



Carbon taxes in South Africa

The political and technical challenges of pricing carbon

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Abstract

South Africa has been a pioneer on climate change policy internationally, despite being a carbon intensive developing country. In 2010, it began a process to develop a carbon tax to help put a price on carbon, and incentivise the behavioural changes needed to support a transition away from business as usual development. But despite an inclusive and iterative policy design process, there has been resistance, particularly from affected business interests. In 2014 the decision was taken to delay the proposal until 2016. This paper reflects on the evolution of the carbon tax proposal, and draws lessons from this experience for the design of such policy instruments.

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1 South Africa's response to climate change

South Africa has been a pioneer on international climate policy. In 2007, South African stakeholders broke new ground by embarking on a process to develop a set of long term mitigation scenarios, which outlined options for reducing emissions to levels “required by science” (DEA, 2007). This unique effort brought government, civil society, business and private sector stakeholders in this developing country together to understand the implications of climate change for economic development aspirations, and identify options for mitigation. The cabinet endorsed exercise set in motion an intensive period of climate related policy making, including the adoption of a National Climate Change Response policy.¹ A process to develop a carbon tax began in 2010, in the context of wider efforts to align energy policy with these wider aspirations. But decarbonisation poses fundamental and existential questions for an economy that is highly energy intensive and largely reliant on coal for its energy needs, as it struggles to deliver better development outcomes for its population. The adoption of the carbon tax policy has now been delayed for the second time until 2016.

This note provides an overview of the current state of play in the debate over a carbon tax in South Africa. It builds on technical work that has been done by researchers at the Energy Research Centre at the University of Cape Town, the United Nations University Wider Centre. It draws lessons for the design of fiscal policy instruments to address climate change.

A domestic commitment in a global context

In the lead up to the Copenhagen conference of the parties in 2009, South Africa made an international commitment to reduce emissions by 34% by 2020 from business as usual, and 42% by 2025.² In making the commitment, the government stressed that implementation would be contingent on developed countries following through on their commitments to provide finance, technology, and capacity building support. Domestically, efforts to support implementation began on a number of fronts. The need to bring substantial new energy capacity online to address chronic energy shortages prompted an intense national debate over how best to meet South Africa's energy needs in light of emission reduction obligations (Pienaar et al 2010; Baker 2013). This resulted in the first integrated energy

¹ The policy paper was first developed in 2010, and adopted in 2011.

² South Africa's full response to the Copenhagen Accord is available online at: https://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/southafricacphaccord_app2.pdf

resource planning exercise in the country, as an inclusive process with substantial stakeholder input. While the resulting plan did include new coal and fossil fuel options, it also resulted in a commitment to install a significant amount of renewable energy. In parallel, the National Treasury began to explore fiscal options to incentivise the transition from business as usual to a more sustainable development trajectory. The potential to introduce a carbon tax as part of an effort to put a price on carbon had been explored as a technical option during the development of the long term mitigation scenarios. It was proposed as one of a suite of national policies and measures to support a response to climate change.

2 The evolution of the carbon tax policy proposal

Treasury released an initial discussion paper in 2010 that considered potential options for action to create an economic incentive for action by putting a price on carbon (National Treasury 2010). It considered alternative options including emissions trading. A detailed comparison of these two options stressed price certainty and efficiency gains of a carbon tax, particularly given the oligopolistic nature of the energy sector which would be a core target of any instrument. It also emphasised the relative ease of administration and oversight of a tax.

The discussion paper was the basis of deliberation in 2011. National and international experts undertook a large body of technical work to model and understand the potential impacts of different tax parameters on the South African economy and their political aspirations (Alton et al 2014, Devarajan et al 2011, Winkler and Marquard 2011). Concerns were raised about the implications for the costs of doing business in a context when energy prices were already rising, and in particular for the competitiveness of South African industry, and their exports in particular. The fact that few other energy intensive countries – particularly developed countries—had taken such measures was flagged as a particular issue of concern (PWC 2011).

In early 2012 National Treasury announced that a revised proposal would be circulated for discussion. The proposal anticipated enactment of the tax from 2013 at a rate of 120 Rand per ton of CO₂e), with annual increases of 10 per cent through 2019.³ Business interests were quick to protest the likely impact of the tax on the costs of doing business.⁴ After much debate the decision was taken to again delay

³ At today's exchange rates this is equivalent to about US\$ 11 at a rate of ZAR 10 to the US\$

⁴ All regulated sectors would have some proportion of their pollution excluded from the carbon price. Potentially vulnerable sectors that would obtain special dispensations are the energy-intensive and trade-exposed (EITE) sectors, such as cement, iron & steel, and aluminium. The basis for these exemptions would be linked to the share of energy as total costs (or carbon intensity).

the adoption of the proposal to 2013, and a revised proposal was tabled for public consultation last year.

