative OR that the general level of price is falling. In the June quarter the increase of the CPI of 0.4% indicates that inflation has taken place, meaning there has been an increase in the general price level. The predicted change of 0.2% in the September quarter indicates that disinflation could take place because this indicates there will be a fall in the rate of inflation.

The increase in the price of cellphone calls by 1.3% is a price increase in one market only. For inflation to occur there must be an increase in the general price level.

b (i) Complete the table with the correct term(s).

Time period	Percentage change in the general price level	Term(s)
Year 5	–1.50	Deflation
Year 6	2.75	Inflation
Year 7	3.90	Inflation
Year 8	3.25	Disinflation/Inflation

(ii) Is a price rise in a particular market the same as a rise in the general price level? Justify your answer.

No. A price rise in a particular market indicates a rise in the price of a single good or service whereas a rise in the general price level means that inflation is occurring and the average price level of all goods and services has increased.

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