Is government paying competitive prices for goods and services and getting good value for money?

e.g. Are the purchased materials and equipment of the required quality and reliability?

e.g. Are government entities such as Leveraging competitive bidding processes to obtain the best prices for goods and services?

e.g. Are the contracted IT services that government is procuring delivering value for money.

Check the appropriate box next to each question and actions as you decide which questions and actions are relevant to your investigation, and mark when they are completed.

Relevant		Completed		Note your findings from the actions you took in the spaces below. What was successful. What was unsuccessul. Why?
Yes	No			
			Do you have a representative sample of data showing the unit cost of orders of comparable goods or services?	
			Prepare a dataset of orders or agreements itemising commodity or service and unit cost. Ideally also including quantity of units to be supplied. Identify relevant orders or agreements. Refer to the "Are goods ordered in time, and service agreements in place, so that important pubic services can be delivered without interruption" guide for more on identifying relevant orders. You can also contact the relevant procurement department or entity. Once you have located the data sources, you can extract the relevant data from the orders or agreements. This data should include the commodity or service being procured, the unit cost, and the quantity of units to be supplied. If the information does not contain unit cost, but does have total cost and number of units, you can calculate an estimated unit cost, but try to request confirmation or more detail in case other charges were included in the total. - Before conducting analysis on the extracted data you will need to clean the data, this process involves removing errors and inconsistencies in the data sets. But watch out - inconsistencies may simply be unusual prices and valid data. Once this data has been cleaned it is ready to be prepared in a spreadsheet or database in order for it to be analysed. **Resources** - General Procurement Guidelines https://www.treasury.gov. za/legislation/pfma/supplychain/general%20procurement% 20guidelines.pdf - COVID procurement dataset http://ocpo.treasury.gov. za/COVID19/Pages/Reporting-Dashboard-Covid.aspx - KZN Flooding procurement dataset http://ocpo.treasury.gov. za/COVID19/Pages/Reporting-Dashboard-DisasterResponse.aspx **More info** Very little data specifying the price paid for specific commodities is publicly available. The best of this data has been the special releases for COVID-19 PPE procurement, and the KwaZulu-Natal floods emergency procurement. You will most likely need to request the data specifically. See the *Guide to sourcing data from government* for more tips on making practical effective PAIA requests for procurement monitoring.	

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Relevant		Completed		Note your findings from the actions you took in the spaces below. What was successful. What was unsuccessul. Why?
Yes	No			
			What is the distribution of prices?	
			Calculate the median, standard deviation; Plot the price and unit cost in price buckets of appropriate size. Once the data has been cleaned and stored it is ready for analysis. To analyse the data it is helpful to: - Calculate the median. The median is the middle value in a sorted dataset. To calculate the median, you can first sort the orders in ascending order of unit price. Then, the median is the value in the middle of the dataset. https://www.mathsisfun.com/median.html - Plot the price and unit cost in price buckets of appropriate size. This can be done by creating a histogram. A histogram is a graph that shows the distribution of data. To create a histogram, you first need to divide the data into price buckets. The size of the price buckets will depend on the amount of data you have. Once you have divided the data into price buckets, you can then plot the number of values in each price bucket. The goal is to select bucket sizes that are large enough so that you have enough orders to start seeing a pattern in the unit prices. At the same time, you want buckets that are small enough so that your histogram takes shape and you can see whether prices concentrate more towards one range. Aim for at least 5 buckets. https://chartio.com/learn/charts/histogram-complete-guide/ - Calculate the standard deviation. The standard distribution is a measure of how spread out the data is. Using the Standard deviation, you can get a sense of whether most of the prices are quite similar, or whether they vary significantly between orders. The more similar prices normally are, the easier it is to identify prices that are different and perhaps need closer scrutiny.	

