



# **CFO FORUM MEETING MOSSEL BAY**

**5 & 6 DECEMBER 2011**



# • **What is a standard?**

- **1. Put at its simplest, a standard is an agreed, repeatable way of doing something.**
- **2. It is a published document that contains a technical specification or other precise criteria designed to be used consistently as a rule, guideline, or definition.**
- **3. Standards help to make life simpler and to increase the reliability and the effectiveness of many goods and services we use.**

- **4. Standards are created by bringing together the experience and expertise of all interested parties such as the producers, sellers, buyers, users and regulators of a particular material, product, process or service.**
- **5. Standards are designed for voluntary use and do not impose any regulations. However, laws and regulations may refer to certain standards and make compliance with them compulsory.**



- **6. Any standard is a collective work. Committees of manufacturers, users, research organizations, government departments and consumers work together to draw up standards that evolve to meet the demands of society and technology.**

7. **Something considered by an authority or by general consent as a basis of comparison; an approved model.**
8. **An object that is regarded as the usual or most common size or form of its kind: We stock the deluxe models as well as the standards.**
9. **A rule or principle that is used as a basis for judgment:**
10. **An average or normal requirement, quality, quantity, level, grade, etc.**

# Standard Deviation and Variance

*Deviation just means how far from the normal*

## Standard Deviation

The Standard Deviation is a measure of how spread out numbers are.

Its symbol is  $\sigma$  (the Greek letter sigma)

The formula is easy: it is the square root of the Variance. So now you ask, "What is the Variance?"

## The Variance is defined as:

The average of the squared differences from the Mean.

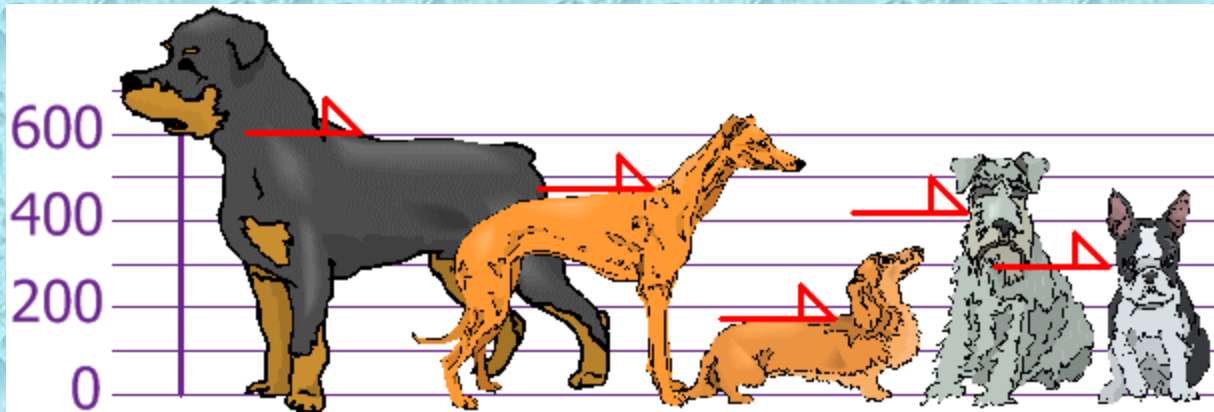
To calculate the variance follow these steps:

- Work out the Mean (the simple average of the numbers)
- Then for each number: subtract the Mean and square the result (the *squared difference*).
- Then work out the average of those squared differences. (Why Square?)



# Example

You and your friends have just measured the heights of your dogs (in millimeters):



The heights (at the shoulders) are: 600mm, 470mm, 170mm, 430mm and 300mm.

Find out the Mean, the Variance, and the Standard Deviation.  
Your first step is to find the Mean:

Answer:

$$600 + 470 + 170 + 430 + 300 = 1970$$

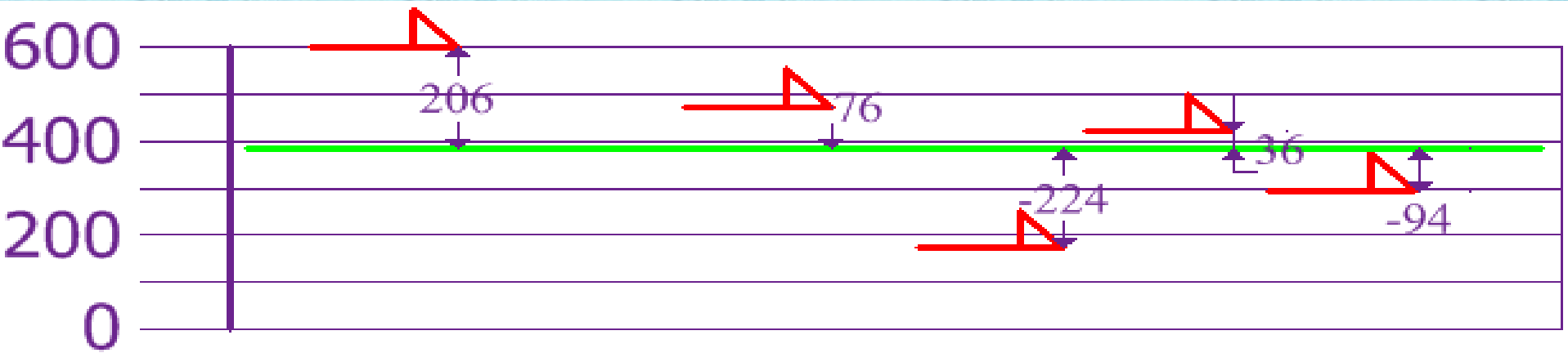
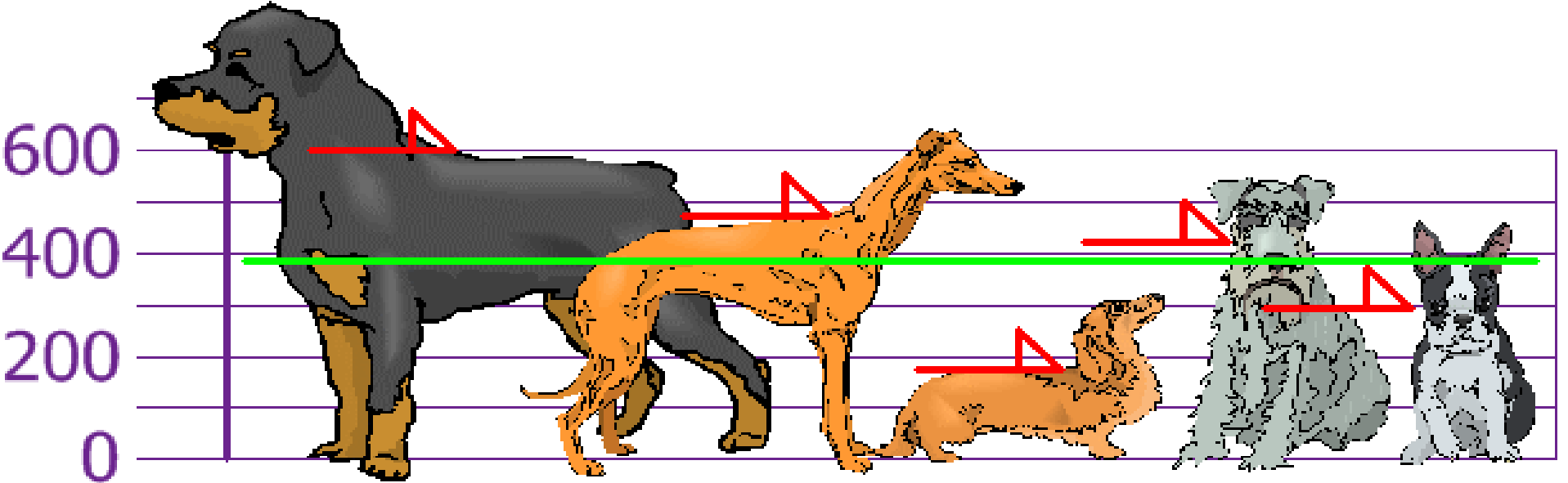
Mean =

5

5

= 394

**So the mean (average) height is 394 mm. Let's plot this on the chart:**



**To calculate the Variance, take each difference, square it, and then average the result:**



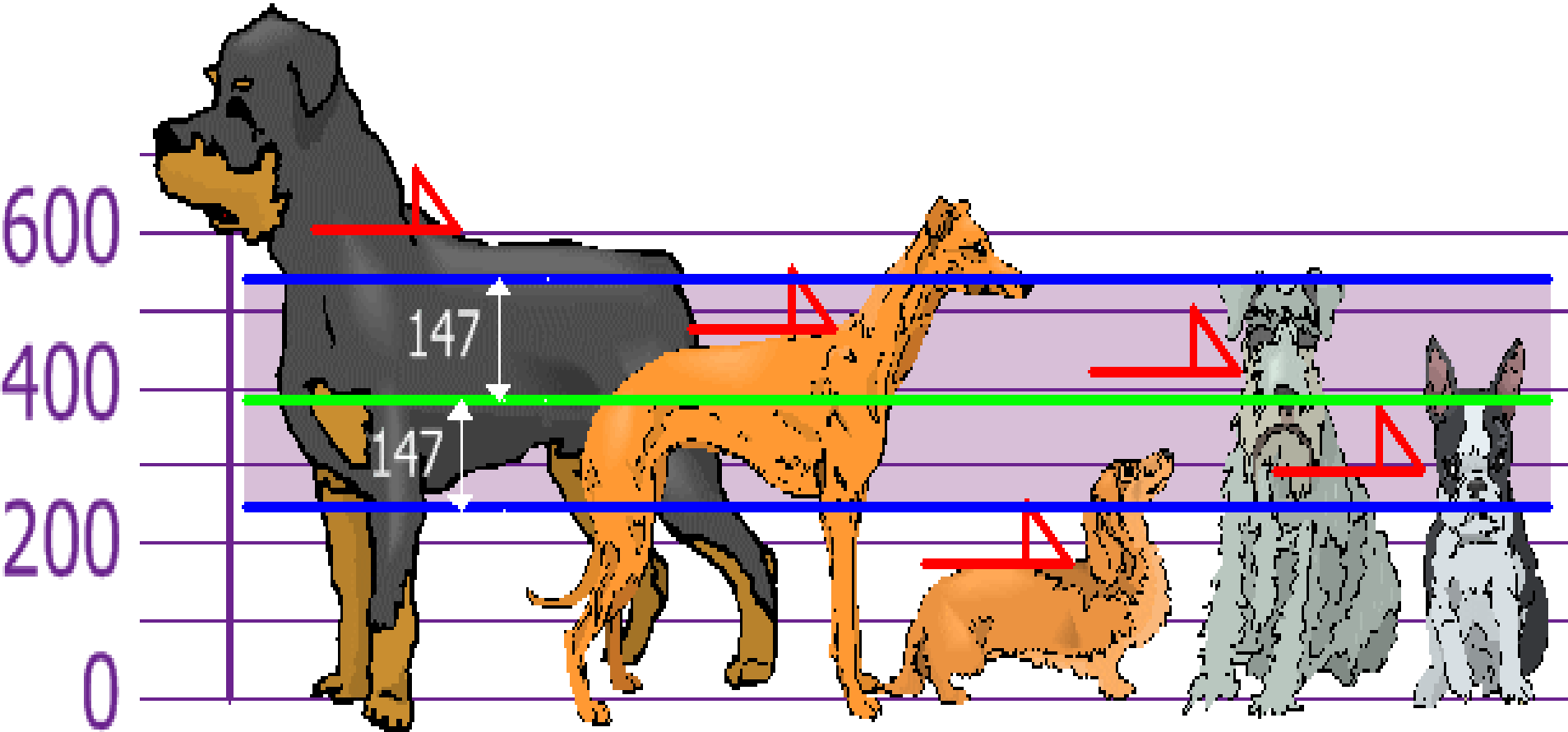
$$\begin{aligned}\text{Variance: } \sigma^2 &= \frac{206^2 + 76^2 + (-224)^2 + 36^2 + (-94)^2}{5} \\ &= \frac{42,436 + 5,776 + 50,176 + 1,296 + 8,836}{5} \\ &= \frac{108,520}{5} = 21,704\end{aligned}$$

**So, the Variance is 21,704.**

**And the Standard Deviation is just the square root of Variance, so:**

**Standard Deviation:  $\sigma = \sqrt{21,704} = 147.32... = 147$  (to the nearest mm)**

**And the good thing about the Standard Deviation is that it is useful. Now we can show which heights are within one Standard Deviation (147mm) of the Mean:**



So, using the Standard Deviation we have a "standard" way of knowing what is normal, and what is extra large or extra small.

**Rottweiler's are tall dogs. And Dachshunds are a bit short ... but don't tell them!**

# **ARE MUNICIPALITIES LIKE DACHSHUNDS ???**

- ARE WE A BIT SHORT IN CASH ?**
- OVER BORROWED ?**
- ARE SALARIES TOO HIGH ?**
- CANNOT AFFORD TO PAY FOR  
BULK SERVICES – WATER AND  
ELECTRICITY ?**



**•LACK OF MAINTAINING  
INFRASTRUCTURE ?**

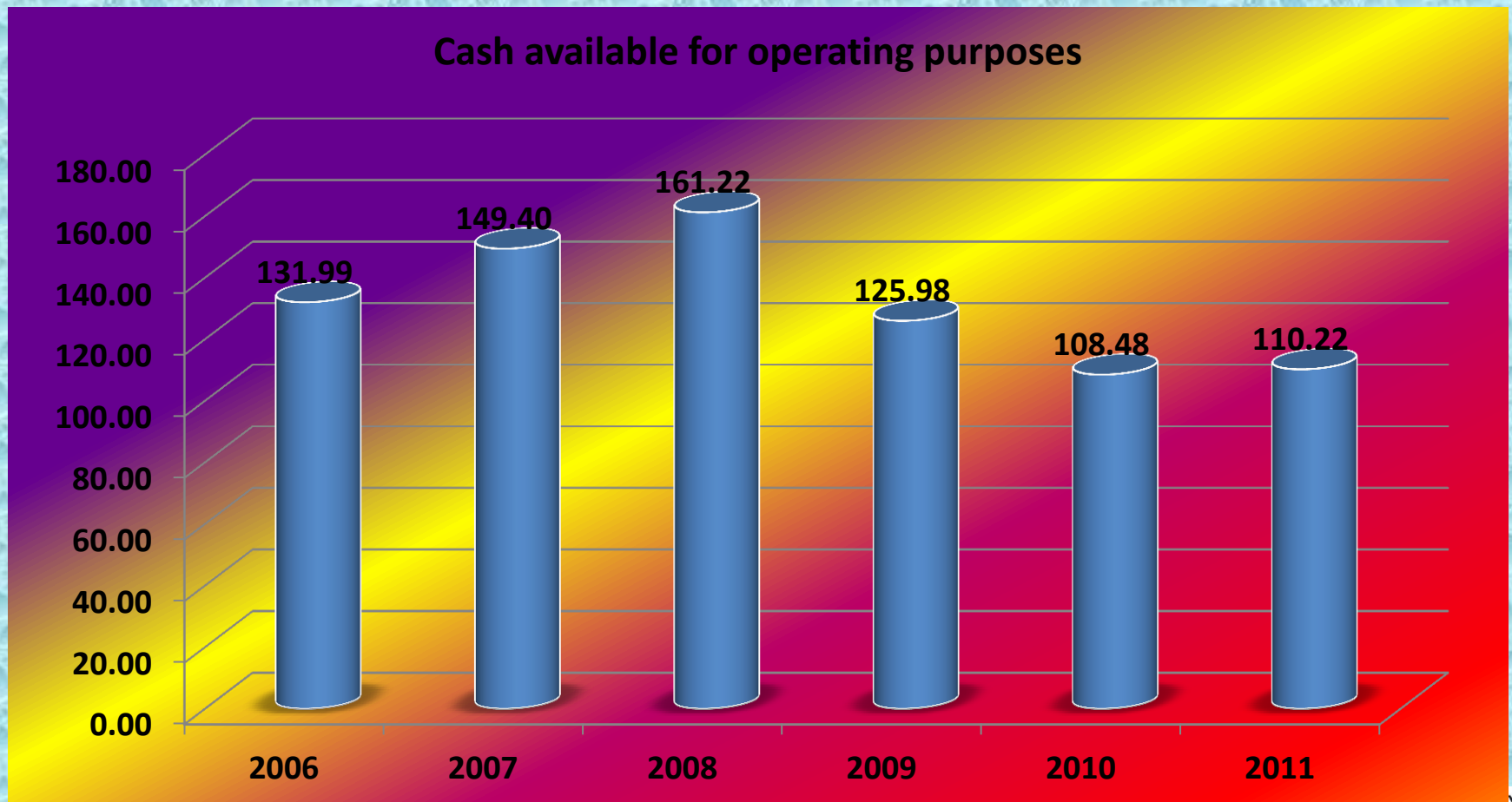
**•CANNOT AFFORD SERVICE DELIVERY AT  
A HIGH OR ACCEPTABLE STANDARD or  
NORM ?**

**CANNOT AFFORD TO PROVIDE IN CASH  
FOR THE REPLACEMENT OF  
INFRASTRUCTURE OF THE PAST AND  
PROVIDE FOR THE FURTURE  
(DEPRECIATION)**

