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Southern Africa – Towards Inclusive Economic Development

SA-TIED Technical Note 4

Introduction to the government procurement data and historical assessment of procurement trends

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About the project

Southern Africa –Towards Inclusive Economic Development (SA-TIED)

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Introduction to the government procurement data and historical assessment of procurement trends

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Abstract: The primary function of public procurement is procuring goods, services and infrastructure on the best possible terms. The secondary function of government procurement is to promote broader social, economic, and environmental outcomes in line with the constitutional mandate of public spending. In the case of South Africa, public procurement is facilitated through the e-tender platform, whereby the government invites service providers to do business with governmental departments by taking part in a competitive bidding process. The constitution of the Republic of South Africa requires that the procurement process be fair, equitable, transparent, competitive, and cost-effective. This process generates administrative data which can be used in economic analysis to enhance both the primary and secondary functions of government procurement.

Key words: public procurement, transparency, competitive bidding, administrative data, South Africa

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1 Overview of procurement data

The procurement of goods and services is one of the channels through which the government interacts with the private sector. The purpose of this document is to record the current understanding of the data generated by this process, and detail the pilot version of the Procurement Data—a merged and cleaned dataset which has been created in a collaborative effort by the National Treasury of South Africa in conjunction with the United Nations University World Institute for Development Economic Research (UNU-WIDER).

Public procurement can be defined as a function whereby public sector departments acquire goods and services from suppliers in the local and international private markets. This procurement is subject to the general principles of fairness, equitability, transparency, competitiveness, and cost-effectiveness, and includes many activities that support the service delivery of government entities. It also directly or indirectly supports the government's social and political aims (Ambe and Badenhorst-Weiss 2012).

The primary function of public procurement is procuring goods, services and infrastructure on the best possible terms. The secondary function of government procurement is to promote broader social, economic and environmental outcomes (Fourie and Malan 2020), in line with the constitutional mandate of public spending. In the case of South Africa, public procurement is facilitated through the e-tender platform, whereby the government invites service providers to do business with governmental departments by taking part in a competitive bidding process. The constitution of the Republic of South Africa requires that the procurement process be fair, equitable, transparent, competitive, and cost-effective.[1] This process generates administrative data which can be used in economic analysis to enhance both the primary and secondary functions of government procurement.

This document provides a basic introduction to the architecture of a newly constructed dataset on the universe of procurement transactions between the government and the private sector for 2017–20; henceforth called the Procurement Data. The aim of this pilot project is to enable the South African Procurement Data to be made available to researchers to enhance economic research, capacity-building, and policy dialogue. This will also provide a window into the reality of how public funds are spent on procurement, and could form the basis for effective monitoring of this process. In addition, government procurement data can also be made available to researchers and linked to other datasets to improve government policy-making in various areas.

1.1 Current understanding of the procurement process

To initiate the process of procuring goods and services from the private sector, the government issues tenders in a weekly government gazette.[2] Each of these tenders details a distinct job for which private companies can submit a bid. Once the deadline for bidding has passed, the tender closes and the government department that submitted the tender evaluates the bids and awards the tender to the best bidder. The criteria by which the bids are evaluated are based on five pillars; namely (i) value for money, (ii) open and effective communication, (iii) ethics and fair dealing, (iv)

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[1] Section 217 of the South African Constitution, Act No 108 of 1996,

[2] Available at the following address: https://www.greengazette.co.za/publications/tender-bulletins/20201130.

accountability and reporting, and (v) equity (General Procurement Guidelines provided by the National Treasury and the Government of South Africa[3]).

These pillars translate into a process by which bids are evaluated according to the value of the quote which they submit for the service requested, as well as other company characteristics such as the Broad-Based Black Economic Empowerment (B-BBEE) status of the company. Once the bids for the tender have been evaluated and the best bid has been chosen, the tender is awarded. Tender award announcements are also made available to the public via a weekly government gazette, as well as an announcement on the National Treasury website.[4]

Once the bid has been awarded, the successful bidder enters a formal contract with the government. This contract is based on the tender and is informed by the General Conditions of Contract issued by the National Treasury.[5] This document stipulates the General Contract Conditions which in turn stipulates the Special Conditions of Contract (SCC) which apply to the individual bid under consideration. These tenders are generally posted for transversal procurement contracts with large monetary amounts, which individual departments can then make use of. For contracts between a supplier and a single government department, a quotation system is followed, where the department will find a minimum of three quotations for the need in question and award the contract to the entity with the best quote.

The process of evaluating and awarding the bids and contracts in this way is intended to promote competition. Additionally, this process is intended to encourage small and medium-sized businesses to submit competitive bids alongside bids and quotes from larger companies, thereby promoting small business growth.

1.2   The Standard Chart of Accounts and the Basic Accounting System

The Basic Accounting System (BAS) is the core of the government accounting system; it is the General Ledger where all transactions are recorded and classified in accordance with the principles of the Standard Chart of Accounts (ScoA) and is the main source of information for the preparation of management reports and the annual financial statements (National Treasury 2010). BAS records all transactions but relies on sub-systems that initiate transactions. An important internal control measure is to reconcile information in the sub-systems to BAS to ensure that transactions processed in the sub-systems are captured correctly in BAS (National Treasury 2010).

For this document, we focus on one of the sub-systems that interface with BAS, i.e. the Logistical Informational system (LOGIS) (note that there are other sub-systems as shown in Figure 1[6]). The processing of transactions originates from these sub-systems before the record of the transactions appear in BAS. It should be noted that all transactions are initiated in the sub-systems but all payments are made in BAS (National Treasury 2010).[7]

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3 http://www.treasury.gov.za/legislation/pfma/supplychain/General%20Procurement%20Guidelines.pdf

4 Available here: https://etenders.treasury.gov.za/content/awarded-tenders.

5 Available here:
http://www.treasury.gov.za/divisions/ocpo/sc/GeneralConditions/Government%20Procurement%20General%20Conditions%20of%20Contract%2013102006.pdf.

6 This documentation will be updated to include other subsystems as the need arises.

7 There are exceptions where payments are captured directly in BAS and not via sub-systems. These are referred to as 'sundry payments' and they are not recommended (National Treasury 2010, 2016).

Figure 1: BAS and its subsystems
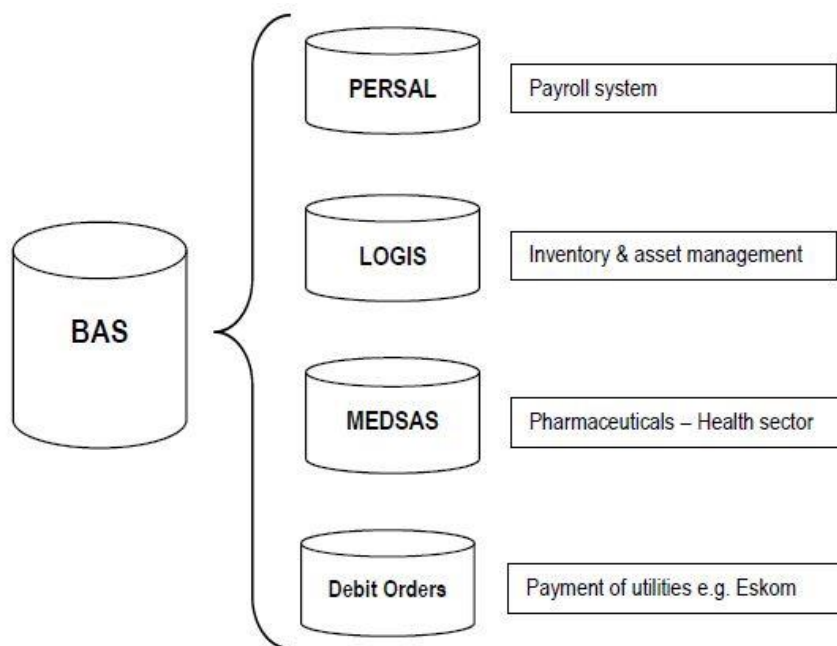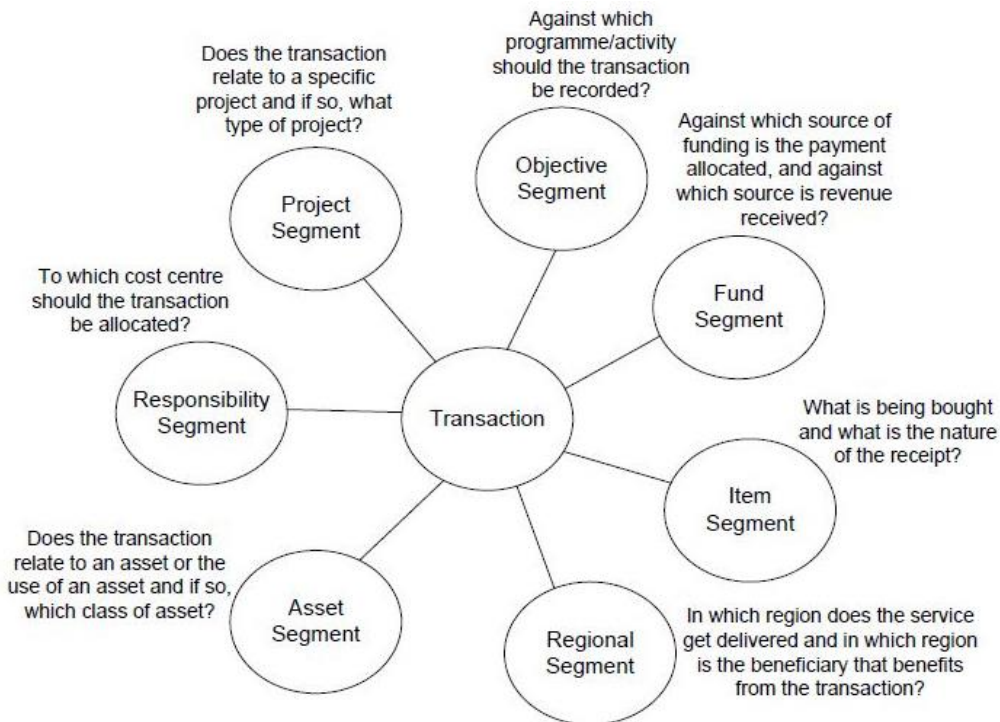

Source: National Treasury (2010: 17).

LOGIS is an independent, stand-alone sub-system used in the supply chain process to procure goods and services. The LOGIS sub-system aims to administer stores, monitor stock levels, and provide an asset and inventory management facility. Inventory information received and paid in the current year of assessment is recorded in LOGIS. The communication between BAS and LOGIS happens through an expenditure interface. The BAS general ledger records all transactions authorized from within LOGIS.

ScoA is the coding system by which financial transactions are recorded in the BAS. This provides uniform categorization for the different types of expenditure that can occur within LOGIS. The ScoA coding consists of seven segments. When recording a transaction, a selection must be made from each of the seven segments, meaning that all segments must be used for recording a single transaction. Figure 2 illustrates this principle.

The Personnel Salary system (PERSAL) is the sub-system of BAS used for collection and recording all employee-related information such as leave records, personal information, medical aid benefits, and taxation information. It is a payroll system that calculates employee wages and salaries and, like LOGIS, communicates with BAS through the expenditure interface. The processed payments appear in BAS as 'compensation of employees'. Linking PERSAL to BAS is important because it touches on the principle of fairness of the procurement system. This is because government employees are not supposed to do business with the state. Regulation 13 © of the Public Service Regulations, 2016, prohibits public service employees from conducting business with an organ of state, and Section 8 of the Public Administration Management Act, 2014, criminalizes the conducting of business with the state for public administration employees and for special advisors. Information on whether an individual is a government employee is captured in the Central Supplier Database, which is described in the following section.

