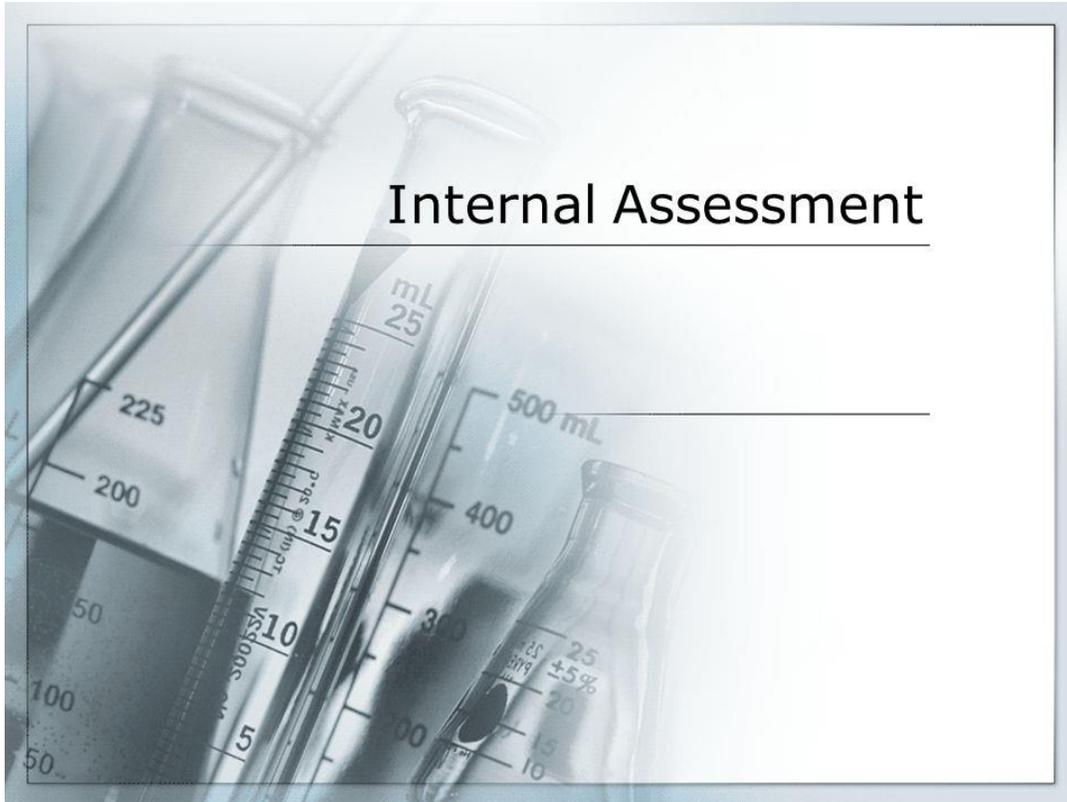


IB ECONOMICS INTERNAL ASSESSMENT BOOKLET

Name: _____



Warning! Ignore the contents of this booklet at your own risk.

Consequences are likely to involve a poor quality of internal assessment portfolio.

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Requirements

You will produce a portfolio of **three*** commentaries of a **maximum of 800 words each**, based on published extracts from the news media. Each article **must** be based on a different section of the syllabus (microeconomics, macroeconomics, international economics, development economics). Most sources are suitable for you to use but NOT personal blogs, Facebook pages, advertisements, statistical tables or government reports. While many examiners do not like the use of the “Economist” you will not be penalised for using this source. Try to choose an article 1-2 pages in length (no longer) and each commentary must come from a different source.

Choosing your article (You must have a different source for each commentary and sources must be published no longer than 12 months before the commentary is written.)

Open www.google.com

Click on the 'News' icon.

Type in the topic area (e.g. oil price, coffee price, monopoly, patents, steel tariff, . . .)

Glance through several articles from the list to try to find one that you feel would enable you to define economic terms, apply economic laws, draw relevant economic graphs and evaluate the theories you applied.

Method 2: Search news archives in online newspapers

Open the website of an English newspaper.

Type in a precise topic area in the search engine/archives on the site.

Pick from the more recent articles.

The BBC in the UK - <http://news.bbc.co.uk/2/hi/business/default.stm>

The Telegraph in the UK - <http://www.telegraph.co.uk/>

The Globe and Mail in Canada - <http://www.theglobeandmail.com/report-on-business/>

The Age in Australia - <http://www.theage.com.au/>

The Jakarta Post in Indonesia - <http://www.thejakartapost.com/channel/business>

The International Herald Tribune (New York Times international edition)

- <http://global.nytimes.com/?iht>

The Washington Post in the US - <http://www.washingtonpost.com>

USA Today in the US - <http://www.usatoday.com/>

The Hindustan Times in India - <http://www.hindustantimes.com/>

The Standard in Kenya - <http://www.standardmedia.co.ke/business/>

The Manila Times in the Philippines - <http://www.manilatimes.net/index.php/business>

To solve the “**IS THIS A GOOD ARTICLE?**” question, ask yourself 1) if you can explain the story and 2) could you write a Data Response Question which includes a) 2 definitions, 1 diagram and an evaluation question.

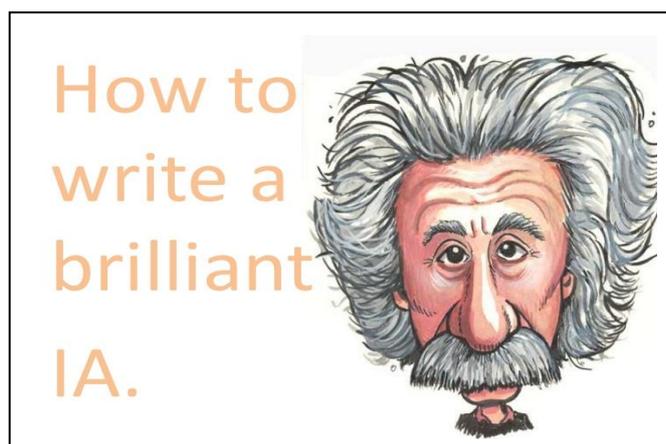
NOTE: AN ARTICLE THAT IS SIMPLY ABOUT SUPPLY AND DEMAND IN A MARKET IS NOT GOING TO BE SUCCESSFUL – more suitable micro articles include indirect taxes / subsidies (with PES/PED elasticity explained) or market failure e.g. consumption of demerit goods or a price ceiling.

A Guide to Writing Internal Assessment Commentaries

Structuring an internal assessment

When writing the IA a common misconception by many IB students is that the task involves simply summarising or paraphrasing the article. Instead, examiners are looking for evidence that the candidate has related the article to the economic theory that they have learnt during their course. Try to remember that the aim of each commentary is to demonstrate your ability in the subject. Try to think very carefully about what you intend to include in your commentary and not write anything which will not directly lead to marks from the criteria. Quotes from the article are good and should be included but must be short in length – no more than 2 sentences in length. One short sentence in length is better still.

