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South Africa's R&D tax incentive program is proof of how well-meaning simplicity doesn't necessarily translate into ease of use. The program, which was launched in 2006 under Section 11(D) of the Income Tax Act, offers straightforward tax allowances in the form of a super-deduction plus accelerated depreciation, as well as some R&D-focused grants—part of a package aimed at encouraging private-sector spending on innovation, and boosting much-needed economic growth.

Unfortunately, for the last decade, the program has been marred by high barriers to entry: onerous rules, a burdensome application process, and pre-approval required before a company could qualify for the super-deduction.

Those approvals—which are granted only on a project-by-project basis after review by a seven-person Adjudication Committee drawn from no fewer than three separate government agencies—can take many months, sometimes as long as a year, to come through.

Given the strict rules required to demonstrate that the proposed R&D project qualifies, this puts taxpayers in a difficult spot: They must demonstrate in detail why the product they want to invent (or hypothesis they want to explore) conforms with the elaborate criteria set forth by the government *before* they have a chance to spend money on testing it.

Then they must hold their breath for an extended period of time to learn if they've gotten the green light to go ahead and conduct the R&D—or conversely, if they've gotten rejected, or asked to send additional information. In the meantime, any moneys spent before that approval are ineligible for the benefit.

Not only do these administrative hurdles offload all the burden and risk to the very innovators the program is purported to help, they also effectively act as a chokepoint: Issues with the preapproval process, the administrative burden of information requirements—and lack of an appeal process for rejected applications—have historically led to bottlenecks and backlogs.





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While the government commissioned a public-private tax team to address those issues in 2015—and an online system was put in place to help ease some of those delays—the damage was done. Government spending on R&D tax support declined (in constant 2015 prices) by nearly half—from R378 million in 2012 to R206 million in 2017.

Another headwind for those companies willing to apply for the super-deduction is that the tax incentive has never been permanent—its current term is up in 2022—making long-term innovation investment planning difficult.

Looked at in this light, it's not surprising that the government has yet to hit its initial goal of achieving an R&D intensity (in this context, the percentage of GDP spent on R&D) of 1%: In fact, that metric is still hovering around 0.8% (close to the bottom of the OECD's scale).

Part of this is simply a matter of the twists and turns of contemporary economic development for a middle-income country buffeted by a series of global crises—one which saw periods of negative income growth, the end of the commodities boom, currency downgrades, political turmoil, the COVID-19 pandemic, and ever-widening inequalities. But partly it is due to these self-inflicted administrative wounds.

The point of the R&D program was to incentivize companies to spend new money on new discoveries in technology and hard sciences. With its economy in distress, and the relatively disappointing results of its program to date, the South African government began a comprehensive review of its entire ecosystem of tax incentives to assess their effectiveness against the most urgent metrics: job creation and growth.

In 2021, as part of the budget planning process, the government decided to sunset several of them—including a 2008 venture capital incentive known as Section 12J that had been created to help nurture a startup culture, but which critics claimed was abused by wealthy investors seeking to shelter income via safe investments in low-risk ventures. (Only 37% of these companies ever created new jobs.)

While most believe the R&D tax incentive program—currently set to expire in October 2022—is not in danger of being eliminated, under stressful macro- and socioeconomic conditions such as these, its future is not assured. The optimistic view is that the program could be retooled to better meet its objectives. What better time to take a close look at its current state?

#### What Constitutes R&D in South Africa?

South African's tax incentive program is jointly administered by two government agencies, which are involved subsequent to the review and recommendation performed by the Adjudication Committee: The Department of Science and Innovation (known as DST) is responsible for pre-approving or rejecting applications, which can now be filed online.

The South African Revenue Services (SARS) processes the super-deduction claims, which are filed as part of the annual income tax return: The filing deadline is one year after the financial year-end. (With its overarching responsibility for tax policy, the National Treasury also has a seat at the table.)

The government applies rigorous criteria to determine which R&D activities are eligible for the super-deduction. The R&D must have a material purpose of resolving scientific or technological uncertainty or discovering novel ("non-obvious") scientific or technological knowledge.





It must adopt a systematic approach to testing possible solutions to that uncertainty, using only hard sciences (e.g., engineering, mathematics, biology, chemistry, computer science). And the project must aim to create or invent a new product, process, device, technique, or computer program—or significantly improve the level of functionality, performance, reliability, or quality of an existing one. Spending must be in line with the intent to produce income and be related to the taxpayer's area of business.

Explicitly included in South Africa's definition of R&D are the development of generic medicines (under World Health Organization definitions), as well as Phase I, II, and III clinical trials as defined by the South African Department of Health. However, only first (pre-commercialization) trials may be eligible for the super-deduction, as the uncertainty may have been resolved from that point.

Specifically excluded are activities such as market research or promotion; routine testing/QA; development of internal business processes; social sciences research (including the arts and humanities); oil, gas, or mineral exploration or extraction; the creation of financial products, trademarks, or goodwill; and IP registration costs.

Only expenses directly associated with eligible R&D activities can be claimed—and where they are commingled with other, non-R&D related activities or expenses, the government requires documentation substantiating and validating the qualifying R&D portion of the expenses.