There are other sub-systems as shown in Figure 2, but since they are not the focus of this report, we will not delve into details on them.

Figure 2: The seven ScoA segments

Source: National Treasury (2010:4).

1.3 Central Supplier Database (CSD)

Another important component of the procurement system is the Central Supplier Database (CSD). The CSD is not one of the sub-systems of BAS, but it provides information on organizations, institutions, and individuals who can do business with the state. Information provided by suppliers on the CSD is verified by public institutions, including the South African Revenue Service (SARS), Department of Home Affairs (DHA) and Companies and Intellectual Property Commission (CIPC). The CSD, therefore, provides verified information regarding suppliers' tax status, company registration, and banking details. The CSD also confirms that the supplier is not on the National Treasury tender defaulters list or restricted suppliers database (OCPO 2020).[8] Importantly, the CSD Supplier number is also recorded in the BAS and LOGIS databases.

1.4 Data conceptualization

The LOGIS and BAS data is arranged so that each observation represents a payment, whereas the CSD data is arranged such that each observation represents a supplier. Two exceptions to this have been identified. First, BAS observations are occasionally combined into a single observation in LOGIS. These observations are not present in the joined data and is the reason for the manual adjustments recommended in McClelland et al. (2021).[9] Manual adjustment will be a situation where a number of payments that appear as individual records in BAS are summed together to appear as one record in LOGIS. This will mean that merging will require manually looking at these

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[8] Note that our current understanding is that since September 2015 suppliers can self-register on the CSD website https://secure.csd.gov.za and are required to keep their data up to date (OCPO 2020). What this means is that the CSD provide a snapshot at a point in time because changes made by suppliers are not recorded. Perhaps the unique supplier number may be used as a way to have an idea of the history of a supplier.

[9] This is an internal document which is kept along with the data in the secure data facility, an extract of this document can be found in the appendix.

payments to know which payment (or sum of payments) on the BAS side merge to a particular LOGIS payment. Second, in the CSD dataset, information about a supplier can be repeated two or more times if that supplier has multiple bank accounts. Since bank account information is not kept in the final joined dataset, we have recorded the number of bank accounts and collapsed the duplicates into a single record.

A useful way to think about the relationship between the BAS and LOGIS data is in terms of what the different sets of variables in the databases represent. These variables can be broadly classified into the following categories:

a) Variables that identify the government entity purchasing the service/product
b) Variables that identify the company providing the service/product
c) Variables that contain the transaction details
d) Variables that contain the contract details
e) Variables that describe the service/product (i.e., SCoA variables)

LOGIS and BAS have information in all five classifications. CSD, however, only contains information about the supplier (i.e., category (b) above).

2 Merging the datasets

The LOGIS, BAS, and CSD datasets have been cleaned and combined to create one comprehensive, albeit incomplete, dataset on government procurement of goods and services from private sector entities registered on the CSD.

The BAS dataset contains information from a wide variety of entity number types.[10] Only the 'LOGSUP' and 'CSDSUP' can be merged with LOGIS and only the 'CSDSUP' can be merged with CSD using their CSD supplier number. Additionally, the source_doc_code must equal to GRVIMP' to merge with LOGIS. This is shown in Table 1, and results in 5,283,485 joinable observations from BAS. Unfortunately, of these a further 2,173,391 cannot be merged because they do not have payment_number/disbursement_number matches in LOGIS. This is likely because of missing records due to mistakes in entry in the LOGIS data. Finally, there are 31,878 unmerged observations that do have corresponding payment/disbursement_numbers in LOGIS and these are likely able to be joined manually, as outlined in the technical walk-through.

Table 1 and Figure 3 show the analysis of what can be merged based on entity_type_number. The BAS dataset should be analysed in isolation to get a full picture of procurement activity. This is because the merged data set only caters for records that appear in LOGIS which is just one of the databases that interphases with BAS (see Figure 1).

Further, as seen in Figure 3 a lot of payments were made through sundry (about 5 million observations accounting for over R300 billion in spending), which means they are not captured or reconciled to BAS. This means that BAS gives a more complete picture. However, from the analysis point of view, BAS will be limited because supporting information from CSD and LOGIS

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[10] Entity types are defined as follows; CSDSUP suppliers that have a CSD registered supplier number, LOGSUP suppliers that do not have a CSD number but only a LOGIS Supplier number, SUPPLI for BAS suppliers that do not have a CSD or a LOGIS Supplier number (for example when sundry payments are made within BAS), GRVIMP stands for ' Goods Received Voucher Implied'.

will not be available for payments that only appear in BAS. For example, BAS does not contain information of the BEE status of the supplier so, focusing on BAS alone, such an analysis will not be possible.

Table 1: Analysis of records that can be merged

BAS			
entity_number_type	Joinable	source_doc_code	Joinable
CSDSUP	Yes	GRVIMP	Yes
LOGSUP	Yes	SUNDRY	No
INV	No	INV	No
IDNO	No		
LAMNO	No		
PERSAL	No		
PMMSUP	No		
SUNDRY	No		

	BAS
Total	21,803,876
Joinable	5,283,485
Unmatched Payment/Disbursement Number	2,173,391
Not Joined Other	31,878
Joined	3,078,216

Source: authors' elaboration.

Figure 3: Analysis of records that can be merged by observation count and value
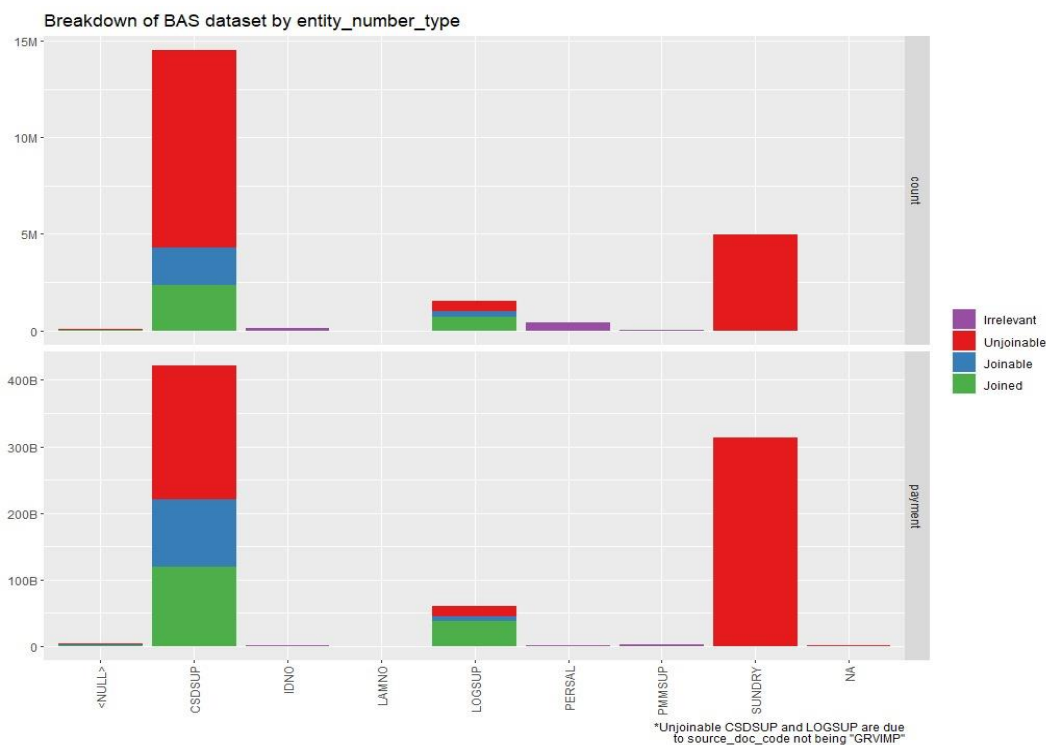
Source: authors' elaboration.

To analyse whether or not there is any substantial bias induced into our merged dataset, the distribution of payment_amount and source_document_date was analysed for the merged dataset compared to the unmerged data (but *joinable* according to their entity_number_type and source_doc_code).

Figure 4 shows the distribution of the payment_amount variable (log10) for the unmerged data (blue) and the merged data (orange). The purple area indicates the overlap of the two distributions. The mean and median of each dataset is shown on the left-hand side and indicates that the unmerged data had a lower average payment amount but a higher median payment amount. These values, however, are not substantial and the distributions do not show substantial differences that would be cause for concern.

Figure 4: The distribution of payment amount (based on joinable data)
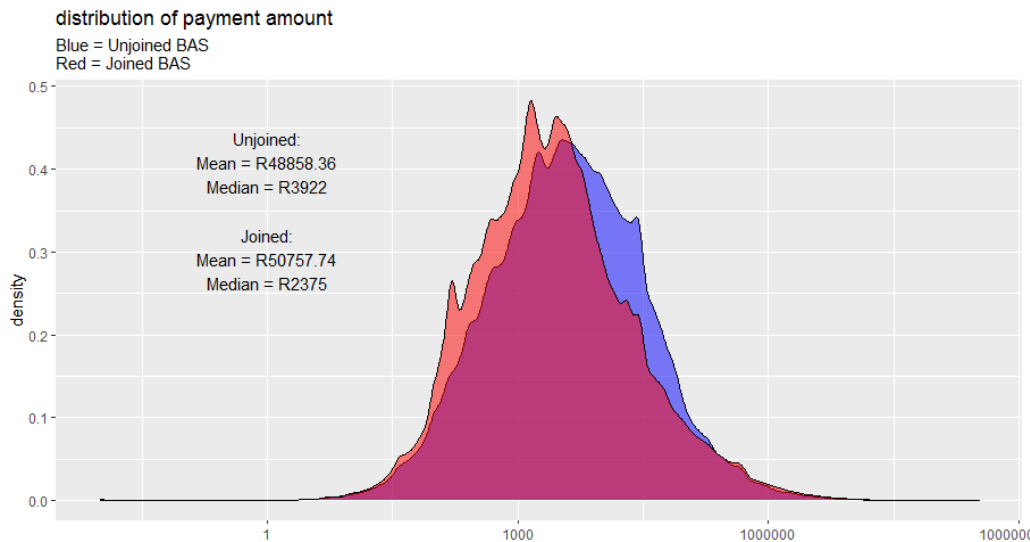
Source: authors' elaboration.

Figure 5: The distribution of source date (based on joinable data)
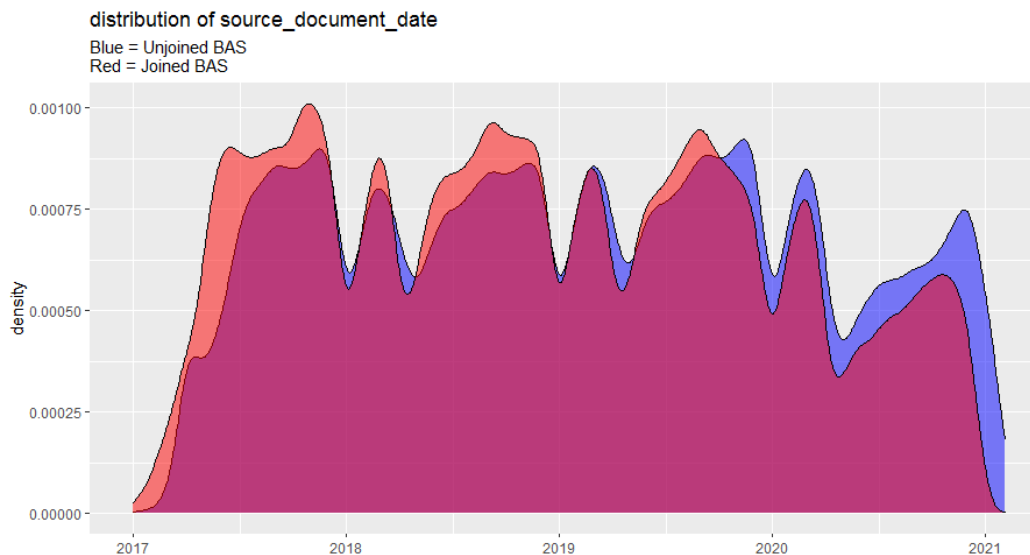
Source: authors' elaboration.