Your commentary is about a deep understanding of one part of the course so when you start writing your commentary think first about what is the appropriate economic concept or theory and stick to this – do not jump around between topics. For instance do not start writing a commentary about international trade and then dedicate paragraphs to the impact on national income. This is because they are separate sections of the course and each commentary needs to be based on a separate section of the course – microeconomics, macroeconomics and International / development economics.



The structure of the commentary

When submitting your commentary you will include a cover page, the article itself and then your IA. The cover page should include the following information:

- the title of the article
- the source of the article, including the date accessed if extracted from the Internet
- the date of the article
- the word count of the commentary
- the date the commentary was written
- the relevant section of the syllabus

Structuring your work

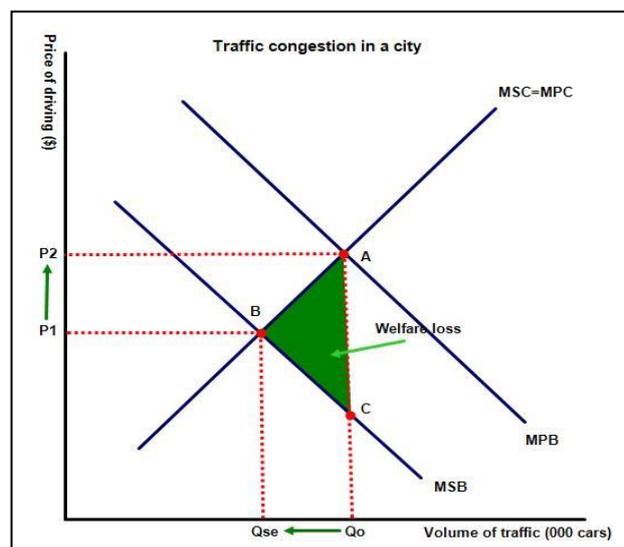
Start with your **introduction**, stating briefly what the central theme of the article is and this is also where you include your definitions and command words. This will be similar to the paper 1 examination where candidates start by writing the important key terms. Unlike the exam, however, you are not required to write down a list of definitions. Instead, candidates are expected to use terms 'appropriately'. Only two marks are available for this section. Definitions of words should only be included after you have used them in your work. Use only economic terminology so rather than saying buyer or customer use the word consumer, expenditure rather than spending, utility rather than pleasure e.t.c.

The main skill of writing the commentary is to focus on one really important economic concept and develop it. If there is more than one economic theory in the article, stay focused on this rather than getting distracted by other areas of the syllabus. The IB allows you to highlight which of the features you are choosing to focus on when completing your work. This should be around 100 words in length.

Draw the diagram

After your introduction you should draw your main diagram. This should be given a title and be fully labelled. None of this is included in your word count. The diagram that you choose should be the problem explained in the article. The diagram should also include your solution to the problem.

The diagram to the right, for example, relates to an article focusing on traffic congestion in a city. The diagram includes the social costs of the externality and the size of the welfare loss. The equilibrium level of output (Q_0) and the socially efficient level (Q_{se}) are labelled.



Include in your diagram the following:

- a full title such as, 'The impact of traffic congestion in a city'
- label each axis and each line or curve. Do not simply write price and quantity, write specific prices and quantities included in the article and label each axis e.g. price of petrol (\$), quantity demanded and supplied of petrol (litres)
- In complex diagrams you might also find it useful to allocate a letter to key intersection points. This will make it easier to refer back to them later in your explanation.
- lastly, shade in areas or shapes in your diagram, for instance the welfare loss as a result of the traffic congestion.

Explain your diagram (200 words)

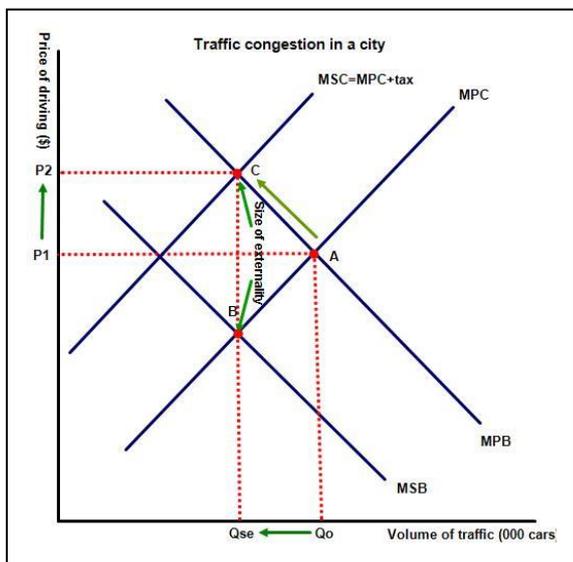
This should be a full explanation including how the key concepts work. Start from the basis that you are trying to explain your diagram to somebody who is not an expert in the subject. Describe the diagram step by step. For example in the diagram to the left we have illustrated how a tax on cars could provide a solution to a city's congestion problems. The imposition of a tax could be described as follows:

The government can place a tax on car journeys in the city by imposing an electronic pricing mechanism on each journey into the city. This is shown by a left shift in the supply curve from $S=MPC$ to $S=MSC=MPC+tax$, as the sales tax adds to the costs of driving. At higher prices (P_2) car owners are less willing and able to drive their cars in the city. If the level of tax is set at the correct level, equal to the size of the negative externality, then the number of car journeys should fall to a more socially optimum level, represented on the diagram by Q_{se} . This policy will internalise the externality caused by traffic congestion, i.e. make the external costs to society payable by the consumer.

Sometimes both the problem and the solution can be illustrated on one diagram and at other times it cannot.

Develop Your argument (100 words)

Having explained your diagram you should now focus on developing your solution and this is where you link the article to the economic theory that you have learnt in your course. So in the example



above the article focuses on traffic in a city. However, your commentary should focus on the concepts of externalities and how governments may internalise the externalities rather than the traffic itself.

Continuing from the example above we could say: *The size of the tax should be equal or greater to the size of the negative externality. For instance if the government calculates that congestion in the city creates 100 million \$ per day in external costs and there are currently 10 million cars entering the city, each day, then the size of the tax should be \$ 10 per day.*

Evaluation (250 words)

Evaluation means that you should evaluate your solution to the problem, including looking at the strengths and weaknesses of the solution you have identified. As part of this section alternative solutions e.g. improved public transport should be considered and again illustrated on your diagram, by a fall in demand for car journeys in the city. A potential solution might also involve a combination of policies e.g. taxing car journeys and improvements to public transport.