**•WE KNOW WE ARE IN SOME SORT OF TROUBLE, BUT PLEASE DON'T TELL US**



# This Ratio determines whether there is sufficient cash to finance operational requirements

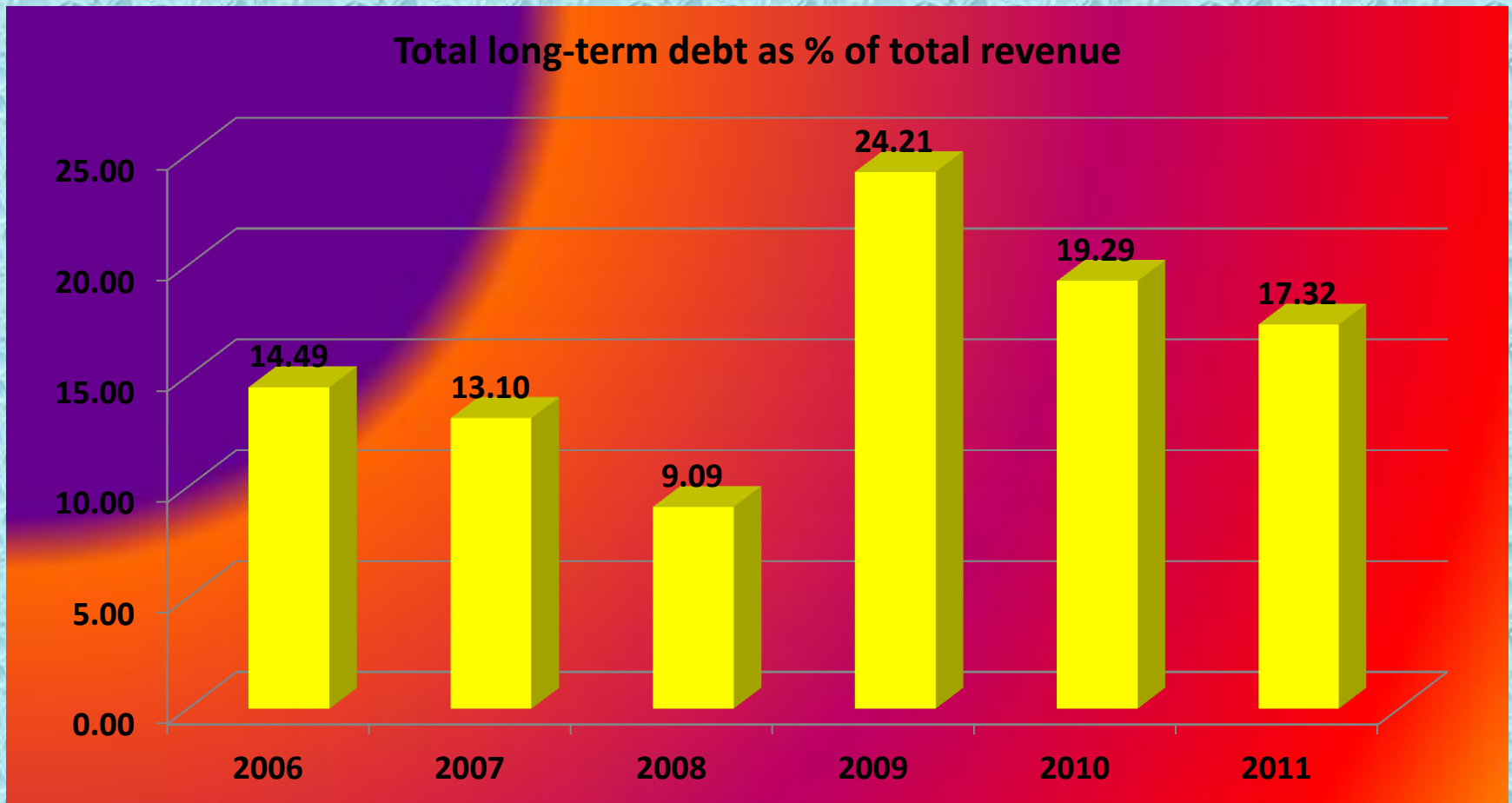




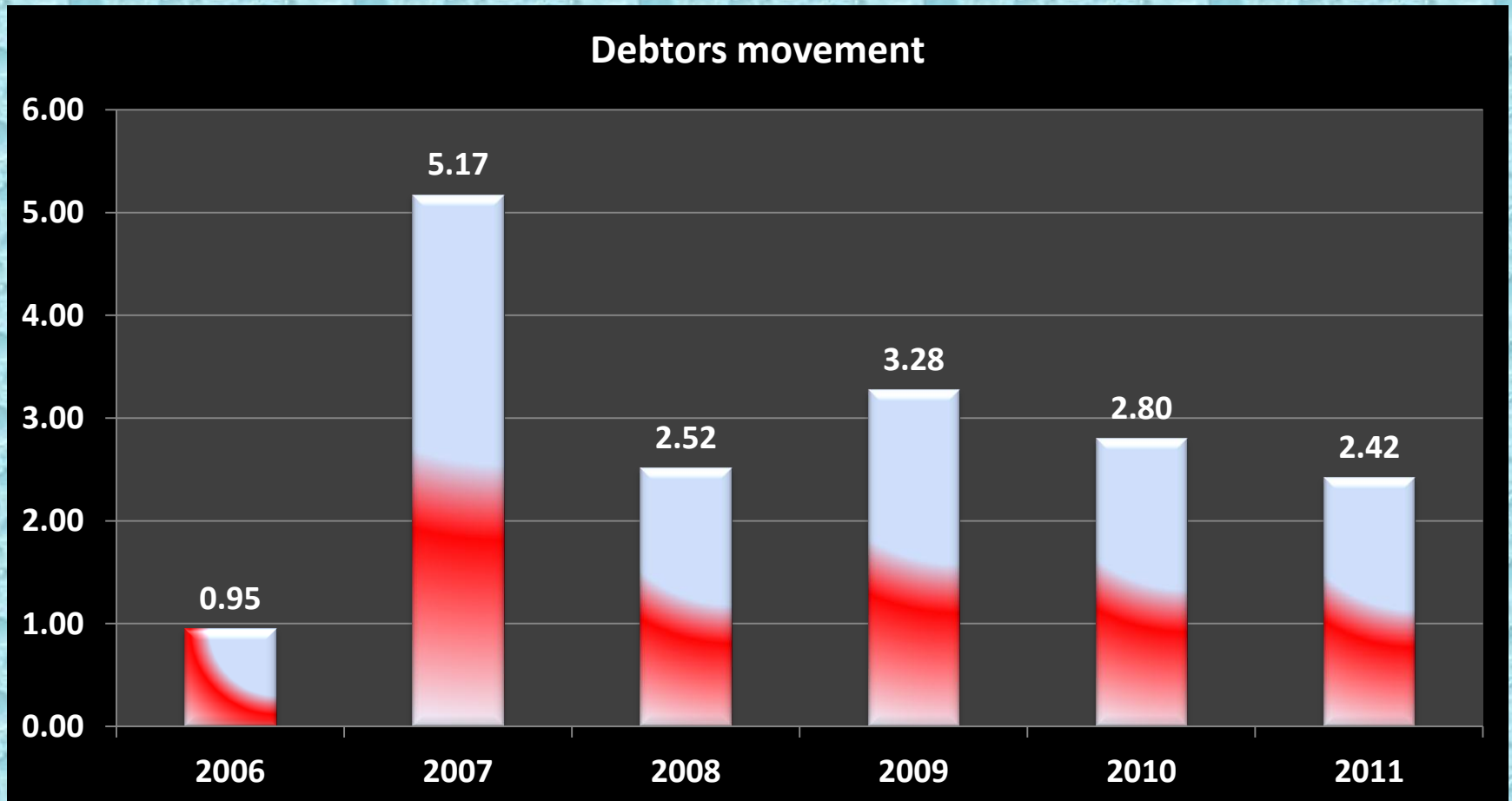
# This Ratio determines the amount of Revenue required to cover short-term debt