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Relevant		Completed		Note your findings from the actions you took in the spaces below. What was successful. What was unsuccessul. Why?
Yes	No			
			Are there regional variations in pricing? Are there volume variations in pricing?	
			Calculate and plot for provinces, rural vs urban, high vs low volume. When you are trying to understand why specific orders have that price, perhaps particularly high or low, it can be useful to understand whether there are systematic variations in prices. Perhaps something is much cheaper at the coast due to transport costs inland. Or perhaps volume discounts can reduce a price significantly. Once the price for a particular good or service has been plotted in price buckets of appropriates sizes the following processes should be followed. - Divide the data into provinces. To do this, add a new column to your spreadsheet or database that indicates the province of each order or agreement. - Divide the data into rural vs urban. To do this, add a new column to your spreadsheet or database that indicates whether each order or agreement was for a rural or urban area. - Divide the data into high vs low volume. To do this, add a new column to your spreadsheet or database that indicates whether the quantity of units to be supplied was high or low. - Calculate the median and standard distribution for each province, rural vs urban, and high vs low volume category. To do this, use the same steps as you did when you calculated the median and standard distribution for the entire dataset. - Plot the price and unit cost in price buckets of appropriate size for each province, rural vs urban, and high vs low volume category. To do this, create a histogram for each category.	

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Yes	No			
			Which orders stand out? Why do they deviate significantly from the norm?	
			Identify the outliers. This can be done by looking at the histogram or by using a statistical test such as the interquartile range (IQR). The IQR is a measure of the spread of the data, and it can be used to identify values that are outside the interquartile range. https://www.statisticshowto.com/probability-and-statistics/interquartile-range/	
			Try to confirm your findings before suspecting foul play. Double-check any calculations you made. Try to follow the data for those orders back to the source and see if any errors crept in, perhaps during transcription from documents. Try to corroborate the values with a second source. e.g. Try to match order values between tender award and service agreeement. Try to match order quantities between tender advertisement, service agreement, and delivery notes or invoice reports. **Resources:** - eTender portal etenders.gov.za - Request tender award data, service agreements, delivery documentation from the procuring institution. See the *Guide to sourcing data from government* for more.	

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Relevant		Completed		Note your findings from the actions you took in the spaces below. What was successful. What was unsuccessul. Why?
Yes	No			
			Why is the price paid so far from the norm? Are they not receiving normal bids, or are they selecting pricier bids than they should?	
			Get hold of all bids including bid amounts, reasons for any disqualifications, as well as the selection meeting minutes In order to ensure that the procurement process was fair and transparent, or to identify if there are any potential problems with the procurement process you need to access more detail about the bids as well as the selection process. Access the tender award details including the bid amounts from non-winning bidders. Tender awards details often only include the amount for the winning bidder and only names of non-winning bidders. You may need to request the other bid amounts from the buyer. You will also need the bid evaluation committee minutes. These are not normally publicly available and will need to be requested from the procuring entity. **Resources:** - PAIA for bid award details including non-winning bid amounts and bid evaluation committee minutes. See the *Guide to sourcing data from government.*	
			See whether the non-winning bids follow the pricing norm Looking at the other bid amounts could shed light on special circumstances in this procurement instance	
			Were the evaluation criteria applied correctly? See if any bids were disqualified unfairly. There may have been other valid bids which could have supplied the goods or service at better value for money but were improperly disqualified without valid reason, favouring the winner.	
			Determine whether the selected bid was in line with selection rules in procurement regulations. Was a more costly bid selected when a qualifying bid was available with a lower cost? Was a particularly low bid accepted despite the goods or services not really meeting the requirements of the tender?	

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Relevant Yes	No	Completed		Note your findings from the actions you took in the spaces below. What was successful. What was unsuccessul. Why?
			Who needed to be sufficiently qualified to determine whether the goods or services procured were fit for purpose? At which point in the procurement process was this capability required? How was it satisfied? Am I sufficiently qualified to determine this?	
			Identify the technical requirements The technical requirements should be specified in the tender specification documents. A template is normally provided for bidders to complete to indicate how they meet the requirements. **Resources:** - Tender specification documents via eTender Portal	
			Determine whether the bid evaluation committee was able to properly determine technical qualification of bids? Were the technical requirements specified clearly? Was the committee qualified to determine whether bids meet these criteria? Access the Bid Evaluation Committee meeting minutes to see who was part of the committee, and how specific decisions were made. **Resources:** - PAIA for Bid Evaluation Committee minutes. See the *Guide to sourcing data from government.*	
			Assess whether you are qualified to assess decisions of qualification for the relevant bids Are any technical skills or qualifications needed to make sense of tender requirements and bid evaluation? For some technical requirements, you may need to get the assistance of technical experts to make sure you are interpreting requirements and submissions correctly.	