Key concept (100 words)

Include a paragraph on the key concept which best relates to the article (this should be a different concept for each article) and explain how the concept is relevant to the article in question. For instance, if you were writing the article above (on market failure) you choose the key concept of **Efficiency** and your paragraph might be: *'This exemplifies how governments may choose to apply an indirect tax to demerit goods, with the aim of reducing externalities so that allocative efficiency is reached or at least the level of allocative inefficiency is reduced. To maximise its effectiveness the tax should also be implemented in conjunction with improvements to public transport, with the aim of reducing MPB closer to the MSB'.*

Conclusion

Finish with a concluding sentence or two and then the bibliography. The bibliography, as with the title page and diagrams e.t.c. are not included in the word count.

Understanding the assessment criteria

Criterion A: Diagrams

To achieve **full** marks for the first criteria, you must include relevant, accurate and correctly labelled diagrams, with a full explanation. Diagrams should be neat, tidy and correctly labelled and illustrate how the theory relates to the article. Each diagram should be explained in detail. Diagrams should be dynamic (in other words, changes must be shown on them). Copy and pasted diagrams from textbooks, which have NOT been adapted to the article will be marked down – this is also the case for diagrams which are not dynamic. Charts copied from the article do not get any marks, as these are NOT diagrams!



Criterion B: Terminology

To score well in this criteria, it is NOT necessary for all terms to be defined, but must be used accurately, showing correct understanding. The implication is that there must be a selective use of definitions and you do need not to define every economics term in the commentary. Certain terminology such as demand, supply e.t.c. are considered general terms which do not need to be defined but must be used appropriately in the commentary.

Criterion C: Application and analysis

Application and analysis are now assessed together under the new programme. The skill is for you to not only select appropriate economic concepts, but to apply these to their articles. Responses should not just describe the article and the economic theory; the two aspects need to come together, with the theory and concepts actually applied to the article. The IB guide suggests that the articles themselves should NOT contain too much economic theory as criteria C marks will be awarded to students who are able to recognise, and then explain, how economic theories could be applied to general news articles.

Analysis is the process of separating something into its constituent elements. You should be able to use economic concepts as a basis for discussion or interpretation of the article selected, by matching specific theory to parts of that article.

Criterion D: Analysis

This criteria is the new criteria added to the syllabus and is likely to have been a factor in the decision to add an additional 50 words to the word count. This will allow students to write a paragraph explaining how the article relates to the key concept chosen.

Criterion E: Evaluation

This criterion assesses the ability to make judgments based on economic concepts and theories in the context of the real-world examples provided in their articles. In other words judgements need to be supported with economic theory, not merely the student's own opinions. The basis for the judgments must be based on the synthesis of the analysis and arguments made in the commentary; in other

words the student is looking for combination of arguments and supporting economic concepts to justify conclusions and judgments.

Criterion F - Rubric requirements (3 marks)

- Within word count (800 words)
- Sources are clearly referenced
- Cover sheet is present
- All three articles must come from different sources
- Choose articles from different parts of the syllabus (microeconomics, macroeconomics, international economics, development economics)
- Each article must be less than 1 year at the time of writing the commentary.

Once all three commentaries are completed, you will be given a summary portfolio cover sheet for the final portfolio. When the final portfolio is assembled, it will include the summary portfolio cover sheet, three articles and three commentaries.

DO NOT WRITE YOUR NAME IN ANY COMMENTARY – they are marked anonymously and digitally.

Discussion and support

It is a good idea to discuss the work you are doing for the portfolio with your teacher, and to seek advice and information. You will not be penalized for seeking guidance!

Advice

As part of the learning process, your teacher can give you advice on a first draft of each portfolio commentary. This advice can be either verbal or written and will suggest how the work could be improved. However, your teacher is not allowed to extensively annotate or edit your draft. You may rewrite your commentary in line with your teacher's suggestions but your teacher may not advise you on more than one draft.

Frequently Asked Questions

What type of stimulus material should I use as extracts for the commentaries?

The extracts should be from a newspaper. You should not use a blog for your source. You are advised not to choose articles from *The Economist* magazine, since the economic analysis will have already been done, leaving you with little to add. Articles from magazines tend to be too long. If you find an article from *Reuters* or *Yahoo News*, please look a little longer to find the article in an actual newspaper, as these are not exactly newspapers.

Which web sites are appropriate for extract selection?

Newspaper web sites are the only appropriate sources.

How long should an extract be?

In theory, extracts may be any length. Regardless of the length, you should highlight or underline the specific areas of the extract that you have selected for discussion. You are advised to choose articles that print on **no more** than one and a half pages in a 12-point font. On page articles are best. You should copy the article into a separate word document in case the article is removed from the internet. Be sure to include the name of the publication and the *url* address on the word document.

Can the extract be in any language?

The article or material used for the extract should be written in English. Other languages may be used but you **must** provide an exact translation of the relevant sections.

How much feedback can the teacher give?

Your teacher will set internal deadlines for the submission of the final version of each commentary. These are compulsory deadlines. At this point commentaries will be collected and will not be available for further editing.

How important is it to meet the word limit requirements?

Vitally important! The word limit requirement is **exact**. Each commentary must have a maximum of 800 words – there is no minimum word length.

Evaluation

What does it mean to evaluate economic theories in the context of real-world examples in criterion E?

Evaluation implies a judgment of a theory and an application of the theory to a given situation, with some critical awareness. Evaluation can be done in different ways, but there are several hints. Evaluation may be carried out whenever you do any of the following, **coming to a reasoned conclusion**.

The following offers some suggestions as to how you might show evidence of evaluation in your work:

Identify which factor is the most important in a list of reasons, costs, benefits, etc. and then justify your choice. For example, *“according to the article, the most important cost of inflation is its effect on investment because . . . ”*

Compare and contrast the short term implications with the long-term implications of an event. For example, *“This article considers the short run effects of the increased costs of capital for Canadian firms. However, in the long run, total costs are likely to fall in the long run as a result of the current levels of investment.*

Look at an economic ‘event’ or policy from the point of view of different ‘stakeholders and make a judgment about the relative effects. For example, *“There are clearly a number of negative consequences of the reduction in EU subsidies on the British milk farms identified in the article. However, in terms of the global allocation of resources, the effects can be considered positive. Non-EU milk farms will have the opportunity to gain valuable market share. Furthermore, the reduced spending on farming by the EU will free up resources to spend in other important areas, such as the development of ‘green technologies.’”*

As in the example above, refer to the extent to which resources have been allocated efficiently (after all, economics is all about the allocation of resources!