# Total long-term debt as % of total revenue

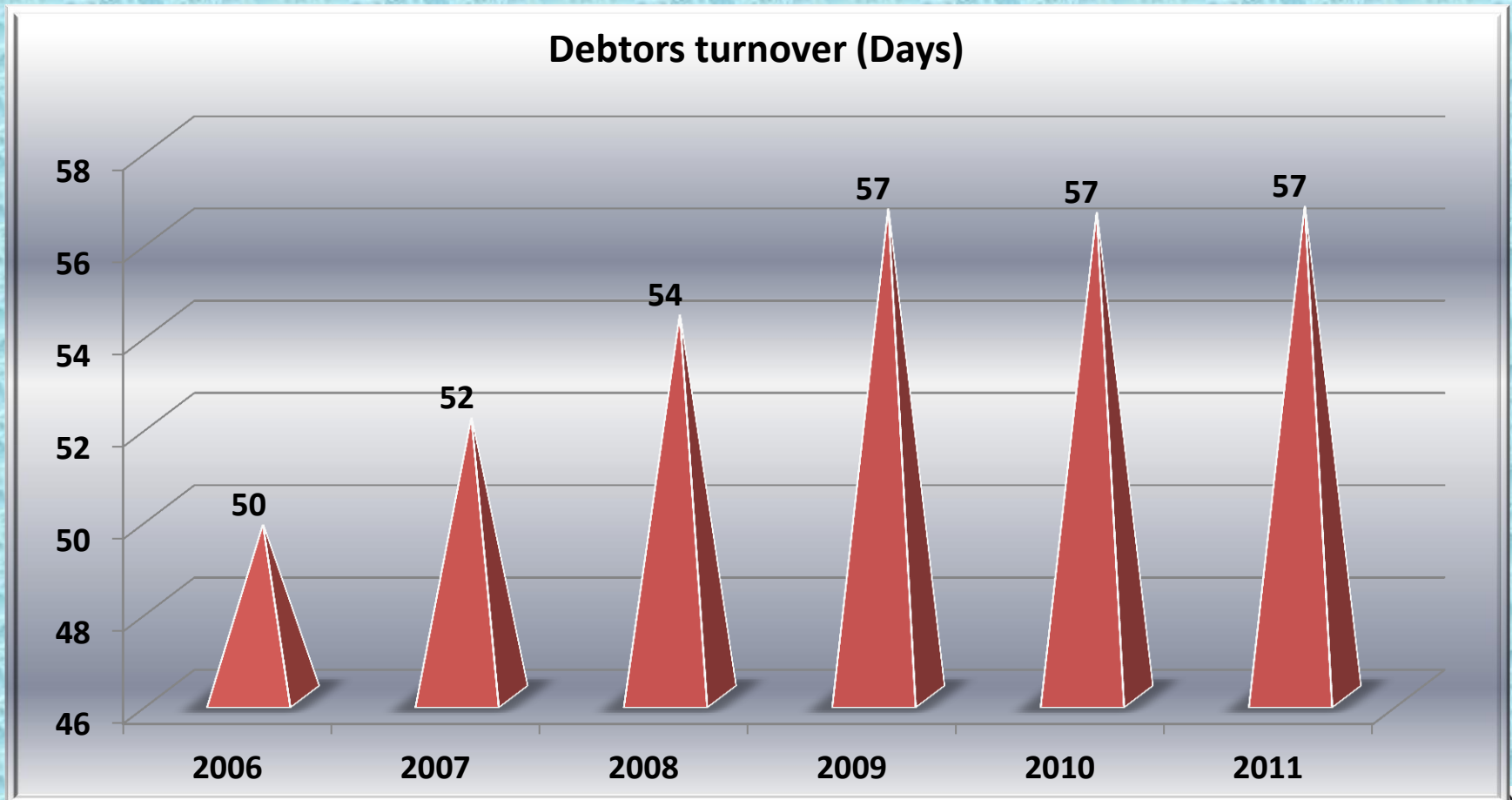


# This Ratio measures the manner in which current debtors are managed

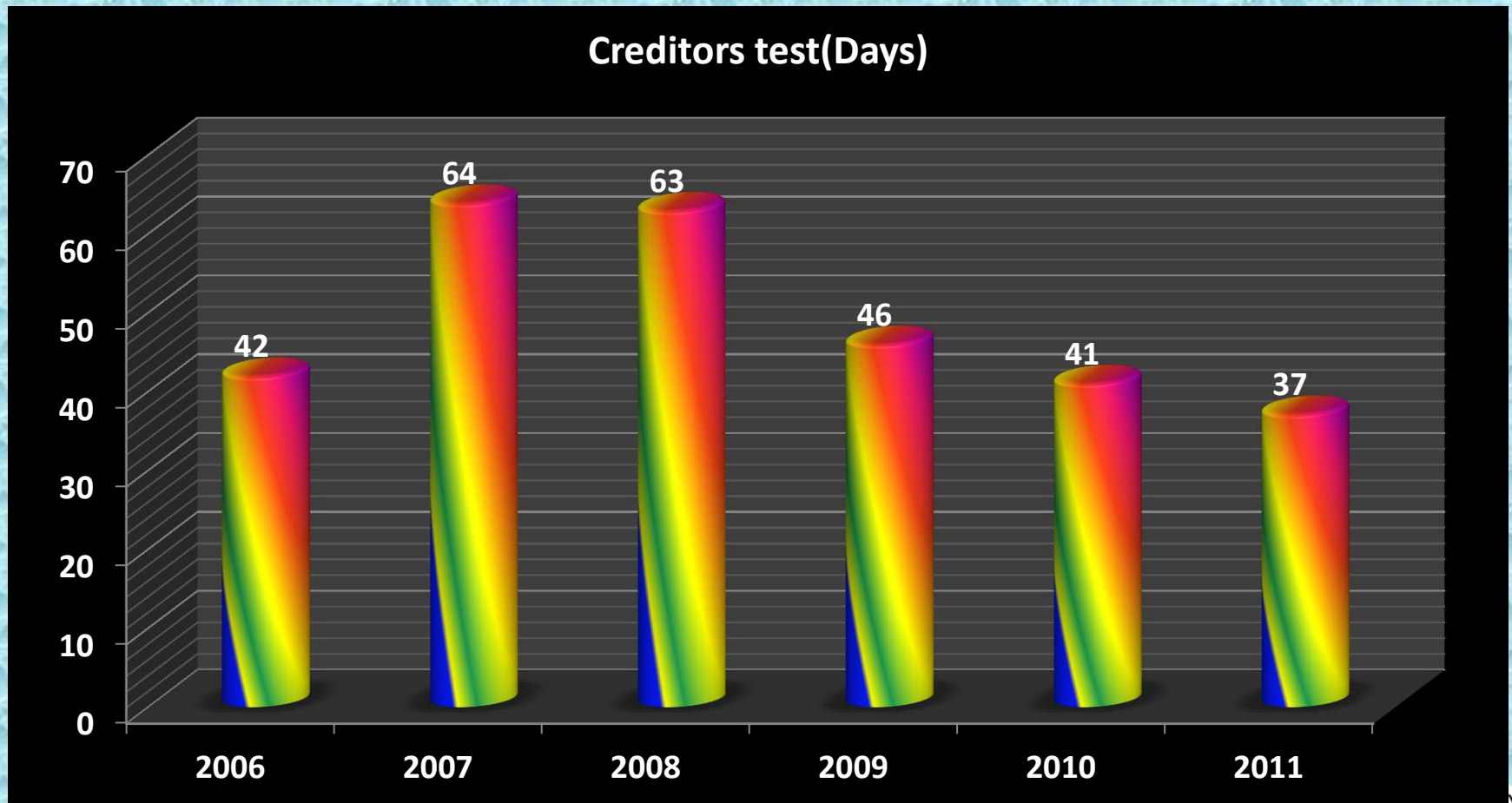




# This Ratio is used to measure the **turnover** rate of debt in days

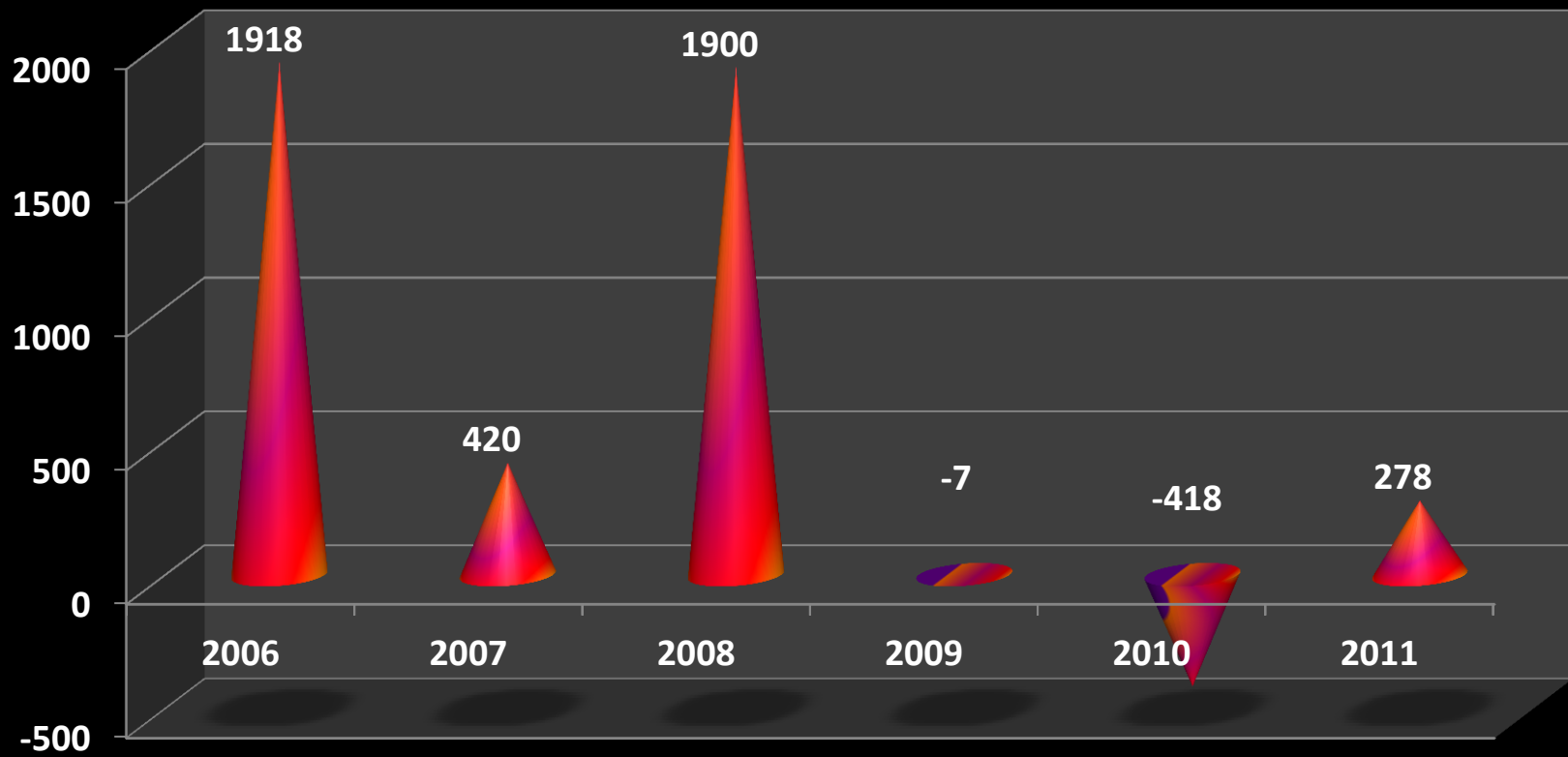


# The number of days required to pay Creditors

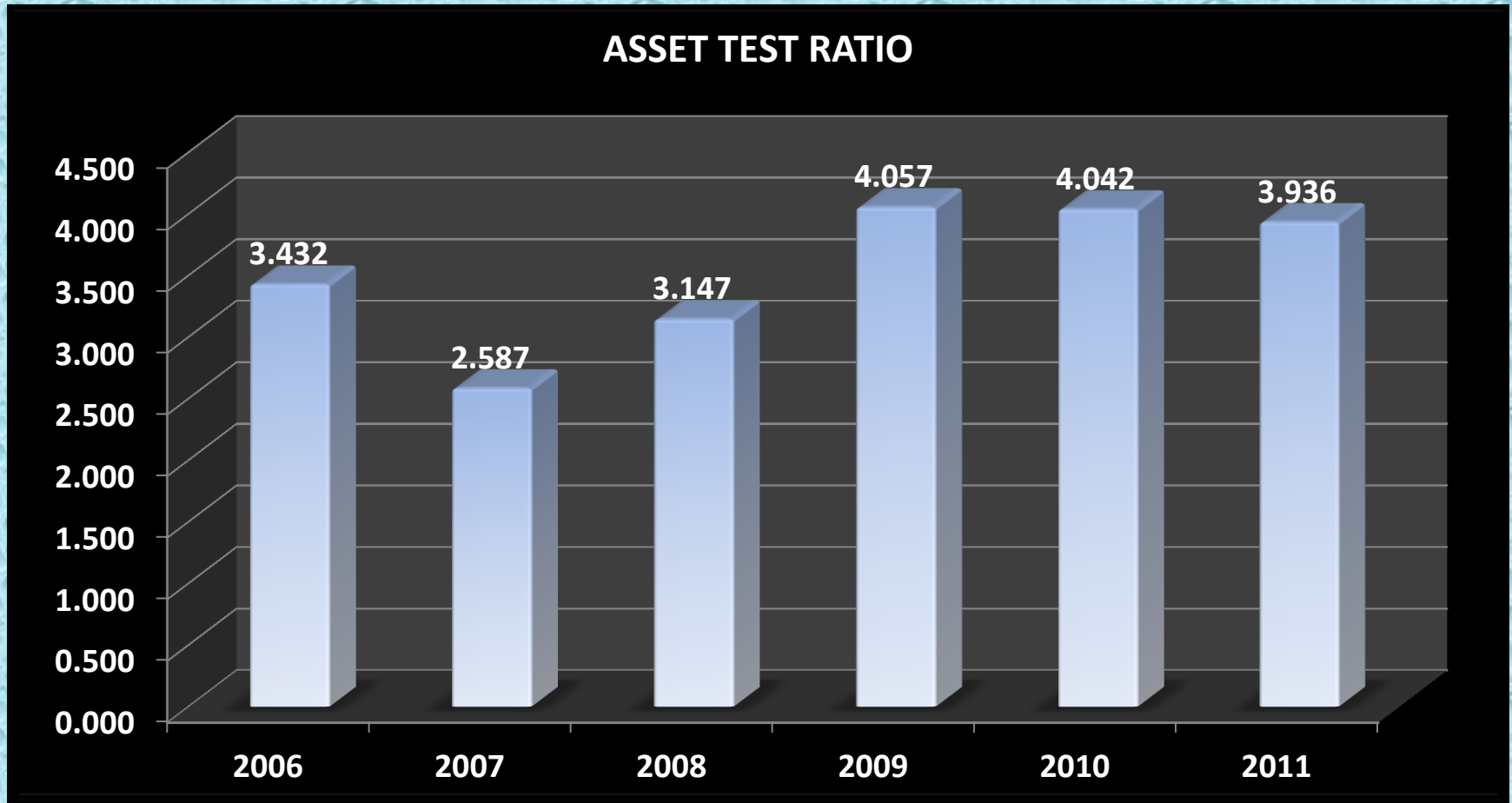


# The extend to which the operating budget is cash funded is measured in this Ratio

Cash funded



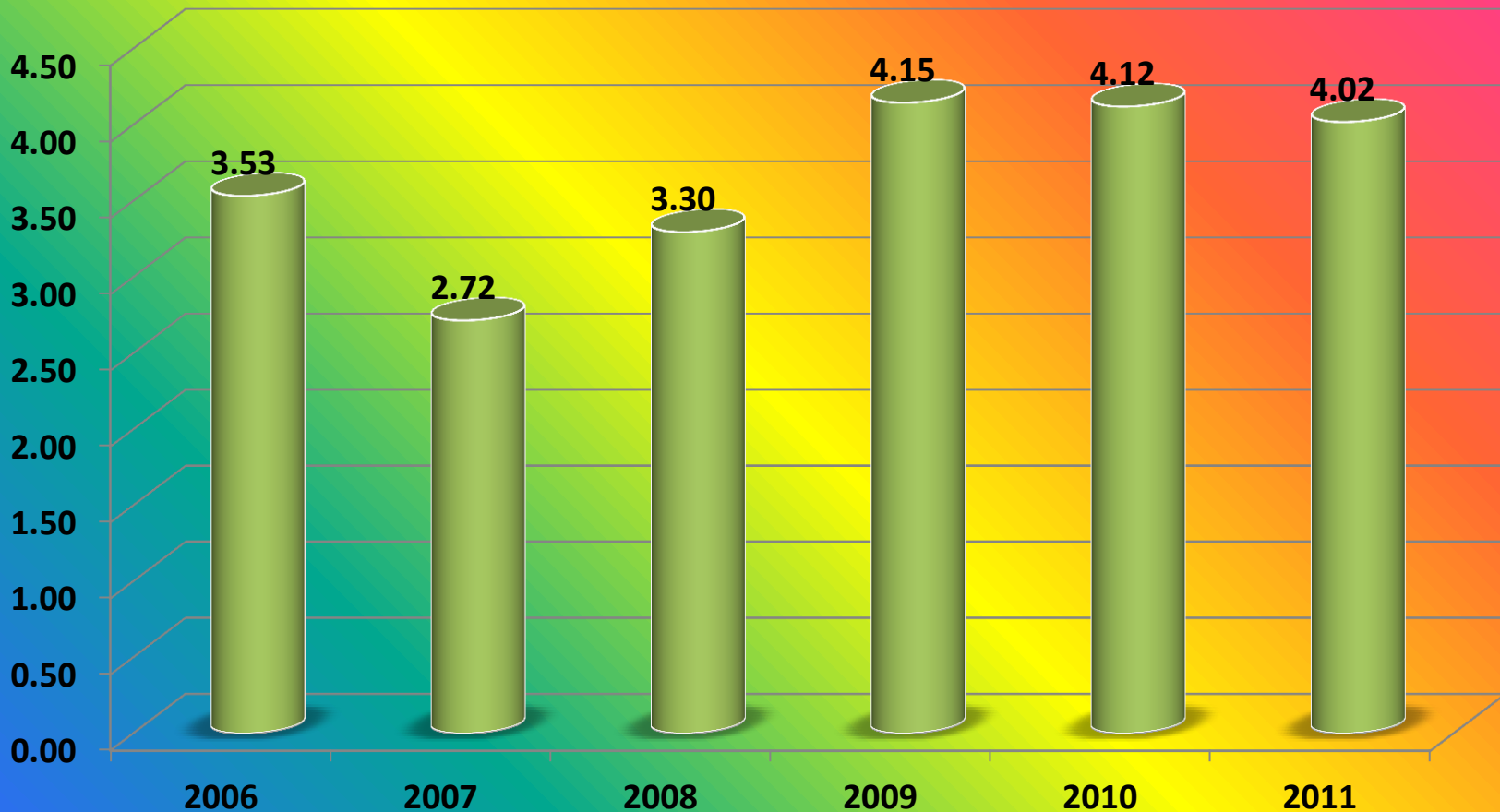
# Gives an indication of the ability of the Municipality to meet its short term obligations with short term liquid assets





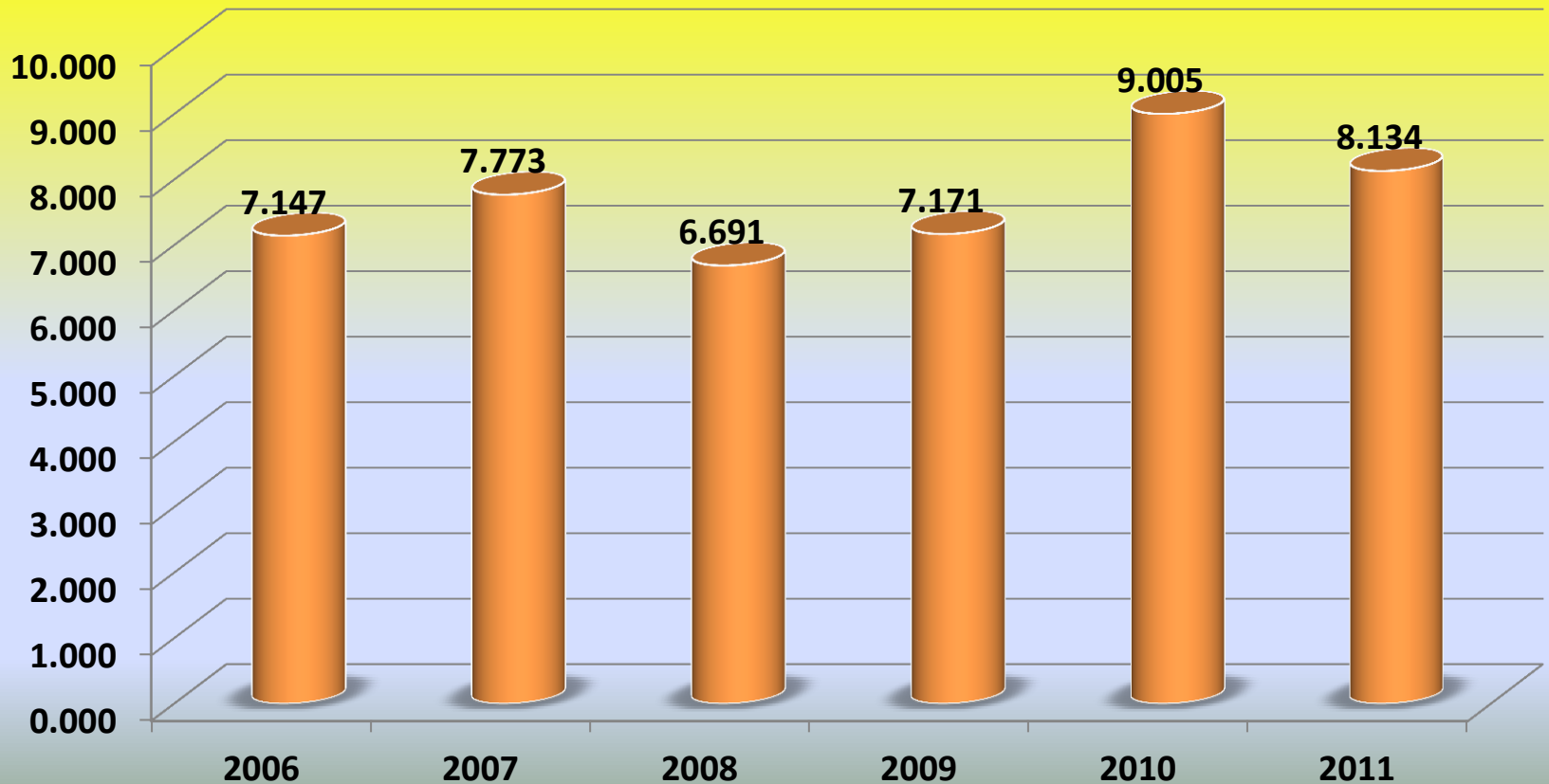
# This Ratio Calculates how many times current assets cover current liability

**CURRENT RATIO**



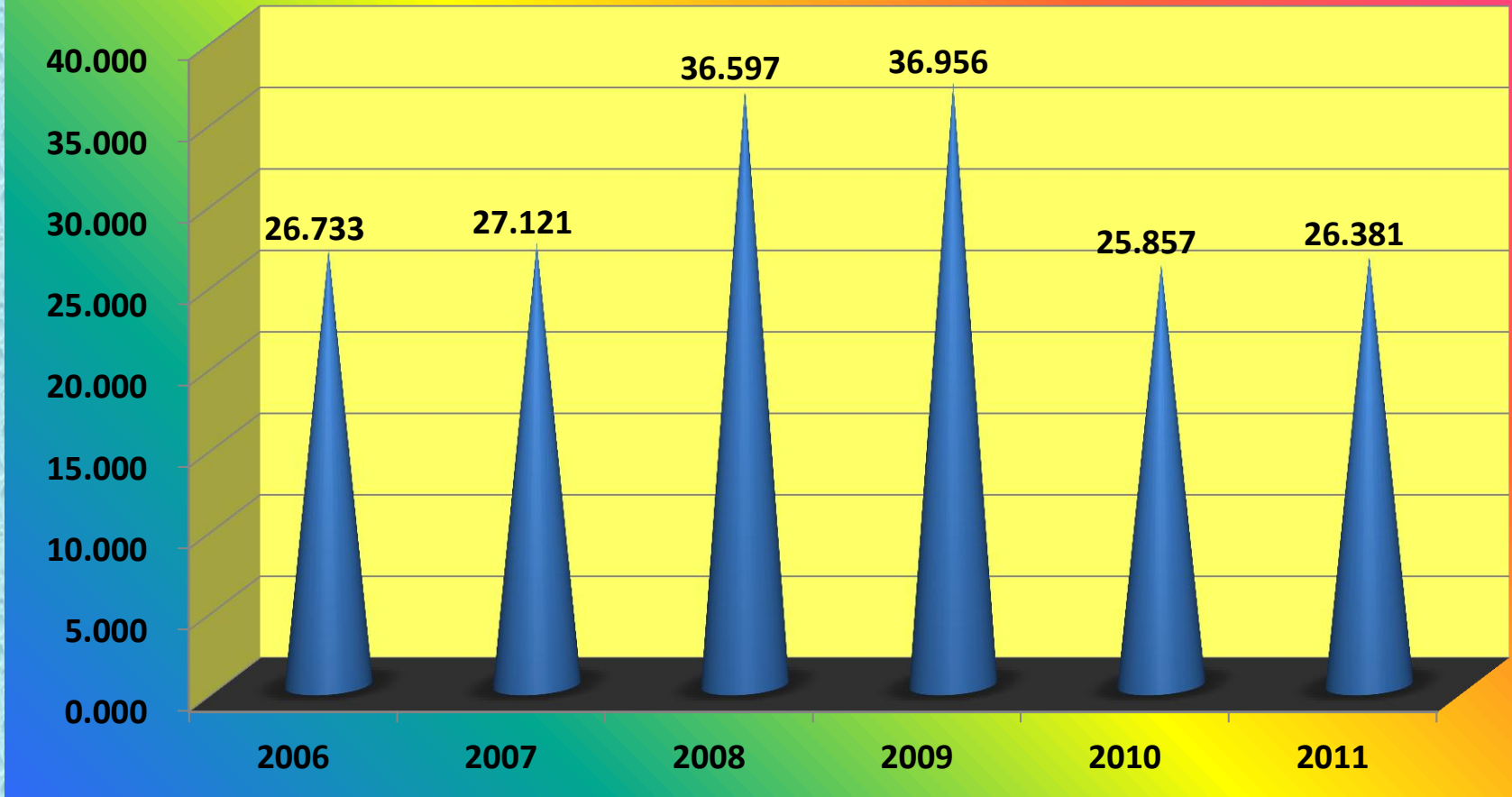
# **This Ratio indicates how often in a year all debtors on average pay back what they owe to the Municipality**