Figure 5 shows the distribution of the source document dates. Again, the blue shows the unmerged data, the orange shows the merged and the purple shows the overlap. There appears to be a slightly higher proportion of unmerged data at the later dates.

The merged LOGIS/BAS data is then merged with the CSD dataset. The merge is done by first matching according to csd_supplier_number then any unmerged observations are then merged on their bank account numbers. The merge with the LOGIS/BAS data is 97% matched and results in a final dataset of 2 942 904 observations and 227 variables (see McClelland et al. 2021 in the appendix for a description of the join from the LOGIS perspective).

Note that, as mentioned above, the later dates do not have bank account numbers and may result in slightly less observations being merged.

Tables A1–A5 in the appendix provide variable categorization across BAS and LOGIS. It should be noted that when a variable can be found in the two databases this variable is a potential variable that can be used to link the databases. The appendix also contains a detailed description for (some) of the LOGIS variables.

3 Description of data

3.1 Pertinent changes to the raw data

Some minor cleaning was performed on the data before the BAS and LOGIS datasets were joined together. These changes alter the raw data, but are necessary to merge the databases. The interested reader is directed to McClelland et al. (2021) for a full description of these changes. However, those pertinent to the current discussion are mentioned here.

- Make the ID variables names the same in both datasets. This is already done for the two ID variables we created in BAS ('IL Number' and 'Line Number') so we need to change 'BAS Payment Number' and 'BAS Disbursement Number' in LOGIS to 'Payment Nr' and 'Disbursement Nr' to match BAS.
- Remove all observations that have 'NA' values for 'Payment Nr', 'Disbursement Nr', or all of the SCOA variables (if only some SCOA data is 'NA' it is kept).
- Check for leading zeroes in any of the ID variables in both datasets. This can be caused by the data being read in as numeric and changing '0012345' to '12345' and will stop the observations being matched accurately.
- Check that the datatypes of all ID variables are the same.
- Remove all BAS observations where 'Source Document Code' is equal to 'Sundry'.

This gives us a LOGIS dataset of 3,314,041 observations and a clean BAS dataset of 12,226,114 observations.

3.2 LOGIS

Table A.6 presented in the Appendix details the behaviour of the final cleaned variables in the combined[11] LOGIS dataset. This cleaned data should be regarded as the first version of LOGIS data, created and cleaned as of April 2020.

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[11] Note that the word combined is used here and afterwards because some of the individual dataset like LOGIS came in batches of excel and sometimes text files; see McClelland et al. (2021) for details

There are 3,355,157 observations in this dataset and 98 variables in total, all listed in Table A6. In many cases, there are exactly 15 missing observations. These are all likely to belong to be the same problematic/empty observations. There are a number of 'date' variables which are mostly missing. The 'Document_Date' variable has the fewest missing observations, and we would advise that this variable be used in an analysis of the data by date. There are also a number of variables which are in String format at present, but which contain numbers or numeric codes. In the version of the data that is readable in R Studio, all of these variables are character variables. These variables can be transformed at the researchers' discretion. An example of this type of variable is 'Document_Number'.

There are also a number of code and description pairs. For example, the variables 'ASSET' and 'ASSET_Description' form a pair of variables where the 'ASSET' variable contains an asset code, and the 'ASSET_Description' variable contains a description in words. While it is possible that each code and description form a one-to-one match, it does not seem to be the case in this version of the data which has been extracted. The relationship between these code and description variables has been analysed and is discussed in Section 3.4.

3.3 BAS

Table A7 in the Appendix details the behaviour of the final cleaned variables in the combined BAS dataset. This cleaned data should be regarded as the first version of BAS data, created and cleaned as of April 2020.

There are 21,803,876 observations in this dataset, and 60 variables in total. There are 10 variables which contain sensitive information and have been removed from the data and are therefore not listed in the appendix. As in the LOGIS data, there are a number of variables which are in String format at present, but which contain numbers or numeric codes. These variables can be transformed at the researchers' discretion. An example of this type of variable is 'asst_posting_nr'. This is discussed further in the following section.

3.4 Code/description pairs

This section outlines which variables have value/label pairs that can be set as labelled factors. That is, the value label pairs can be combined into one variable which has a specific label for each value of the variable. As mentioned in Section 3.1., there are multiple pairs of variables to which this section applies. Some of the pairs indicated below did not have distinct matching labels for each code and vice versa. This is dealt with by changing the labels in various ways to reflect the underlying information. The codes are never changed except when they are NA and we have the codes of observations with the same labels. All of the various treatments of anomalous/mismatched pairs are dealt with in detail in McClelland et al. (2021). Additionally, the original unattached labels are retained in the dataset if the researcher requires.

Additionally, we have identified a number of variables that do not have corresponding codes but are likely to be needed as a categorical variable type. These are shown, along with the date and numeric variables of the merged dataset in Table 3.

Table 2: Value/label pairs

Code	Label	Attached
il_number	il_description	il_number_factor
store_number	store_description	store_number_factor
municipal_region_code	municipal_region_name	municipal_region_code_factor
supplier_type_code	supplier_type	supplier_type_code_factor
miin_code	miin_code_description	miin_code_factor
icn	icn_description	icn_factor
item	item_description	item_factor
infrastructure	infrastructure_description	infrastructure_factor
objective	objective_description	objective_factor
responsibility	responsibility_description	responsibility_factor
fund	fund_description	fund_factor
project	project_description	project_factor
asset	asset_description	asset_factor
region	regional_indentifier_description	region_factor
industry_classification_code	industry_classification_name	industry_classification_code_factor
government_type_code	government_type	government_type_code_factor
supplier_sub_type_code	supplier_sub_type	supplier_sub_type_code_factor
dept_code	department	dept_code_factor

Source: authors' elaboration.

Table 3: Variables without value/label pairs

Categorical	Numeric	Date variables
city_name	spend_amount	actual invoice receipt date
municipality_name	spend_per_quotation_amount	invoice date
district_name_y	spend_per_contract_amount	invoice_capture_date
province_name_y	petty_cash_amount	document_date
country_name	pay_hdr_amount	bas_transaction_date
validation_response	awaiting_disbursed_amount	bas_disbursement_date
government_employee	disbursed_amount	bas_payment_action_date
organ_of_state_type	payment_quantity	order_authorisation_date
ownership_completed	payment_unit_price	quotation_expiry_date
is_listed_on_stock_exchange	adjustment_amount	contract_end_date
bee_level	cash_discount	date_authorised
women	transport_amount	posting_date
certificate_type	handling_amount	source_document_date
turnover	order_quoted_price	source_document_received_date
disabled	quotation_price	registration_date
military_veteran	contract_price	bank created date (hour/minute/second)
youth	payment_amount	last validation date (hour/minute/second)
rural_or_township		created date (hour/minute)
pppfa_black_owned		
country_of_origin_code		
bank		
payment_status		
order_status		
payment_choice		
province_name_x		

Source: authors' elaboration.

3.5 Comments on non-matching observations

The ICN duplicated values appear to be almost completely medically related. Without further analysis as to why these pairs in particular have multiple ICN input codes for each ICN Description, the variables should both be kept and not attached. The MIIN duplicate value is made up of a single error where two MIIN numbers are shown for the MIIN Code Description of 'Emalahleni'. The duplicated 'Store Number' data is due to two prefix descriptions that should be the same. Namely 'LABOUR' and 'Empl. AND LABOUR'. The 'City' pair have duplicates in both the value and label due to multiple NA values in 'City Code'. This can be manually corrected which would only leave 8 cities that each have 2 codes.

3.6 CSD

The central supplier database (CSD) data contains information on the characteristics of the companies that were granted tenders. The information is largely descriptive, and includes the following groups of variables:

1. Geographical variables:
   a. suburb
   b. city
   c. municipality
   d. province
2. Company characteristics
   a. industry
   b. B-BBEE status
   c. female/youth/disabled/military veteran ownership
   d. government employee ownership
   e. South Africa company number
   f. stock exchange listing
3. Government supplier details:
   a. master supplier ID
   b. supplier number
   c. supplier type
   d. turnover

The variable which records government employee involvement in a company that was awarded a tender is of particular interest. According to legislation, tenders should not be awarded to government employees. Even so, the CSD data indicated that there are over 46,000 instances where government employees are connected to the tenders recorded in this data. It should be noted however, that the type of involvement of the government employee is yet to be determined. Finally, it should be noted that the variable descriptions for this dataset are still unclear. For example, we do not know what the 'business code' or 'business status' variables mean.

An important consideration when merging the BAS, LOGIS and CSD data is to be cognisant of the administrative process which establishes the data. The LOGIS data is created by transactions recorded on a ledger, where a payment observation is added to the ledger each time an invoice is submitted and paid. Once a payment observation is completed, it remains in the ledger as a record. This implies that the record will remain the same even in different extractions of the administrative dataset.

The BAS and the CSD dataset are created through a different administrative process. These databases include one observation for each tender or supplier respectively. In the CSD for example, there is one entry in the data for each supplier on record. This record is updated if the supplier updates their status in the CSD, and the record of the supplier's detail will then reflect the changes. All past record of past statuses will be lost. The different administrative processes for the creation of these datasets implies that there needs to be careful consideration when linking the CSD and the LOGIS, as 2017 records in the LOGIS for a specific supplier may not be reconcilable to 2020 records in the CSD for that supplier. This is because the supplier may have updated their record on the CSD after their transaction in 2017.

Finally, Figure 6 shows the summary of the individual and merged LOGIS/BAS/CSD data, this summary is by number of observations and spend amount.

