1 South Africa set to introduce long-awaited carbon tax in June

South Africa is on course to put a price on carbon pollution, after the National Assembly passed a long-awaited Carbon Tax Bill on Tuesday. The tax will start at 120 rand ($8) a tonne of carbon dioxide, although various free allocations reduce the effective rate to R6-54/t, depending on the industry. In his budget speech on Wednesday, finance minister Tito Mboweni also announced funds to restructure ailing state-owned utility Eskom, which owns most of the country's coal plants. "The sustainability challenge affects us all. Climate change is real. The steps being undertaken at Eskom will allow us to expand renewable energy, and the carbon tax will come into effect from 1 June 2019," said Mboweni. The bill needs to be rubber-stamped by the National Council of Provinces and the president before it becomes law. A carbon tax was first proposed in 2010, then repeatedly delayed by industry pushback and broader political inertia. The rate at which it increases has been scaled down from 10 per cent a year in the initial plan to two per cent above inflation. Climate experts said the introduction of a carbon price was significant but its immediate impact would be limited. "South Africa re-committing in the 2019 budget speech to implementing its carbon tax by June 2019 is a welcome and key step forward," said Patrick Curran of LSE, who has been tracking the policy since its inception. "However, according to the South African government's own analysis, the current design of the tax is too low and will not do enough to meet the country's nationally determined contributions submitted under the Paris Agreement." He added: "It is crucial that the tax rate is strengthened in future reviews, starting in 2022, to support meeting South Africa's national and global climate change objectives. This has to be accompanied by a range of supporting policies, such as greater investment in renewable energy." Harald Winkler, energy and climate policy professor at the University of Cape Town, took a similar view. He also urged the government to invest the carbon tax revenues in expanding access to clean energy and retraining coal workers. "Yes, we have to make this transition away from coal and towards renewables, but there are workers and communities that depend on the coal value chain," he said. "Those [carbon tax] revenues should be used to make sure the poor are not worse off." South Africa gets some 90 per cent of its electricity and two-thirds of total energy from coal, a high emissions source. As its contribution to the Paris Agreement, it committed to peak emissions between 2020 and 2025, then plateau for around a decade and decline. Since that 2015 pledge, wind and solar power generators have started to undercut new coal plants on price, disrupting Eskom's coal-heavy monopoly. At the same time, citizens face rolling blackouts as ageing, poorly maintained coal plants fail to meet demand. Eskom, the main utility, is undergoing a restructure to separate its debt-laden generation business from its grid and distribution arms. Mboweni announced a R69 billion ($4.8bn) bailout package, contingent on the power company slashing costs. "Pouring money directly into Eskom in its current form is like pouring money into a sieve," said the finance minister. Winkler said the restructure was "good news for renewables" because independent power producers could deal with Eskom's grid operation, rather than the monopoly generator. Following on from the carbon tax, South Africa is developing a framework climate law, to build the institutions to monitor and manage emissions across economic sectors. [1]

2 Commentary

South Africa announced the introduction of a carbon tax, on a quantitative basis. Therefore, effective June 1st 2019, polluters, such as firms, are required to pay 120 rand (approx. US$8) per tonne of carbon dioxide emitted.

This is a clear example of negating a negative production externality, which occurs when a third party is affected negatively in the production, and this is not reflected in the price. In this case, manufacturing industries in South Africa emit carbon dioxide, a greenhouse gas harmful to our environment, thus causing a negative effect on the population. Negative production externalities are a type of market failure: situations where goods and services are distributed in an inefficient way. These need to be internalized with the help of government intervention, in this case, the tax.