## **TURNOVER OF ACCOUNTS RECEIVABLE**

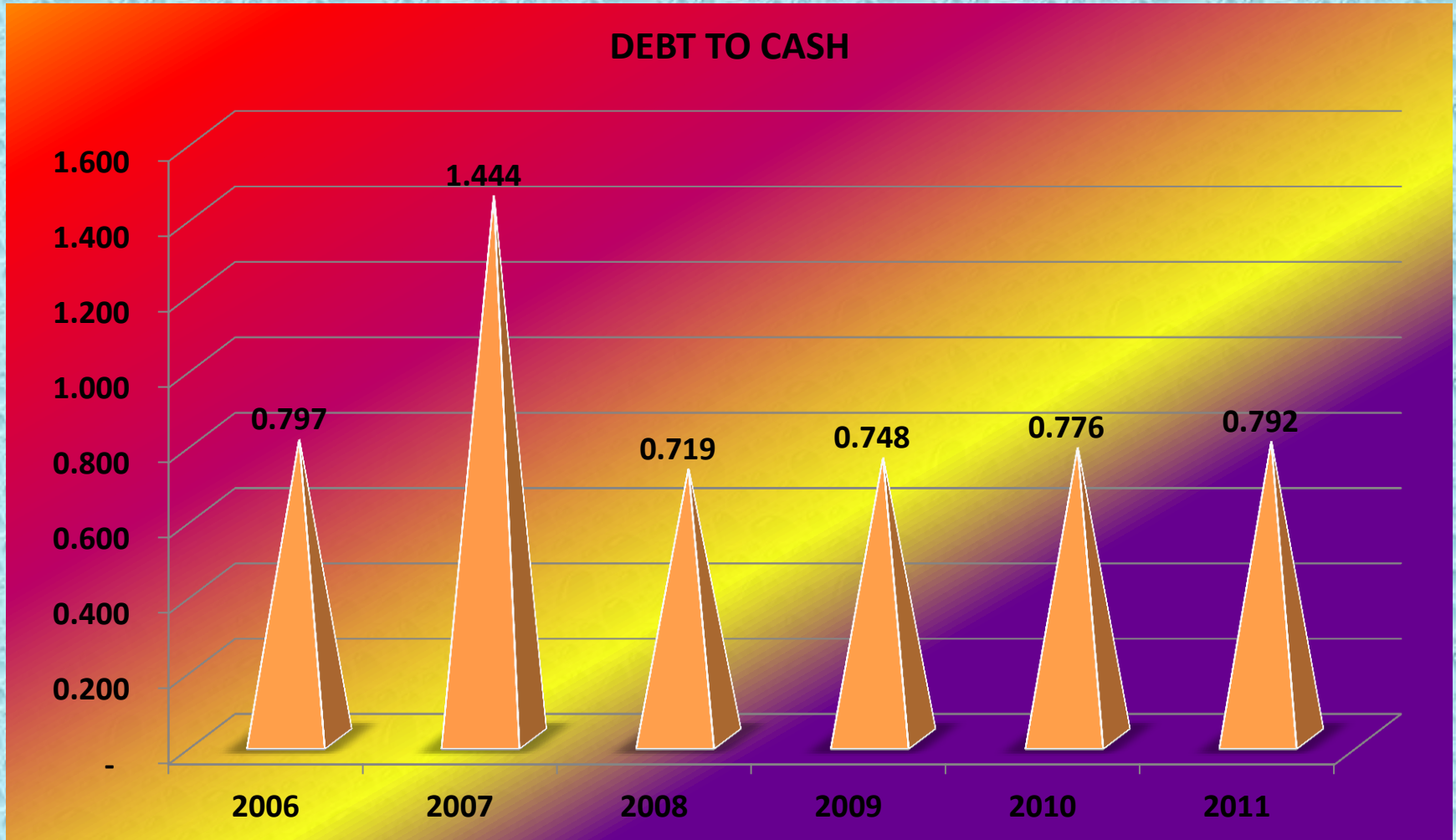


# This Ratio shows the relationship between Interest and Cash

CASH TO INTEREST

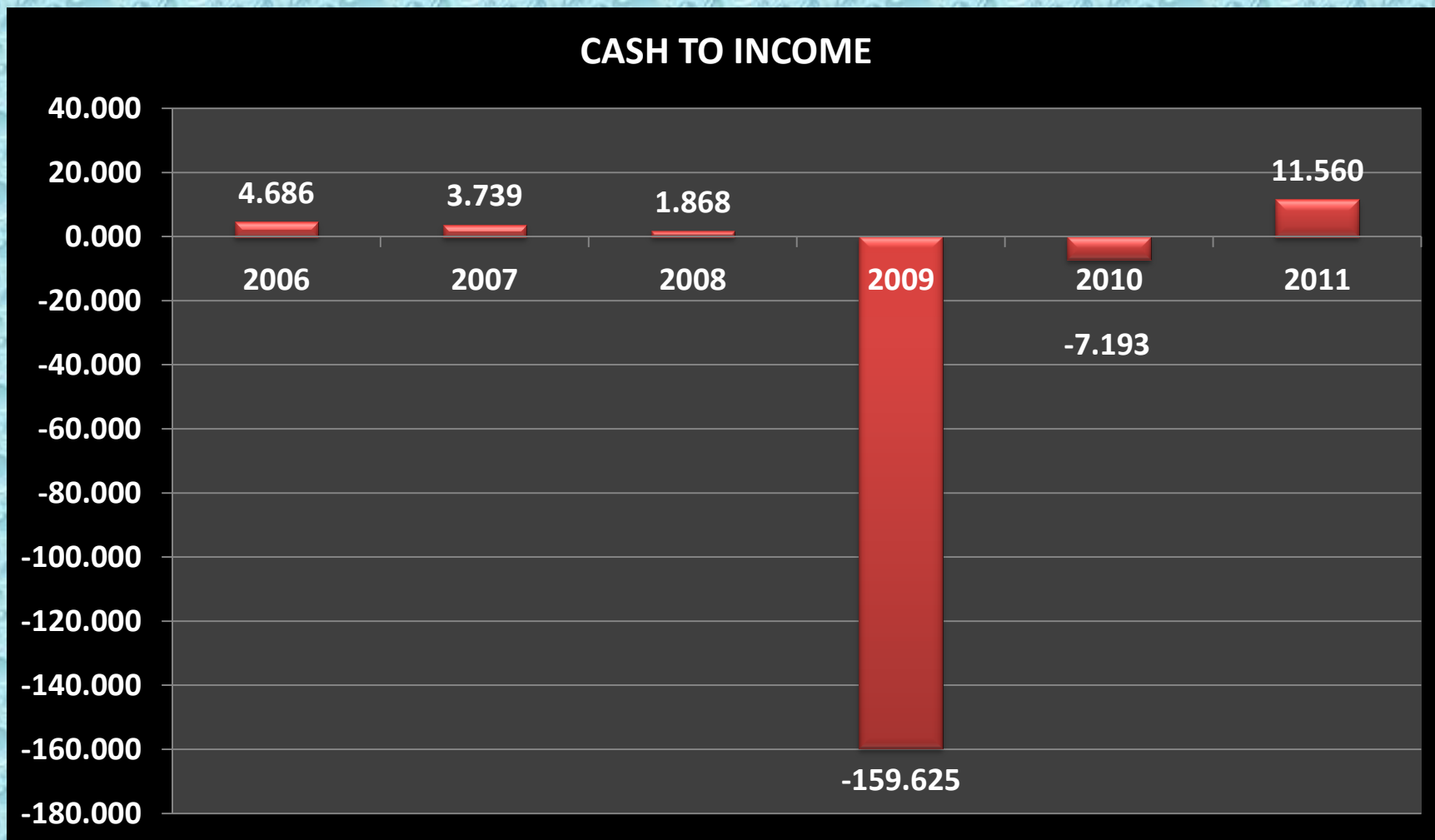


# This Ratio Indicates at what level of debt a Municipality is functioning relative to its cash balances



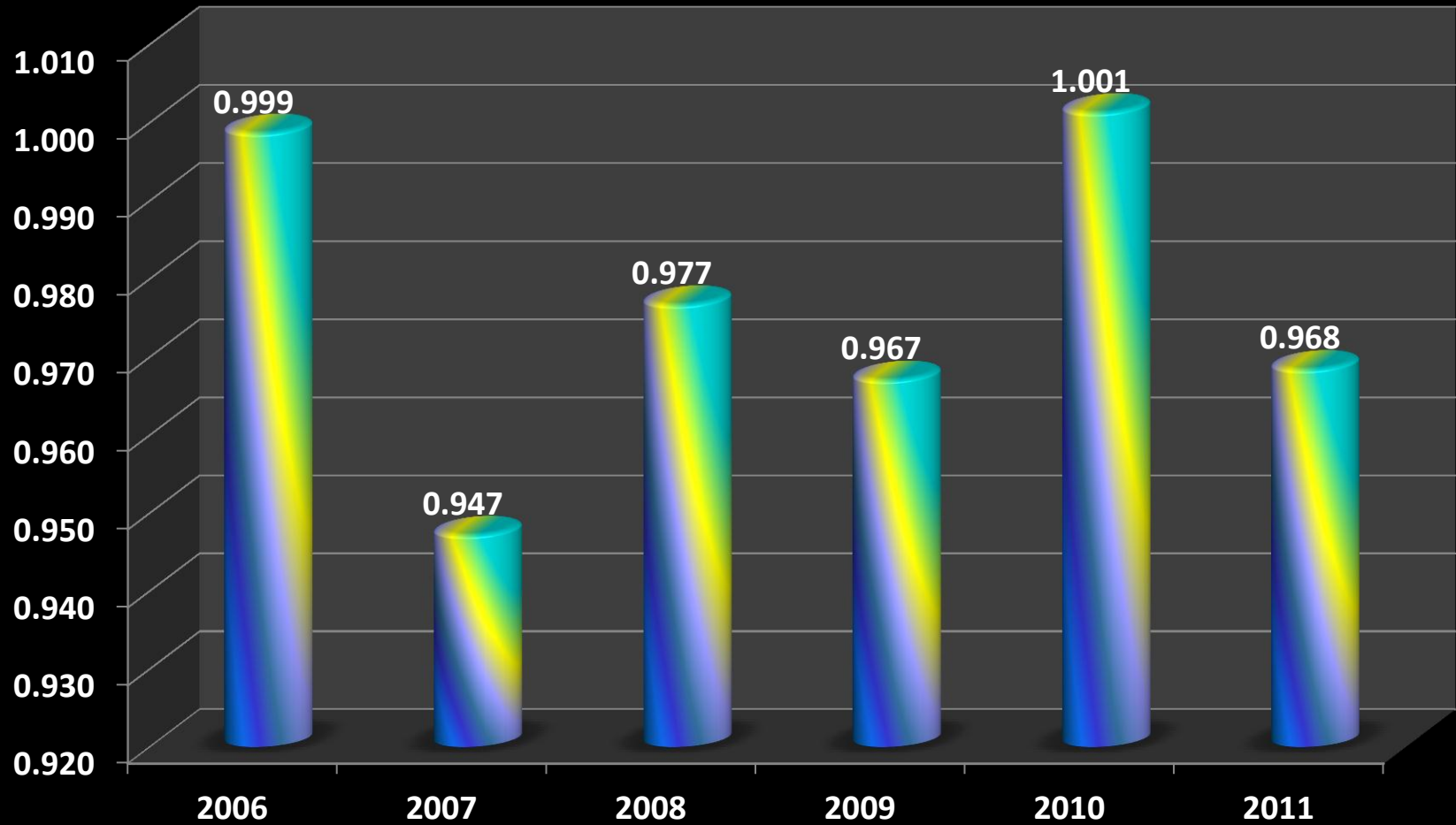


# This Ratio shows the relationship between the cash available in a Municipality relative to its net surplus



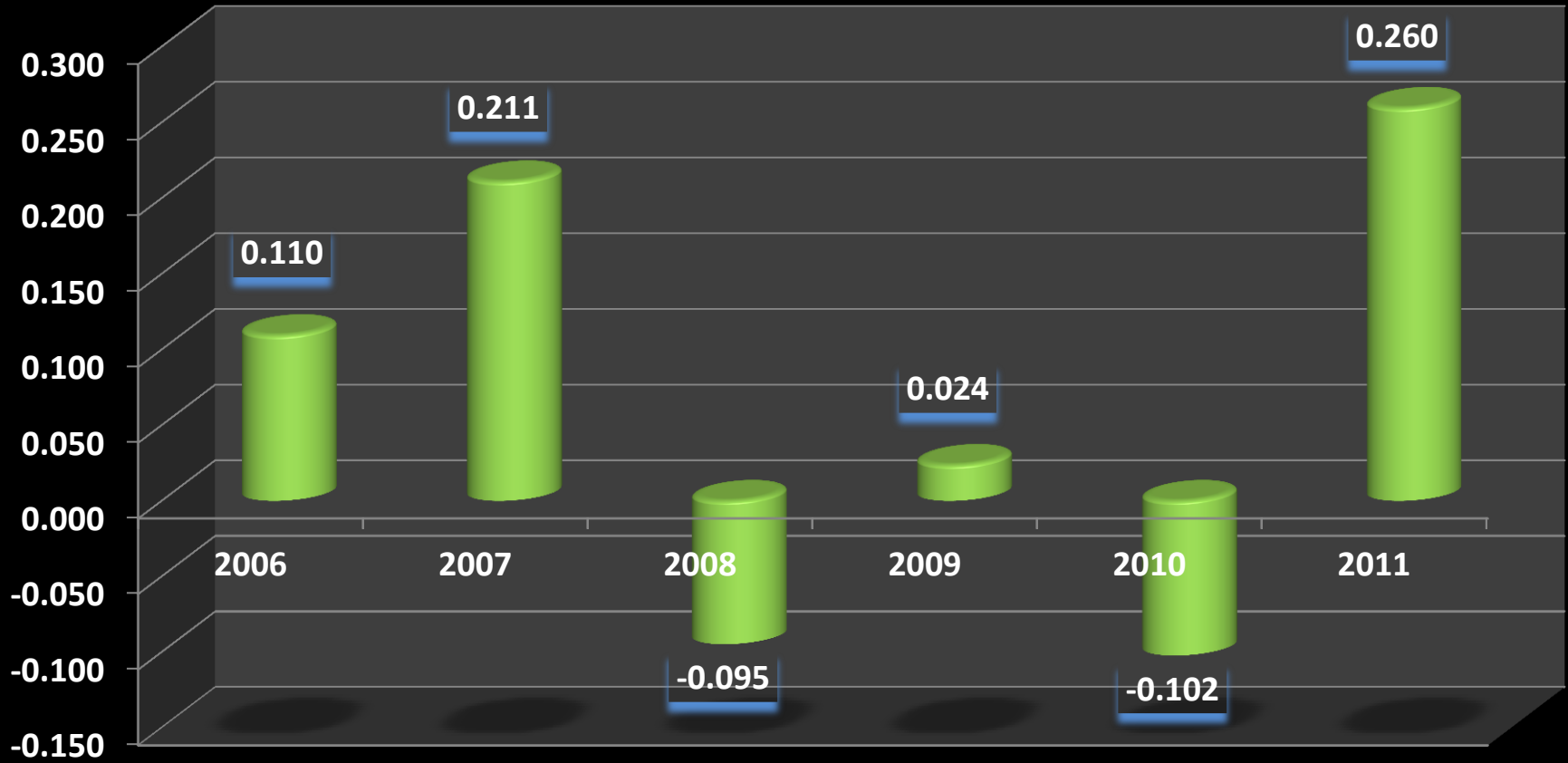
# Assist with the monitoring of consumers debtors

PAYMENT LEVEL



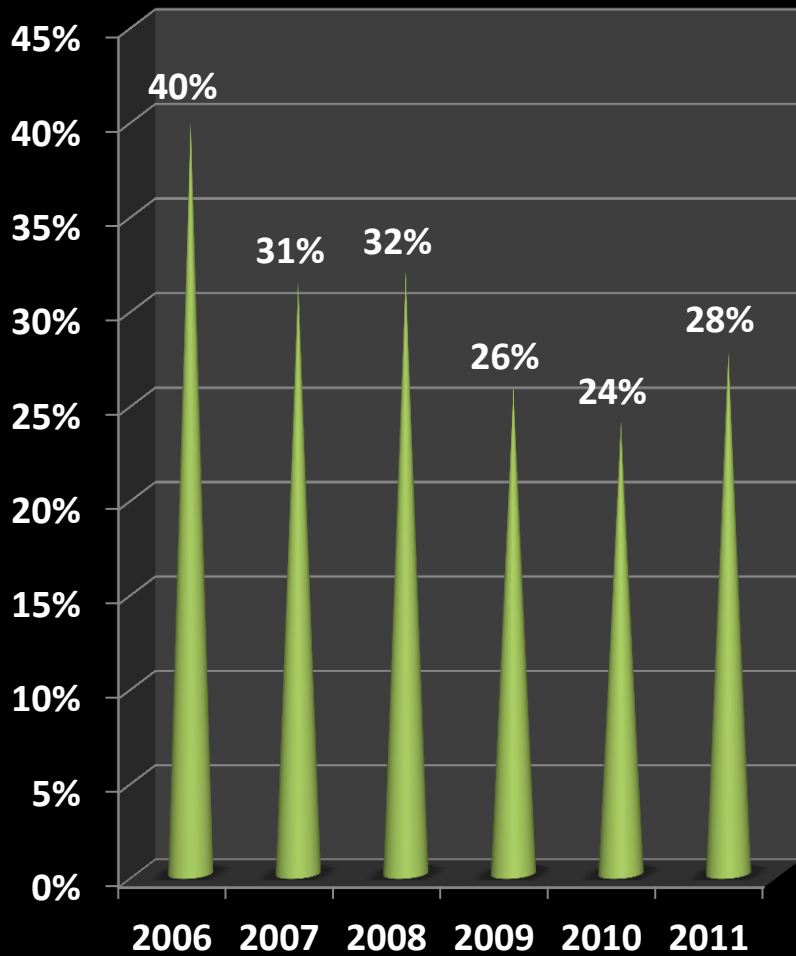
# Assist with the monitoring of consumers debtors

