IB Economics – Practice Commentary
School Code: 3400

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Candidate Number	633
Teacher	Mr.Thorpe
Title of the Article	UK Co2 price floor compensation plan in line with EU rules
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Section of the Syllabus	Section1: Microeconomics

Article

UPDATE 1- UK CO2 PRICE FLOOR COMPENSATION PLAN IN LINE WITH EU RULES

21 May 2014 12:41 Last updated: 21 May 2014 18:32
May 21 (Reuters) - A British plan to compensate certain energy-intensive industries for higher energy costs resulting from its carbon price floor is in line with EU state aid rules, the European Commission said on Wednesday.
Britain's carbon price floor, which was raised in April to 9.55 pounds ($16.09) per tonne of carbon dioxide, is effectively a tax on companies' consumption of power produced from fossil fuels and is aimed at reducing greenhouse gas emissions.

"The compensation partially offsets the higher electricity costs, similar to what is done for the costs of the EU Emission Trading Scheme (ETS)," the Commission said in a statement.

It added that the measure "would further EU energy objectives without unduly distorting competition" in the market.

Under the EU-approved plan, Britain can reimburse industries including steel, paper, plastics and chemicals up to 80 percent of the costs related to the carbon floor price and the EU ETS.

But the Commission excluded compensation for sectors such as cement, ceramics and glass, which it deemed to be less exposed to higher energy prices. As a result, industry officials say firms will miss out on tens of millions of pounds in relief funds.

"This puts these companies at a major disadvantage compared to other EU competitors that don't have this carbon tax," said Laura Cohen, chief executive of the British Ceramic Confederation (BCC).

Companies are required to apply for the funds, which had been promised to most industry by the British government and set aside by the British Treasury.

"(The cement and lime sectors) are vulnerable to imported material. The consequences of higher carbon costs are potentially catastrophic to domestic supply if these costs are not reduced by compensation measures," Richard Leese of the Mineral Products Association said.

He estimated that the carbon price floor would cost the two sectors a combined 93.5 million pounds between 2014 and 2020.

The BCC's Cohen said members of her organisation that had applied for the compensation are forecast to face nearly 20 million pounds in carbon costs by 2020 under the measure.

"The UK government needs to explore options to meet its commitment to provide relief to these companies," Cohen added.
British finance minister George Osborne in March said the carbon floor price will be frozen next year at 18.08 pounds per tonne, rather than rising annually through the rest of the decade.

The excluded sectors are calling on the British government to resubmit an application to Brussels, but sources familiar with the matter said the European Commission is unlikely to change its mind.

"We are currently considering how best to represent the interests of the (excluded) sectors," said a spokeswoman for Britain's Department for Business, Innovation and Skills.

($1 = 0.5935 British Pounds)

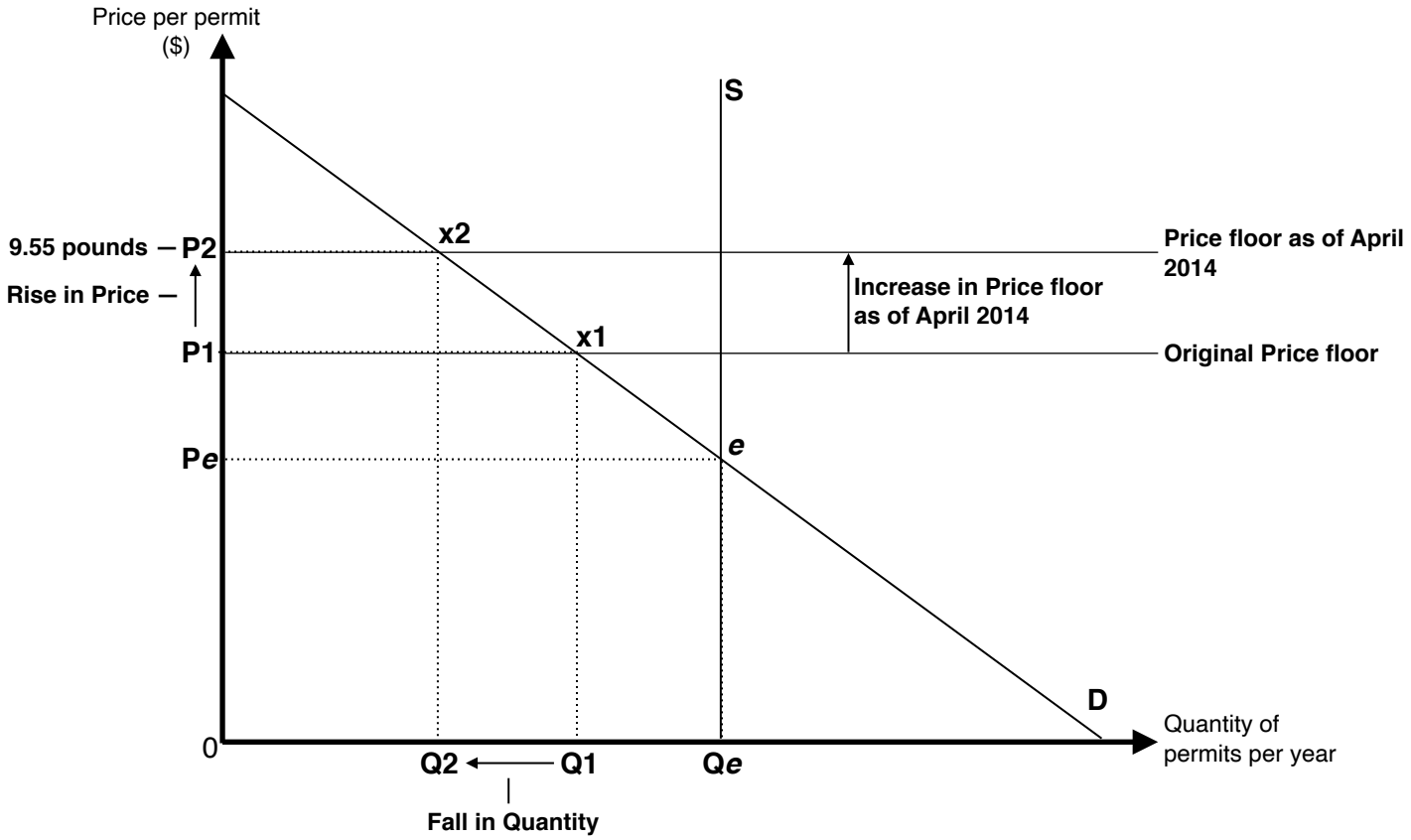
Source: http://www.pointcarbon.com/news/reutersnews/1.5190793

