

Student processed and presented inflation and unemployment statistical data.

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Interpret the trends: On Graph 1 initially the inflation rate trends upwards in Dec 2010 from 0.9% to 1.1% in March 2011. After June 2011, the inflation rate trends downwards at each quarter to 0.4% in March 2013. The percentage change in money supply initially trends downwards from 3.0% in Dec 2010 to 1.2% in the quarter year of March 2012 and June 2012. After June 2012, the percentage change in money supply trends downwards to 1.0% in Sept 2012 and 0.6% in March 2013.

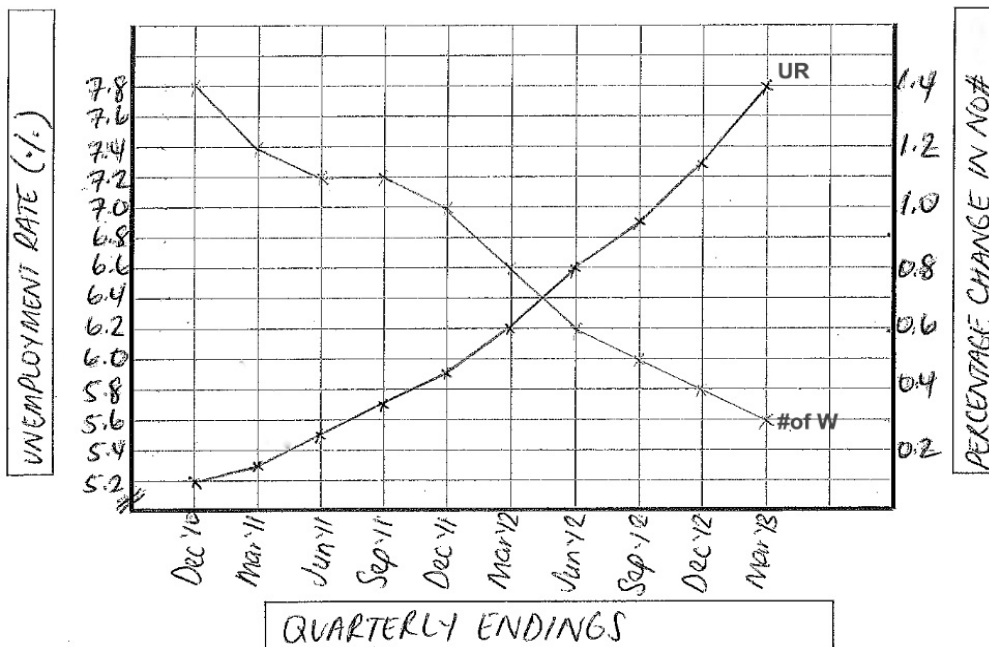
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Identify and explain the relationship: On the graph, the inflation rate and the percentage change in money supply shows a positive relationship between the two data sets as they both trend downwards. This can be represented by the Quantity Theory of Money. It refers to the equation $MV=PQ$, knowing that M =money supply and P =price level. Therefore, if M decreases P decreases at the same value of the percentage in money supply.

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Decreasing money supply could cause the AD curve to decrease, which therefore causes a decrease in the PL (price level). This could also decrease demand-pull inflation shown on the graph that when AD decreases AD-AD1, this decreases PL to PL1.

Graph 3: UNEMPLOYMENT RATE & PERCENTAGE CHANGE IN NUMBER OF WORKERS...



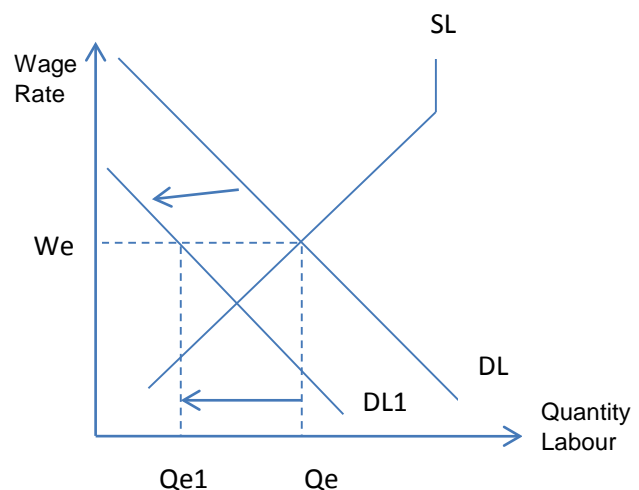
Interpret the trends: The unemployment rate in Graph 3 trends upwards throughout the quarterly periods between Dec 2010 and March 2013 from 5.2% to 7.8%. The percentage change in number of workers employed trends downwards from 1.4% in Dec 2010 to 0.3% in March 2013.

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Identify and explain the relationship: On Graph 3, the relationship between the two sets of data shows a negative relationship, the unemployment rate increases and the percentage change in number of workers

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employed decreases. The increase in the unemployment rate could be a result of the AD curve moving inwards, therefore causing the inflation rate to decrease (PL-PL1) and Real GDP to decrease (Y-Y1). The DL curve moves inwards on the Labour Market model (DL-DL1). A decrease in the DL curve causes the quantity of workers to decrease from Q_e to Q_{e1} creating involuntary unemployment, therefore causing the number of employed workers to decrease.