Consider the advantages and disadvantages of an economic ‘event’ or policy and come to a judgment about the relative merits or problems. For example, *“The decision to raise the indirect tax on petrol has presented households and firms with a number of different advantages, as outlined in the article. In the end, it can be concluded that the decision was a positive one because ... ”*

Look at the (implicit) assumptions behind the theories that you are using. These assumptions may not be valid in the context of your article. Remember that the conclusions drawn from applying economic theory often rely on the *ceteris paribus* assumption. In reality, this assumption cannot be made, since we cannot keep everything else the same in the real world. For example, you might look at an article about a bumper crop leading to a massive increase in the supply of cotton. Economic theory suggests that this will lead to a fall in the price of cotton, *ceteris paribus*. However, if at the same time there has been a significant fall in demand due to the world recession, then the impact of the increased supply might be very small, if there is any effect at all.

Another assumption that is good to question is the assumption that the main goal of firms is to maximise profits. This may not be the case in your article, and so while you can present the theory and explain the outcomes suggested by the theory, this may not actually be the case in your article.

Consider any elasticity values that might be implicit in the article. For example *“The price of corn tortillas has risen in Mexico, and the article refers to the enormous problems that this is creating for Mexicans. While all Mexicans will feel the effect of the price rise to some extent, the impact will be much greater on low income people, whose staple food is the corn tortilla. This makes their demand for tortillas very inelastic. Even though the price has increased, their demand falls by a proportionately smaller amount, and so their total expenditure on corn tortillas increases, leaving them with less income for other goods and services.”*

Consider why the theories that you have applied do not provide a full explanation of the situation described in the article. For example, *“Economic theory suggests that an increase in indirect taxes is regressive, putting greater financial pressure on lower income families. It is therefore unclear why the government is choosing to increase indirect taxes at a time when income inequality is already rising.”*

Consider the validity of the theory in the context of the article that you are analysing to come to the conclusion that what economic theory predicts may not be what happens in reality. *“Given the disadvantages associated with the anti-competitive behaviour displayed by the firms in this case, it is very positive that there is a competition commission to regulate the behaviour. However, it is possible that in reality, the commission has little power to prevent the price-fixing since it is so difficult to prove.”*

Identify any ideological underpinnings of arguments made in the text (the most obvious of these is related to the debate about whether resources are best allocated through the market mechanism or whether intervention is desirable). For example, an article about the role of fiscal policy in stimulating an economy is likely to imply some debate between Keynesian (interventionist) thinking and neo-classical (free market) thinking.

Possible phrases and sentences to use when evaluating:

1. This theory does not account for the . . .
2. On the other hand...
3. The extent to which this is likely to happen depends on . . .
4. In the short term . . . However, in the long term . . .
5. The most important cost is...., because
6. Factor X is somewhat less significant than factor Y because . . .
7. Other stakeholders such as...
8. In reality, the theory may not hold true, because...

Exemplar portfolio

Commentary 1

Title of the article: *LED Streetlights Bring Cost Savings, and Headaches, To Colorado Cities*

Source of the article: Colorado Public Radio online site

<http://www.cpr.org/news/story/ledstreetlightsbringcostsavingsandheadchestocoloradocities>
(Accessed 20 February 2017)

Date the article was published: 15 September 2019

Date the commentary was written: 17 March 2020

Word count of the commentary: 792 words

Unit of the syllabus to which the article relates: Microeconomics

Key concept being used: Efficiency

Article

LED Streetlights Bring Cost Savings, And Headaches, To Colorado Cities

The city of Denver is in the midst of a nearly \$2 million project to replace lighting poles, fixtures and bulbs on the 13-block 16th Street Mall. On their way out: High-pressure sodium lights that have an orange hue. On their way in: White LEDs. “These street lights are about 30 years old. It was time for an upgrade,” said Denver Public Works spokeswoman Heather Burke. “Technology changes. It was time to change with it,” Denver planned for years before converting the iconic 1970s-era light fixtures along the 16th Street Mall sidewalks to LED lights. They meet new guidelines issued this June by the American Medical Association (AMA).

Across the country, more than 10 percent of outdoor lighting is powered by LEDs. Because the energy savings can be as much as 50 percent, many cities want to make the change. But there are also health implications to consider; LED lights that appear too blue can suppress melatonin production, which can lead to increased diabetes and depression.

The newer LED lights cost the same, provide the same cost savings and last as long as older versions, so “there’s absolutely no reason to put in bad lighting,” said Dr. Mario Motta, who serves on the AMA’s Council on Science and Public Health. “You can put in good lighting.”

Smarter Technology

In June, the AMA issued three core guidelines for cities. It suggested using lights that are 3000 degrees Kelvin or below, referring to the color temperature of lights, where lower numbers appear warmer. Most older versions of LED streetlights installed before 2016 were 4000 Kelvin or above.

The AMA also advised cities to properly shield LEDs to reduce glare, and to make lights dimmable. Professional groups including the Illuminating Engineering Society criticized the guidelines as too specific. The U.S. Department of Energy pointed out that blue light is not unique to LEDs. Lighting designer Nancy Clanton of the Boulder-based firm Clanton & Associates said the technology that comes with LEDs can offer cities new options. Clanton has helped design LED streetlights for a number of cities including San Diego and Anchorage. In San Jose, she worked to install smarter technology that allows the city to dim street lights. "Right before the bars close, they increase the lighting level so that everyone knows it's time to go home, and then they decrease it back down again," she said.

This dimming technology will be installed in Colorado Department of Transportation lights in the coming years. Dimming is also possible on new lights Clanton's firm helped design for the 16th Street Mall. Denver Public Works spokeswoman Heather Burke said the poles and globe lights will look the same to most. But there's one noticeable change. Designers have restored a halo of lights that has been dark for years; lost when Denver planners switched light bulb types decades ago. "The twinkle rings, you can see that ring up there. On the old lights they were inoperable for a long time. So those are restored now. And it's going to create a brighter more inviting light for folks," she said.

The AMA guidelines were a challenge for cities that had already invested time and money converting to LEDs. Some cities like Lake Worth, Florida, changed course and opted for warmer LED streetlights. For Ouray, on the Western Slope, which installed LEDs in 2009, the AMA guidelines released this year were just another bump in a long road adjusting to the new technology. City Administrator Patrick Rondinelli said Ouray was the first in the state to make the move. A huge selling point was preserving darker night skies.

"In Ouray we're very fortunate. We can actually still see the Milky Way. You get to Denver, you can't see that anymore," he said. But since 2009, Ouray has noticed a few hiccups as an early adopter of LED technology. LEDs cast a more narrow light pattern compared to other lights. After installation, suddenly large sections of neighborhood blocks went dark. Only the intersections -- where the LED street lights were placed - appeared lit.

That's a problem when you have bears walking down side streets. "As our law enforcement are trying to chase bears around and get them out of the community, they have a hard time seeing a lot of that," said Rondinelli.

Rondinelli said he doesn't know what to make of the recent AMA guidelines. Overall, citizen feedback has been positive and cost savings have helped the city's bottom line.