Expenses must be incurred in the same year as the assessment. Allowable expenses include labor costs, materials and prototypes, data analysis, testing, buildings and machinery, overhead expenses directly connected with the R&D, and external R&D contractors (while working directly on the qualifying project). Direct expenditures must be carefully documented, as both DST and SARS are empowered to conduct audits.

As in the United States, the eligibility of qualified expenses is not contingent upon the success of the project. And like in the U.S., in South Africa there is no ceiling on eligible expenditures—and no cap on eligible tax relief.

While South Africa's criteria for R&D generally aligns with the United States' four-part test—they differ in one critical aspect: In the U.S., taxpayers have only to demonstrate that their R&D is "new to the company." In South Africa the discovery must be "new to the world"—in other words, the work must advance an entire industry or field. That's a high bar, especially since companies aren't allowed to apply the super-deduction to any outlay until after they have proven that it meets that requirement.

#### What's Available and Who's Eligible?

South Africa's R&D tax incentives are available to businesses in all sectors, so long as the company is registered in South Africa and performing R&D activities there. While R&D outcomes must be owned by the taxpayer, there is no requirement that any intellectual property created as a result of the R&D be held there (and there is no patent box program).

Taxpayers are entitled to deduct an additional 50% for qualifying R&D expenses (150% super-deduction), excluding any funds already received from the government, on their corporate tax returns.

At the current tax rate of 28%—scheduled to be lowered to 27% in 2022—this effectively reduces the marginal cost of R&D expenses by 14% (13.5% as of 2022). While unused tax credits aren't redeemable in cash, they can be carried forward indefinitely.



A pilot or prototype plant used exclusively for R&D may be claimed at 150% and expensed in full in the year that it is bought into use. If the building was used partly for eligible activities in the same year, the allowable deduction for that year must be apportioned accordingly. All other assets must be previously unused and should be used solely for R&D activities.

Other plant or machinery brought into service for the purpose of conducting R&D can be depreciated at an accelerated rate over three years, with a 50% deductible in the first year and declining from there. Unlike with the super-deduction, no pre-approval is required to claim this accelerated allowance.

Outside of these explicit R&D tax incentives, the government also offers a series of grants or tax deductions in targeted areas such as energy efficiency critical infrastructure. There are also a range of tax incentives aimed at boosting private investment and job creation in designated Special Economic Zones (or SEZs).

A few national grants are also available to support industrial innovation, with a maximum benefit of R5 million (R2 million for SMEs).

#### Singling Out SMEs—Or Not

While many countries lavish small businesses/start-ups with special R&D tax incentives, South Africa generally does not: Its system is broad-based, non-industry specific, and available equally to companies of all sizes.

But when it comes to R&D spending, not all companies have the same needs. SMEs (especially startups) tend to be the most sensitive to incentives—and, according to many economists, offer outsized potential for driving innovation and creating new jobs.

They also have relatively stricter financial constraints and more difficulty attracting investors. All of this makes the lack of a cash-refund option for unused credits—and the 2021 cancellation of South Africa's longstanding J12 venture capital tax incentive—especially unfavorable for low-cash/high-potential enterprises.

Despite these structural disadvantages, the government reported that SMEs constituted 42% of all recipients (in number) in 2018. You have to wonder how much more R&D spending this vital segment of companies might have engaged in if properly incentivized.

#### The Takeaway: South Africa in the Balance

South Africa has traveled a long and rocky road since the 14 years of euphoria and growth (1994-2008) that began with the ascension of Nelson Mandela to the presidency and ended with a five-year commodities boom that lifted almost all boats (though not equally) in this starkly divided economy.

The summer of 2021 saw South Africa—reeling from the pandemic, a downgrade of its sovereign debt, capital flight, and the highest unemployment rate in the world (33%)—engulfed in political turmoil and social unrest due to the imprisonment of Jacob Zuma, the president from 2009 to 2018, who is largely blamed for presiding over a period of vast corruption and economic decline.

To try to right the ship, the government faces a delicate balancing act: In order to improve global competitiveness and increase foreign direct investment, it must reduce the corporate tax rate, which requires broadening the tax base. That in turn puts pressure on incentives programs and carryforwards.

Perhaps a redesign of its R&D tax incentive program would help the government thread the needle, while furthering the goals (shared by Russia, New Zealand, Australia, and other countries) of lessening its dependence on commodities and moving toward a knowledge-based economy. This could help catalyze some of the growth the country desperately needs, without aggravating its economic stressors.



If the government included tax credits as part of its R&D incentive package, the impending corporate-tax-rate reduction (from the current 28% to 27% in 2022), wouldn't diminish the value of the incentive (and with it, corporate confidence in longer-term R&D investment planning)—as will be the case for the super-deduction. Loosening the definition of R&D to include "new to the company" benefits would likely unlock more private-sector spending.

Making unused tax credits refundable would give new enterprises much-needed fuel to fulfill their potential. Extending the eligibility criteria to include absorbing foreign technology would make incentives more relevant for domestic firms that are not working at the frontiers of tech.

And, of course, simplifying the application process would be the biggest win-win of all.

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