Figure 6: The distribution of number of observations and spend in LOGIS, BAS, and CSD
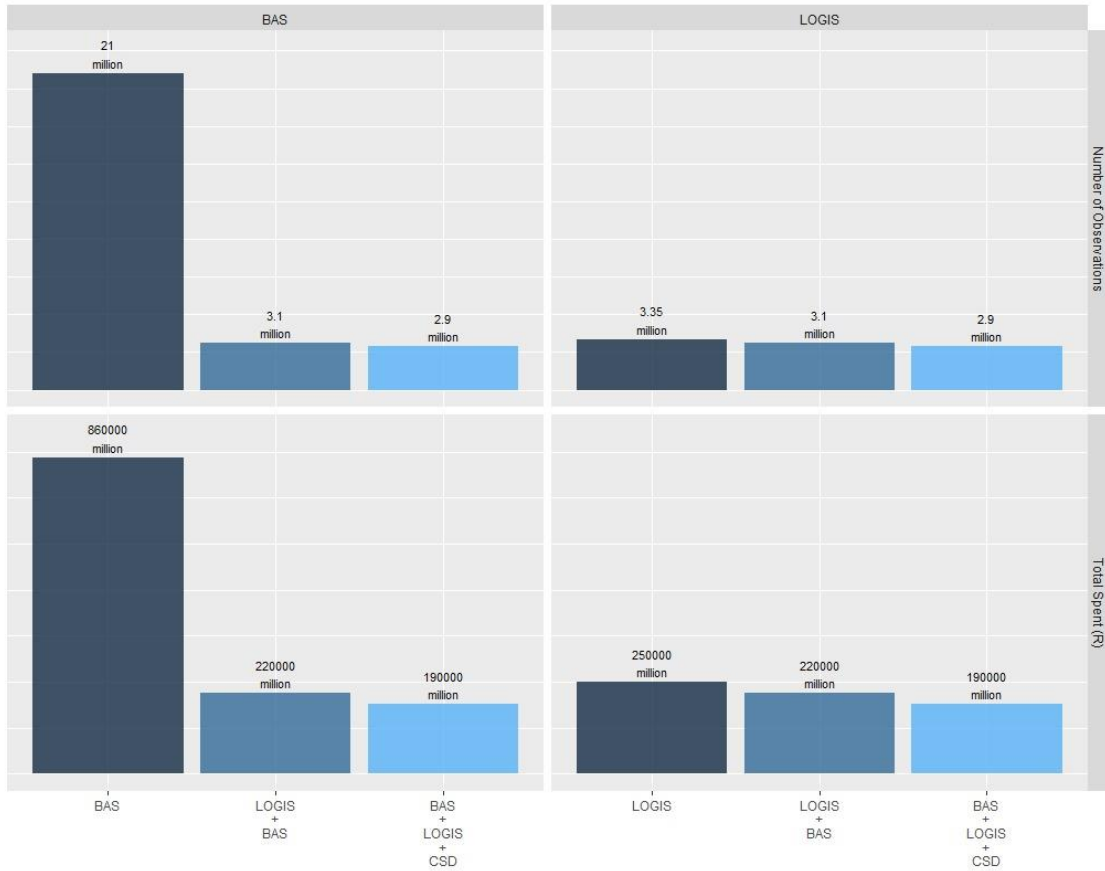
Source: authors' calculations.

4   Analysis of time trends and descriptive statistics

As a general description of the procurement data, this section outlines summary statistics in the data over time. This section is based on the merged LOGIS/BAS/CSD data, it contains **2.9 million** observations with **111** government entities and **50,815** contractors represented[12] (note that because the statistics presented in Table 4 is based on the merged dataset it does not include all procurement done in the period of interest, e.g. sundry spending is not included). Table 4 provides the broad description of the government entities covered in this merged dataset (this includes provincial and national departments, Table A8 in the appendix provide a more detailed description i.e. including entity names). Over the period covered by the data procurement spent was on average R2.5 million (2016)[13] per contractor with a maximum of R3.27 billion and a minimum of R17.33.

Table 4: Government entities captured in merged dataset

Government entity	Number of payments	%
Eastern Cape (EC)	336,996	11.45
Free State (FS)	234,708	7.98
KwaZulu Natal (KZN)	20,217	0.69
Limpopo (LP)	3,159	0.11
Mpumalanga (MP)	405,308	13.77
National (NAT)	936,871	31.83
Northern Cape (NC)	394,593	13.41
Western Cape (WC)	611,052	20.76
Total (number of payments)	2,942,904	100.00

Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Each row of the merged dataset represents a unique payment (in the LOGIS data). The total spent amount (based on the merged data) across all suppliers and contracts is 129.6 billion in 2016 Rand.[14] Note that the merged data excludes state-owned enterprises (SOEs), Gauteng and North West province. Figure 7 shows that the distribution of spend amount is relatively consistent in each year. Note that the price has been adjusted to 2016 Rand values using yearly CPI average.[15] However, it does appear that 2020 has a fatter right tail compared to the other years.

Table 5 shows the yearly summary statistics for spend amount. The result is consistent with Figure 7 in that 2020 distribution is more different than other years at the top deciles. This is confirmed by the percentile figures in Table 5 where the 2020 distribution has higher values at the mean and the percentiles shown.

[12] This count is based on the variable il_description (from LOGIS data) and the count of contractors is based on the variable legal_name from the CSD data.

[13] Note all Rand amount in this section has been deflated to R2016 rand values.

[14] 24.6 billion in 2017, 34.5 billion in 2018, 35.8 billion in 2019, and 34.7 billion in 2020.

[15] http://www.statssa.gov.za/publications/P0141/CPIHistory.pdf

Figure 7: Yearly distribution of spend amount
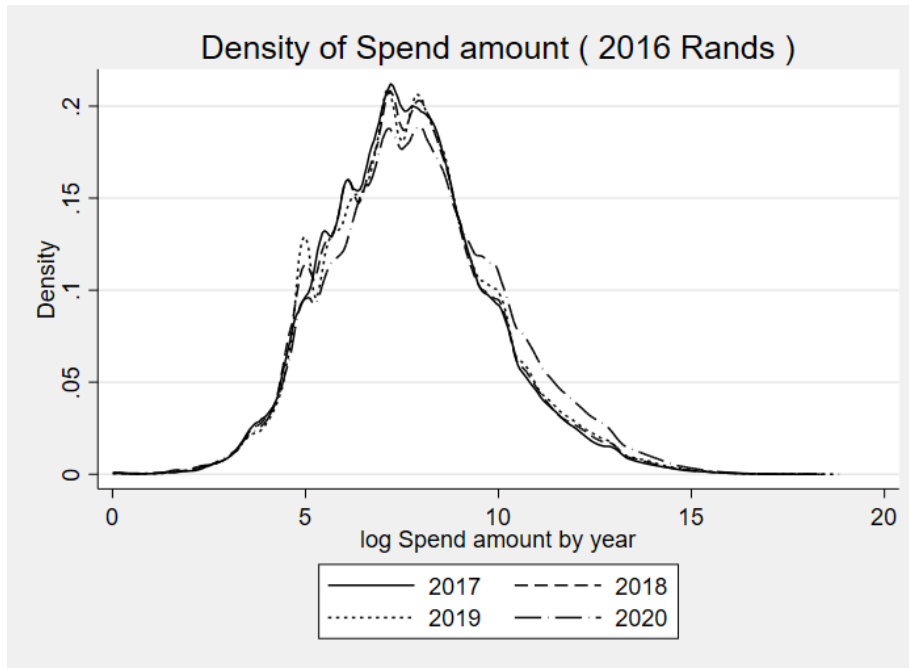
Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Table 5: Yearly summary for spend amount

year	2017	2018	2019	2020
N	649,749	852,725	839,253	601,177
Mean	37841.39	40494.07	42648.32	57718.03
St.Dev	456951.60	500701.10	450177.70	575638.60
Min	$\cong$0.01	$\cong$0.01	$\cong$0.01	$\cong$0.01
Max	83,900,000	90,700,000	135,000,000	150,000,000
p5	92.007	90.72	98.00	93.69
p25	492.32	475.61	520.37	605.02
p50	1,902.75	1,959.62	2,096.04	2,537.79
p75	7,391.69	7,657.62	8,307.78	12,548.58
p95	86,990.55	97,135.9	10,7911.8	17,2141.5

Note: 2016 Rand.

Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 8 breaks down the spending by entity (entity as shown in Table 3). National departments and Mpumalanga province spent over 30 billion (each) in the period covered by the data while KwaZulu Natal and Limpopo province spent the least amount.
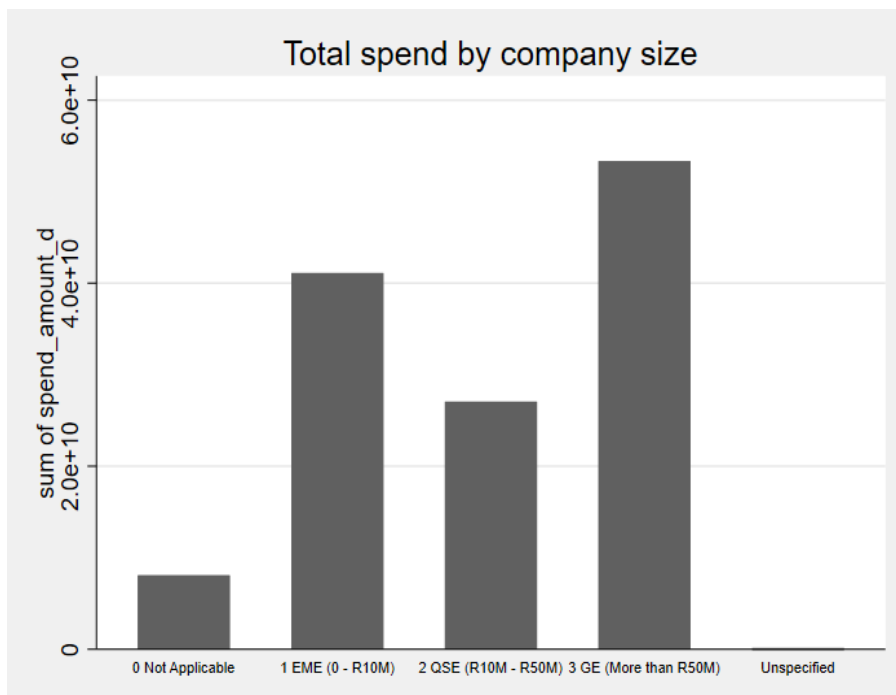
Figure 8: Spend amount by government entity

Total spend by entity
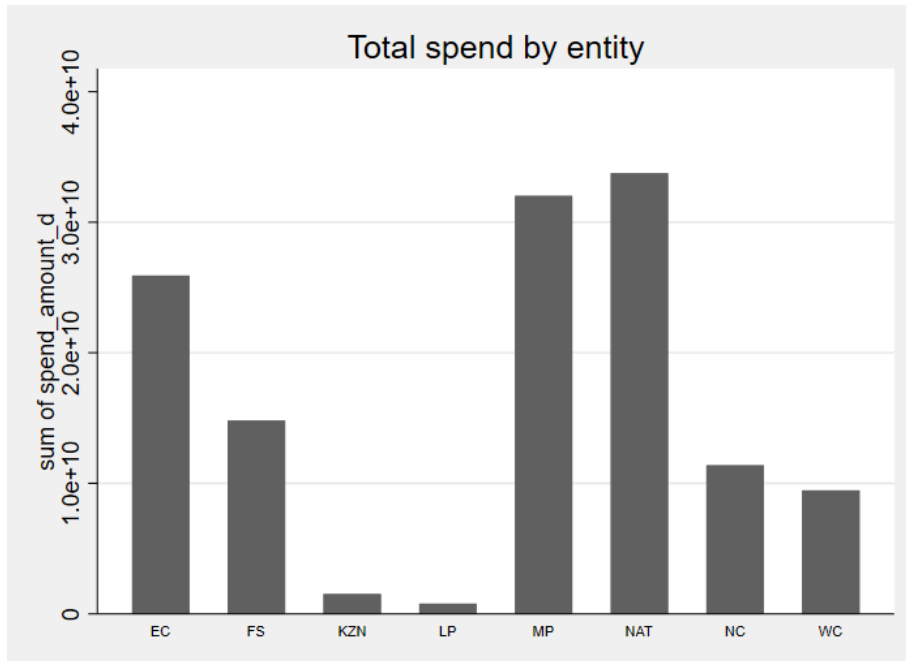
Note: 2016 Rand.

Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 9: Spend amount by size (measured by turnover of firm)

Total spend by company size

Note: 2016 Rand.

Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 9 displays spend amount by size of contractor firms, there are three distinct categories of firms based on the turnover of firms (firms with turnover over R50 million, between R10–50 million, and under R10 million). There is also a category for Not Applicable and unspecified). Table 7 shows that over the period under consideration the largest firms (those with over R50 million in turnover) accounts for a larger percentage of spend with over R50 billion spend on such

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firms. This is followed by the smallest firms (those with turnover under R10 million), they account for about 40 billion of the total spend. Firms with turnover between R10–50 million account for about 30 billion of total spend.

Figure 10 shows the breakdown of spend amount by Black Economic Empowerment (BEE) categories. It is obvious that companies with BEE level 1 account for most of the spend with over R70 billion spend on BEE level 1 companies. The rest of the categories account for a relatively smaller proportion of total spend. Figures 11–15 show the percentage of the total spend by variables that are used to categorize product and services in the dataset. These includes ICN description, item description, miin code description, miin description, and spend type.[16]

Figure 10: Spend amount by BEE categories
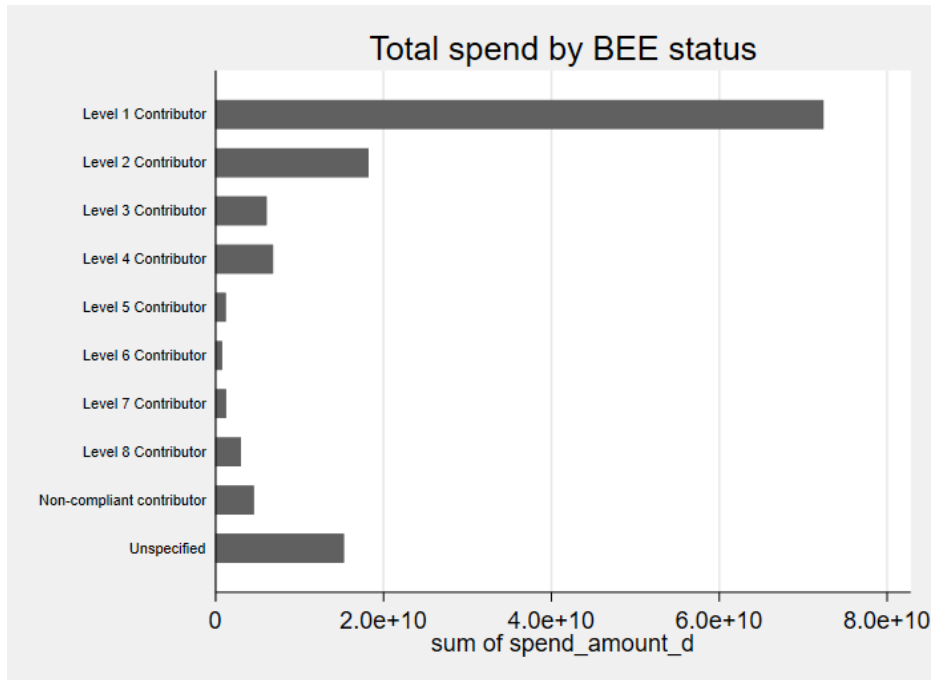
Source: authors' calculations based on merged LOGIS/BAS/CSD data.

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[16] Note that looking a t the SCoA variables is another way of doing this but we elect to use the variables listed because they provide a narrower description of product and services compared to the SCoA variables.

Figure 11: Spend amount by ICN description
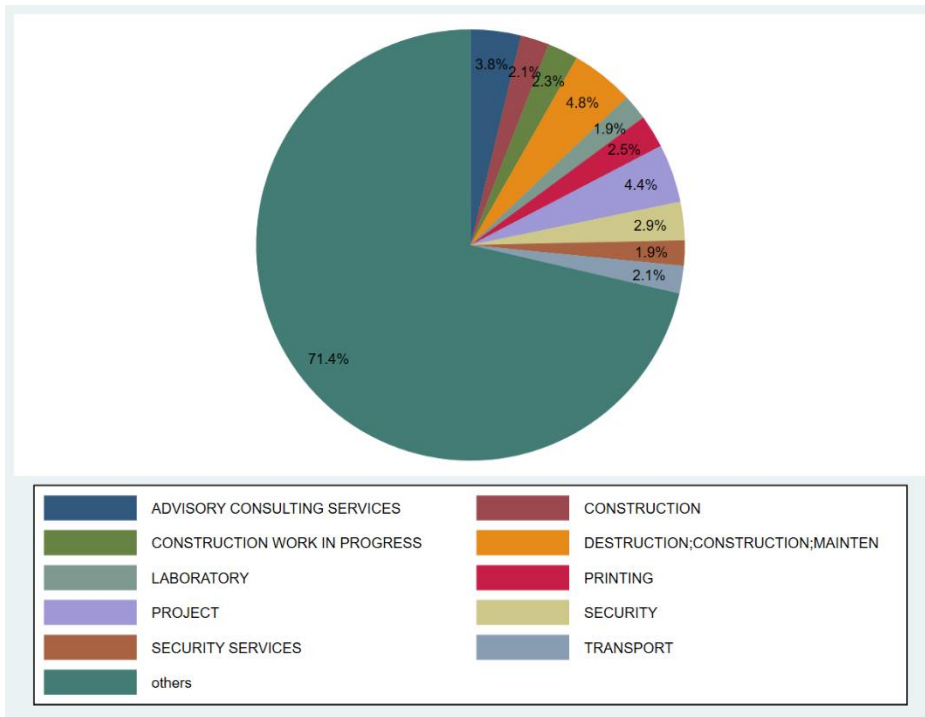
Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 12: Spend amount by item description
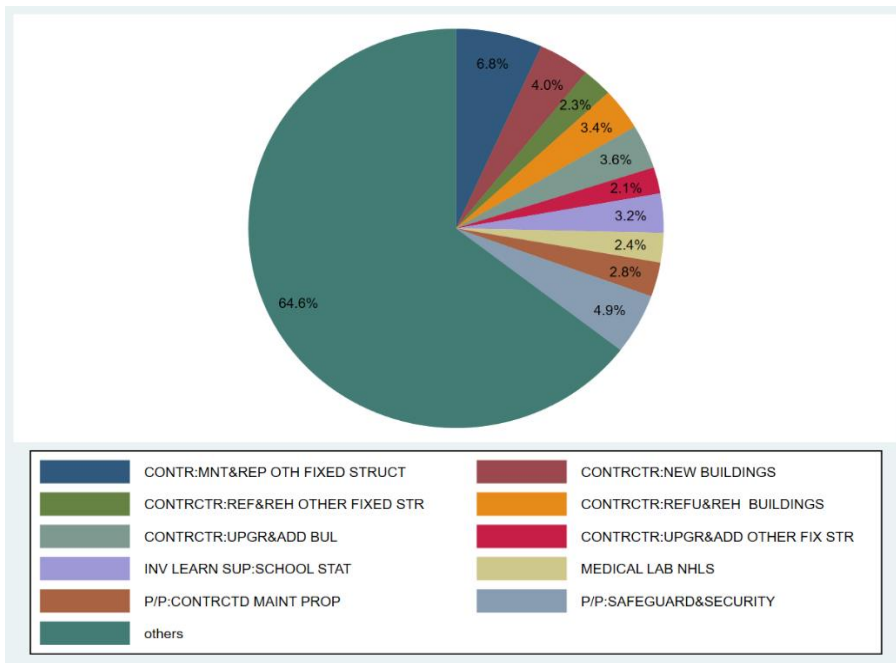
Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 13: Spend amount by miin code description

Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 14: Spend amount by miin description
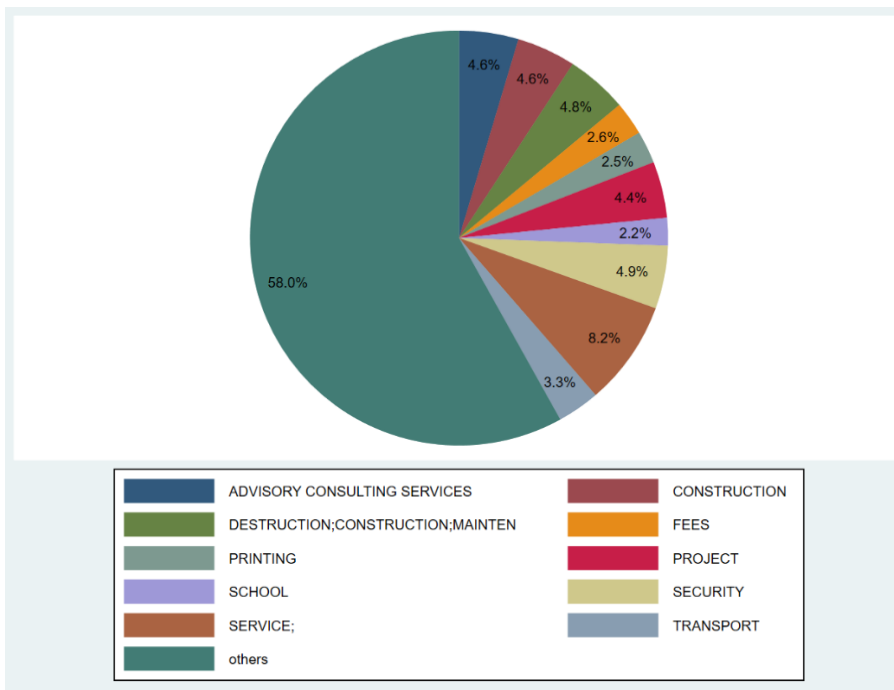
Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 15: Spend amount by spend type
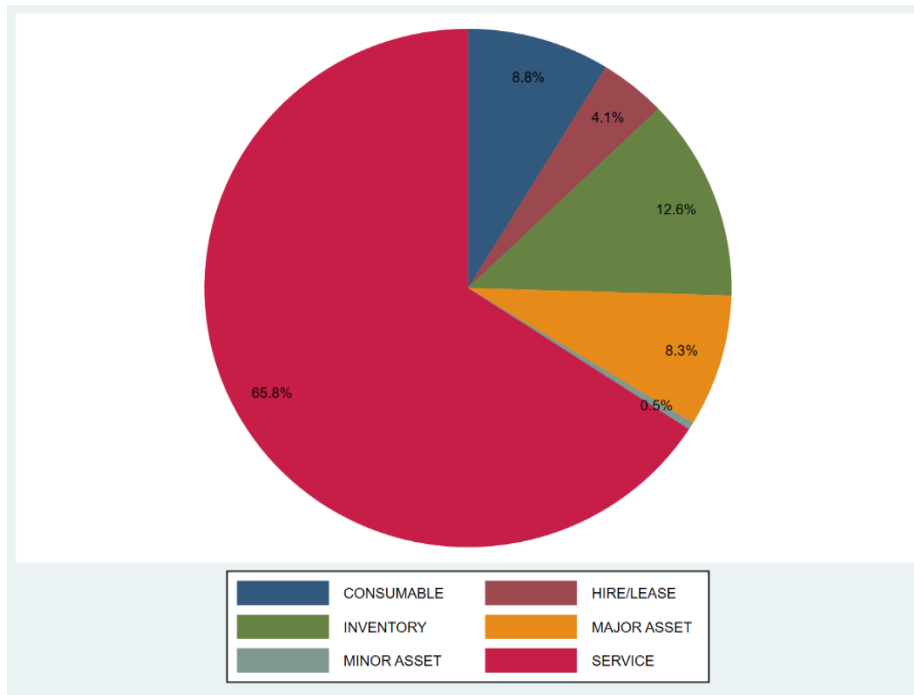
Source: authors' calculations based on merged LOGIS/BAS/CSD data.