"We've had some lessons learned along the way. But there's no regrets," he said.

Since LED technology changes so quickly, there may actually be a benefit in moving slowly.

If a proposed budget item is passed, Fort Collins will swap about one-third of its streetlights to LEDs in 2017 and 2018.

Fort Collins Engineering Manager Kraig Bader said the city hopes to install 3000 and 4000 Kelvin lights with varying brightness depending on how large and busy streets are. It plans to study the results before converting the rest of the city's lights. "In essence we're going slow to go fast later on," he said. (Colorado Public Radio, Sep 15, 2016) <http://www.cpr.org/news/story/ledstreetlights-bringcostsavingsandheadchestocoloradocities>

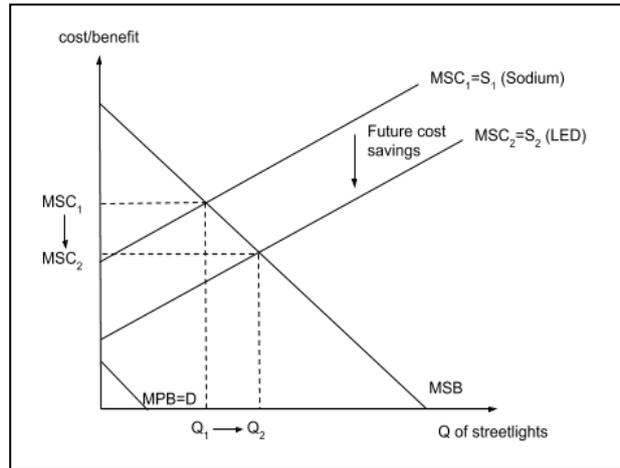
Commentary

Many problems are associated with the economic evaluation and provision of public goods. How should communities proceed with the installation of LED streetlights in order to ensure that there is allocative **efficiency**, with the social surplus being maximized where marginal social cost=marginal social benefit (MSC=MSB)?

Streetlights are public goods because they are non-rivalrous and non-excludable. This causes complications when attempting to analyze their advantages (Figure 1).

Figure 1: Cost/benefit model for sodium and LED streetlights (right)

The MSC1 curve represents the supply curve of sodium streetlights. The marginal private benefit (MPB), or demand curve for streetlights, does not intersect with the MSC curve because streetlights are public goods. This signifies that the free rider problem is occurring; no-one (or, in reality, very few people) will buy the good because they are all waiting for someone else to buy it. However, the city government ought to pay for these goods, as the MSB of streetlights is high. Before the implementation of LEDs, the optimum or efficient output was Q1 where the MSB curve intersects the MSC1 curve.

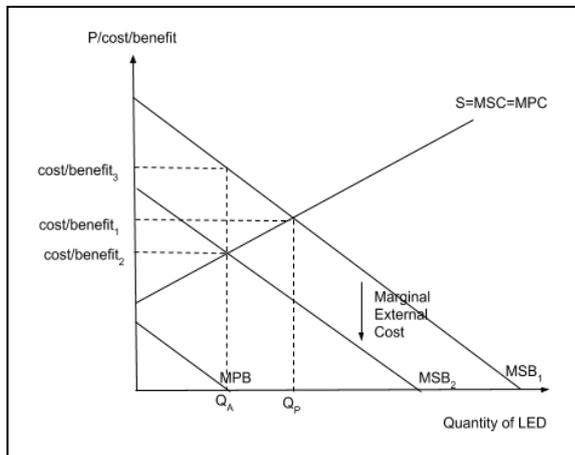


Although the article mentions that LEDs “cost the same”, the MSC2 curve for LED streetlights is below the MSC1 curve. This is because private costs are lower, and “energy savings can be as much as 50 percent”, signifying that the costs of using the lights, for many years after implementation, will decrease significantly.

Therefore, the MSC curve will drop. Simultaneously, the efficient quantity of LED streetlights the city ought to acquire will increase from Q1 to Q2. From the diagram, it can be seen that the city can reduce the costs spent on streetlights and at the same time obtain more. The extra lights can be stored until some need to be replaced, implying that costs in the budget for future purchases of the

replacement of lights can also be saved. However, the disadvantages of LED are associated health problems, namely an external cost of consumption (Figure 2).

Figure 2: Negative Consumption Externality of LED streetlights (left)



Because streetlights are public goods, the D (MPB) curve has been shown to be almost irrelevant to the model. Instead, the externality (“health implications” of “increased diabetes and depression”) is shown by the downwards shift of the MSB1 curve to MSB2.

The marginal external cost notated in the diagram

supposedly measures the per unit negative impact of individual health problems on society.

The diagram shows that the efficient quantity of LEDs is not QP (initially predicted quantity), but QA (actual quantity). It also implies that in order to dissuade cities from implementing harmful LED lights, the efficient “price” of the LED lights at QA will not be *cost/benefit*₂, where $MSB_2 = MSC$, but instead at *cost/benefit*₃.

This diagram supports Fort Collins’ argument for changing only part of the city’s streetlights to LED lighting. It illustrates that because of the negative externality, LED lighting, while apparently more “cost-efficient”, has problems. However, the negative externality is probably not so large that LED lighting should be completely eliminated from the city government’s options. It makes sense for Fort Collins to “swap one third of its streetlights to LEDs”. Furthermore, Fort Collins mentioned that they hope to “install 3000 and 4000 Kelvin lights with varying brightness” and “study the results” before making further decisions about whether they will replace the rest of the city’s lights. This exemplifies how communities may use economic models to assess the advantages and disadvantages of public goods, with the aim of improving the well-being of their citizens and reaching allocative **efficiency**.

However, there are also many limitations to the models above. The models are all static, and do not reflect development of LEDs; an example of rapidly improving, new and clean technology. Research has probably been conducted in order to reduce harmful blue light, and costs of the lights have also been reduced. As the article suggests, the cities have probably taken measures to reduce negative impacts, such as warmer lights, shielding and dimming.

Additionally, more variables should be considered. For instance, the article mentions positive externalities of consumption of LEDs due to the ability to preserve darker night skies. There are also problems associated with LED light patterns being narrow and therefore posing danger of bear attacks. The city must consider different aspects because LEDs are public goods which need to benefit citizens, not only the city budget.

Finally, all the curves and points on the models are qualitative; although they reflect directional shifts, it is impossible to determine the monetary cost of negative and positive externalities. Therefore, applying corrections based on these static models will be unrealistic.

In conclusion, analysis shows that installation of LEDs in some streetlights will save costs while minimizing negative externalities. However, in order to ensure that allocative **efficiency** is improved, the city government should closely monitor effects on society and citizens’ feedback to make decisions based on reality rather than just on the abstract models.