## LONG OUTSTANDING DEBTORS RECOVER

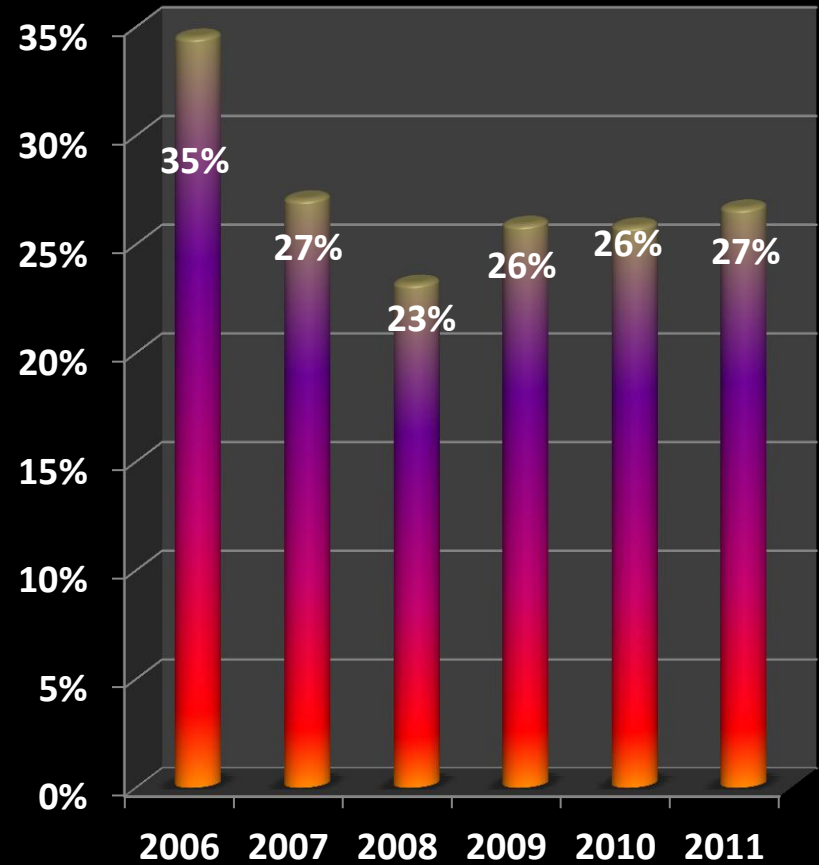


# Employee Related Cost

## EMPLOYEE RELATED COST AS % OF TOTAL EXPENDITURE

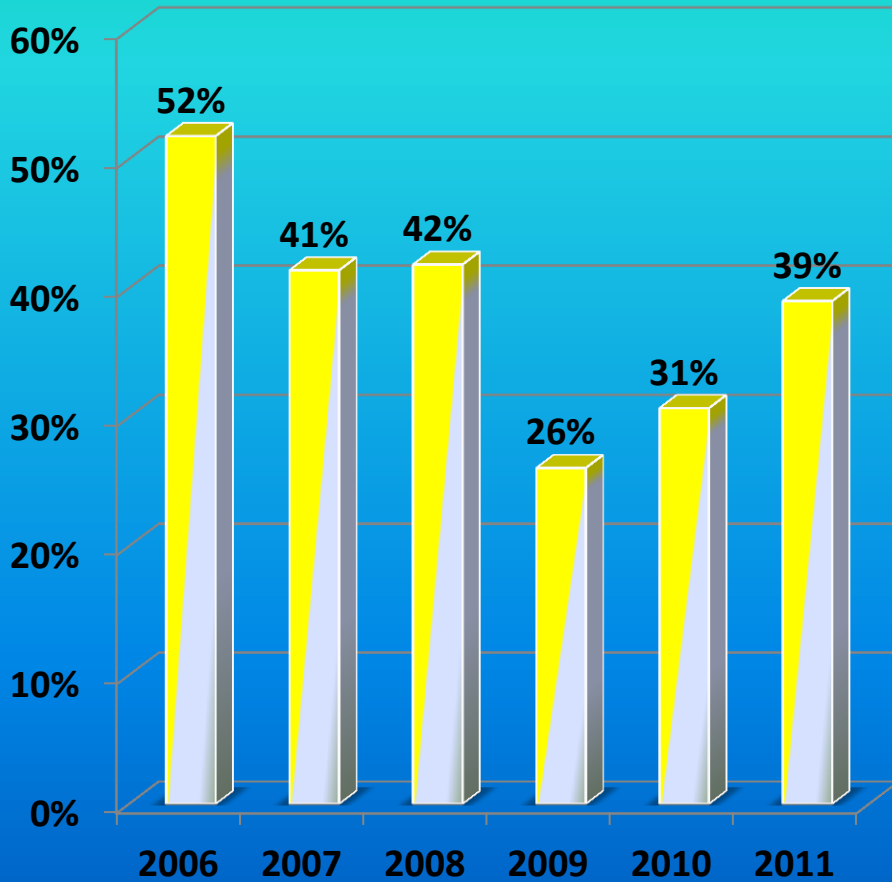


## EMPLOYEE RELATED COST AS % OF TOTAL INCOME

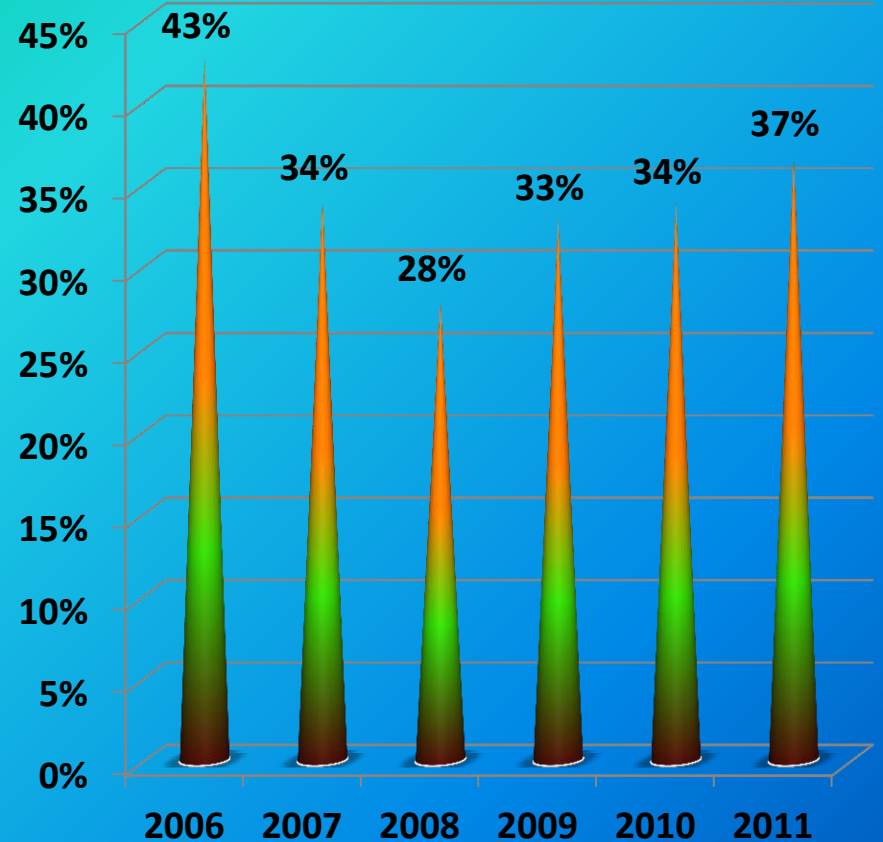




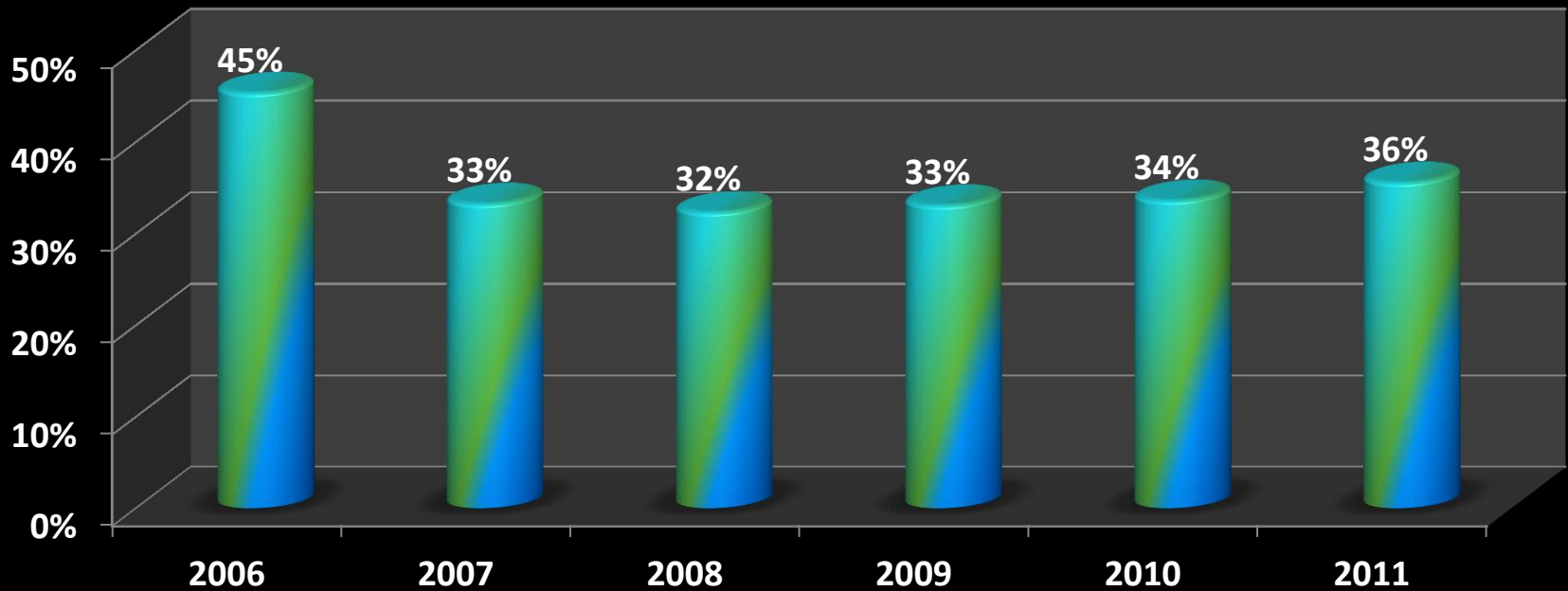
## EMPLOYEE RELATED COST AS % OF TOTAL EXPENDITURE EXCLUDING BULK PURCHASES



## EMPLOYEE RELATED COST AS % OF TOTAL INCOME EXCLUDING BULK PURCHASES

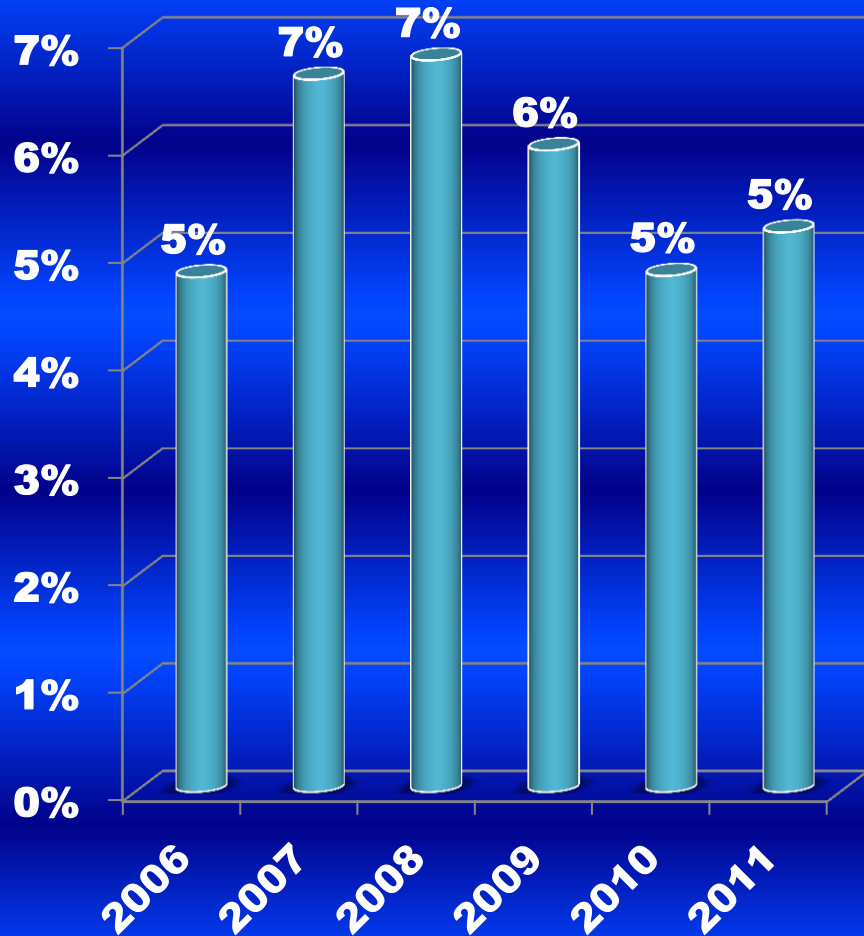


# EMPLOYEE RELATED COST AS % OF TOTAL INCOME EXCLUDING CAPITAL GRANTS & GAINS ON DISPOSALS & SALE OF LAND AND INVENTORIES , DONATED PPE

