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Requiring Local Content in Manufacturing: Insights from Transnet's procurement of 1064 locomotives[1]

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Introduction

Increasing local content in manufactured goods is, at first glance, an attractive proposition. Or is it? What difference does it make? What is South Africa's experience? This research attempted to answer these questions using Transnet's R50 billion procurement of 1 064 locomotives - its largest ever single-order purchase - as a case study.

Governments purchase vast amounts of goods and services and many try to boost local economic development by requiring local content in these purchases. In 2016, the South African Department of Trade and Industry (DTI) estimated that government purchasing contributed between 15% and 25% to gross domestic product (GDP).

Public Procurement[2]

Public procurement is primarily concerned with the efficient acquisition of goods and services. However, such spending can also be leveraged to pursue secondary policy goals such as job creation, innovation, industrial and regional development, and promotion of small firms, sustainability and the environment. In the shorter-term, local content requirements often raise prices. This higher cost is accepted because in the medium term, the benefits to local economic development of a competitive domestic supply base can be strategically important for governments to secure lower cost goods and services, security of supply, act as an exchange rate hedge and foster employment creation and domestic innovation. At its best, localisation is associated with increasing transparency, supplier competition and good governance. Careful verification, monitoring and evaluation are essential to determine the degree of success or failure.

Unfortunately, public procurement is prone to inefficiency and corruption at tax-payer's expense. Clear policy and regulations, good governance, transparent procedures and

[1] This brief draws from the Industrial Development Research Programme funded by the Trade and Industrial Policy Strategies and reported in CCRED Working Paper 2017/9.

[2] Public procurement means purchasing of goods and services by Government and its state owned enterprises and agencies.

know-how can minimise, and even prevent corruption. Even in developed countries, corrupt public procurement remains at epidemic proportions.[3]

South African Local Procurement

South Africa has attempted to leverage public procurement through a series of interventions since 2000. The South African government first introduced minimum local content requirements for rail rolling stock in July 2012. It required 60% for electric locomotives and 55% for diesel locomotives. [4]

The latest, applicable to Transnet, are "Instruction Notes" issued by National Treasury pursuant to the Preferential Procurement Policy Framework Act. Although these instructions have substantial economic impact and utilise tax payer's funds, socio-economic impact assessments have not been conducted, nor are reasons for these decisions made public. It is thus unclear which of Government's multiple policy goals are being pursued. Consequently it is not possible to determine whether the goals are being met or not.

Implementation of these interventions has been weak, especially by municipalities and state-owned companies (SOCs). For this reason, the DTI's Industrial Policy Action Plan (IPAP) focuses on improving institutional coordination, enforcement and verification.

Transnet's Locomotive Procurement

Transnet issued a tender for 1 064 locomotives in July 2012. In March 2014, the tender was awarded to four foreign companies, disappointing local manufacturers (see Table 1). Chinese state owned firms (CSR and CNR[5]) won 56% of the tender. In June 2015 Transnet announced that it had secured a R30 billion loan from the Chinese Development Bank for improving Transnet's obsolete equipment, which was approximately the value of the contracts given to Chinese state owned firms.

A curious feature of these contracts is the different numbers of locomotives allowed to be manufactured outside South Africa by the various firms. The Chinese firms appear to have been given more leeway (see Table 1). According to Transnet Supply Chain Management, it allowed locomotives to be manufactured outside of South Africa so that manufacturers could undertake design and product testing at the parent facility. Such locomotives are not exempt from local content requirements.

The four original equipment manufacturers (OEMs) were required to have Black Economic Empowerment partners and so partnered with companies in transport services, investment services and rail transport.

[3] Tkachenko, A., Yakovlev, A., & Kuznetsova, A. (2017). 'Sweet deals': State-owned enterprises, corruption and repeated contracts in public procurement. *Economic Systems*, *41*(1), 52-67. & Appolloni, A., & Nshombo, J. M. M. (2014). Public Procurement and Corruption in Africa: A Literature Review. In *Public Procurement's Place in the World* (pp. 185-208). Palgrave Macmillan UK.

[4] National Treasury Instruction Note for Local Production and content for the rail rolling stock sector. (16 July 2012)

[5] CSR and CNR subsequently merged into China Railway Rolling Stock Corporation (CRRSC)

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Table 1: Locomotive Contracts Awarded

Firm	Number to be built outside South Africa	Number to be built in South Africa	Total
China South Rail (CSR)	40	319	359
Bombardier	0	240	240
Electric sub total	**40**	**559**	**599**
General Electric (GE)	6	227	233
China North Rail (CNR)	20	212	232
Diesel sub total	**26**	**439**	**465**
Total	**66**	**998**	**1 064**

Research Findings

Our research findings should be critically evaluated in the light of two drawbacks. Firstly, three of the four OEMs declined to be interviewed due to non-disclosure provisions in their contracts with Transnet. Secondly, this research was conducted in September and October 2016 at an early stage of the programme, which some firms claimed was a year behind schedule.

Consequently the research could only review the initial impacts of the programme. What may be evident by the middle or the end of the project may be significantly different from what was visible in October 2016.

In 2016, 148 locomotives should have been delivered but according to respondents this target was unlikely to be met. Although the programme appears to be behind schedule and getting off to a shaky start, it has contributed to foreign direct investment. GE invested R500 million in its Africa Innovation Centre, its first in Africa. Bombardier opened a factory in 2016 to produce electric propulsion motors. IEC Holden invested over R250 million in a plant to manufacture traction motors. Rolls-Royce subsidiary MTU upgraded its facility at a cost of R50 million. A new training centre for MTU South Africa staff was also established.