Commentary 2

Title of the article: South Korea looks to stimulate economy with budget increase

Source of the article: Financial Times online site

<https://www.ft.com/content/3f9bf892-aa64-11e8-94bd-cba20d67390c>

Date the article was published: 15 September 2019

Date the commentary was written: 17 May 2020

Word count of the commentary: 790 words

Unit of the syllabus to which the article relates: Macroeconomics

Key concept being used: Intervention

South Korea looks to stimulate economy with budget increase

Additional \$420bn in spending earmarked as flailing economy weighs on Moon's ratings

South Korea has proposed its largest budget increase in a decade as it seeks to boost a flailing economy that is weighing on the approval rating of President Moon Jae-in. The finance ministry on Tuesday called for more than Won470tn (\$420bn) in spending next year, up almost 10 per cent from the Won430tn allocated for the current year and the biggest year-on-year jump since the aftermath of the global financial crisis in 2009. As tensions with North Korea have subsided this summer, the economy has emerged as a top priority for Mr Moon, who amid sliding approval numbers has demanded his ministers do more to improve the situation. The government has forecast annual economic growth of 2.9 per cent this year, although independent analysts are less optimistic.



A recent report from Goldman Sachs downgraded its forecast to 2.7 per cent. But more pressing for Mr Moon are the anaemic jobs data. Tackling unemployment — particularly among the youth demographic — and creating jobs have been core planks of Mr Moon's economic policy since he was elected last year. Yet recent jobs data showed only 5,000 new positions were created last month — the smallest monthly gain since January 2010 when the country was buffeted by the global financial crisis. Recommended North Korea nuclear tensions South Korea economic plan with North risks US ire When in May the country created only 70,000 jobs, the finance minister called the development “shocking”. At the core of the issue is the country's competitiveness. Manufacturing and heavy industries that were once the lifeblood of the South Korean economy are haemorrhaging jobs amid cut-throat competition from Chinese rivals. The situation is now beginning to take a toll on

Mr Moon, whose approval rating fell to 56 per cent this week, the lowest since his election, on concerns over his economic policymaking.



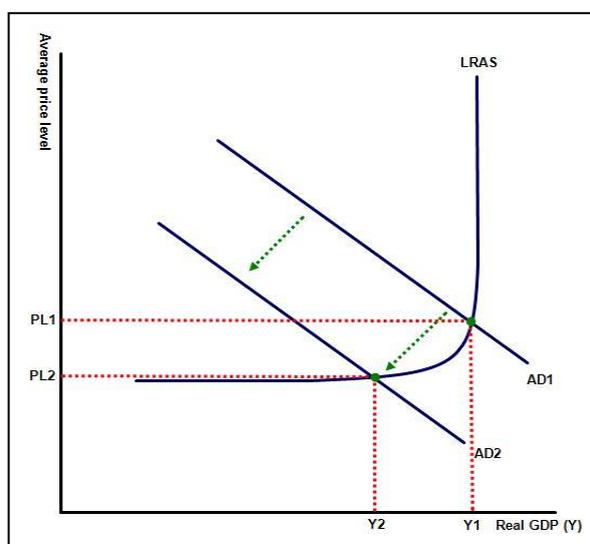
On Tuesday, the finance ministry moved to address the issue with the budget proposal, which includes a 22 per cent jump in funds allocated to create jobs. Social welfare and education spending will increase 12 per cent and 10 per cent, respectively. “Thanks to higher revenue from robust tax collection, we are expanding the size of fiscal expenditure to add jobs and to boost the dynamism of the economy,” said Kim Dong-yeon, South Korea’s finance minister. The proposal will now be sent to the National Assembly, where it must be approved by lawmakers.

Lee Byung-tae, a professor in the college of business at KAIST, criticised the government’s plans as “nothing new”. “The Moon Jae-in administration doesn’t seem to have learnt the lessons from past administrations. An expansionary fiscal policy is like throwing water on thirsty soil — it cannot resolve the real problems like job creation. “What is required is more structural change to the labour system,” he said. For many economists, South Korea is facing a make or break moment and must fundamentally reorient its industries towards “value-added” technologies or risk being hollowed out by competition from China and India.

Student response

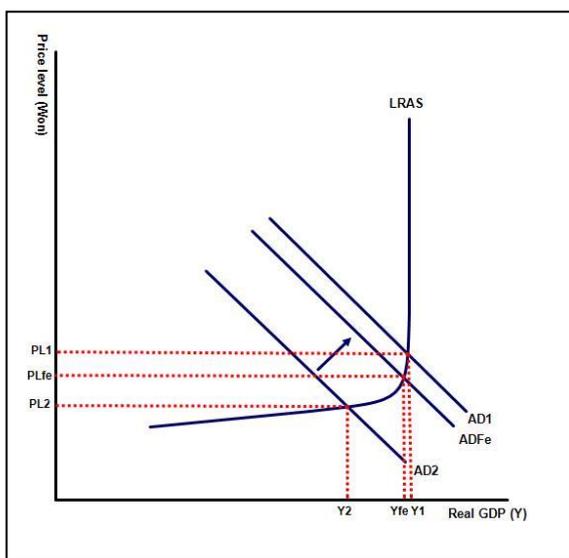
The article 'South Korea looks to stimulate economy with budget increase' outlines the South Korean government's plan to increase spending by \$420 billion as expansionary fiscal policy, which is government change to taxation or spending aimed at increasing the aggregate demand of the economy.

The first diagram illustrates the level level of demand deficient unemployment in the economy resulting from a fall in AD and a recessionary gap in the economy, represented by the gap between Y1 and Y2. As an attempt to close this output gap the government has set aside funds to 'create jobs' and address the demand deficient unemployment in the economy - when a significant population of the labour force are looking for work but unemployed as a result of falling aggregate demand, depicted on the diagram by a left shift in AD1 to AD2. The article alludes to this decrease in AD when describing the issue of the 'nation's competitiveness' and 'concerns over.....economic decision making', which together may contribute to lower exports, business investment and consumer spending. Aside from inducing deflationary pressure (P11 to PL2) this may also reduce the



GDP of the economy from a point of full employment (Y_1) to a lower GDP (Y_2) which due to the decrease in output reduces the demand for labour, causing the demand deficient unemployment.

Unemployment may harm the economy by reducing disposable incomes, government tax revenues and increasing unemployment benefits and socio-mental issues such as family breakdown and loss of self-worth. More troubling, however, South Korea faces high unemployment 'among the youth demographic', which under utilizes a potentially productive demographic of the economy and undermines long term planning ability for Korea and its youth. Preventing youth unemployment may be crucial in insuring a healthy tax base in the long run, especially if the country faces an aging population. If wage levels are inflexible the additional \$420 billion in South Korean government spending to 'boost a falling economy', would be necessary to close the recessionary gap and curb unemployment.



The potential effects of the stimulus package are illustrated in the second diagram to the left.