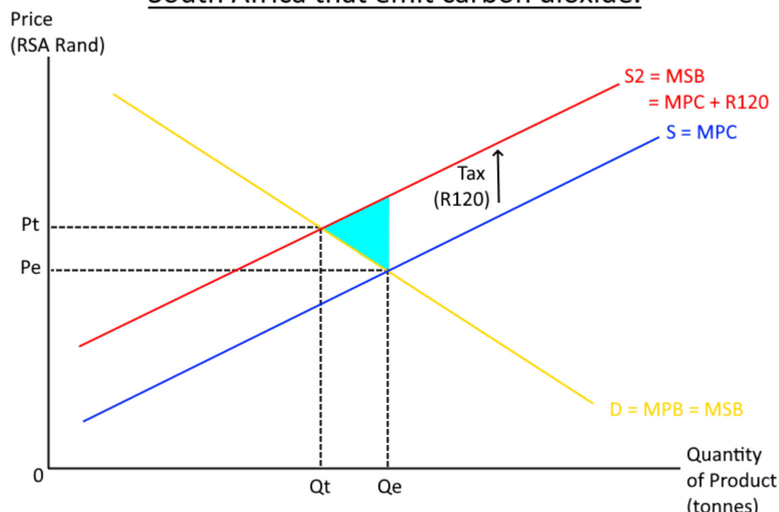

Figure 1: Market graph of various productions in South Africa that emit carbon dioxide.

Referring to figure 1, the demand curve is represented in yellow. It is equal to both the marginal social benefit, as well as the marginal private benefit, which refer to the benefit to society from the consumption of one unit of the good as well as the benefit to the consumer from the consumption of one unit of the good, respectively. The supply curve before the tax is in blue, it is equal to the marginal private cost (MPC), the cost to the firm for producing one more unit of the good. As such, the equilibrium prior to the tax is at point $(Q_e|P_e)$. The red curve is the marginal social cost curve, which refers to the cost to society that arises from producing one more unit of the good. It is above the MPC curve as the cost to the environment is higher than the cost of raw production: there is an externality. The cyan triangle represents the welfare loss, the burden to society for the market not operating at the optimum equilibrium. With the introduction of the tax, the goal is to shift the MPC curve upwards in order to meet the MSC curve.

Supply depends on the determinants of supply, and as such production costs plays a role. Due to a per unit tax on carbon dioxide emission, production costs will rise, thus causing the market supply curve to shift upwards per unit. As such the aim is to shift the market equilibrium to the point $(Q_t|P_t)$. This means selling less units at a higher price, which ultimately decreases the quantity to society's optimum level (Q_t, factoring in emission rates).

The introduction of the tax will help with the combatting of polution and climate change. A strong advantage is that it can be implemented swiftly. The tax will take effect 4 months after its announcement. Compared to other measures such as legislation, this is very fast.

However, it comes with several issues. Firsly, it is difficult to quantify the MSC curve, especially as the problem is pollution and climate change, something that is still being actively researched. The government assumes the indirect tax to be the sufficiently priced to perfectly shift the supply curve to MSC, even though they can only estimate costs; quantification is difficult. Moreover, it assumes that there are no consumption externalities, in the real world, this is very unlikely. These estimations and assumptions result in a very vague picture of the problem, and as such the effectiveness of the tax suffers. On the contrary, the short implementation time of a tax will allow frequent adjustments in the future, which can combat this.

Consumers and producers must share the price of this tax, which disadvantages both stakeholders. As many products are produced with carbon dioxide, these taxes could add up and severely increase consumer spending for the same products. On the contrary, consumers may see this increase in price as an incentive to live more sustainably and environmentally friendlier. Producers face an increase in production cost, which may put struggling firms out of business.

Ultimately, the tax does not eliminate pollution, going completely carbon neutral is not possible currently. 120 rand is an insignificant amount for larger firms, they can afford the tax, while smaller

firms are forced to comply. However, production costs will increase, goods produced will decrease, and the market supply curve will shift, contributing towards controlling climate change.

Therefore, to conclude, taxation is an effective way to decrease the pollution in South Africa, as total elimination is not possible. The tax is not significant enough to make a large enough impact, but nonetheless a step in the right direction. Consumers and smaller firms are the most negatively impacted.

Word Count: 744.