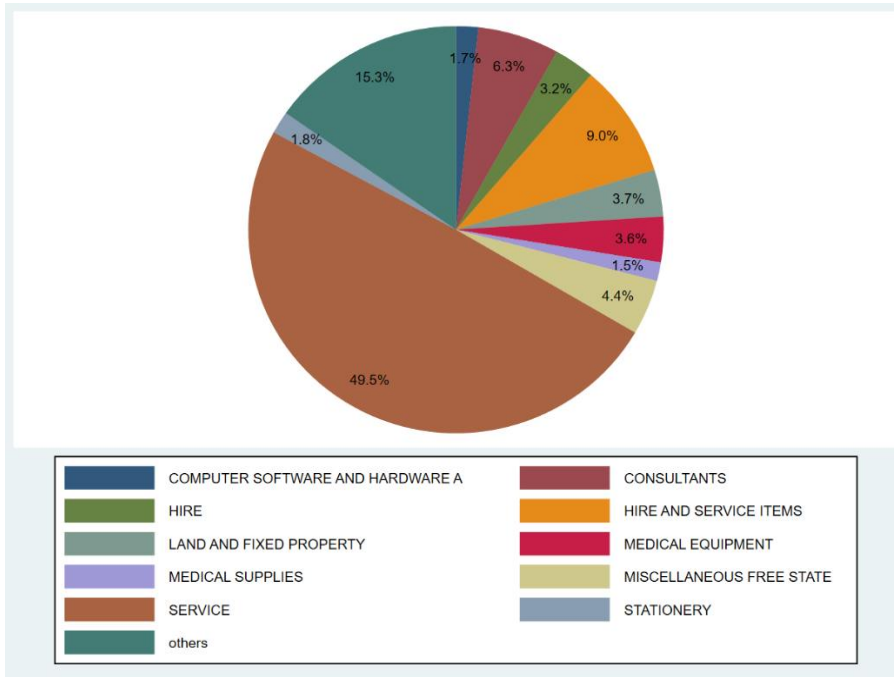The pie charts present the top 11 different categories, the top 10 categories of the description of product of services as defined by the listed variables and the last category represents other product and services. The graphs show that 'DESTRUCTION:CONSTRUCTION & MAINTEIN' at 4.4 per cent of spend represent the largest spend in terms of ICN description. 'CONTRA:MINT & REP OTH FIXED STRUCTURE' at 6.8 per cent represent the largest spend in terms of item description. 'CONSULTANTS' at 49.5 per cent represent the largest spend by miin code description. 'CONSTRUCTION' at 8.2 per cent represent the largest spend using miin description. Lastly, in terms of spend type 'SERVICES' is the largest spend at 65.8 per cent of total spend.

Figure 16: Monthly average for spend amount
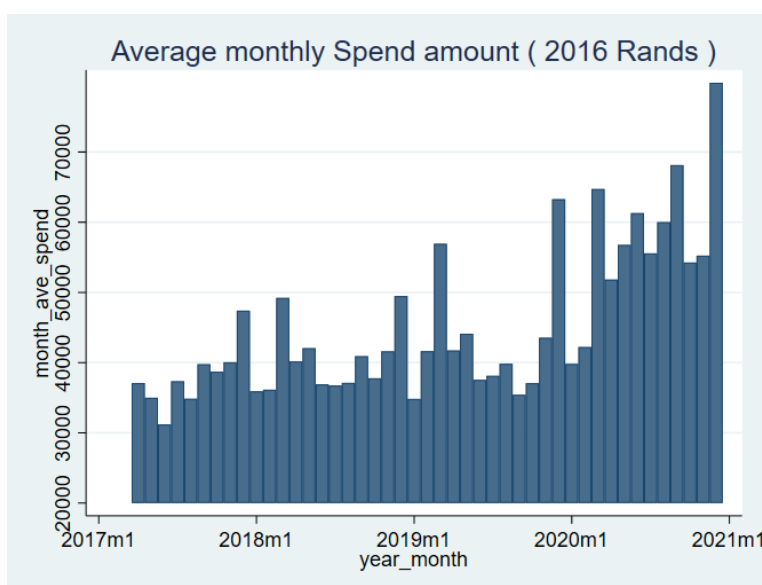
Source: authors' calculations based on merged LOGIS/BAS/CSD data.

Figure 16 presents the monthly average spend amount to show the trajectory over time. The pattern that emerges here is that of large expenditure (relative to the other months) in December of every year. It also appears that spending pattern changed significantly is 2020 with relatively larger amounts (relative to other years) being spent.

5   Concluding remarks

Although this document outlines an almost complete merge of the data (where compatible), there are some manual adjustments required to fully merge the data. Specifically, future researchers can add observations to the LOGIS/BAS merge by working through the 'Manual Adjustments.Rds' file and matching the LOGIS to BAS observations by comparing 'payment_amount' from BAS to 'spend_amount' from LOGIS, identify which observations from BAS were summed up in LOGIS and then re-label the 'line_number' variable appropriately to indicate the matches.

The combined dataset offers opportunities for future research that can assist with interventions in terms of procurement strategies in order to derive more value from sourcing goods and services from the private sector. While we have briefly presented a descriptive analysis in this report, a deep-dive into the database can assist with more diagnostic and prescriptive analysis to aid future policy discussions. Some of the ideas for future research include: identifying strategic opportunities for cost-cutting, exploring the role that public procurement policy has played as a tool for transformation, identifying transactions that warrant closer scrutiny etc.

However, it is important to combine other existing government databases to get full value from this database. This includes integrating the current transaction and supplier database with the data from the e-tender portal submissions. In other words, call for tenders need to be matched with tender awards which is currently not the case. Similarly, the Office of the Chief Procurement Officer (OCPO) pricelist needs to be integrated with the database to enable easier tracking of excessive pricing. Lastly, the recommendation is to explore the possibility of using this combined data together with SARS administrative tax data to comprehend supplier market more closely.

References

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Appendix

All of the tables in the Appendix are the authors' elaboration. If the table is from a specific dataset and it is not clear from the headings, it is clarified below the table.

Table A1: Variable that identifies the government entity

	LOGIS		BAS
1	ilnumber		
2	Il_description		
3	Store_number		
4	store_description		
5	logis_supplier_number		
6	province_name (speculative)		
7	province_number		
8	municipal_region_name		
9	municipal_region_code		
10	district_name		
11	district_code		
12	city_code		
13	cost_center_number		
14	cost_center_name		
15	cost_center_description		
		1	dept_code
		2	department
		3	entity_nr (speculative)
		4	beneficiary(speculative)
16	regional_indentifier	5	regn_posting_nr
17	regional_indentifier_description	6	regn_posting_desc

Table A2: Variables that identify the company providing the service

	LOGIS		BAS
18	logis_supplier_number		
19	csd_supplier_number		
20	csd_legal_name		
21	csd_trading_name		
22	logis_supplier_name		
23	logis_supplier_class		
24	supplier_sub_classification		
25	supplier_city		
		7	entity_number_type
		8	entity_type_nr
		9	entity_type
		10	entity_title
		11	entity_initials
		12	entity_first_name
		13	entity_last_name

Table A3: Variable that contains the transaction details

	LOGIS		BAS
26	spend_type		
27	spend_amount	14	payment_amount
28	spend_per_quotation_amount		
29	spend_per_contract_amount		
30	petty_cash_amount		
31	pay_hdr_amount		
32	awaiting_disbursed_amount		
33	disbursed_amount		
34	actual_invoice_receipt_date		
35	invoice_date		
36	invoice_capture_date		
37	unit_of_issue		
38	unit_of_issue_description		
39	document_number		
40	document_type		
41	document_date		
42	document_line_number		
43	payment_quantity		
44	payment_unit_price		
45	adjustment_amount		
46	cash_discount		
47	transport_amount		
48	handling_amount		
49	invoice_number		
50	pay_type		
51	pay_method		
52	invoice_reason_code		
53	payment_choice		
54	bas_payment_number	15	payment_nr
55	bas_transaction_date		
56	bas_disbursement_number	16	disbursement_nr
57	bas_disbursement_date		
58	bas_payment_action_date		
59	bas_payment_status		
60	order_number	17	order_nr
61	order_authorisation_date		
62	order_status		
63	order_quoted_price		
64	quotation_doc_number		
65	quotation_price		
66	quotation_expiry_date		
		18	bank_line_nr
		19	trans_type
		20	trans_nr
		21	payment_status
		22	credit_nr
		23	date_authorised
		24	posting_date
		25	posting_month
		26	source_doc_nr
		27	source_doc_code
		28	source_document_date
		29	source_document_received_date
		30	payment_type
		31	bank
		32	bank_branch_name
		33	bank_branch_nr
		34	bank_acc_type
		35	bank_acc_nr
		36	bank_line_nr1

Table A4: Variables that contain the contract details

	LOGIS	BAS
67	government_contract_number	
68	contract_end_date	
69	contract_type	
71	contract_price	

Table A.5: Variables that describe the product (i.e., SCoA variables)

	LOGIS		BAS
71	item	37	item_lvl_3_nr
72	item_description	38	item_lvl_3_desc
73	infrastructure	39	infr_posting_nr
74	infrastructure_description	40	infr_posting_desc
75	objective	41	objt_posting_nr
76	objective_description	42	objt_posting_desc
77	fund	43	fund_posting_nr
78	fund_description	44	fund_posting_desc
79	project	45	proj_posting_nr
80	project_description	46	proj_posting_desc
81	asset	47	asst_posting_nr
82	asset_description	48	asst_posting_desc
83	responsibility	49	resp_posting_nr
84	responsibility_description	50	resp_posting_desc
		51	item_posting_nr
		52	item_posting_desc
85	miin_code (Non SCOA product desc)		
86	miin_code_description (Non SCOA product desc)		

Table A6: LOGIS variable names and summaries

Name	Type	Missing	Unique values
IL_Number	String	0	117
IL_Description	String	5950	115
Store_Number	String	15	760
Store_Description	String	15	758
LOGIS_Supplier_Number	String	15	70246
CSD_Supplier_Number	String	35895	56395
CSD_Legal_Name	String	577638	55673
CSD_Trading_Name	String	1470143	31053
LOGIS_Supplier_Name	String	15	65384
LOGIS_Supplier_Class	String	662888	8
Supplier_Sub_classification	String	36	53
Province_Name	String	564934	9
Province_Number	String	564934	9
Municipal_Region_Name	String	564934	233
Municipal_Region_Code	String	564934	234
District_Name	String	564934	52
Supplier_City	String	15	3813
City_Code	String	564934	3079
MIIN_Code	String	24	104
MIIN_Code_Description	String	24	104
MIIN_Name	String	24	2637
MIIN_Description	String	24	7879
Spend_Type	String	6386	6
Cost_Center_Number	String	322932	5509
Cost_Center_Name	String	381028	14697
Cost_Center_Description	String	322932	12693
Spend_Amount	Double	15	828005
Spend_per_Quotation_Amount	Double	15	21100
Spend_per_Contract_Amount	Double	15	822407
Petty_Cash_Amount	Double	15	945
Pay_HDR_Amount	Double	15	1
Awaiting_Disbursed_Amount	Double	15	19689
Disbursed_Amount	Double	15	822742
Actual_Invoice_Receipt_Date	Daily Date	2467473	704
Invoice_Date	Daily Date	3212099	598
Invoice_Capture_Date	Daily Date	3212099	140
ICN	String	24	174548
ICN_Description	String	15	90506
Unit_Of_Issue	String	24	152
Unit_Of_Issue_Description	String	24	149
Document_Number	String	15	232384
Document_Type	String	15	2
Document_Date	Daily Date	15	1116
Document_Line_Number	Double	15	80