Carbon Tax regulation in the UK (Price Floors)

The article discusses recent changes to and effects of the Co2 Permit system, specifically the changes in price floors for the Co2 permit market. Price floors or minimum pricing is one form of government intervention in a specific market, where in it is a price level that producers cannot sell their products below. It is set above the equilibrium price. Governments also use the market system to control the distribution of polluting permits, and can do so as it is the sole issuer of said permits and only issues limited amounts of them, therefore making it a scarce resource and its supply perfectly inelastic. This method has the aim of controlling and reducing pollution through decreased usage of fossil fuels. Such methods are currently in use in the UK in the case of carbon taxes. The price floor for the market of these permits were recently raised to 9.55 pounds, effectively increasing taxation on the pollutive companies involved in the pollution permit trade.

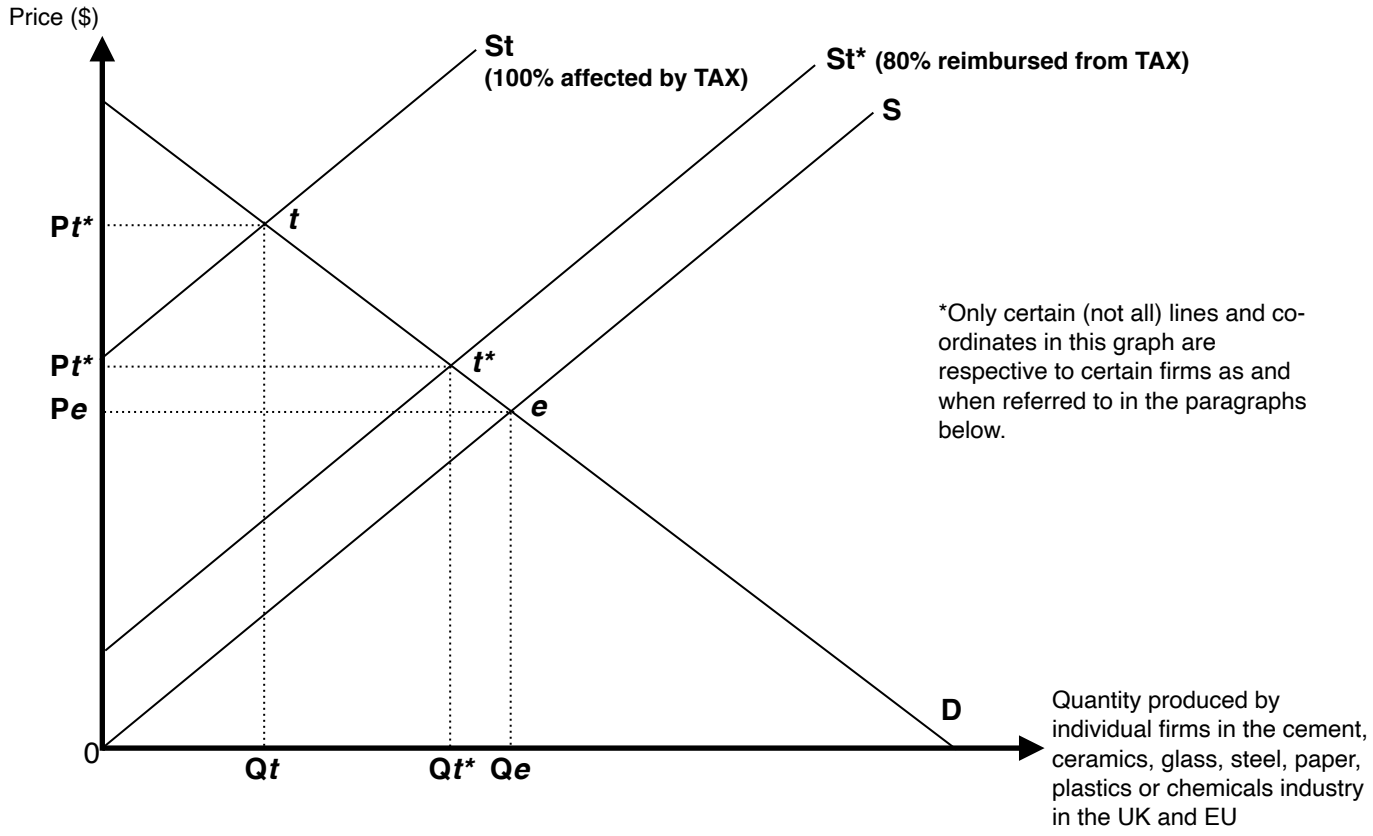
The following diagram illustrates how the addition of this price floor would affect the demand for these permits:

Graph 1.1: The effect of the rise of the price floor for the UK carbon permit market



The aim of this entire system as stated before is to decrease the pollution in the economy by allowing only permit holders to pollute a given amount. Reducing the quantity of these permits would reduce the polluting potential of the economy. The government controls and limits the quantity available of these permits by only issuing a certain amount of permits per year, and is represented by the perfectly inelastic supply curve as illustrated in Graph 1.1 . In addition to the capped supply, the government has also introduced a price floor into the market for pollution permits. This in effect raised the price from the equilibrium point that is ***Pe*** in Graph 1.1, to **P1**. As a result of this higher price, demand would contract for these permits. This has allowed the government to further add to its control over the pollution permit market and therefore the pollution in the economy as a whole. The introduction of the new price floor at 9.55 pounds has further increased the price to **P2**, moving the equilibrium to **x2** with a fall in quantity to **Q2**.

Graph 1.2: The effect of Carbon Permits as a Tax on different industries



Production indefinitely involves some amount of pollution and the purchase of these permits allows these firms to pollute lawfully. The purchase of these permits, despite being a necessary cost, don't contribute directly to the production of the firms and therefore are classified as a tax. An increase in tax would decrease a firms supply (from **S** to **St**) therefore decreasing the quantity (from **Qe** to **Qt**) of the goods and services (g&s) it supplies. Industries like steel, paper, plastics and chemicals are very energy intensive and contribute significantly to the UK's GDP, and a decrease in supply for these industries would negatively affect the UK's economy. In order to reduce this negative effect the Government

has planned to reimburse up to 80% of the costs that carbon tax permits has put upon individual firms in these industries. As illustrated in the graph, these firms' supply curves would shift to **St*** instead of **St**, reducing the significance of the negative effect decreased production would have on the UK's economy.

Firms in the cement, ceramics and glass industries however will not be subject to the reimbursement, and would therefore have to bare the full burden of their entire share of the carbon tax permit system. This would decrease the firms supply (from **S** to **St**) therefore decreasing the quantity (from **Qe** to **Qt**) of the g&s it supplies at a greater extent than the reimbursed industry firms. Either way, all firms would be less competitive than other EU members whose firms are not subject to such a tax and can therefore produce more at lower costs at their original equilibrium points (**e** where **Q*e*** and **P*e***). UK firms would be less competitive and at a disadvantage as a result. Given that a significant if not a majority of these firms' revenue generates from overseas sales, foreign and local consumers will prefer to purchase cheaper products from other countries not subject to this tax. This increases the likeliness that these firms will experience export losses, which would be harmful to said firms and their industries.

The introduction and increase of the price floors in the carbon permit market would significantly and effectively contribute to the aim of reducing pollution in the economy, at the cost of losses in competitiveness in and out of the UK economy.

IB Economics – Commentary 2

School Code: 003400	**St Josephs Institution International**

Candidate Name	Mihir Savadi
Candidate Number	“0054”
Teacher	Mr.Thorpe
Title of the Article	Why The Swiss Franc Shot Up 30% In A Morning
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Date the article was published	15/Jan/15
Date the commentary was written	2/Feb/15
Word count (750 words maximum)	750
Section of the Syllabus	Section 3: International Economics

ARTICLE

Why The Swiss Franc Shot Up 30% In A Morning

1/15/2015 @ 9:17AM

Chris wright

"This," says James Stanton, head of foreign exchange at deVere Group, "is the biggest FX shocker in years."

He is referring to the extraordinary climb of 30% by the Swiss Franc, one of the world's most important safe haven currencies, against the euro this morning. At one stage, it was up 39% against both the euro and the dollar. Movements like this simply don't happen in big, widely held currencies like the Swiss franc. So what happened?

The answer is simple. Three years ago the Swiss central bank put in place a ceiling of SFR1.20 per euro to stop the currency's appreciation, which was causing problems for Swiss exporters, among other things. This morning – to general surprise – it abandoned the ceiling. It appears to have done so because of an expected sovereign bond buying programme from the European Central Bank in the next few days. That, in turn, is expected to increase demand for safe haven currencies like the Swiss Franc, and the Swiss National Bank – the central bank – seems to have decided that it just would not be able to defend its self-imposed ceiling in the circumstances.

"A central bank does not act in such a dramatic way very often," says Stanton. "It's a once in a blue moon event and it has taken the currency markets by surprise."

What does it mean for investors? In the short term, volatility; in the longer term, the Swiss franc-euro pair will presumably settle. Stanton believes it will do so at about 1:1. For shareholders, it's not good news for Swiss exporters, who have just seen their goods become 30% more expensive to European buyers in the space of an hour or so; Swatch, for example, saw its shares fall 16%, and Switzerland's main equity benchmark, the SMI, fell 7% on the news. The big Swiss banks, UBS, Credit Suisse and Julius Baer, all tumbled too.

Indeed, for the moment, we leave the final word to Swatch and its chief executive, Nick Hayek, who released a statement this morning which captures the stunned mood of Swiss exporters. "Today's SNB action is a tsunami; for the export industry and for tourism, and finally for the entire country."