Box 1 summarises the key features of the 2013 proposal. Revenues from the tax were estimated to range between ZAR 8 and 30 billion. Their use will be central to the environmental effectiveness of the proposal as well as options to ease its potential social and economic impacts. In presenting the tax to external audiences, Treasury noted that earmarking revenues would be inconsistent with principles of good budget management. New revenues generated from the tax, however, could create new space in the budget to help fund scaled up “flagship” public programs to support decarbonisation. These might include the Renewable Energy Independent Power Producers support program, also championed by Treasury, which has successfully catalysed private investment in renewable energy technologies for the first time. It might also include demand side management programs; enhanced free basic energy and electricity allowances for poor consumers. A specific proposal was also made to offer rebates for the adoption of Carbon Capture and Storage technologies, given South Africa’s heavy dependence on coal. Enacting the carbon tax might open up options for tax shifting (e.g. reducing electricity levies) and other environmental tax incentives such as efficiency savings allowances.

Box 1: Key features of the 2013 Carbon Tax Proposal

Objective: reduce GHG emissions by changing producer and consumer behaviour; contributing to mitigation and adaptation being taken into account in investment decisions (including on infrastructure); and creating incentives for low-carbon technologies.

Tax rate: The nominal rate is R120 / t CO₂-eq, set low. The effective rate is lower as a result of tax-free thresholds and exemptions. Tax was to increase 10% per year until the end of 2019. 5 – 10% off-sets would be allowed, and adjustments to reward good practice within sectors were anticipated.

Allowances: All sectors do not pay tax on 60% of their emissions in the first phase. There will be additional tax free allowances for process emissions (10%); additional relief for trade-exposed sectors (max 10%); overall tax-free allowance capped at 90 per cent of verified emissions. Thresholds to be reduced during the second phase (2020 to 2025) possibly replaced by absolute emission thresholds thereafter.

Tax base: fuel input tax: levied on coal, crude oil and natural gas inputs (not directly on GHG emissions or on energy outputs)
Gases: Focused on CO₂, CH₄, N₂O and PFCs (SF₆ and HFCs also included, but not specified in sectors)

Coverage: it includes most sectors; excludes agriculture, forestry and land use, and waste

Rebates: A tax rebate for carbon capture and storage (CCS) will be considered.

Revenues: Expected to raise ZAR 8 billion to ZAR 30 billion rand a year. Initial proposal favoured increased investments to protect poor households and energy intensive industries from the impact of the tax.

Time period: Originally to start from 1 January 2015; now postponed to 2016.

Sources:

National Treasury Carbon Tax Policy Proposal 2013;
South Africa Delays Carbon Tax, Bloomberg Feb 11 2014,
Energy Research Centre of the University of Cape Town Comments on the National Treasury Carbon Tax Policy Proposal, September 2013

Technical analysts have raised questions about its environmental effectiveness. While the stated tax rate is ZAR 120, independent expert analysis suggests that proposed exemptions would reduce the effective tax rate to between ZAR12 and ZAR 48 / t CO₂-eq. Technical modelling suggests that these effective rates are far too low to create the incentives for behavioural change necessary to transform the country's energy economy (ERC 2013). It has further been noted that the most recent iteration of the policy proposal was not been structured to link the level of taxation with the emission reduction outcomes sought by South African climate change policies.

On the other hand, the reaction from affected industries was one of strong resistance (PMG 2013), compounded by the global context in which the proposal was being advanced. Concerns were raised about the impact of the tax on the competitiveness of South African industries, particularly in extractive industries such as mining and metals (Creamer 2013; Ensor 2013; BUSA 2013). Business also noted that energy prices were already increasing, and there were several fees in the existing system (for example through environmental levies on coal), as well as financial support mechanisms for renewable energy. Steel and aluminium industries also raised concerns about implications; historically, they have been attracted to South Africa by the availability of low cost energy. Business raised concerns that further increases to costs might result in further reductions of jobs. Industry associations also stressed the need for greater clarity on key elements of the proposal, including the GHG emission data that would be the basis for the tax, which sectors would be eligible for particular rebates; how revenues generated would be used in practice; the phasing of the approach; the mechanics of provisions for offsets; and the outlook for how the tax would be adjusted after 2019 (BUSA 2013).