The projected AD increase due to the government spending is represented in the diagram by the shift from AD_2 to AD_{Fe} , potentially causing an increase of real GDP from Y_2 to Y_{fe} , nearing towards GDP at full employment - Y_{fe} . The increased output may cause firms to demand more labour, consequently lowering the unemployment rate.

Addressing the issues of unemployment through fiscal policy is advantageous as it allows the government to target sectors which may increase job creation the most. Also the stated 'education spending' may have interventionist supply side benefits, potentially increasing potential output and

improving the quality and skill level of human capital, thus increasing their attractiveness to firms. Fortunately the policy is also likely to have a low impact on government debt as a result of 'higher revenue from robust tax collection' allowing for greater fiscal expenditures.

However, the increased tax collection may hinder the efficiency of the policy's ability to induce AD growth as increased injections could be offset withdrawals from taxation, resulting in an insignificant net change to AD. Additionally, aligning the size of the fiscal injection to achieve a full employment GDP level (Y_{fe} in diagram 2) may be difficult. For instance, over the time period needed for the government policy to be 'approved by law makers', the economic environment may have shifted significantly. Also the multiplier effect of a spending injection of such large magnitude, if larger than expected, has the potential to be inflationary. This may be counter productive at curbing unemployment as it can worsen business uncertainty and add to menu costs, possibly stammering their investment and demand for labour.

Furthermore, the article suggests that 'manufacturing and heavy industries...hemorrhaging jobs amid cut throat competition from Chinese rivals' may be a predominant source of unemployment - indicative of structural change in South Korea's key industries due to losses in international demand. In this circumstance, the aforementioned possibility of high inflation may in fact weaken those firms international competitiveness, accelerating their decline and increasing unemployment.

In this example the South Korean government has made the decision to **intervene** in the economy because they believe that if left up to free market forces then the economy is likely to remain in a state of permanent stagflation. Such a policy suggests that the government is not prepared to wait indefinitely for the economy's automatic stabilisers to take effect and instead requires direct **intervention** to stimulate economic activity in the economy.

That said, despite the article equating the policy to 'throwing water on thirsty soil', it does not conclusively substantiate how the spending aims to create jobs. So while the article reasonably suggests the governments need to consider enacting structural improvements to the economy due to what seems to be a multifaceted, partly structural issue for the South Korean economy, the government spending may not necessarily be without merit, especially in the interim period. Granted the government does not neglect official responsibility or primarily concerned with President Moon's 'sliding approval numbers', it could be opportune for them to spend in the circumstances if the government is exacting greater tax revenues. the spending could ultimately accrue merits above employment creation, spending on education and healthcare may benefit welfare in the long run.

Commentary 3

Title of the article: *Rupee has weakened against all major currencies*

Source of the article: The Express Tribune

<https://tribune.com.pk/story/1619928/2-rupee-weakened-major-currencies/> (Accessed 10 February 2018)

Date the article was published: 28 January 2018

Date the commentary was written: 20 March 2018

Word count of the commentary: 799 words

Unit of the syllabus to which the article relates: The Global Economy

Key concept being used: Change

[*Rupee has weakened against all major currencies*](#)

By Salman Siddiqui, published: January 28, 2018.

KARACHI: Pakistan's rupee has depreciated by a much larger scale than what has been widely believed because of continued weakening of the US dollar against a basket of major currencies in the global currency war, but its impact is not being reflected in the country.

“The rupee has depreciated 10%...due to weakening of the US dollar against the pound and euro (since December 10, 2017),” State Bank of Pakistan (SBP) Governor Tariq Bajwa said while announcing the bimonthly monetary policy on Friday.

On the contrary, the rupee's depreciation, when seen only against the US dollar, stands at 5%, which does not reflect the real picture in the current world economic scenario where the dollar is falling in the US-China currency war as the two countries try to increase exports through depreciation of their respective currencies.



The SBP increased the benchmark interest rate by 25 basis points to 6% on Friday after maintaining the status quo for 20 months when the rate remained glued at 5.75% since May 2016.

“A number of central banks have started to adjust their policy rates upwards, which has adversely affected the rupee-interest rate differentials vis-a-vis other currencies,” Bajwa said. The governor, however, found the rupee “near the equilibrium” against a basket of world currencies.

There were 16-18 different world currency models which the central bank reviewed to find a true value of the rupee. These included the country's competitors in world export markets as well.

Strong Chinese and Indian currencies help Pakistan beat the competitors on some fronts in world trade, he said.

According to forex.pk, the rupee has depreciated around 10% each against the euro, UK pound sterling and Chinese yuan in December 2017 when the central bank allowed the currency to shed around 5% of its value to stand at Rs110.64 to the US dollar in the inter-bank market.

Since then, the rupee's value against the dollar has remained stagnant, but has kept falling against other world currencies.

Forex Association of Pakistan President Malik Bostan, however, added that demand for the US dollar was continuously growing in the open market, resulting in further weakness of the rupee.

The rupee closed at Rs112.80 to the US dollar in the open market compared to Rs107.80 before the depreciation in December 2017.

It weakened to Rs140.45 to the euro compared to Rs127.20 earlier. Against the pound sterling, the rupee fell to Rs160.75 compared to Rs146 earlier. It depreciated to Rs17.55 to the Chinese yuan compared to Rs16 prior to December's depreciation.

Rupee should appreciate

Replying to a question, Bostan said the rupee should have appreciated against the depreciating US dollar across the world.

However, he pointed out, that was not happening because the dollar was not fully floated – freely available and not in use in local trades – in Pakistan due to the country's limited foreign exchange reserves. He said the dollar was weakening against world currencies since some of the countries and world investors were relocating their investments from dollar to gold and international bonds.

Student commentary

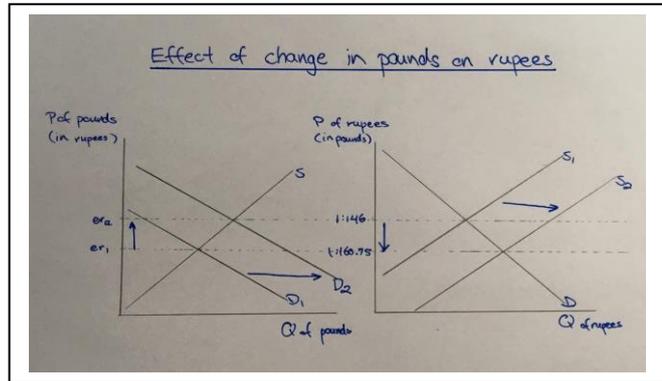
This article discusses how the decisions and currencies of other countries have led to the Pakistani rupee's depreciation. The **changes** in the exchange rate are a result of several different forces which Pakistan cannot control. The **changes** will also have effects on Pakistan's economy which could leave it better off or worse off.