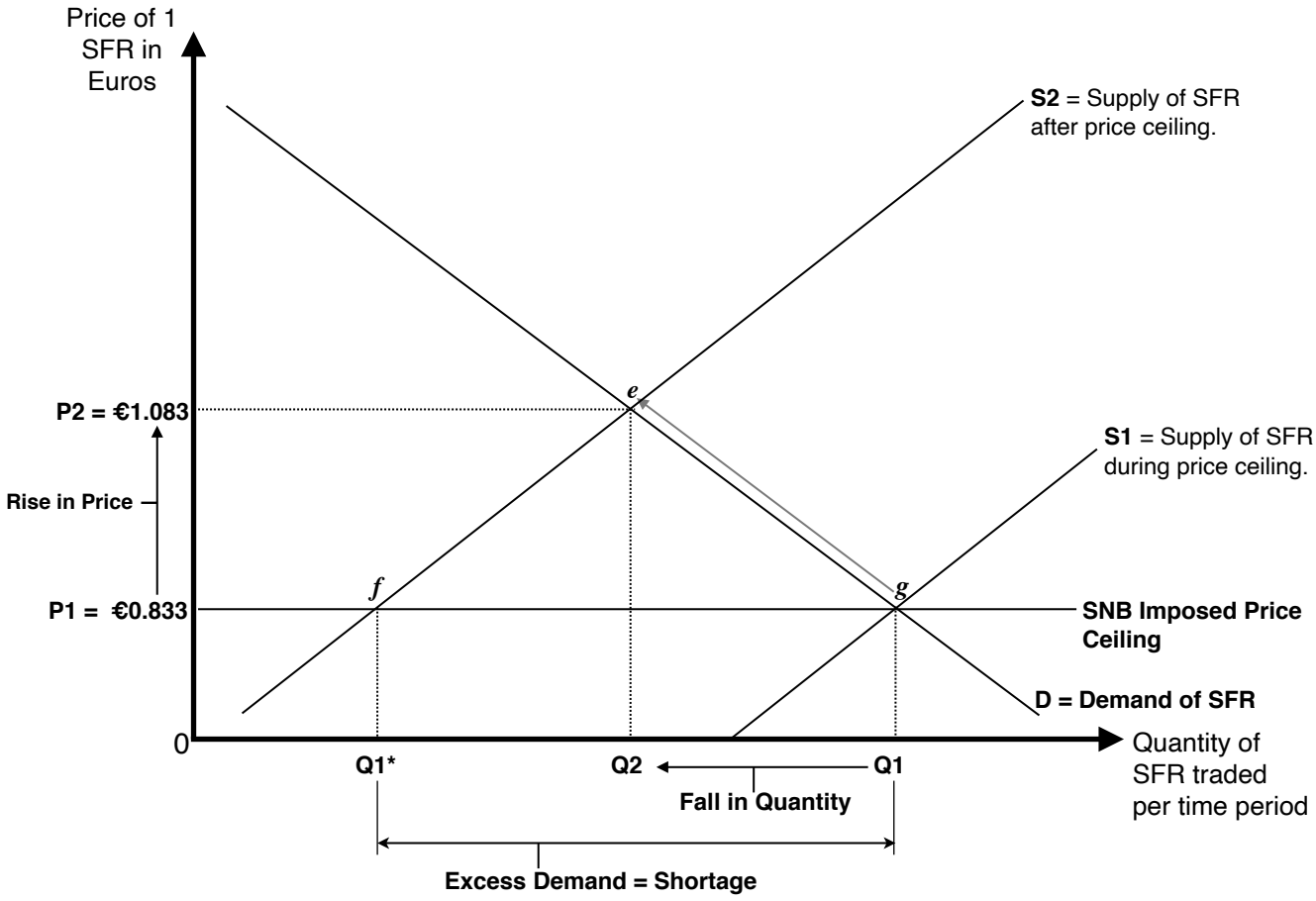
(Source: http://www.forbes.com/sites/chriswright/2015/01/15/why-the-swiss-franc-shot-up-30-in-a-morning/)

Commentary

The Article discusses recent dramatic appreciations in value of the Swiss Franc (SFR), despite its long upheld price stability (its 'safe haven' characteristic). Demand for SFR would naturally be high due to this characteristic, therefore causing an upward force on its price in the Forex market encouraging its appreciation, which would harm Switzerland's large export industry as its goods would become more expensive, therefore less demanded, in foreign countries . To protect its export industry, the Swiss National Bank (SNB) imposed a price ceiling of SFR1.20 per euro three years ago to prevent appreciation against other currencies, especially the Euro (€). However, until recently, SNB found it untenable to keep up the price ceiling and decided to abandon it as the European Central Bank (ECB) expected to hold a sovereign bond buying program which would result in increase in demand for and therefore appreciative forces against the Euro. SNB took this opportunity to break its price ceiling, allowing its SFR's appreciation as it would be less affected due to the expected simultaneous appreciation of the currency it held most important to stay at low prices against - the Euro.