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1 OECD tips better economic growth for Australia

Australia's economic growth is expected improve next year, but may warrant more fiscal stimulus and a potential retightening of lending standards if the surge in house prices continues, the Organisation for Economic Co-operation and Development says. The mix between monetary and fiscal policies around the world has become "unbalanced", according to the OECD's latest biannual global economic outlook, and global growth is also expected to remain at the weakest annual growth rates since the financial crisis. In Australia, the OECD said "a more expansionary fiscal stance may be warranted given that the economy is growing well below its potential". The OECD kept its 2019 estimate of domestic economic growth at 1.7 per cent inline with its September estimate, while lifted the 2020 forecast to 2.3 per cent from its previous 2 per cent forecast. The forecasts are less bullish than the Reserve Bank of Australia's forecasts of 2.3 per cent and 2.6 per cent respectively. The Paris-based OECD warned about high debt levels in Australia, which have now reached 202 per cent of income, and that any run-up in credit growth and house prices could leave the economy vulnerable.

"Macroprudential policies may need to be tightened if lower interest rates fuel house prices, which would create imbalances and expose the economy to downside vulnerabilities," it said. "High household indebtedness means that the authorities should stand ready to tighten macroprudential policy settings if lower interest rates fuel house price inflation through a sharp pick-up in credit." Housing lending over the four months to September has grown at an annualised pace of 52 per cent, while property prices in Melbourne and Sydney are growing at an annualised 20 per cent. Treasurer Josh Frydenberg said the OECD's assessment highlighted global risks to the Australian economy. "We do face headwinds, with the OECD in its November Economic Outlook pointing out that the global outlook is 'fragile' with 'trade policy tensions since May taking an increasing toll on confidence and investment'," Mr Frydenberg said. Globally GDP growth has now been downgraded to 2.9 per cent for this year and projected to remain around 3 per cent for 2020-21. The OECD blamed "persistent high policy uncertainty and weak trade and investment" for its downgrade and said fiscal policy was needed for "unaddressed structural changes more than any cyclical shock". "There is scope and an urgent need for much bolder policy action to revive growth," the OECD said. "Should the outlook deteriorate more than we project, co-ordinated fiscal and monetary action across the G20, even allowing for the limited policy space some central banks have, could efficiently avert a recession. "The current stabilisation at low levels of economic growth, inflation and interest rates does not warrant policy complacency." It has also backed the idea of creating new government investment vehicles. "The creation of national investment funds, focused on investing in the future, could help governments design investment plans to address market failures and take account of positive externalities for society as a whole." In Australia there have been calls for a new sovereign wealth fund that would act as a low-fee public default fund for workers' superannuation. [1]

2 Commentary

Australia's Organisation for Economic Co-operation and Development (OECD) suggests a more expansionary fiscal policy to ensure growth continues.

The economy of Australia is below potential, suggestion a recessionary gap at its current state, i.e. the equilibrium is to the left of that of the LRAS. High household debt poses an issue to the economy, and as such a demand-side policy, such as in this case a fiscal policy, is called for in order to ensure further economic growth towards the potential GDP. Lowered interest rates contribute towards the social problem of inflated housing market prices. Trade tensions are lowering confidence in the economy, resulting in fewer investments. Additionally, interventionalist supply side policies could aid Australia in market failures and correct positive externalities, while ensuring economic growth.