The rupee began depreciating due to other countries' central banks raising their interest rates. For example, suppose the Bank of England increases their interest rates. As the increased interest rate acts as an incentive for more savings in the UK, those with savings in Pakistan begin to **change** their rupees into UK pound sterling.

The diagrams to the right show these **changes**. As more savers begin purchasing pounds, the demand increases, shifting rightwards from D_1 to D_2 . This increases the exchange rate of the pound from er_1 to er_2 . For rupees, the supply will increase, shifting rightwards from S_1 to S_2 . This causes the

exchange rate of the rupee to fall from 1:146 to 1:160.75. This effect is further strengthened due to multiple central banks raising their interest rates.

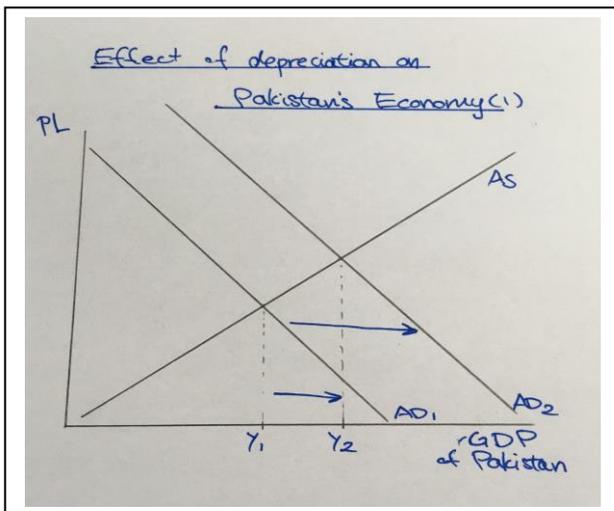
A growing demand for the US dollar can also be held accountable for the rupee's depreciation. This works in a similar way to increasing interest rates. As demand for the dollar increases, supply for the rupee will also increase to further depreciate the rupee.



The main effect of a depreciated currency is the fall in export prices in terms of other currencies and rise in the price of imports in terms of rupees. This will lead to an increase in exports sold and a decrease in the quantity of imports bought.

The reduced price helps exports from Pakistan to become more competitive in the world market. As China and India – two major exporting countries – retain higher exchange rates, Pakistani firms have been able to gain more revenues, assuming that the demand for their products is reasonably price-elastic.

An increase in export revenues and a decrease in the payments for imports can also lead to greater economic growth. As aggregate demand (AD) includes net exports, the depreciation would lead to an increase in AD.



The diagram to the left shows this effect as a rightward shift in AD from AD₁ to AD₂. This increases Pakistan's output from Y₁ to Y₂. The increased output will probably lead to a rise in employment levels as firms need more workers.

The depreciation of the rupee would also help Pakistan's limited foreign exchange reserves. Foreign exchange reserves are assets held by central banks in the form of foreign currencies. With the increased amount of exports, there will also be greater inflows of foreign currencies. With

increased foreign exchange reserves, Pakistan will be better able to control the rupee's fluctuations in the future.

Finally, the depreciated currency and lowered price of exports would also begin to move Pakistan's trade account towards a surplus. This means the country has a greater value of exported goods and services than those imported. If the current account, of which the trade account is the major part, improves, it would allow for Pakistan's financial account to be in a deficit, thus increasing the potential for buying assets held in foreign countries.

On the other hand, the depreciation can also be considered harmful to Pakistan's economy.

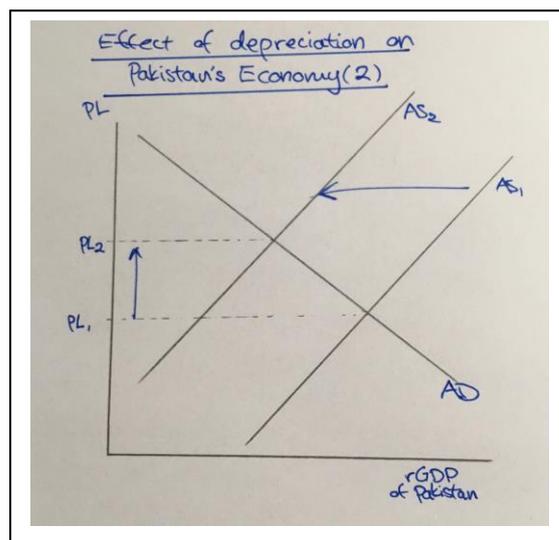
First, the effects of a depreciating currency could lead to inflation. As shown earlier, the increase in exports leads to an increase in AD. Were the economy already producing near their potential level of output, this would cause demand-pull inflation.

Furthermore, the increased prices of imports would raise the cost of production for firms which import raw materials or intermediate goods.

As costs rise, the aggregate supply (AS) of Pakistan will shift upwards. The diagram to the right reflects this **change** with a leftward shift from AS_1 to AS_2 . This would raise the economy's price levels from PL_1 to PL_2 , causing cost-push inflation in addition to the demand-pull inflation created by an increased output.

Although firms benefit from increased export revenues in the short run, this may be harmful in the long run. As profits begin to increase, some firms may begin to rely on the currency's depreciation rather than working towards greater efficiency in production. Because of this, said firms will begin to have decreased sales if the rupee begins to appreciate again.

Finally, a depreciating rupee also tends to reduce real incomes for consumers assuming that their nominal incomes are unchanged. They will have to pay more to buy imported goods or goods that use imports as inputs.



In conclusion, the depreciating rupee inflicts many **changes** on the economy and on producers and consumers. Whether Pakistan will be better off from these **changes** depends on their economy's current state. The outcome can be considered positive if Pakistan is currently experiencing a recession, but harmful otherwise.

Internal Assessment Portfolio Coversheet

Economics

Checklist

The following checklist can be used to check each commentary before handing it in.

	1	2	3
Have you kept a second copy of your article and commentary for your file? Have you kept an electronic copy of the article and commentary? Have you submitted the electronic copy?			
Is there a cover sheet?			
On the cover sheet, have you noted the: Title of the extract? Source of the extract? Date of the extract? Word count of the commentary? Date the commentary was written? Section(s) of the syllabus to which the commentary relates?			
Have you included the article?			
Is the commentary within the word limit (800 words)?			
Have you highlighted the relevant parts of the extract?			
Have you checked that each article is from a different source, i.e. it is not taken from the same news media as ones you have used in other commentaries?			
Have you labelled your diagrams accurately? (With relevant information from the article?)			
Are your diagrams neatly presented?			
Have you clearly explained your diagrams?			
Have you included quotations and any numerical data from the article?			
Have you used appropriate economic terminology?			
Have you attempted to provide evidence of evaluation?			
Have you made sure that you are not repeating analysis that you have done in a previous commentary?			