This change in Forex values for the SFR can be illustrated in Figure 1 below:

Figure 1: Diagram illustrating changes in Foreign Exchange market for Swiss Franc



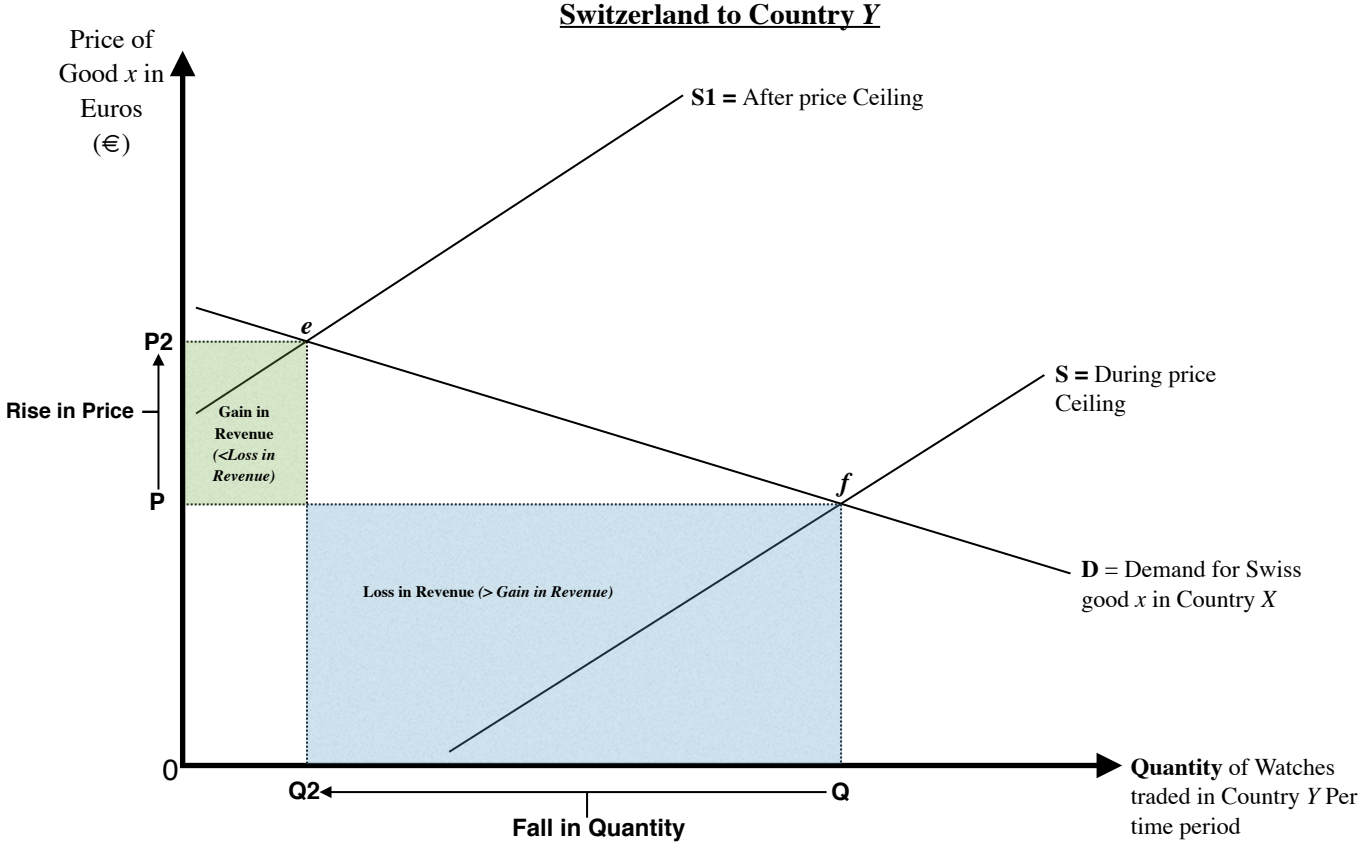
The price ceiling at **P1** was upheld by SNB possibly by keeping the Supply of SFR artificially high - represented in Figure 1 by supply curve **S1** - through selling large volumes of SFR for foreign currency, resulting in equilibrium point ***g***. This created upward market forces on price towards a more natural equilibrium point and supply curve, ***e*** and **S2** respectively, that SNB eventually couldn't uphold against. They therefore broke the ceiling, resulting in movement of supply curve from **S1 → S2** (as it is status quo); the equilibrium point moving from ***g → e***; a rise in price of 30% from €0.833 to €1.083.

The intention of such a change in policy was to ease pressure on SNB's Franc supply, however the opportunity cost of doing so have turned out to be far greater then if it hadn't removed the Price ceiling in the first place.

"Today's SNB action is a tsunami; for the export industry and for tourism, and finally for the entire country." said the CEO of Swatch, a Swiss watch company (whose shares fell by 16%) that heavily exports its products around the world. Swiss banks and Financial institutions' shares plummeted also in market value.

With the price appreciation of SFR, Swiss exports became far more expensive in foreign countries amounting in revenue losses in several Swiss exporting firms. The Swiss Watch Industry (a predominant Swiss exporter) can be used as an example to illustrate this effect.

Figure 2: Diagram illustrating changes in Price and Quantity of Watches exported from Switzerland to Country *Y*



Country *Y* in figure 2 represents a general importer of swiss exports. The vast majority of Swiss made watches are considered as luxury goods, and are therefore price elastic in demand, as reflected by the low gradient of the curve **D** in Figure 2. The leftward shift in supply - **S → S1** - occurs due to the rise in SFR forex price. This would mean a loss of revenue (represented in Figure 2 by Blue minus Green shaded area) due to greater than

proportionate change in quantity demanded - from **Q2 → Q1** - to given change in price - **P → P2**. This is reflected in the Stock markets for Swiss Exporting Firms as stock returns fall from lower revenues, resulting in stock holders selling their stores to avoid losses.