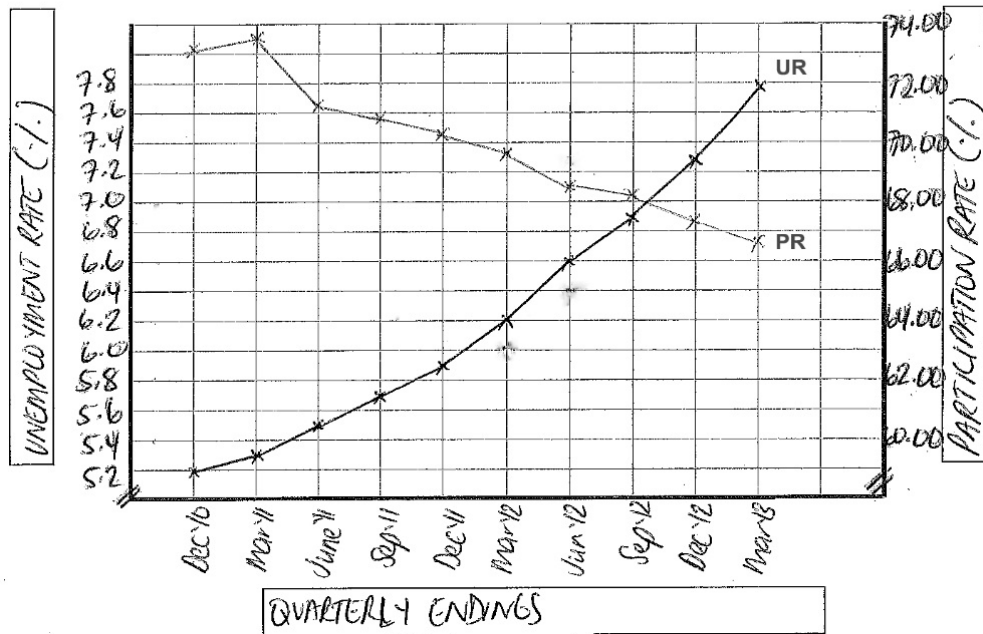
Interpret the trends: The exchange rate in Graph 2 trends upwards from 0.75 (\$NZ/\$US) in December 2010 up to 0.84 (\$NZ/\$US) in March 2013.

The inflation rate trends upwards from 0.9% in Dec 2010 to 1.1% in March 2011 where it remains constant until June 2011. After June 2011, we see the inflation rate trend downwards ending at 0.4% in March 2013.

Identify and explain the relationship: The exchange rate increases and the inflation rate decreases showing that there is a negative relationship between the two data sets. An increase in the exchange rate could cause the AD curve to move inwards because exporters earning in foreign currency receive less when it is converted to \$NZ, and importers buy more imported goods, therefore causing (X-M) to decrease which then leads to a decrease in the AD curve. As it is illustrated on the model, AD curve would decrease to AD₁, which gives us a new price level (PL to PL₁), which is a decrease in demand-pull inflation. Less goods and services would be produced as it is represented by (Y to Y₁) a decrease in real GDP.

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Graph 4: UNEMPLOYMENT RATE & PARTICIPATION RATE



Interpret the trends: The unemployment rate in Graph 4 trends upwards throughout the quarterly periods between Dec 2010 and March 2013 from 5.2% to 7.8%. The participation rate trends upwards from Dec 2010 from 72.56% to 72.78% in March 2011. After March 2011, the participation rate trends downwards to 66.97% in March 2013.

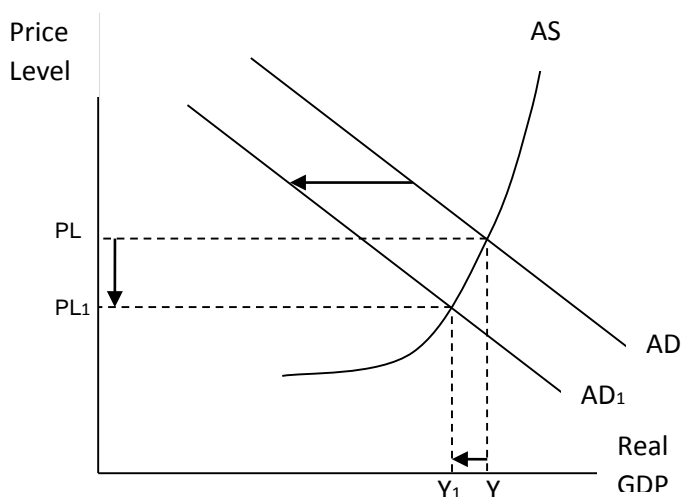
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Identify and explain the relationship: This relationship shows that as the unemployment rate increases the participation rate decreases, indicating that there is a negative

relationship between the two data sets. When the unemployment rate is high this could have an effect on the willingness of the working age population to go out and look for a job, because there is less opportunity to find a job, it encourages people to get tertiary educated so the labour force decreases and the participation rate decreases. An increase in the unemployment rate could result from less economic activity and a decrease in the competition amongst firms to employ workers leads to a movement down the AS curve as less workers means less labour cost.

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Inter-relationships



The inter-relationship between the inflation rate and unemployment rate is negative because as the inflation rate decreases, the unemployment rate increases. As unemployment increases consumption spending (C) decreases, because people have no money to spend because they are unemployed. $AD = C + I + G + (X - M)$, therefore if C decreases then so too will AD, causing a decrease in demand-pull inflation (PL-PL₁). The model shows that Real GDP decreases from Y to Y₁ so less goods are produced and it also causes the inflation rate to decrease, PL to PL₁ decreasing the price level. When the unemployment rate increases the inflation rate decreases.

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The exchange rate, when the value of the \$NZ appreciates this decreases export receipts (X) because the amount of foreign money that exporters earn in now converts to less \$NZ. This causes a decrease in (X-M) and shifts the AD curve to AD₁, and Y to Y₁ and PL to PL₁. This affects the participation rate and the percentage change in the number of people employed because there is less demand for labour.

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