The announcement of the further delay of enactment of the tax to 2016 by the government was welcomed by many in the business sector. For example the South African Chamber of Commerce and Industry responded with a public statement that “the delay in implementation of the proposed tax shows that the National Treasury recognizes of the concerns voiced by the Business Community on the job losses in heavy industry that a carbon tax will impose, as well as uncertainty over technical matters like the accurate measuring of emissions and its broad implementation and enforcement” (SACCI 2014).

A global context of inaction has amplified concerns. For example, the Steel and Engineering Industries Federation of Southern Africa (SEIFSA) called on the South African government “to follow Australia's example by abandoning the proposed introduction of carbon taxes... in the interests of [South Africa's] ailing economy” (ENCA 2014). The competitiveness of energy and carbon intensive exports has been a particular concern for domestic industry.

Yet while the costs of the tax were easy to for business to protest, the costs of inaction were much less well recognised. The potential for climate impacts to result in lower productivity, potential food price volatility, operational and supply chain disruption, and increased vulnerability to extreme weather events, while broadly acknowledged (Trucost and WWF 2012), had less material relevance when confronted with short term impacts on profitability. This of course reflects the classic ‘collective action’ problem of climate change. All actors will feel its effects (though in different ways), but individual actions will not be sufficient to address the problem. All countries will need to act if mitigation is to be sufficient to reduce likely negative impacts.

Since the decision to delay was taken, there are some signs of continued progress in elaborating the way forward. National Treasury has recently circulated a more detailed proposal on how offset mechanisms to help reduce the burden of the tax might operate in practice. Given the potentially weak environmental effectiveness of the original proposal, however, design of this additional burden easing mechanism should not further weaken the signal that the policy is intended to create. Further details of the proposal are to be elaborated, so that a clear basis for implementation can be developed.

3 Taking stock: Lessons from the experience

South Africa's efforts to develop a carbon tax represent leadership in using national fiscal policy to support action on climate change in a carbon intensive developing country economy. The proposal recognised that inaction on climate change would ultimately cause greater harm than the near term costs of action. Indeed South Africa's National Development Plan poses an absolute emission constraint on South Africa from 2030, and anticipates the need for measures to be taken as soon as possible. The initial proposal was informed by technical work by national experts, and efforts to learn from international experiences with the design of similar instruments.

The stakes are high in deviating from business as usual. And getting business interests on board in this political context has (unsurprisingly) been enormously difficult. Ultimately the 2013 tax proposal represented a compromise effort that failed to convince business interests of practical feasibility, while raising fundamental questions about environmental integrity and feasibility. Therefore the decision to delay implementation of an important policy measure that would support climate action domestically, while disappointing on many levels, may represent an opportunity for course correction.

Transparent and robust systems for managing stakeholder inputs and deliberating over the inherently technical inputs are needed. Effective governance will fundamentally shape the fate of the carbon tax proposal. While there has been a lively debate in the South African media and other forums including Parliament on the implications of the tax, it is clear that industry groups have had the most capacity to input (and have very particular interests in doing). Further efforts to understand and quantify the costs of climate change in South Africa, may help to build the case for more ambitious action. But equally, low carbon development can (and indeed already is) presenting new economic opportunities for South Africa. Continued technical engagement with the underpinning assumptions of various proposals will also be essential.

Continued enlightened political leadership can create new opportunities. The introduction of renewable energy policy support programs, for example, has fostered the emergence of a new renewable energy industry. The country's Industrial Policy Action Plan and New Growth Path 2020 recognise the need for continued diversification of the economy in order to create more sustainable opportunities for people, including the creation of decent jobs (DTI 2010, EDD 2010). The adoption of the carbon tax as a fiscal policy instrument alongside programs to incentivise low carbon technologies, sustainable energy planning systems, and promote green economic development, can help create new incentives as well as supplementary resources to facilitate this much needed transition.

A global context of inaction poses compounding challenges. Globally, few similarly carbon constrained developed countries have been as forward looking as developing South Africa in developing a proactive response to this pressing challenge as yet. This has reinforced the positions of those industries who will be hit hardest by decarbonisation efforts, and who work in global industries.