However, the appreciation of SFR, in addition to making imported goods cheaper in general, could also result in cheaper imports of Factors of Production (FOP) for domestic Swiss firms, which can then be transferred as lower prices to Swiss consumers.This might also ease the losses for suffering exporters as (if applicable) their cheaper imported FOP's and therefore lower costs of production would be translated to slightly lower prices (albeit higher than during price ceiling) in foreign countries than if their products were produced 100% in Switzerland. Switzerland places significance on its competitiveness with the Euro, and due to the EU's bond buying program it would be expected to face appreciative forces therefore resulting in a relatively lower loss in competitiveness between the Euro and SFR - therefore a slightly lower opportunity cost for the removal of the SFR's forex ceiling.

While short run costs of SFR's appreciation are significant and prevalent, long run outcomes of the removal of the ceiling would likely be positive as pressure would be eased on SNB and its currency reserves would be better preserved in the likelihood of a future economic crisis.

IB Economics – Commentary 3

School Code: 003400	**St Josephs Institution International**

Candidate Name	Mihir Savadi
Candidate Number	“0054”
Teacher	Mr.Thorpe
Title of the Article	Reserve Bank of Australia cuts official cash rate to record low 2% at May meeting
Source of the Article	http://www.smh.com.au/business/the-economy/reserve-bank-of-australia-cuts-official-cash-rate-to-record-low-2-at-may-meeting-20150505-ggueak.html
Date the article was published	5/May/2015
Date the commentary was written	27/May/2015
Word count (750 words maximum)	746
Section of the Syllabus	Section 2: Macroeconomics

ARTICLE

Reserve Bank of Australia cuts official cash rate to record low 2% at May meeting

May 5, 2015

Mark Mulligan

The Reserve Bank of Australia on Tuesday cut the cash rate to a new record low of 2 per cent, citing some ongoing economic weakness for its decision. The widely-expected quarter-point reduction, the second in three months, takes lending rates to the lowest point since at least the late 1950s.

The Australian dollar immediately reacted, plunging more than US0.70¢ to US77.88¢.However, it quickly recovered to a new day's high - of US79.05¢ - as details emerged on why the board voted to cut rates.

RBA governor Glenn Stevens said the decision came despite some "improved trends in household demand over the past six months and stronger growth in employment". However, he added: "Looking ahead, the key drag on private demand is likely to be weakness in business capital expenditure in both the mining and non-mining sectors over the coming year.

"Public spending is also scheduled to be subdued."
"The economy is therefore likely to be operating with a degree of spare capacity for some time yet."

The latest round of rate cuts, which began with February's drop to 2.25 per cent, is aimed at spurring business investment outside mining and encouraging the so-called "animal spirits" which create jobs and drive innovation.

However, it could also further fan the flames of the hot Sydney property market and run the risk of creating a bubble. According to RateCity.com, Tuesday's cash rate cut will equate to home loan rates dipping below 4 per cent this month, the lowest on record.

Peter Arnold, banking analyst at RateCity.com, said typical borrowers would save around $1200 this year on their home loan repayments compared with what they paid the previous year. For a lot of people in the capital cities it will be around double that. "It's not just the RBA who's been cutting rates; the lenders have been getting in on the action as well," he said.

ANZ was the first of the major banks to announce its response to the Reserve Bank's cut, saying it would lower its standard variable home loan rate by 0.25 percentage points, effective this Friday.

Tuesday's cut comes just days ahead of the RBA's quarterly statement on monetary policy, in which the bank will detail prevailing weaknesses in the Australian economy such as low commodity prices, the fall-off in capital investment, restraints on fiscal spending and relatively high unemployment.

The central bank's language on Tuesday, however, appeared to suggest less of an easing bias, meaning this might be the last cut in the current cycle.

Mr Stevens said "the inflation outlook provided the opportunity for monetary policy to be eased further, so as to reinforce recent encouraging trends in household demand".

"This is likely to be interpreted by markets as a sign that the RBA believes it is near the end of the easing cycle," said Australia and New Zealand Banking group chief economist Warren Hogan.

Other commentators disagreed.

Aberdeen Asset Management Senior Investment Manager Jasmin Argyrou said "cautious and uncertain households mean rate cuts are less effective today". "Today's cash rate cut is unlikely to provide the boost to confidence and spending that it has in previous cycles," she said.

(Source: http://www.smh.com.au/business/the-economy/reserve-bank-of-australia-cuts-official-cash-rate-to-record-low-2-at-may-meeting-20150505-ggueak.html)