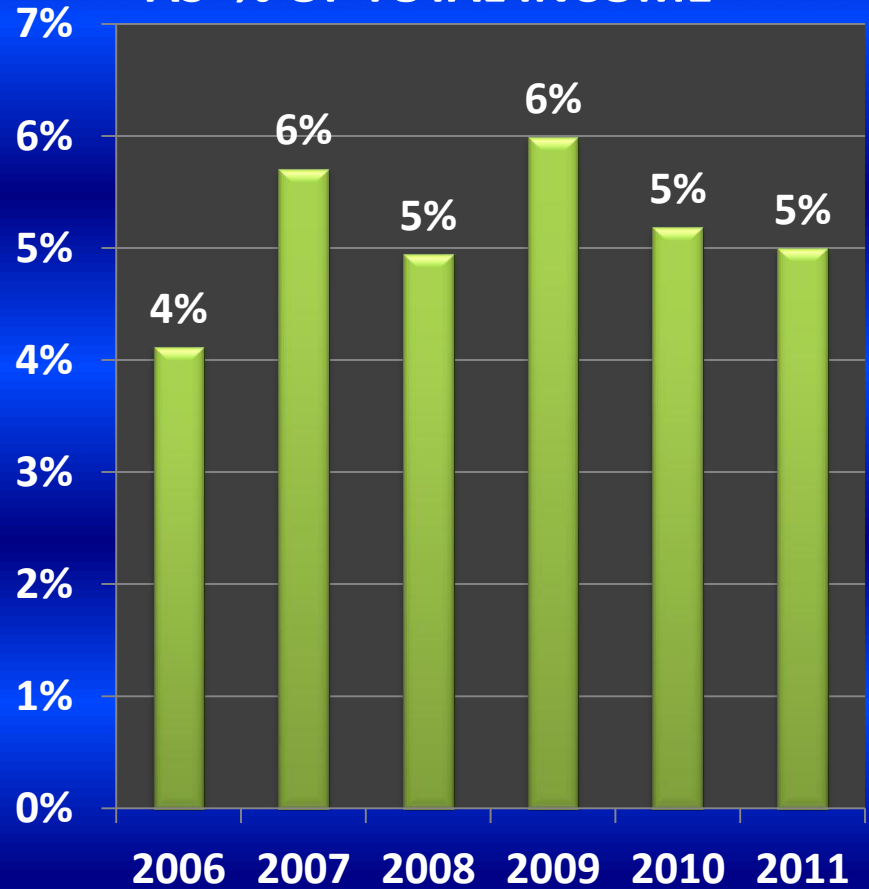


# Repairs and Maintenance

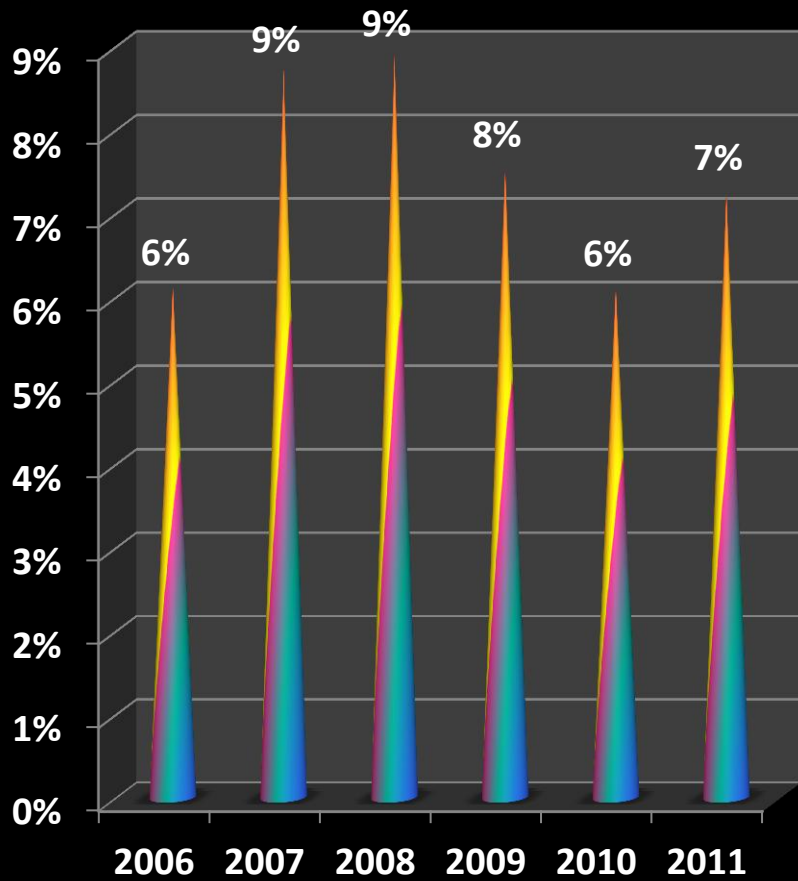
REPAIRS AND MAINTENANCE AS % OF TOTAL EXPENDITURE



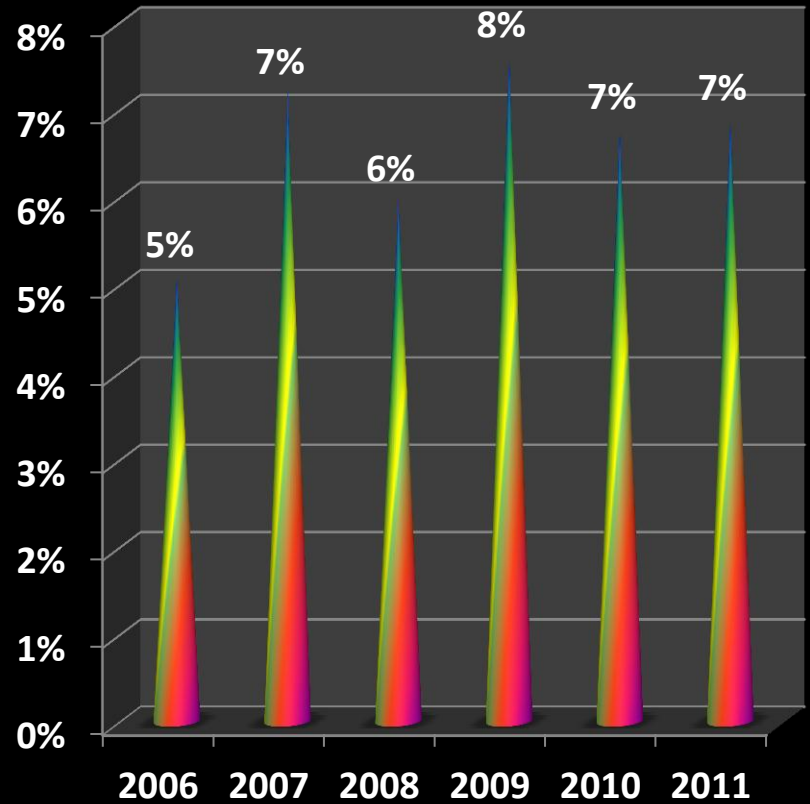
REPAIRS AND MAINTENANCE AS % OF TOTAL INCOME



### REPAIRS AND MAINTENANCE AS % OF TOTAL EXPENDITURE EXCLUDING BULK PURCHASES

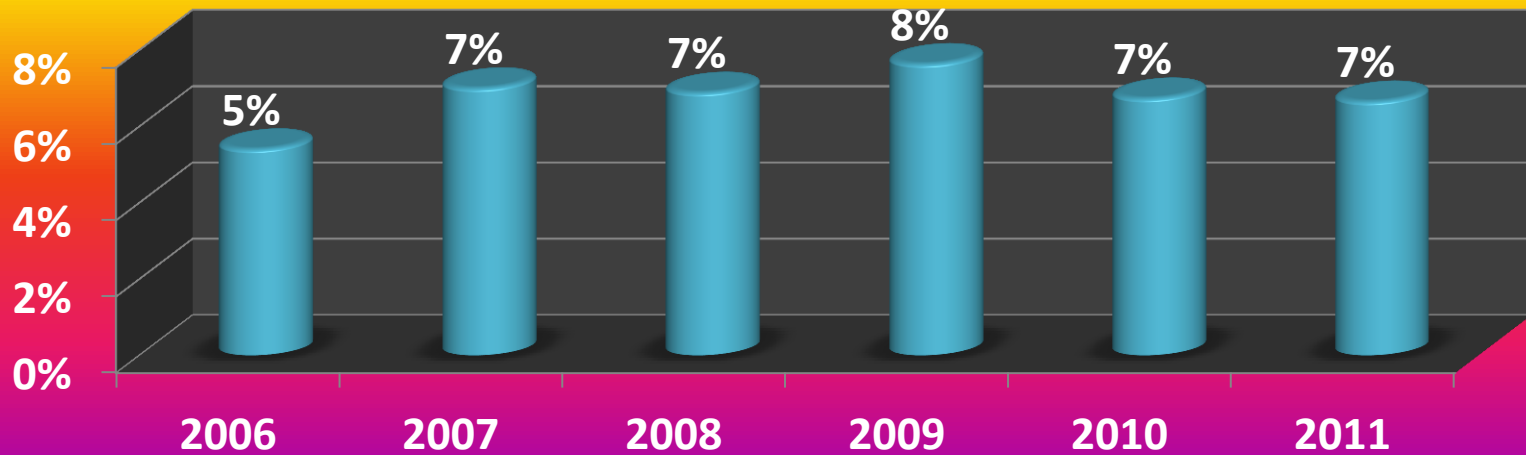


### REPAIR AND MAINTENANCE AS % OF TOTAL INCOME EXCLUDING BULK PURCHASES

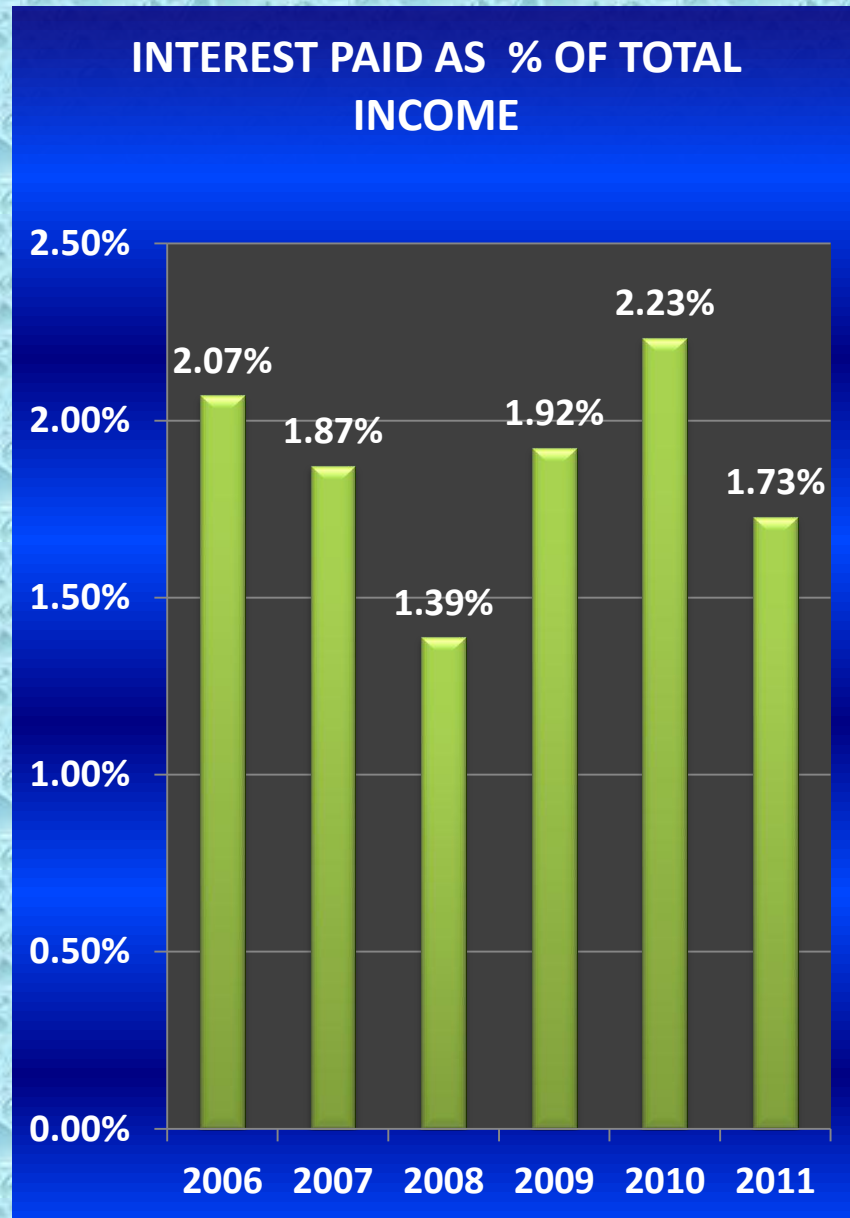
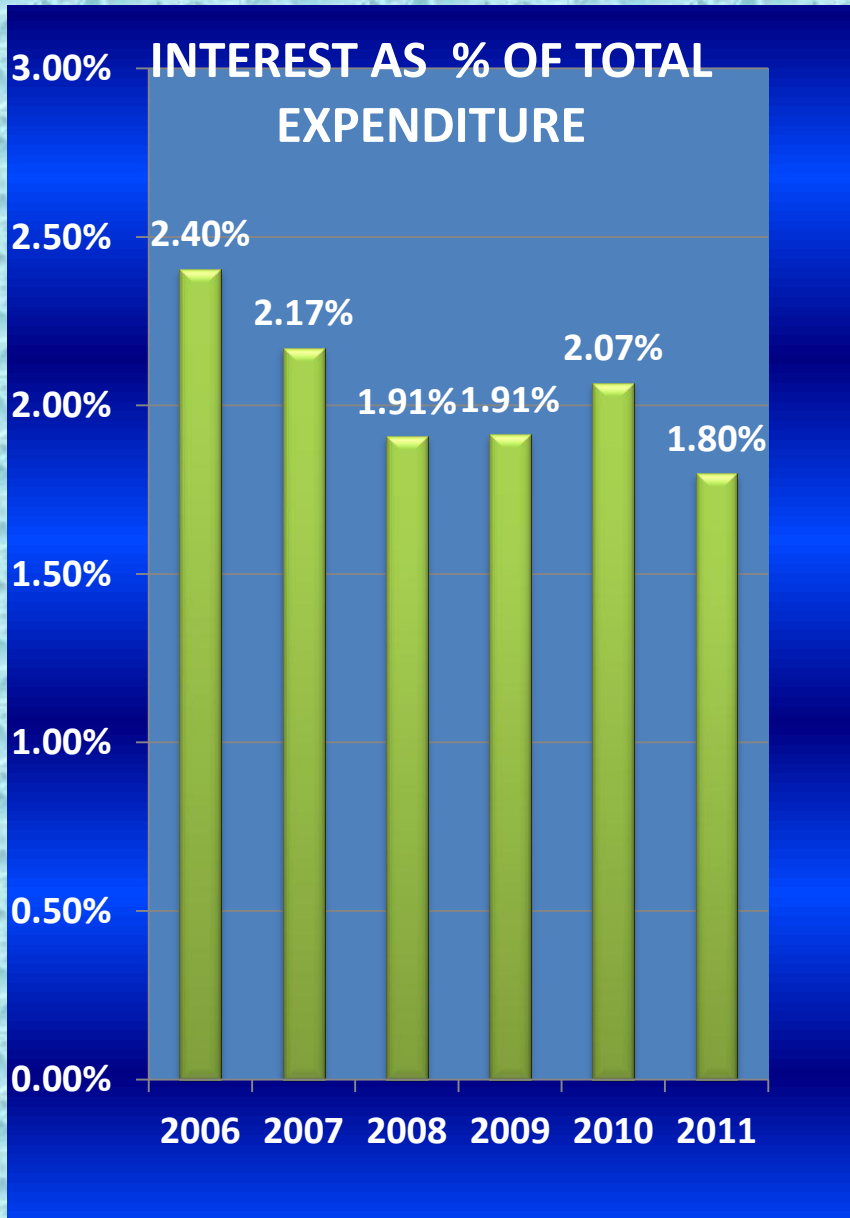




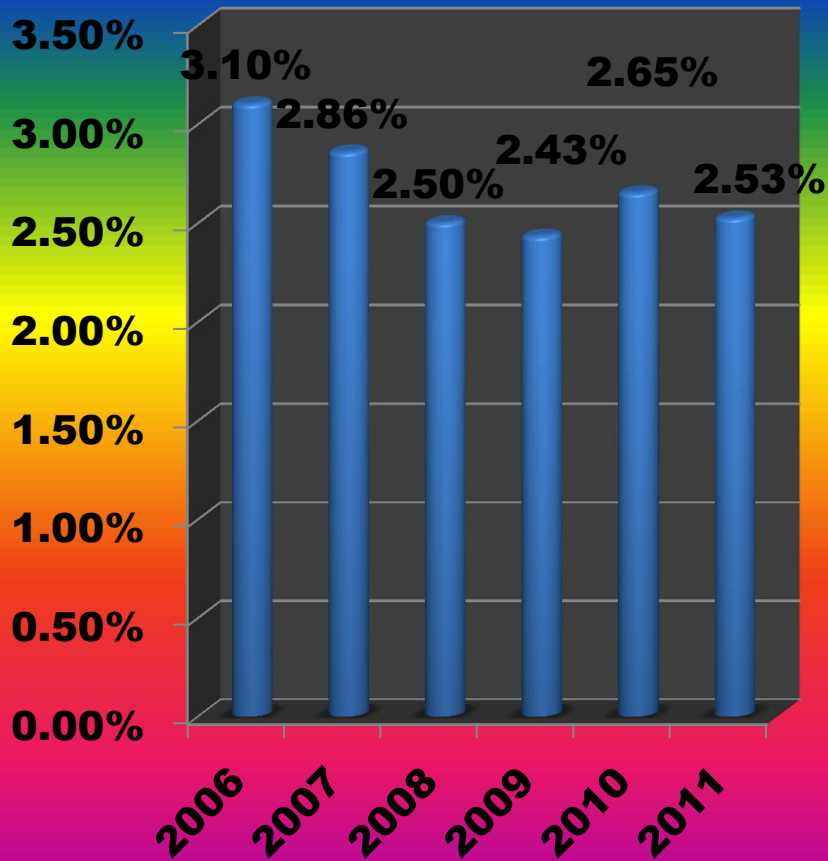
# REPAIRS AND MAINTENANCE AS % OF TOTAL INCOME EXCLUDING CAPITAL GRANTS & GAINS ON DISPOSALS & SALE OF LAND AND INVENTORIES, DONATED PPE