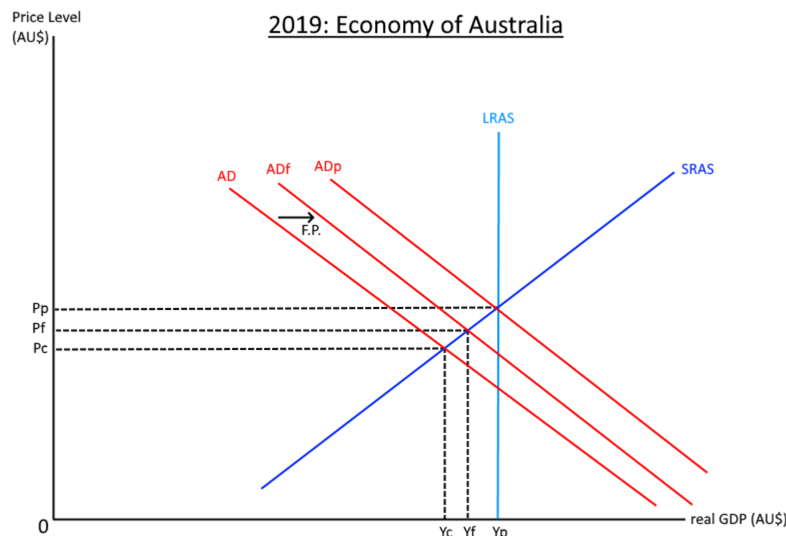

Figure 1: The Economy of Australia in 2019

Figure 1 portrays the Australian economic situation. The potential output of the economy is shown by the long run aggregate supply ($LRAS$) curve, and marked as point Y_p. Currently, the economy is in a recessionary gap. The aggregate demand (AD) is not high enough to reach the potential equilibrium located at ($Y_p|P_p$), which is where the short run aggregate supply ($SRAS$) intersects the LRAS curve. Instead, the current eqilibrium is at ($Y_c|P_c$), which is below the target output and price level. The determinants of aggregate demand are consumption, business investments, government spending, as well as net exports. This is why, with reduced consumer confidence and investment, the AD curve is leftward of the potential AD curve, labelled as AD_p on the diagram. The current fiscal (and potentially monetary) policies, as implied in the article, have been included in the AD curve.

With the help of an expansionary fiscal policy, as requested by the OECD, the government aims to stimulate one of the determinants of AD, in order to shift the curve rightwards. This new aggregate demand curve is shown as AD_f, and the result of the fiscal policy is shown as an arrow. Due to the new AD_f curve, the price level would rise from P_c to P_f. Simultaneously, the real GDP would increase from Y_c to Y_f, getting increasingly closer to the potential GDP at Y_p.

As suggested by the OECD, an expansionary fiscal policy could be the solution to the recessionary gap. Various types of fiscal policies have different advantages and disadvantages, due to the state of the Australian economy.

High household indebtness means that changes in taxes may be ineffective. Rather than spending the proportionally higher disposable income, this could be re-invested in decreasing the debts, instead of purchasing final goods/services. Similarly, an increase in taxes will decrease consumption, and will not neccessarily result in equally as high government spending.

In this scenario, government spending is the optimum solution to increasing aggregate demand in the economy. For example, subsidising construction of houses in Melbourne and Sydney. Not only does this help combat the shortage of housing, but also increases employment, further stimulating aggregate demand. Consumers will benefit from lower prices, construction companies will benefit from an increase in quantity demanded. However, this assumes that construction can be completed in a short time frame. Due to the length of construction processes, it could be that the economy is in a different state by the time many of the building projects are complete. Therefore, the unknownness poses an opportunity cost to the government; if housing subsidies are counterproductive in the long run, the money could be spent elsewhere.

The real output of the economy will benefit from the increased government spending. Australia's public debt as a percentage of its GDP is low compared to other HICs. This means that there are potentially less political pressures to minimize debt, especially since the removal of the debt ceiling in 2013. However, this speculation could also go the other way, and it could be that the government

wants to keep debt low. Moreover, such government spending may lead to crowding out, though this economic theory is debated. This is amplified by the "sharp pick-up" in credit: should the government spend so much money, the already growing demand may increase even further, pushing up interest rates. An increase in interest rates would reduce investments and consumptions, potentially damping the effect of the fiscal policy, or even completely negating it.

In conclusion, fiscal spending as a subsidy of construction in the housing market in the most problematic markets is a solution to the recessionary gap in Australia's economy. While there are limitations such as time constraints, these are outweighed by the benefits.

Word Count: 728.

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1 UK could put tariffs on food from countries with lower standards

The UK could introduce tariffs on imports of food from countries with lower food safety and farming standards than the UK, using World Trade Organization rules, the environment secretary has suggested.

"We want to ensure all our food comes from countries that meet our standards," Theresa Villiers told an audience of farmers on Wednesday. "That is what the powerful tools of the WTO do, they enable us to impose tariffs where we believe products do not meet our high standards."