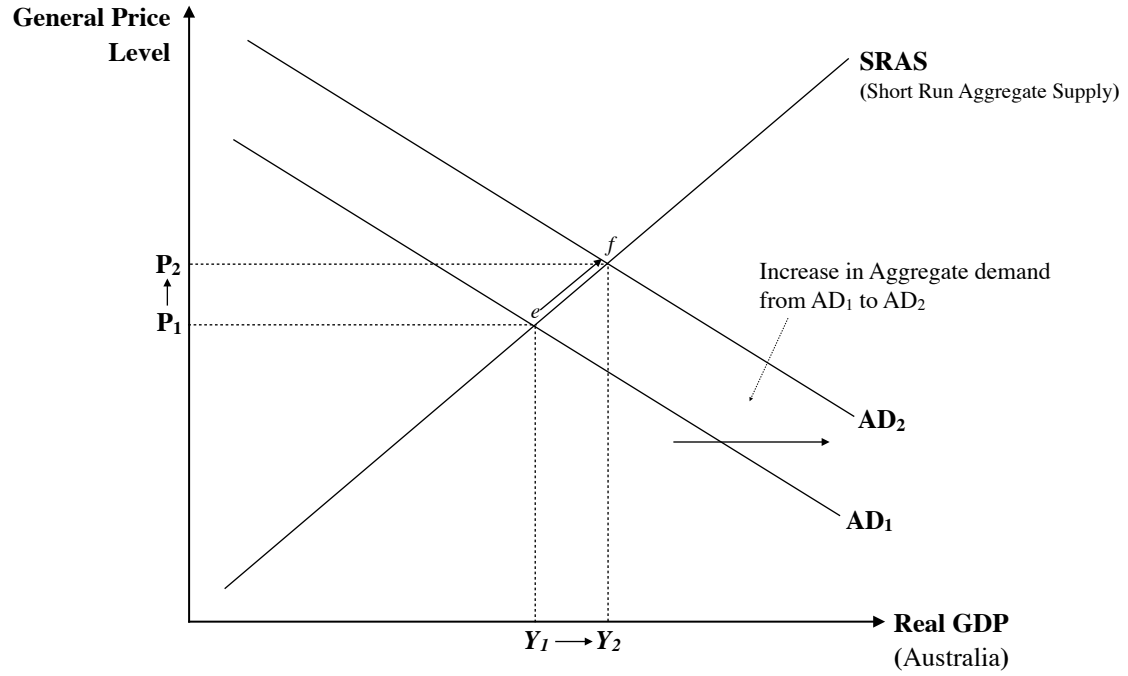
Commentary

This article is about the recent use of Expansionary Monetary Policy (EMP) by the Reserve Bank of Australia (RBA):

"The latest round of rate cuts […] is aimed at spurring business investments outside mining and encouraging the so called "animal spirits" which create jobs and drive innovations."

Unemployment is the ratio of 'the number of people actively searching for a job but cant find one' to the total labour force expressed as a percentage. The article refers to "animal spirits", a term used to describe human emotion that drives consumer confidence[1]. EMP is a demand side macroeconomic policy that seeks to encourage increases in Aggregate Demand (AD), hence economic growth by, lowering interest rates (as in this case) and/or increasing the money supply.

Graph 1: Expansionary Monetary Policy resulting in rightward shift of AD leading in



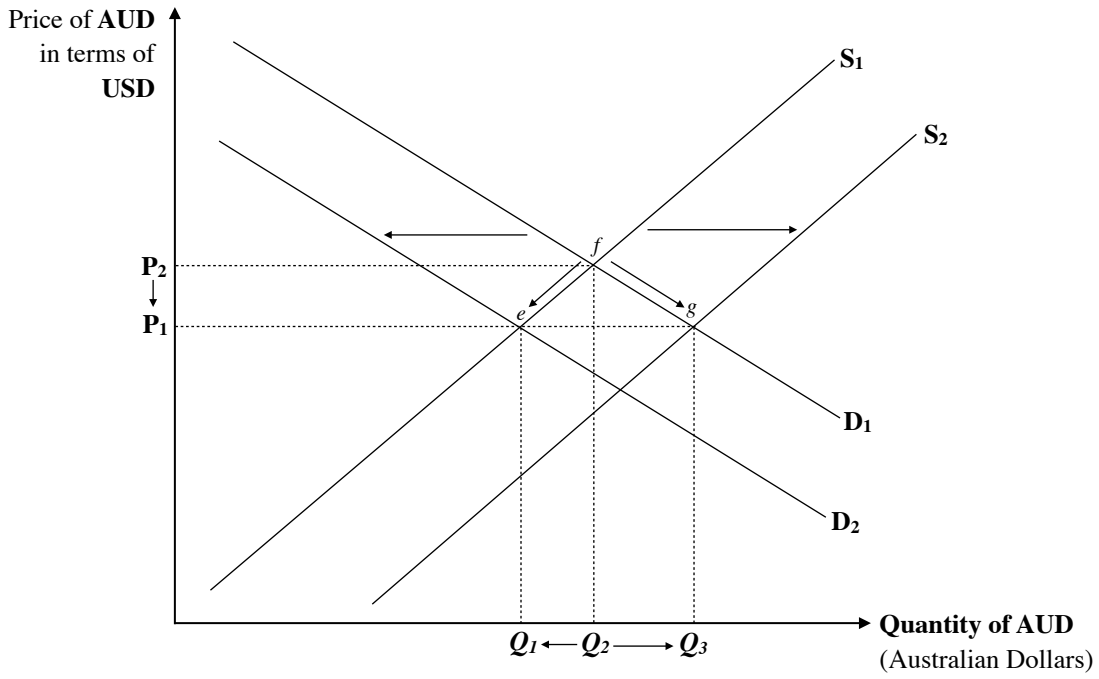
As interest rates decrease, consumers in the Australian economy have less incentive to save and more incentive to spend/invest as returns on savings fall and the cost of borrowing decreases. As a result, Household Expenditure and Investments components of AD would increase as loans on capital etc. become cheaper. This is exemplified in the article :

"Tuesday's [interest rate] cut will equate to home loan rates dipping below 4 per cent this month, the lowest on record.", "typical borrowers would save around $1200 this year on their home loan repayments compared with what they paid the previous year. For a lot of people in the capital cities it will be around double that."

Increases in AD would expand the SRAS curve, shifting equilibrium point from *e* to *f*. Hence, firms are likely to employ more factors of production (labour) in order to satisfy the increased demand for goods and services overall, reducing unemployment. In addition to being able to achieve the goal of creating more jobs, Australia's GDP is also likely to rise from Y_1 to Y_2.