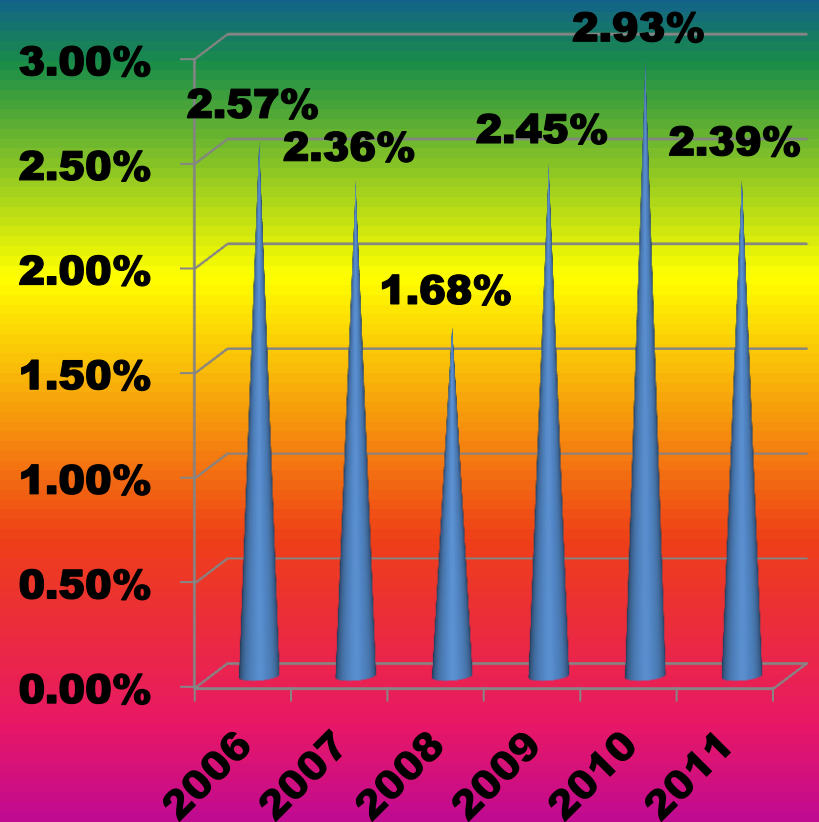
# Interest Paid



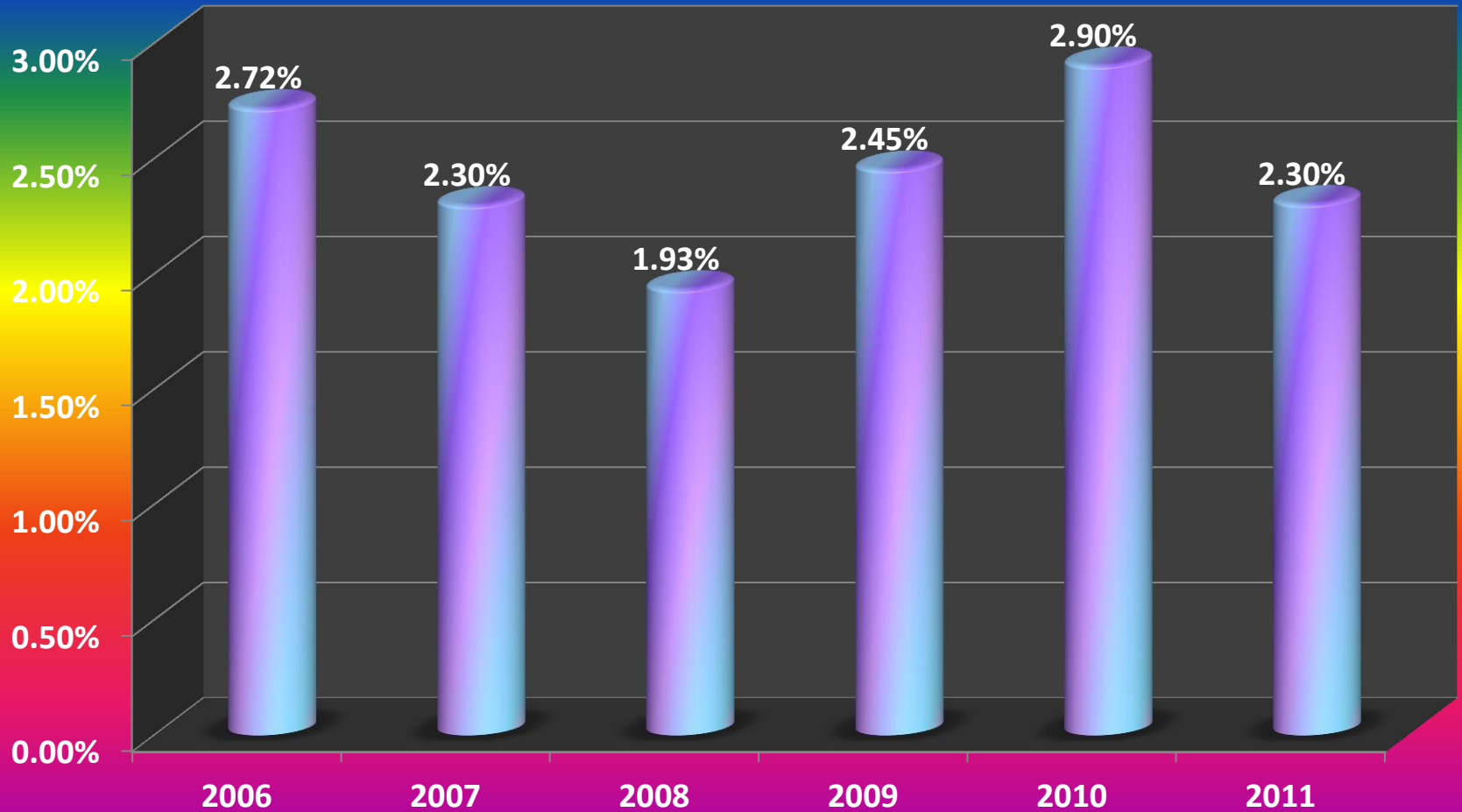
# INTEREST PAID AS % OF TOTAL EXPENDITURE EXCLUDING BULK PURCHASES



# INTEREST PAID AS % OF TOTAL INCOME EXCLUDING BULK PURCHASES



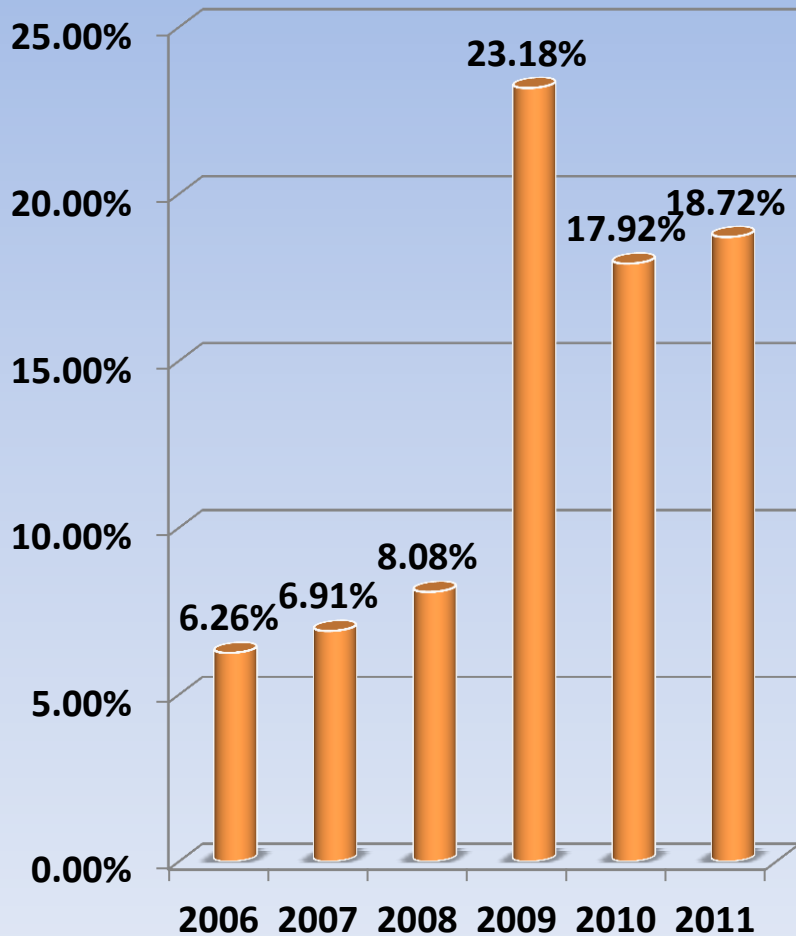
**INTEREST PAID AS A % OF TOTAL INCOME EXCLUDING CAPITAL GRANTS & GAINS ON DISPOSALS & SALE OF LAND AND INVENTORIES, DONATED PPE**



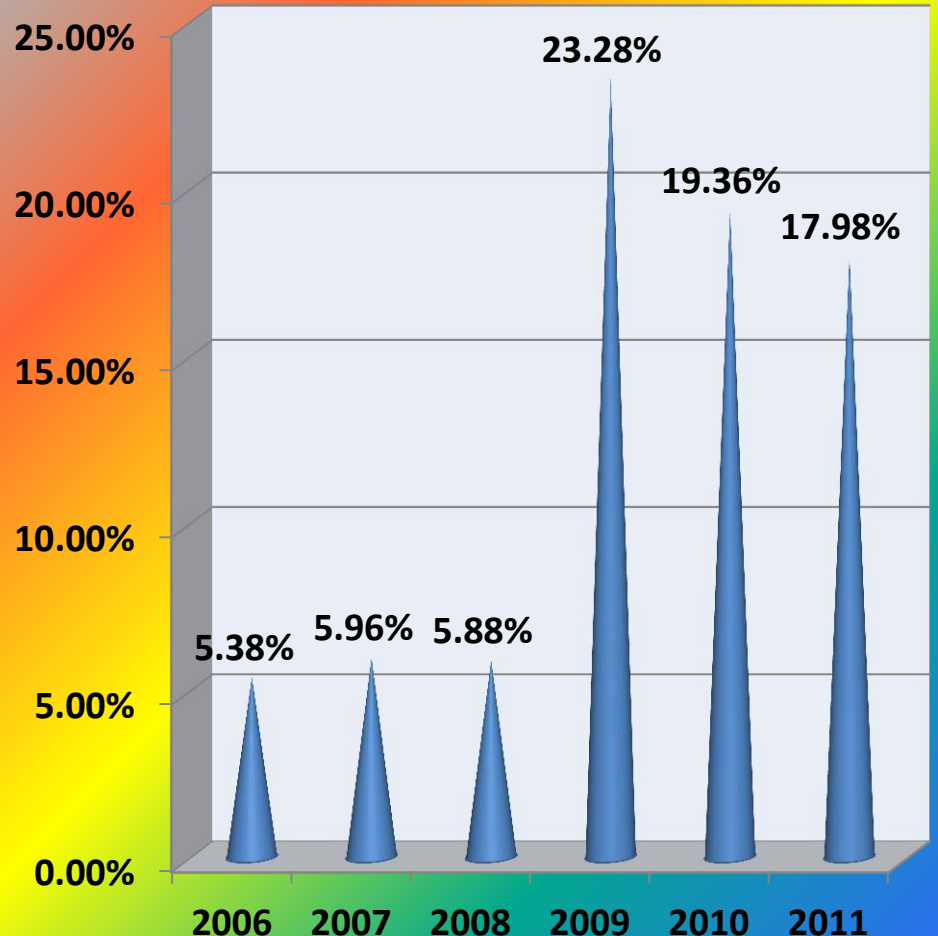


# Depreciation

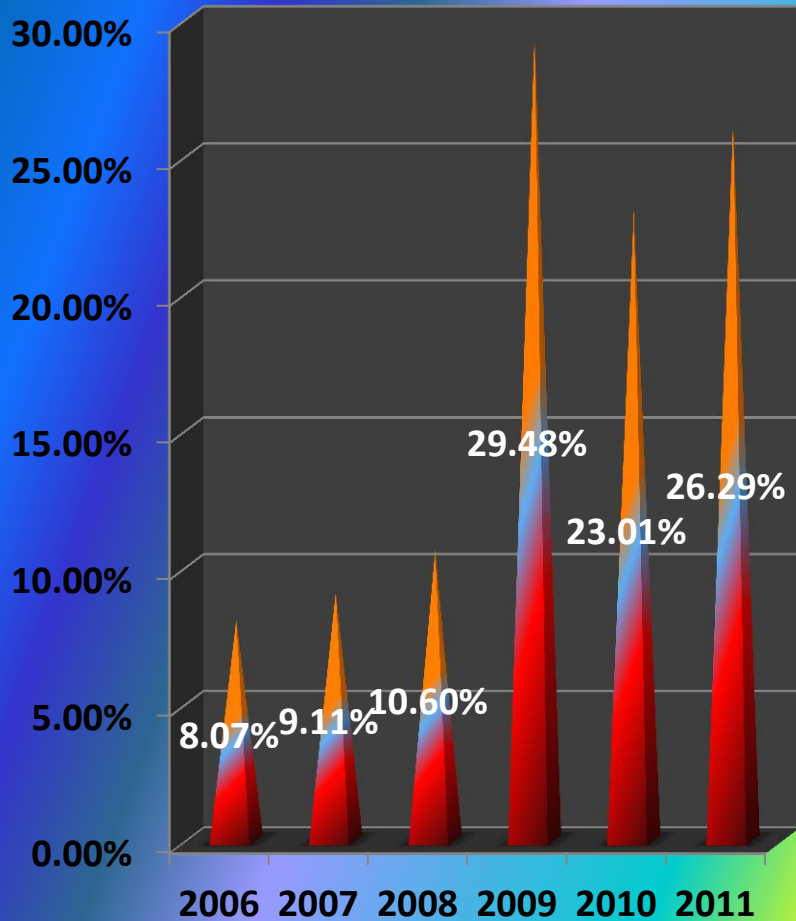
## DEPRECIATION AS % OF TOTAL EXPENDITURE