Local firms have generally struggled to meet the exacting standards of the foreign OEMs in price, quality and scheduling. But some have made significant upgrades to their manufacturing processes through investment in machinery, skills, quality controls and new products. Although progress is being made in organisation and management techniques and improved skills, advances in research and development (R&D), product innovation and new patents are scarce. Product innovation is more common than R&D. Technology transfer to local firms has focused on lean manufacturing and product quality. Even after these efforts, one forecast is that only 5% to 7% of prospective suppliers will succeed to become exporters. There is a degree of complacency among some potential suppliers that does not lend itself to world class manufacturing.

Transnet itself has upgraded its workshops and is attempting to become an OEM like its suppliers by assembling locomotives for its suppliers. This leaves Transnet both as customer of the OEMs and as a supplier of locomotives to them – an arrangement many find puzzling. Presumably, Transnet is attempting to develop know-how through learning by doing. The early indications are that Transnet is struggling.

Unfortunately Transnet's conduct has delivered a double blow to South Africa's know-how and manufacturing capacity; firstly by loss of the contracts to foreign firms and secondly by Transnet crowding out local firms. The decline of older more established firms is accompanied by job reductions and the loss of a whole set of manufacturing competencies and skill sets. This was evident in the demise of firms that traditionally supplied Transnet such as DCD Rolling Stock and Union Carriage and Wagon. Transnet has also raised the barriers to entry for new entrants and black industrialists. Transnet is currently playing the role of a manufacturer and purchaser, and is conflicted. Consequently bid adjudication should be removed from Transnet to a neutral party.

Shifting locomotive manufacturing capacity from OEMs to Transnet also runs the risk of damaging the supplier base. Selecting, nurturing and developing suppliers is a core competence for OEMs and a skill that Transnet does not currently possess. If Transnet crowds out the OEMs, it may have adverse consequences for its own supplier base. Most alarming, Transnet seems to have embarked on this path without any evident policy mandate from Government.

Some firms interviewed alleged corruption in Transnet's procurement but this was not pursued as it was not the research objective. Subsequently, the State Capture Report, Betrayal of the Promise Report and the #GuptaLeaks emails have made additional allegations. These allegations include inflation of the R50 billion contract by R17.4 million, kickbacks for the Chinese manufacturers of R5.3 billion and the undue influence of non-state actors in the procurement process. In response, Transnet has established a special committee of independent directors to review the company's procurement processes. If true, such misappropriation of public funds undermines the intended benefits of public procurement as an industrial policy tool. The potential for corruption was significantly increased by Government's delay in implementing verification of local content.

Local content verification

In 2012, the DTI appointed the South African Bureau of Standards (SABS) as the verification agent of local content, however funding to carry out this mandate has not been allocated to SABS. According to the SABS the earliest that Government could provide funding would be in the 2018/19 financial year. After that SABS will need time to mobilise and learn verification procedures. The longer the delay in verification, the better the chances to escape detection. In addition, there appears to be no criminal penalty for failure to meet the local content target, only a contractual penalty if Transnet enforces it.

There are concerns that SABS lacks the know-how to do this kind of verification from materials testing and accounting perspectives. SABS will need help from industry experts who know what to look for.

The lack of a functioning verification agent puts local content objectives at considerable risk. One can only guess at the costs this blunder will inflict on the economy, in addition to the corruption allegations already mentioned. Ironically, delays in getting the project into full swing may reduce the losses arising from the lack of a functional verification agency.

Bid verification has, in a sense, replaced the role that price plays in a deregulated market and is therefore crucial.

Authorisation of exemptions

If local firms cannot supply a particular component, the DTI has the authority to grant an exemption and effectively lower the percentage of local content required. Given the magnitude of possible exemptions, it is a concern that the DTI does not have a fully-fledged exemption procedure with some checks and balances nor a good system of communication with Transnet, although this is being attended to.

If a single firm applies for an exemption and it is granted, the exemption is given only to that firm, not to other firms requiring the same component. This gives the applicant an advantage over competitors and according to Transnet Engineering raises costs by 5% to 30%, above those without an exemption. Exempting the product rather than the firm would be a better approach, and this is also being attended to by Transnet and the DTI.

Policy Implications

The research raised a number of policy implications and recommendations for Government.

Does localisation raise costs? Government has not conducted any cost/benefit analysis of local content requirements. It should.

Transnet has a monopoly in most rail services. It is therefore crucial that its conduct is aligned with public policy objectives. Transnet's 'feast and famine' procurement over time, short notice periods and short delivery deadlines all militate against the development of a local rolling stock manufacturing industry. Although the designation of locomotives was intended to achieve smoother and more predictable demand, the 1064 locomotive procurement programme has not met this objective.

The research raised several key policy questions. Should state infrastructure companies like Transnet go beyond the provision of infrastructure into the manufacture of equipment, particularly when they are already dominant in the market? By comparison: should Transnet Pipelines start manufacturing piping with a view to exporting? Should Eskom start manufacturing turbines with a view to exporting? Should Transnet be allowed to continue crowding out the private sector? State owned companies' procurement patterns shape the industrial landscape therefore, prudent government policy is required.

Manufacturing plants for various locomotive components have different economies of scale. Better results can be expected from a localisation policy that takes this into account, rather than a one size fits all approach.

Attempts at localisation are not certain to succeed and have resulted in delays and failures and/or considerable additional costs in both time and money.

Government's array of incentive measures should be disentangled and streamlined.