[1] http://www.investopedia.com/terms/a/animal-spirits.asp

Graph 2: Australian Dollar (AUD) Exchange Rate Diagram

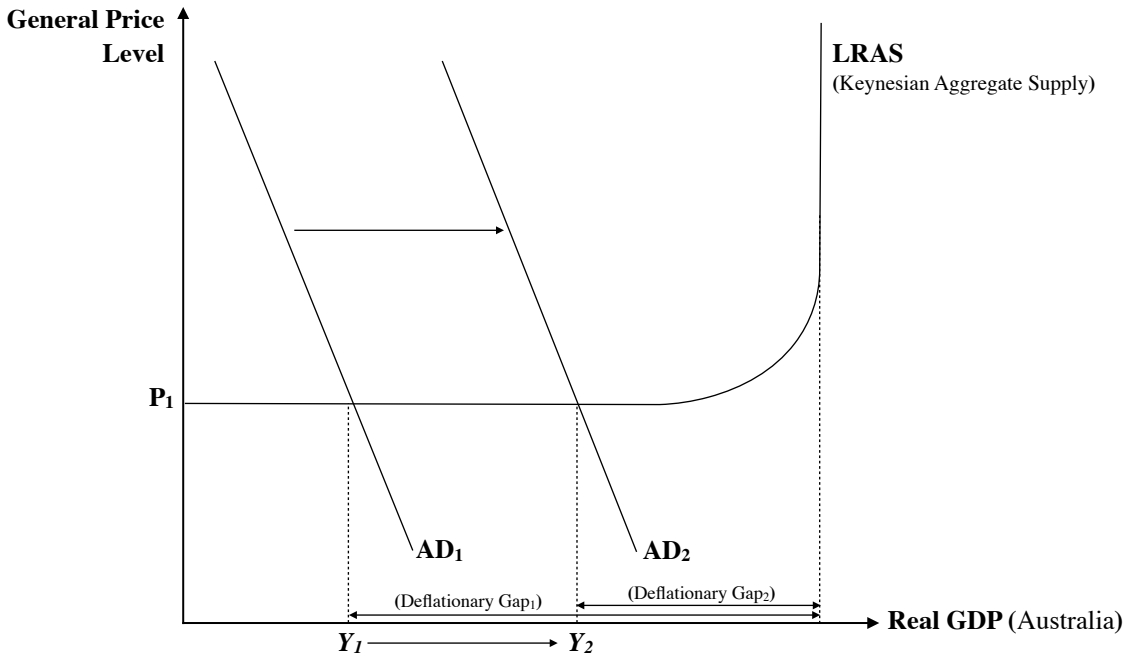


As interest rates decrease, foreign entities are likely to get lower returns in their investments in Australia hence likely to 'pull out' of their Australian investments and invest elsewhere, hence decreasing the Demand for the Australian Dollar (**$D_1 \rightarrow D_2$**) and/or increasing the Supply for the Aussie dollar (**$S_1 \rightarrow S_2$**). Either way, the price for the Australian Dollar would depreciate - "The Australian dollar immediately reacted, plunging more than US0.70¢ to US77.88¢". This would be advantageous to Australia's numerous exporting industries (e.g. Farm/Food products) as their prices would be lower relative to overseas consumers, however disadvantageous to importing industries. Demand for exports would increase while imports decrease, improving Australia's balance of trade. This would further increase Australia's AD curve. However, as shown by **$P_1 \rightarrow P_2$** in **Graph 1**, this is also likely to introduce inflation.

Through the article it seems Australia is overly reliant on the Mining Industry, which has its own fallbacks and issues - "Looking ahead, the key drag on private demand is likely to be weakness in business capital expenditure in both the mining and non-mining sectors over the coming year". The increases in AD through Household Expenditure and Investments are likely to create a Fiscal Multiplier[2], which would likely increase production and employment opportunities in industries other than mining, decreasing Australia's reliance on it and hence creating a more diverse and secure economy in the long run. Graph 3 illustrates Australia's Long Run macroeconomic market diagram.

[2] The ratio in which the change in a nation's income level is affected by government spending. The fiscal multiplier is used to measure the effect of government spending (fiscal policy) on the subsequent income level of that country. In theory, increased fiscal spending can lead to increased consumption, which then leads to a cycle of consumption and wealth creation. (source: http://www.investopedia.com/terms/f/fiscal-multiplier.asp)

Graph 3: Keynesian Diagram illustrating rightward shift of AD leading in economic growth



"Today's cash rate cut is unlikely to provide the boost to confidence and spending that it has in previous cycles". We can hence infer that the Australian economy is in an economic slump after surpassing its peak, where-in business confidence is low. Hence, there is likely to be significant amounts of Unemployment in Australia. The use of demand side policies helps alleviate this unemployment by decreasing the deflationary gap and approaching its natural unemployment rate.

However, the effectiveness of RBA's imposed EMP depends significantly upon consumer confidence. Because this is low, increases in interest rates aren't likely to be as effective in 'spurring business investment' as compared to if Australia were in an economic climb or peak. Slow or no progress towards the RBA's goal of more jobs and innovation is likely as a result.

In order to extend the capacity for Australia's long run potential growth out of its high dependency on mining, a rise in its LRAS curve is necessary. Because Australia is in an economic slump, this is not very likely. Increases in AD might only be effective in the short run and is unlikely to change Australia's mining dependency.

The introduction of EMP would likely encourage Australia's unemployment to fall; reduce its dependency on the mining sector; increase its balance of payments. However this likeliness depends on the business and consumer confidence of its economy. Due to the current economic slump in Australia, business and consumer confidence would be low, hence undermining the effectiveness of the RBA's intentions for its implemented EMP.