Payment_Quantity	Double	15	15132
Payment_Unit_Price	Double	15	766656
Adjustment_Amount	Double	15	415
Cash_Discount	Double	15	7000
Transport_Amount	Double	15	1
Handling_Amount	Double	15	1
Invoice_Number	String	1699	1500644
Pay_Type	String	1427	3
Pay_Method	String	1427	4
Invoice_Reason_Code	String	2160198	7
Payment_Choice	String	596533	2
BAS_Payment_Number	String	2098	471013
BAS_Transaction_Date	Daily Date	2098	871
BAS_Disbursement_Number	String	32359	201491
BAS_Disbursement_Date	Daily Date	3298	914
BAS_Payment_Action_Date	Daily Date	3298	929
BAS_Payment_Status	String	1427	6
Order_Number	String	1427	692192
Order_Authorisation_Date	Daily Date	1349511	1773
Order_Status	String	1439	3
Order_Quoted_Price	Double	15	432638
Quotation_Price	Double	15	15160
Quotation_Expiry_Date	Daily Date	3312031	567
Government_Contract_Number	String	44582	68770
Contract_End_Date	Daily Date	44633	2834
Contract_Type	String	44614	2
Contract_Price	Double	15	106147
ITEM	Double	15	1265
ITEM_Description	String	10	873
INFRASTRUCTURE	Double	153	15
INFRASTRUCTURE_Description	String	10211	58
OBJECTIVE	Double	15	4105
OBJECTIVE_Description	String	10211	3541
RESPONSIBILITY	Double	15	13206
RESPONSIBILITY_Description	String	12658	10211
FUND	Double	15	711
FUND_Description	String	10211	278
PROJECT	Double	15	8202
PROJECT_Description	String	7886	10211
ASSET	Double	15	2914
ASSET_Description	String	332	10211
REGIONAL_INDENTIFIER	Double	15	1369
REGIONAL_INDENTIFIER_Description	String	10211	605
Segment8	Double	15	1

Source: LOGIS data v1.

Table A7: BAS variable names and summaries

Name	Type	Numeric	Missing	Unique values
dept_code	String	0	0	170
department	String	0	0	170
payment_nr	String	1	0	1221234
entity_nr	String	0	0	67270
beneficiary	String	0	0	67264
bank_line_nr	String	1	0	16
entity_number_type	String	0	7609	8
entity_type_nr	String	1	7627	308171
trans_type	String	0	0	2
trans_nr	String	1	0	3200567
payment_status	String	0	0	5
credit_nr	String	1	0	1124103
order_nr	String	1	701333	2683362
date_authorised	String	0	0	959
posting_date	String	0	0	1222
posting_month	String	0	0	47
disbursement_nr	String	1	0	354717
reference_nr	String	1	15497879	2209128
source_doc_nr	String	1	12	7718823
source_doc_code	String	0	0	3
source_document_date	String	0	0	3421
source_document_received_date	String	0	32136	3844
capturer	String	0	0	7799
authoriser	String	0	565	6064
payment_type	String	0	0	4
payment_amount	Double	1	0	2231432
entity_type	String	0	0	11
item_lvl_3_nr	String	1	0	561
item_lvl_3_desc	String	0	0	6
item_posting_nr	String	1	0	25951
item_posting_desc	String	0	0	799
infr_posting_nr	String	1	0	2428
infr_posting_desc	String	0	0	43
objt_posting_nr	String	1	0	6656
objt_posting_desc	String	0	0	5623
resp_posting_nr	String	1	0	27439
resp_posting_desc	String	0	0	26438
fund_posting_nr	String	1	0	1126
fund_posting_desc	String	0	0	468
proj_posting_nr	String	1	0	25057
proj_posting_desc	String	0	0	23867
asst_posting_nr	String	1	0	5154
asst_posting_desc	String	0	0	391
regn_posting_nr	String	1	0	2277

regn_posting_desc	String	0	0	1108
date2	Float	1		
tr_year	Float	1		
tr_month	Float	1		
deflator	Float	1		
payment_amount_d	Float	1	0	3325733

Source: BAS data v1.

Table A8: Description of government entities

	il_description	Freq.	Percent
1	AGRIC,LAND REF & RURAL DEV (DALRR)	40,458	1.39
2	DEPT OF SCIENCE AND INNOVATION	5,057	0.17
3	EC PUBLIC WORKS	11,816	0.41
4	EC: EDUCATION	18,084	0.62
5	EC: HEALTH	213,880	7.37
6	EC: HUMAN SETTLEMENTS	5,120	0.18
7	EC: LOC GOV & TRAD AFFAIRS	870	0.03
8	EC: OFFICE OF THE PREMIER	3,645	0.13
9	EC: PROV PLANNING & TREASURY	7,232	0.25
10	EC: RURAL DEV & AGRARIAN REFORM	28,853	0.99
11	EC: SAFETY & LIAISON	2,556	0.09
12	EC: SPORT, REC, ARTS, & CUL	1,415	0.05
13	EC: TRANSPORT	29,111	1
14	ECP ECON/AFFAIRS ENV.DEDEDEAT HQ	2,469	0.09
15	EMPLOYMENT AND LABOUR	59,631	2.06
16	ENVIRONMENT, FORESTRY AND FISHERY	21,100	0.73
17	FS: AGRICULTURE	4,911	0.17
18	FS: COOPERATIVE GOV&TRAD AFFAIRS	8,185	0.28
19	FS: ECONO DEV, TOURSM&ENVIRO AFF	6,085	0.21
20	FS: EDUCATION	32,910	1.13
21	FS: FLEET MANAGEMENT	723	0.02
22	FS: HEALTH	98,889	3.41
23	FS: HUMAN SETTLEMENTS	6,225	0.21
24	FS: MEDPAS TRADING ACCOUNT	1,162	0.04
25	FS: POLICE, ROADS & TRANSPORT	11,309	0.39
26	FS: PROVINCIAL TREASURY	6,216	0.21
27	FS: PUBLIC WORKS	7,061	0.24
28	FS: SOCIAL DEVELOPMENT	21,338	0.74
29	FS: SPORT,ARTS,CULT,&RECREATION	14,028	0.48
30	FS: THE PREMIER	6,886	0.24
31	KZN: AGRIC, ENV AFF & RURAL DEV	18,876	0.65
32	LP SPORTS, ARTS AND CULTURE	337	0.01
33	LP: CO-OP GOV, HUM SETTLEM & TRAD AFF..	205	0.01
34	LP: EDUCATION	272	0.01
35	LP: HEALTH	1,031	0.04
36	LP: LEDET	224	0.01
37	LP: OFFICE OF THE PREMIER	638	0.02
38	LP: PROVINCIAL TREASURY	238	0.01
39	LP: SAFETY,SECURITY & LI	189	0.01
40	MP: AGRIC, RURAL DEV &LAND ADMIN	40,418	1.39
41	MP: CO-OP GOV & TRAD AFFAIRS	12,915	0.45
42	MP: CULT, SPORT & RECREAT	20,537	0.71
43	MP: ECON DEV, ENVIRONMNT&TOURISM	11,425	0.39
44	MP: EDUCATION	42,246	1.46
45	MP: FINANCE	11,053	0.38
46	MP: HEALTH	169,405	5.84

47	MP: HUMAN SETTLEMENT	10,593	0.37
48	MP: OFFICE OF THE PREMIER	15,555	0.54
49	MP: PUBLIC WRKS, ROADS&TRANSPORT	37,017	1.28
50	MP: SAFETY, SECURITY & LIAISON	13,041	0.45
51	MP: SOCIAL DEVELOPMENT	22,649	0.78
52	NAT SMALL BUSINESS DEVELOPMENT	2,024	0.07
53	NAT: COMMUNICATIONS	2,162	0.07
54	NAT: AGRICULT,FORESTRY&FISHERIES	34,682	1.2
55	NAT: BASIC EDUCATION	10,260	0.35
56	NAT: CENTER FOR PUBLIC SERVICE INNOVA..	16	0
57	NAT: COOP GOV & TRAD AFFAIRS	3,062	0.11
58	NAT: CORRECTIONAL SERVICES	326,472	11.25
59	NAT: DCDT	2,885	0.1
60	NAT: GOV COMM & INFORM SYSTEM	15,181	0.52
61	NAT: HEALTH	30,382	1.05
62	NAT: HIGER EDUCATION&TRAINING	21,764	0.75
63	NAT: HOME AFFAIRS	152,640	5.26
64	NAT: HOUSING	6,097	0.21
65	NAT: INDEPENDENT POLICE INV DIR	17,504	0.6
66	NAT: INTERNATIONAL REL & COOP	35,816	1.23
67	NAT: MINERALS RESOURCES	6,227	0.21
68	NAT: PALAMA	2,522	0.09
69	NAT: PALAMA - TRADING ACCOUNT	2,214	0.08
70	NAT: PERFORMANCE MONITOR & EVAL	5,199	0.18
71	NAT: PROSECUTING AUTHORITY	3,794	0.13
72	NAT: PUBLIC ENTERPRISES	4,817	0.17
73	NAT: PUBLIC SERV & ADMIN	2,139	0.07
74	NAT: PUBLIC SERVICES COMMISSION	457	0.02
75	NAT: PUBLIC WORKS	3,496	0.12
76	NAT: SOCIAL DEVELOPMENT	1,600	0.06
77	NAT: STATISTICS S.A.	9,710	0.33
78	NAT: THE PRESIDENCY	1,973	0.07
79	NAT: TOURISM	6,585	0.23
80	NAT: TRADE & INDUSTRY	5,628	0.19
81	NAT: TRADITIONAL AFFAIRS	1,186	0.04
82	NAT: TRANSPORT	3,785	0.13
83	NAT: WATER AFFAIRS	70,681	2.44
84	NC: AGRIC,LAND REFORM&RURAL DEV	17,666	0.61
85	NC: ECONOMIC DEV & TOURISM	12,380	0.43
86	NC: EDUCATION	25,433	0.88
87	NC: ENVIRON&NATURE CONSERVATION	6,785	0.23
88	NC: HEALTH	124,302	4.28
89	NC: OFFICE OF THE PREMIER	19,932	0.69
90	NC: PROVINCIAL TREASURY	22,046	0.76
91	NC: ROADS AND PUBLIC WORKS	22,869	0.79
92	NC: SOCIAL DEVELOPMENT	91,610	3.16
93	NC: SPORT, ARTS & CULTURE	17,551	0.6
94	NC: TRANSPORT, SAFETY & LIAISON	23,628	0.81
95	NC:COOP GOV, HUMN STLMNT&TRAD AF	13,655	0.47

96	SPORT & RECREATION SA	2,373	0.08
97	SPORTS, ARTS AND CULTURE	3,277	0.11
98	WC: AGRICULTURE	1,548	0.05
99	WC: COMMUNITY SAFETY	2,813	0.1
100	WC: CULT AFFAIRS & SPORT	906	0.03
101	WC: ECONOMIC DEVELOPM & TOURISM	302	0.01
102	WC: EDUCATION	215,026	7.41
103	WC: ENV AFF & DEV PLAN	346	0.01
104	WC: HEALTH	335,901	11.58
105	WC: HUMAN SETTLEMENTS	1,522	0.05
106	WC: LOCAL GOVERNMENT	1,879	0.06
107	WC: PROVINCIAL PARLIAMENT	157	0.01
108	WC: PROVINCIAL TREASURY	5,324	0.18
109	WC: SOCIAL DEVELOPMENT	19,898	0.69
110	WC: THE PREMIER	3,062	0.11
111	WC: TRANSPORT & PUB WORKS	9,887	0.34
	Total	2,901,127	100

Source: LOGIS.