But there are signs of renewed global commitment to action on climate change. The US administration, for example, has just announced a Climate Change Act that includes a set of potentially wide reaching measures to address climate change particularly through regulatory measures affecting the power sector. US business leaders are also waking up to the devastating impacts that climate change will have on their businesses and economies and calling for bold action, including through analogous actions such as carbon taxes (Paulsen 2014). But the global fight against climate change is in desperate need of leadership.

A renewal of the pioneering spirit with which South Africa has been developing climate policy and integrating it into national development strategies, through continued commitment to a more effective carbon tax regime, would be a welcome contribution to this end.

References

- Alton, T. et al. 2014. Introducing Carbon Taxes in South Africa. *Applied Energy*: vol 116.
- Business Unity South Africa (BUSA). 2013. Carbon Tax Policy Paper Submission.
- Department of Environmental Affairs (DEA). 2007. South Africa's Long Term Mitigation Scenarios.
- Department of Trade and Industry (DTI), 2010. Industrial Policy Action Plan (IPAP) 2010/11 – 2012/13. February 2010. Pretoria: DTI. Available at: <http://www.info.gov.za/view/DownloadFileAction?id=117330>
- Devarajan, S, Go D.S., Robinson S, Thierfelder K. 2011. Tax policy to reduce carbon emissions in a distorted economy: illustrations from a South Africa CGE model. *Economics Annual Policy 2011*;11(1):1–22.
- ENews Channel Africa. 2014. *SA asked to abandon carbon tax plan*. April 2014 <http://www.enca.com/money/sa-asked-abandon-carbon-tax-plan>
- Energy Research Centre. 2013. ERC Comments on the National Carbon Tax Policy Proposal. http://www.erc.uct.ac.za/Research/publications/13ERC_Comments_Treasury_Carbon_Tax_Paper.pdf
- Economic Development Department (EDD), 2010. *The New Growth Path: The Framework*. Pretoria: EDD. Available at: <http://www.info.gov.za/view/DownloadFileAction?id=135748>
- Creamer, T. 2013. Sasol warns of possible unintended carbon-tax consequences. *Engineering News*, 11 March 2013. <http://www.engineeringnews.co.za/article/sasol-warns-of-possible-unintended-carbon-tax-consequences-2013-03-11>
- Ensor, L. 2013. Treasury's Tax Plans Draw Sasol's fire. 21 August 2013. <http://www.bdlive.co.za/business/2013/08/21/treasurys-carbon-tax-plans-draw-sasols-fire>
- Gordhan. P. 2014. 2014 Budget Speech. National Treasury of South Africa.
- Paulsen, H. 2014. Lessons for Climate Change from the 2008 Recession. *New York Times* 21 June 2014. <http://www.nytimes.com/2014/06/22/opinion/sunday/lessons-for-climate-change-in-the-2008-recession.html>
- Parliamentary Monitoring Group (PMG). 2013. Carbon Tax: input by Trade and Industry, National Treasury, Business, Environment. 20 August 2013. <http://www.pmg.org.za/carbon-tax-input-trade-and-industry-national-treasury-business-environment>
- PWC South Africa. 2011. The case against introducing a carbon tax in South Africa.
- Morden, C. 2013. Reducing Greenhouse Gas Emissions Carbon Tax & Energy Policy – Presentation to the UNFCCC Long Term Finance Work Program. National Treasury of South Africa - Tax Policy Unit.

National Treasury. 2010. *Reducing Greenhouse Gas Emissions: The Carbon Tax Option*. Discussion Paper for Public Comment December 2010.

National Treasury. 2013. *Carbon Tax Policy Paper: Reducing greenhouse gas emissions and facilitating the transition to a green economy*. Discussion Paper for Public Comment May 2013.

National Treasury. 2014. Carbon Offsets Paper. Discussion Draft for Public Comment April 2014.

Trucost and WWF. 2012. Carbon and Water Risk for South Africa's Top Companies, Bonds and Equity Funds.

South African Chamber of Commerce and Industry (SACCI). 2014. *SACCI Comments on the 2014 budget*.

http://www.sacci.org.za/index.php?option=com_content&view=article&id=650:sacci-commetns-on-2014-budget-press-release&catid=9:press-office&Itemid=40

Winkler, H. and Marquard, A. 2011. Analysis of the Economic Implications of a Carbon Tax. Energy Research Centre (ERC): Cape Town.



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