The surprising suggestion, which would be highly controversial with any potential trade partners and could provoke a trade war, followed an admission by Villiers that farming would be a key component of any post-Brexit trade deal, and that the UK would face heavy bargaining from potential trade partners.

"Absolutely, there will be pressure on agriculture [in trade negotiations], there always is," she said. "Agriculture is always the last chapter to close on a trade deal."

But she vowed to uphold UK standards. "We put in our manifesto our commitment to our standards of food safety and food security, animal welfare and the environment," she said. "That's what we will put on the table."

For a country such as the UK to insist on being able to maintain its own high standards on environmental protections would be legal under WTO rules, she said.

Farmers were sceptical of her stance, however. After her speech at the Oxford Farming Conference, the hundreds of participants were asked to raise their hands if they were convinced that she would in fact protect their interests against trade partners, including the US. No hands were raised.

Rob Percival, head of food and health policy at the Soil Association, said: "Villiers's suggestion that tariffs could be placed on imports that don't meet UK standards suggests the government is looking for ways to support UK farming, but such piecemeal measures need to be part of a coherent trade policy, which we are yet to see. This policy and the ensuing legislation must ensure non-regression on environment, food and farming standards, and ensure the UK can continue to raise the bar in response to the climate and nature emergency."

Villiers refused to back farmers' demands for an independent trade commission that would rule on whether trade deals met the UK's standards, but said she would relay their views to her government colleagues and a decision would be made.

Mark Bridgeman, president of the Country Land and Business Association, which represents landowners and rural businesses, said farmers were also concerned about the transition to a new subsidy system. Under plans laid out by Villiers, farmers will be moved over the next seven years from payments based on the amount of land farmed to new subsidies based on agreements by farmers to provide environmental protections.

Villers said these agreements would be made with individual farmers based on their circumstances, which would be a huge undertaking, but provided few details of what would be involved.

Bridgeman said: "Farmers are already starting to plan for 2021 and beyond, so we need early clarity on how direct payments will be reduced during the whole transition period. There are serious risks to many farming businesses if there are major reductions in direct payments before the introduction of the new [environmental land management systems]."

Farmers at the conference also heard about some of the problems with diets in Britain, including obesity and poor health caused by a poor diet. Healthy and environmentally sustainable food should be more widely and cheaply available, said Henry Dimbleby, co-founder of the Leon restaurant chain, who is leading the government's national food strategy.

Denise Bentley, founder of the First Love Foundation food bank charity, said the problems went much deeper than blaming people for making poor choices and that poverty was "the elephant in the room" because people simply could not afford healthier food.

Campaigners want the government to make bigger interventions in the market for food, to ensure higher nutritional standards in food products. However, the food and drink industry is resistant to demands for greater regulation. [1]

2 Commentary

The United Kingdom is looking into implementing import tariffs on food products from countries with lower production and safety standards. As such, exporters need to pay a tax for every food import if this meets the UK's criteria. This is being done as a protectionist measure to decrease the number of imports of these "products [that] do not meet our high standards." Moreover, it is mentioned that the tariff is to address the commitment to food safety/security standards, animal welfare, as well as the environment. The incidence of the tariff is shown in figure 1.