The matrix below provides extra detail on the column headings of the download:

Column	Description	Format	Length
RECORD NUM	Record count	Numeric	13
ILNO	BAS ILNO that is used as Department code.	Alpha Numeric	3
ILNO DESCRIPTION	ILNO description from SAGC Code Type 00193.	Alpha Numeric	48
STORE NO	Store No from Payment header.	Alpha Numeric	10
STORE DESCRIPTION	Description from SAGC Code Type 00023.	Alpha Numeric	50
SUPPLIER NO	Supplier no from the payment header or from the petty cash header.	Alpha Numeric	10
CSD SUPPLIER NO	A CSD Supplier Number is a Supplier Number issued to a supplier once the online CSD registration process has been completed.	Alpha Numeric	11
SUPPLIER NAME	Supplier short name as listed on supplier master.	Alpha Numeric	40
SUPPLIER SMME TYPE	SMME Indicator on supplier master. Valid values: S = SMME (Small, Medium and Micro-sized Enterprises). P = HDI (Historically Disadvantaged Individuals). B = BBBEE (Broad Based Black Economic Empowerment). N = None.	Alpha Numeric	4
SUPPLIER BUSINESS TYPE	Business Type as listed on supplier master. CC Corporation External Government Institution Incorporated Individual Ltd Pty Ltd Non-profit Organisation Partnership Primary Cooperative Secondary Cooperative External Company Trust	Alpha Numeric	30
SUPPLIER CITY	The city in which the business is situated.	Alpha Numeric	40
CSD-TRADING-NAME	Trading name on Central Supplier Database	Alpha Numeric	50
CSD-LEGAL-NAME	Legal bane on Central Supplier Database	Alpha Numeric	200
BUSINESS-REG-NO	Business registration number on Central Supplier Database	Alpha Numeric	11
TCC CREDENTIALS	Tax certificate Clearance credentials from supplier credentials file.	Alpha numeric	3
TCC NO	Tax certificate clearance number from supplier credentials file.	Alpha numeric	22
APPROVED DATE	Tax certificate Clearance Approved date from supplier credentials file.	Alpha numeric	8
EXPIRY DATE	Tax certificate Clearance Expiry date from supplier credentials file.	Alpha numeric	8
ID-NO	Tax certificate Clearance Identity number from supplier credentials file.	Alpha numeric	13
PASSPORT-NO	Tax certificate Clearance Passport number.	Alpha numeric	30
COMPANY REG NO	Tax certificate Clearance Company registration number from supplier credentials file.	Alpha numeric	14
INCOME TAX REF	Tax certificate Clearance income tax reference number from supplier credentials file.	Alpha numeric	10
VAT REG NO	Tax certificate Clearance Tax vat diesel registration number from supplier credentials file.	Alpha numeric	20
PAYE REG NO	Tax certificate Clearance PAYE registration number from supplier credentials file.	Alpha numeric	10
SDL REG NO	Tax certificate Clearance SDL registration number.	Alpha numeric	10

UIF NO	Tax certificate Clearance UIF no from supplier credentials file.	Alpha numeric	10
MIIN CODE	MIIN Name As Specified On ICIA file.	Alpha Numeric	5
MIIN CODE DESCRIPTION	MIIN Name As Specified On ICIA file.	Alpha Numeric	60
MIIN NAME	MIIN Name As Specified On ICIA file.	Alpha Numeric	5
MIIN NAME DESCRIPTION	MIIN Name As Specified On ICIA file. Description from SAGC Code Type 00169.	Alpha Numeric	60
ITEM TYPE	Type of item on ICIA. Major asset = accountability type 'A' with quoted price higher than threshold set on SAGC Code Type 00206. Minor asset = accountability type 'A' with quoted price lower than threshold set on SAGC Code Type 00206. Lease = accountability type 'E' and ICN with item type 'H' on item master file. Service = accountability type 'E' and ICN with item type 'S' on item master file. Inventory = accountability type 'E' and ICN with item type not an 'H' or an 'S' on item master file.	Alpha Numeric	12
ICN	Item Control Number from payment detail file.	Alpha Numeric	14
ICN DESCRIPTION	Item Control Number Description from item master.	Alpha Numeric	150
UNIT OF ISSUE	This field indicates the unit in which the item will be issued. The unit of issue is set up on selection LSLG (Item Record Maintenance) and defaults to all relevant selections for the particular transaction. It also prints on relevant reports.	Alpha Numeric	2
UNIT OF ISSUE DESCRIPTION	This field indicates the description of the used Unit of Issue. The description is derived from SAGC Code Type 00039.	Alpha Numeric	60
COST CENTRE	Cost Centre (Chief user) number on the PROV-ADVICE linked to the order detail line.	Alpha Numeric	5
COST CENTRE NAME	Cost Centre name on CHIEF-USER file.	Alpha Numeric	20
COST CENTER DESCRIPTION	Description as per selection IFCH (Cost Centres)	Alphanumeric	20
SPEND AMOUNT	Calculated per record. Payment Quantity X Payment Unit Price + Adjustment - Cash Discount + Transport Amt + Handling Amt.	Numeric	17
SPEND PER QUOTE AMT	Spend amount where the contract number from order file is found on the QUOTATIONS file. This amount will be blank when items are purchased on contract.	Numeric	17
SPEND PER CONTRACT AMT	Spend amount where the contract number from order file not found on the QUOTATIONS file, but on the CONTRACT-DETAIL file. This amount will be blank if items are purchased on quotations.	Numeric	17
PCASH AMT	Petty Cash Spend.	Numeric	10
PAY HDR AMT	Payment header transport & handling amount.	Numeric	21
TYPE	Identify if the payment header type. Valid values: TRNSP : When the payment header amount is for Transport. HANDL : When the payment header amount is for Handling.	Alpha Numeric	5
AWAITING DISBURSED AMOUNT	Spend amount if BAS disbursement number has a value. This value will be blank for Petty Cash transactions.	Numeric	17
DISBURSED AMOUNT	Spend amount if BAS disbursement number is filled. This value will be blank for Petty Cash transactions.	Numeric	17
QUOTE DOC NO	Contract number on order detail.	Alpha Numeric	11
LINE NO	This field indicates the Line number of a specific transaction.	Alpha Numeric	3

QUOTATION PRICE	Price of the quotation on the QUOTATION file.	Numeric	14.2
QUOTATION EXPIRY DATE	Expiry date of the quotation on the QUOTATION file.	Alpha Numeric	8
CONTRACT NO	Contract number on order detail.	Alpha Numeric	11
GOV CONTRACT NO	Government contract number on order detail.	Alpha Numeric	11
CONTRACT END DATE	Contract end date on CONTRACT-HEADER.	Alpha Numeric	8
CONTRACT TYPE	Contract type on CONTRACT-HEADER. 1 = Central. 2 = Regional. 3 = Provincial. 4 = Non-contract.	Alpha Numeric	12
CONTRACT PRICE	Contract price on CONTRACT-DETAIL.	Numeric	14.2
PR-ADV NO	Procurement Advice no.	Alpha Numeric	9
ORDER NO	Order number from payment header.	Alpha Numeric	9
ORDER AUTH DATE	Date order was authorised from order header.	Numeric	8
ORDER STATUS	Status from order header. A = Authorised. D = Closed. P = Paid.	Alpha Numeric	10
ORDER QUOTED PRICE	Quoted price from order detail.	Numeric	14.2
BAS-SEGMENT-0	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-1	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-2	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-3	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-4	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-5	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-6	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-7	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
BAS-SEGMENT-8	Allocation code from ALLOCATION file as set on SAGC Code Type 00193.	Alpha Numeric	15
DOCUMENT NO	Payment number from payment header or voucher no from petty-cash header.	Alpha Numeric	9
DOC TYPE	Identify the document type.	Alpha Numeric	7
DOC DATE	Auth Date on PAYMENT HEADER or Verify date on PETTY CASH.	Numeric	8
DOC LINE NO	Line number from payment detail or petty cash detail.	Numeric	3
PAYMENT QUANTITY	PAYMENT-QTY on PAYMENT-DETAIL. AUTH-QUANTITY on PC-DETAIL	Numeric	8
PAYMENT UNIT PRICE	PAYMENT-UNIT-PRICE on PAYMENT-DETAIL and PC-RECEIPT-UNIT-PRICE on PC-DETAIL.	Numeric	14.6
ADJUSTMENT AMT	DETAIL-ADJUSTMENT-AMOUNT on PAYMENT-DETAIL file.	Numeric	14.6
DISCOUNT AMT	DETAIL-CASH-DISCOUNT on PAYMENT-DETAIL file.	Numeric	14.6
TRANSPORT AMT	DETAIL-TRANSPORT-AMOUNT on PAYMENT-DETAIL.	Numeric	14.6
HANDLING AMT	DETAIL-HANDLING-AMOUNT on PAYMENT-DETAIL.	Numeric	14.6
PAY TYPE	Type of payment from payment header. A = Advance.	Alpha Numeric	7

	P = Partial. F = Final. Blank on petty cash records. Repeated on payment detail lines.		
PAY METHOD	Method of Payment from payment header. N = Normal. B = BDPI. P = Prelim. L = Linked. Blank on petty cash records. Repeated on payment detail lines.	Alpha Numeric	6
PAYMENT CHOICE	Price used for calculation of payment detail amount. I = Invoice Price. Q = Quoted Price. Blank on petty cash records. Blank on payment header records.	Alpha Numeric	13
INVOICE NO	Invoice number from payment header.	Alpha Numeric	15
INVOICE REASON CODE	Description from SAGC table 166 for reason code (PAYMENT-REASON-CODE) from payment detail.	Alpha Numeric	25
ACTUAL INVOICE RECEIVED DATE	This date is derived from the Date/Time stamp on the physical document when the invoice was captured on selection FIIN (Invoice Capture and Maintenance).		8
BAS PAYMENT NO	Bas payment no from BAS Payment file.	Alpha Numeric	9
BAS PAYMENT TRANSACTION DATE	Bas payment transaction date from BAS Payment file.	Alpha Numeric	8
BAS DISBURSEMENT NO	Disbursement number from BAS Payment file retrieved with the LOGIS payment no.	Alpha Numeric	9
BAS DISBURSEMENT DATE	Disbursement date from BAS Payment file retrieved with the LOGIS payment no.	Alpha Numeric	8
BAS PAYMENT ACTION DATE	Payment action date from BAS Payment file retrieved with the LOGIS payment no.	Alpha Numeric	8
BAS PAYMENT STATUS	Status from BAS Payment file retrieved with the LOGIS payment no. Valid values: Awaiting Disbursement. Disbursed. Cancelled. DB-Reissue: EFT. DB Reissue: CT. DB Reissue: MCT. DB Reissue: SC. DB Reissue: MC.	Alpha Numeric	21
BAS Dept No	BAS Department Number	Numeric	3
BAS Processed	Previous amounts already processed by BAS.	Alpha numeric	15

Source: LOGIS.