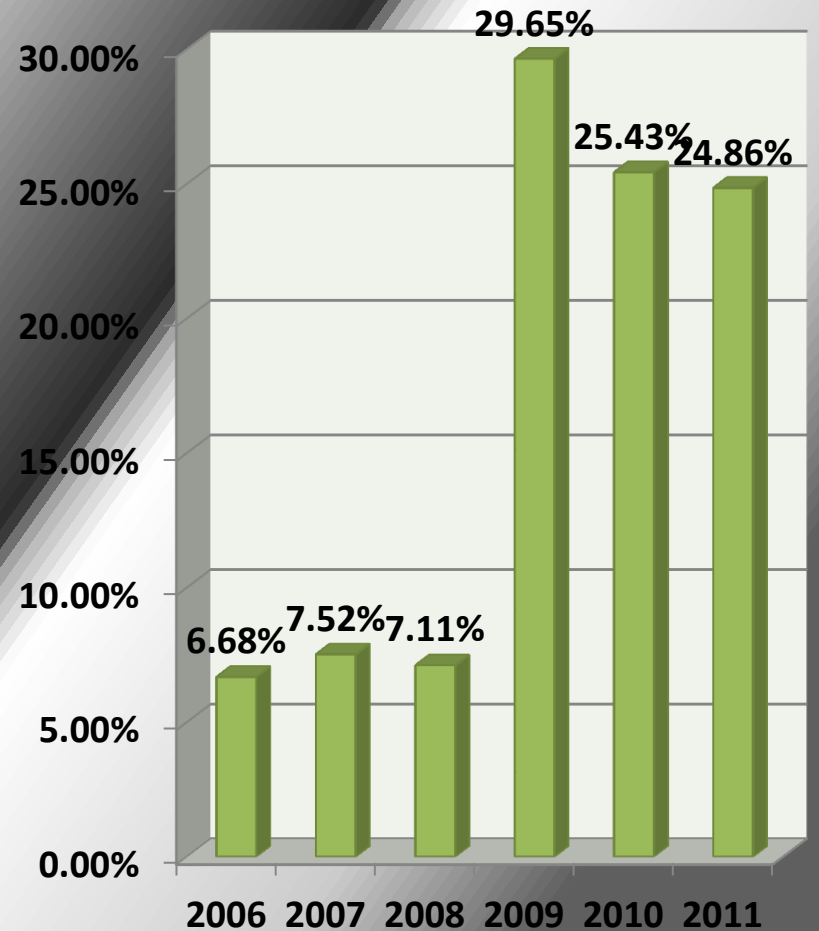
## DEPRECIATION AS % OF TOTAL INCOME



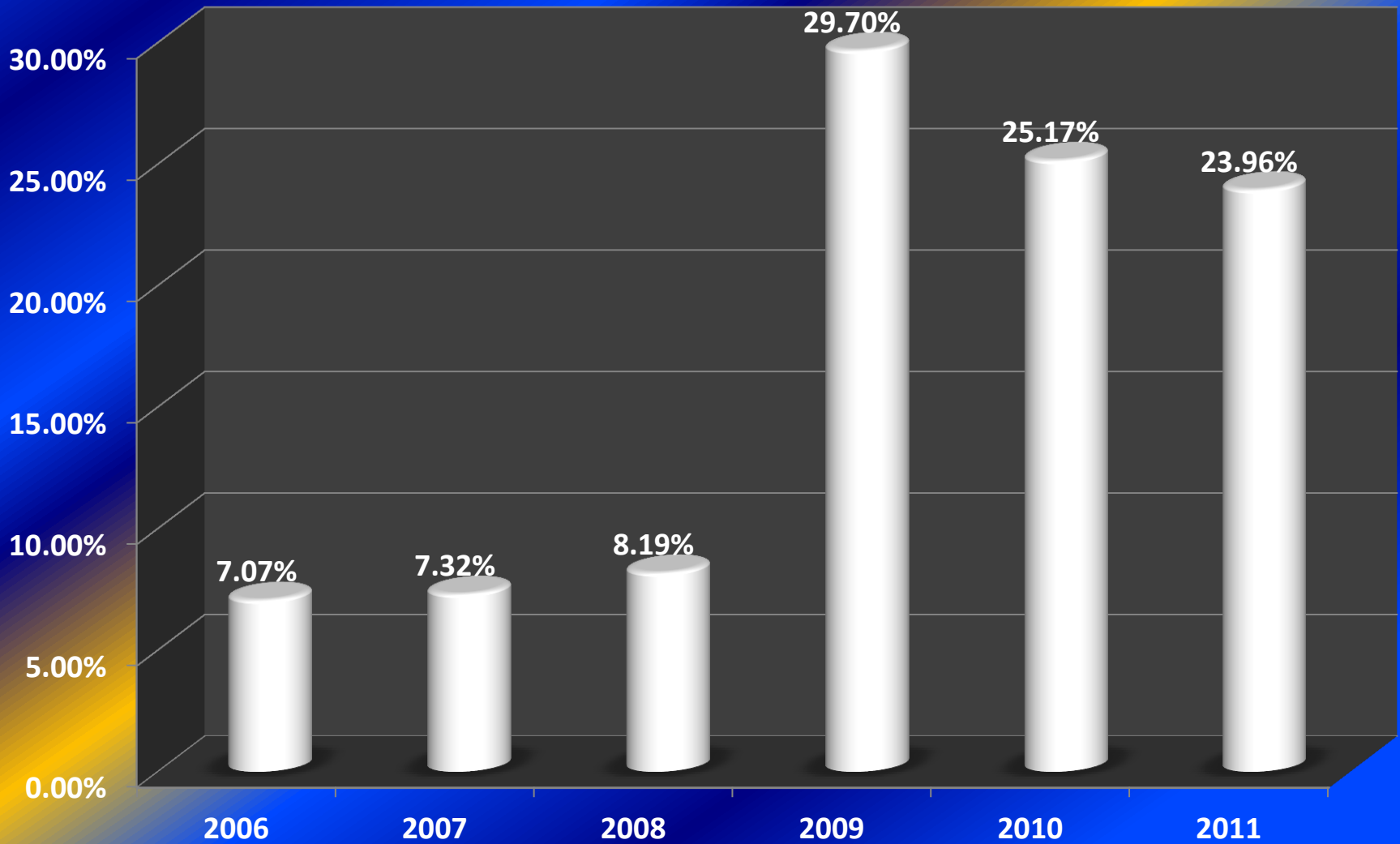
### DEPRECIATION AS % OF TOTAL EXPENDITURE EXCLUDING BULK PURCHASES



### DEPRECIATION AS % OF TOTAL INCOME EXCLUDING BULK PURCHASES

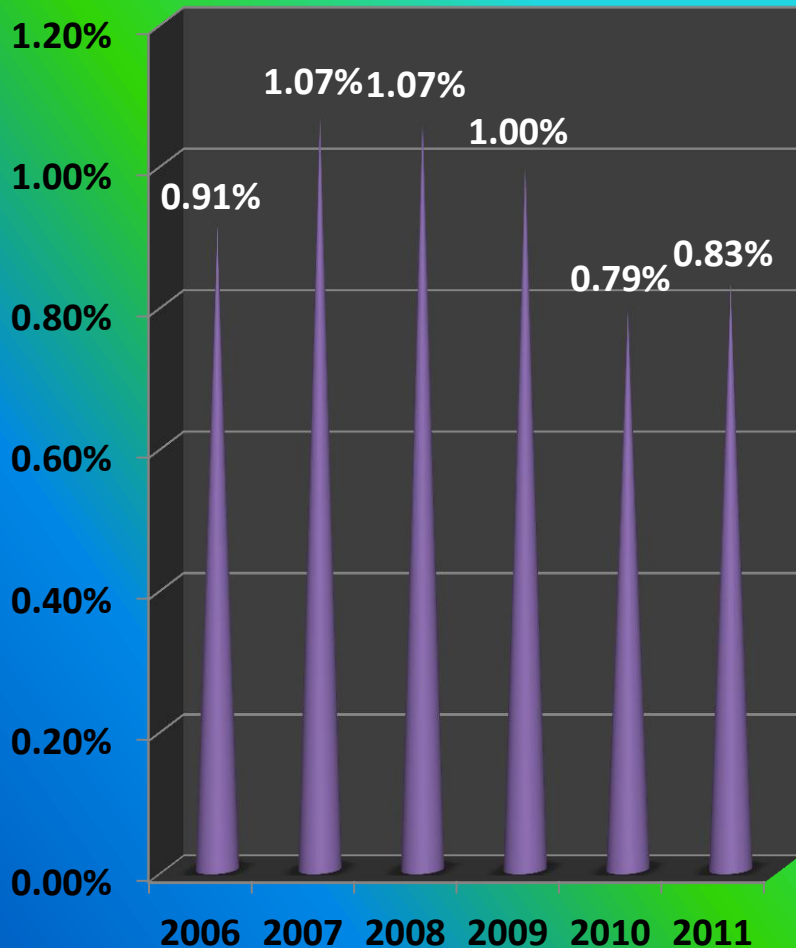


# DEPRECIATION AS % OF TOTAL INCOME EXCLUDING CAPITAL GRANTS, DONATED PPE,GAINS ON DISPOSAL,SALE ON LAND AND PPE

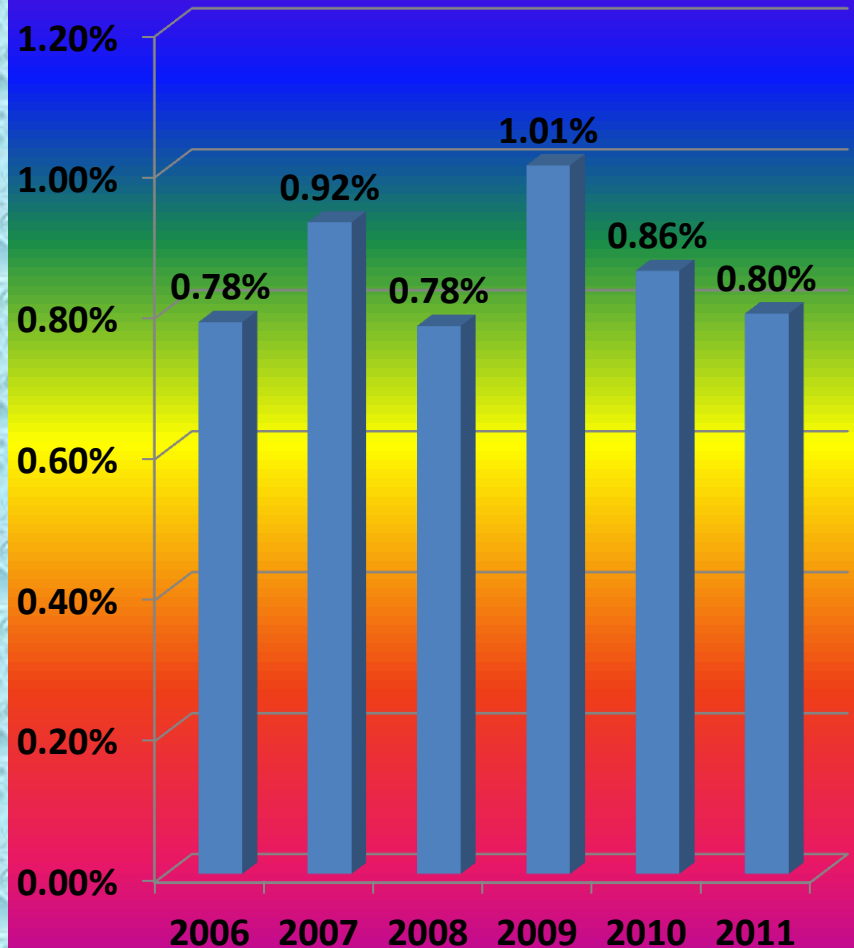


# Contracted Services

## CONTRACTED SERVICES AS % OF TOTAL EXPENDITURE

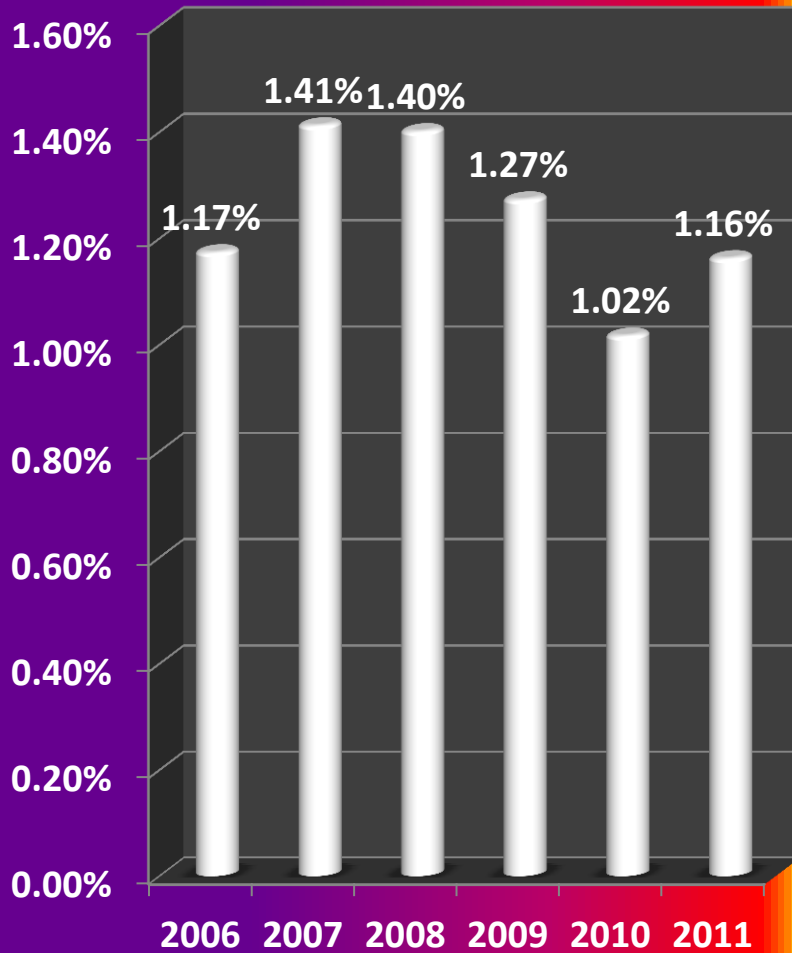


## CONTRACTED SERVICES AS % OF TOTAL INCOME

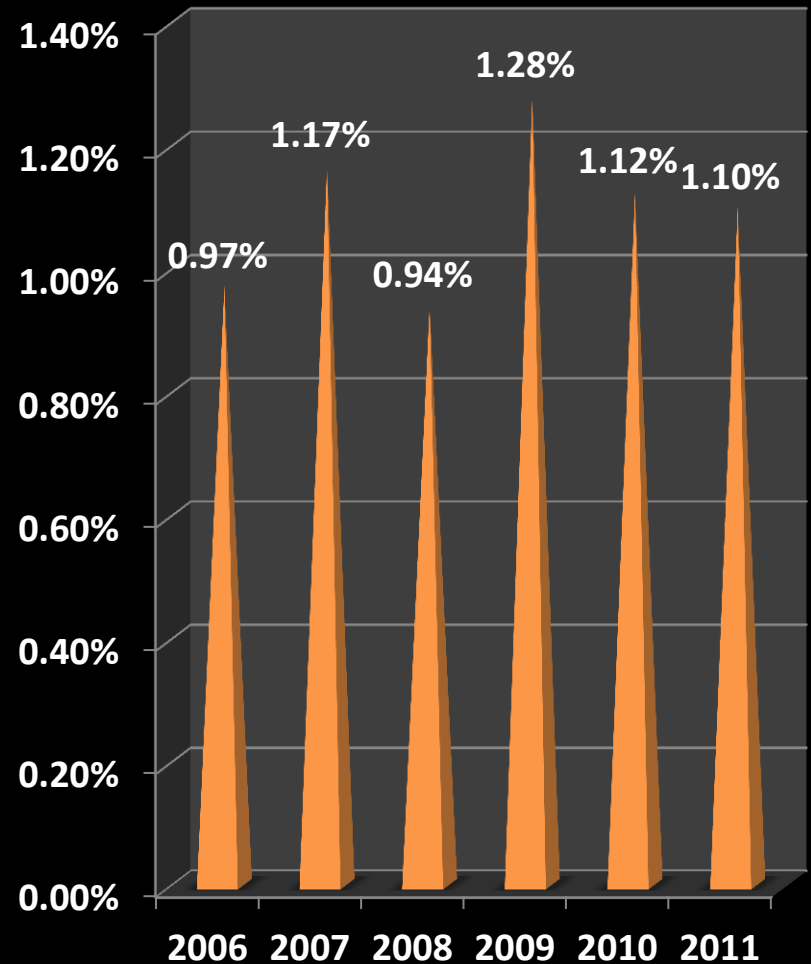




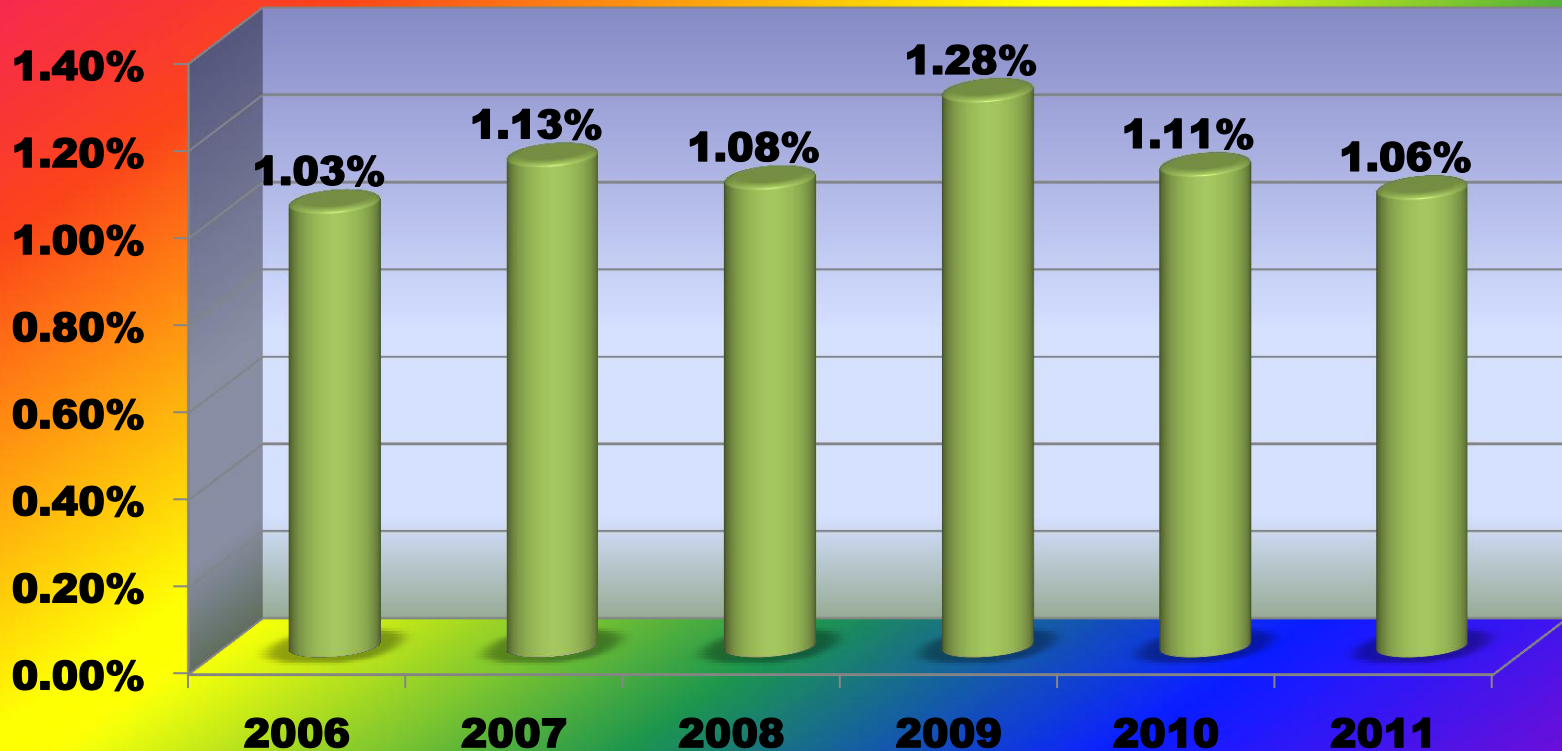
### CONTRACTED SERVICES AS % OF TOTAL EXPENDITURE EXCLUDING BULK PURCHASES

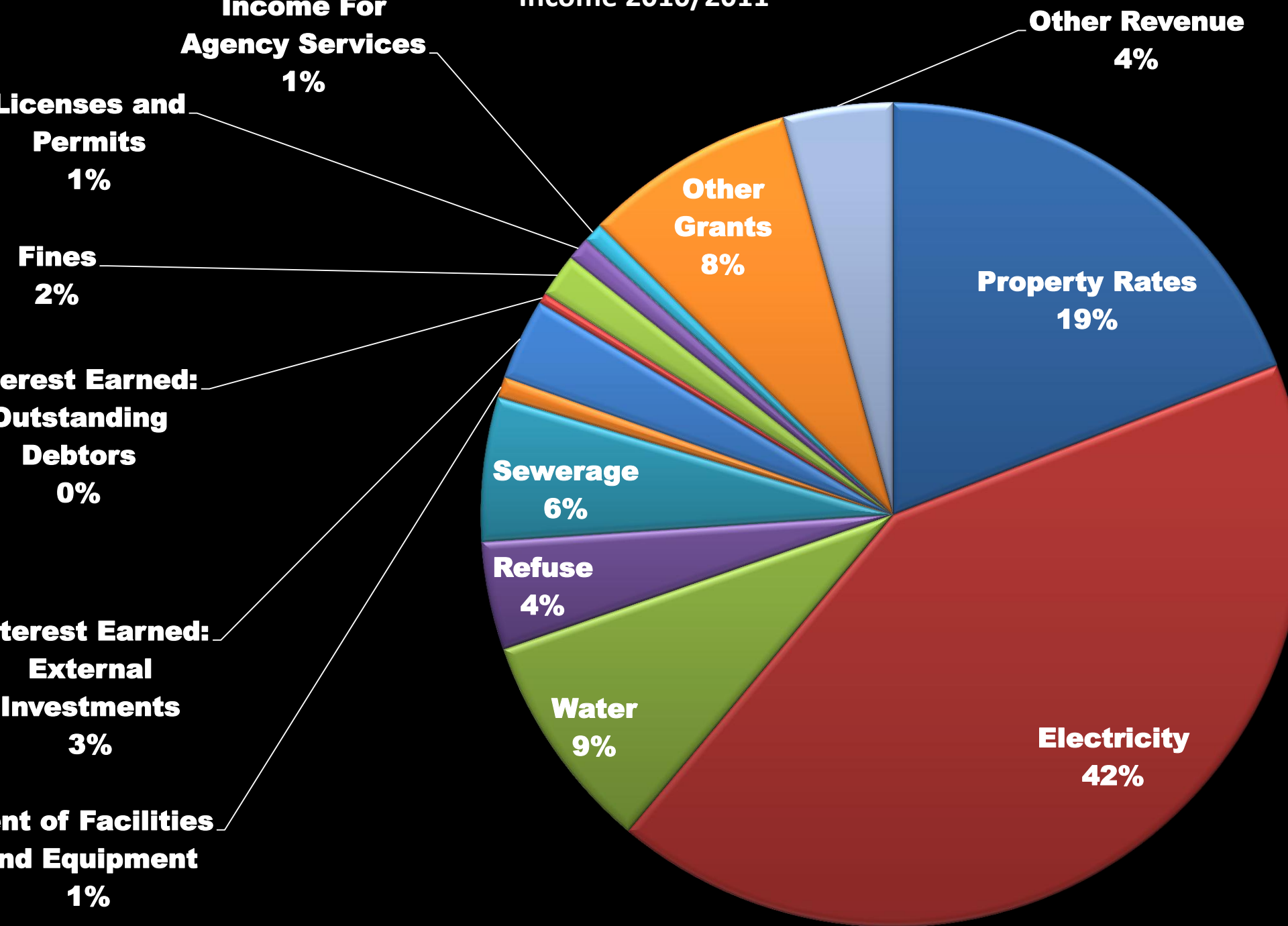


### CONTRACTED SERVICES AS % OF TOTAL INCOME EXCLUDING BULK PURCHASES



**CONTRACTED SERVICES AS % OF TOTAL INCOME  
EXCLUDING CAPITAL GRANTS, GAINS ON  
DISPOSAL, SALE OF LAND AND PPE AND DONATED  
PPE**





# THE WAY FORWARD

- Swartland Municipality will get information on the said excell format from the various 5 B municipalities in the West Coast via the West Coast District Municipality. WCDM will do the same with all District Municipalities
- Put it together
- Do the necessary calculations
- Calculate the averages
- Set the standards
- Calculate the deviations and variances
- Give feedback to municipalities, Prov. Tes and rollout to the Western Cape – then inform NT to follow.



**BAIE DANKIE**

**THANK YOU**

**ENKOSI**