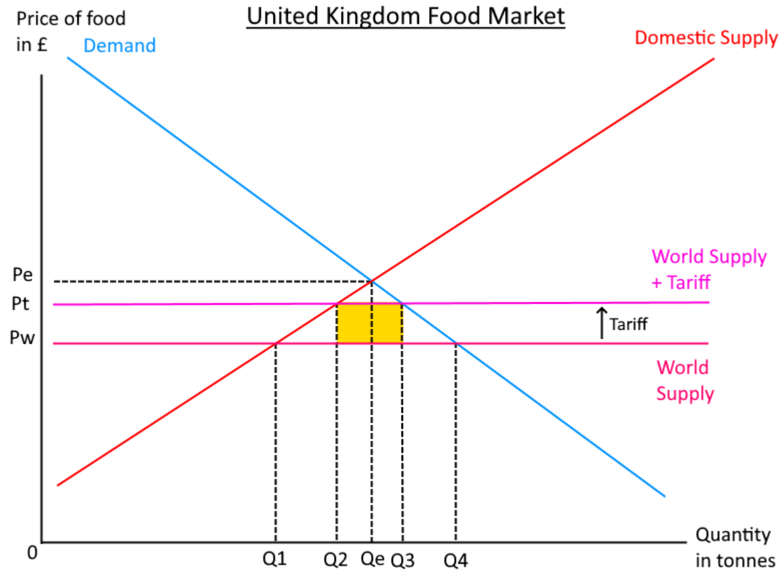

Figure 1: The United Kingdom food market

As seen in figure 1, the United Kingdom's market equilibrium for food is at $(Q_e|P_e)$. While the domestic equilibrium is at P_e, international producers can export to the UK at a lower price of P_w. As a result, United Kingdom consumers purchase Q_4 tonnes of food, at a price of P_w. Of this, $Q_4 - Q_1$ tonnes are imports, and Q_1 tonnes are produced domestically. The incidence of a tariff raises the per-unit price, thus shifting the world supply curve upwards, where $P_t - P_w$ is the tariff. As a result, domestic production increases from Q_1 to Q_2 tonnes. Imports decrease from $Q_4 - Q_1$ to $Q_3 - Q_2$. The United Kingdom consumers now purchase Q_3 tonnes at a price of P_t. The government revenue from the tariff is shown as the yellow square, and equal to $(P_t - P_w)(Q_3 - Q_2)$.

However, this diagram is a generalization of the tariff. It is unclear if specific industries and/or countries are being targeted with the tariff. Especially since under WTO rules "countries cannot normally discriminate between their trading partners" [2], whereas the article mentions the tariffs would be legal. Moreover, the tariff is not quantified, so it is difficult to determine the impact on imports and the price. As such, it is probable that not all food markets' imports will decrease in the UK. Nonetheless, the impact of the tariff will be a higher price for lower standard foods, as well as a decrease in their imports.

The introduction of the tariff causes benefit to the local economy. Domestic producers benefit from the tariff: they are able to produce more goods at a higher price, and as such their revenue increases. An increase in revenue could help with the concerns due to the uncertainty of the new subsidy system for farmers that is also mentioned in the article. This could have a positive benefit on the domestic employment in the food industry in the United Kingdom. Governments benefit from the revenue generated by the tariffs, which could again be re-used to subsidise domestic production.

Nonetheless, there are many negative impacts of the tariff. Since the size of the tariff is unclear, the extent of its impact is also unclear. Regardless of size, consumers have the biggest burden of the tariff. They must pay the higher costs of the good. Due to the price inelastic nature of food, this could lead to a decrease in disposable income. Moreover, the article mentions the consumers' inability

to afford healthy food. Imposing a tariff that will raise prices even further does not solve this issue, especially if lower quality food was the only food consumers are able to afford. Similarly, tariffs have been said to negatively impact income distribution, which is amplified by the inability of some to afford quality food.

Additionally, imposing a tariff as a form of regulation is not particularly effective. As aforementioned, the tariff will decrease imports of subpar foods - rather than stopping these imports entirely. This is done at the expense of the consumer. Administrative barriers are a much better alternative to this as their purpose is to prevent imports of subpar quality. This is exactly what the tariff is attempting to achieve, though imports are completely prevented rather than just decreased. Nonetheless, both solutions could trigger a trade war, which is undesirable for most economies, let alone those in the midst of trade negotiations with the EU. The article mentions that campaigners want further (quality of food) interventions in the domestic food market, and as such striking a tariff before intervening domestically may further fuel potential conflict. Due to the UK's Brexit negotiations, the possible imposition of a tariff on exports of a EU country could significantly impact the smooth trade regulations both entities are aiming for.

To conclude, a tariff is an inadequate solution to the problem. Whilst successfully decreasing the imports, they do not eliminate the problem entirely (as compared to administrative barriers), and the burden is given to the consumers. This results in a limited effectiveness. Nonetheless, domestic producers and the government would benefit from its introduction.

Word Count: 748.

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