**SQL SCHEMA, CODE and RESULTS**

**SCHEMA:**

create table Intl\_debt

(country\_name varchar(40),

country\_code varchar(10),

indicator\_name varchar(120),

indicator\_code varchar(20),

year70 numeric(16,0),

year71 numeric(16,0),

year72 numeric(16,0),

year73 numeric(16,0),

year74 numeric(16,0),

year75 numeric(16,0),

year76 numeric(16,0),

year77 numeric(16,0),

year78 numeric(16,0),

year79 numeric(16,0),

year80 numeric(16,0),

year81 numeric(16,0),

year82 numeric(16,0),

year83 numeric(16,0),

year84 numeric(16,0),

year85 numeric(16,0),

year86 numeric(16,0),

year87 numeric(16,0),

year88 numeric(16,0),

year89 numeric(16,0),

year90 numeric(16,0),

year91 numeric(16,0),

year92 numeric(16,0),

year93 numeric(16,0),

year94 numeric(16,0),

year95 numeric(16,0),

year96 numeric(16,0),

year97 numeric(16,0),

year98 numeric(16,0),

year99 numeric(16,0),

year00 numeric(16,0),

year01 numeric(16,0),

year02 numeric(16,0),

year03 numeric(16,0),

year04 numeric(16,0),

year05 numeric(16,0),

year06 numeric(16,0),

year07 numeric(16,0),

year08 numeric(16,0),

year09 numeric(16,0),

year10 numeric(16,0),

year11 numeric(16,0),

year12 numeric(16,0),

year13 numeric(16,0),

year14 numeric(16,0),

year15 numeric(16,0),

year16 numeric(16,0),

primary key(country\_name, country\_code, indicator\_code)

);

create table Intl\_debt2

(country\_name varchar(40),

country\_code varchar(10),

indicator\_name varchar(120),

indicator\_code varchar(20),

year14 numeric(16,0),

year15 numeric(16,0),

year16 numeric(16,0),

primary key(country\_name, country\_code, indicator\_code)

);

create table Country\_summary

(country\_code varchar(10),

country\_name varchar(40),

region varchar(40),

income\_group varchar(30),

wb\_code varchar(5),

primary key(country\_code)

);

1. Which country has the highest debt?

**ANS:** China(CHN) seems to have the highest external debt[1] i.e.$1430 Billion across

all[2] countries

**SQL Querry:**

SELECT \* FROM Intl\_debt2 WHERE year16 IN(

SELECT max(year16) FROM Intl\_debt2 WHERE indicator\_code = "DT.DOD.DECT.CD" AND country\_code NOT IN

(SELECT distinct country\_code FROM Intl\_debt2 WHERE country\_code = "LMY" OR country\_code ="MIC" OR country\_code ="UMC" OR country\_code ="EAP" OR country\_code ="LMC" OR country\_code ="LAC" OR country\_code ="ECA" OR country\_code ="SSA" OR country\_code ="LDC" OR country\_code ="MNA")) LIMIT 1;

**RESULTS:**



1. Which country has the least debt?

**ANS:** Tonga(TON – Polynesian Island) seems to have the lowest external debt[1] i.e.$159.855 Million across

**SQL Querry:**

SELECT \* FROM Intl\_debt2 WHERE year16 IN(

SELECT min(year16) FROM Intl\_debt2 WHERE indicator\_code = "DT.DOD.DECT.CD" AND country\_code NOT IN

(SELECT distinct country\_code FROM Intl\_debt2 WHERE country\_code = "LMY" OR country\_code ="MIC" OR country\_code ="UMC" OR country\_code ="EAP" OR country\_code ="LMC" OR country\_code ="LAC" OR country\_code ="ECA" OR country\_code ="SSA" OR country\_code ="LDC" OR country\_code ="MNA")) LIMIT 1;

**RESULTS:**



1. What category of debt is highest across different countries?

**ANS:** On an average long-term external debt seems to be highest across all countries. Within long-term debt, private non-guaranteed category contributes majorly towards the debt(**49.4%**). Official creditors(WB entities) contributing **20%**.

**SQL Querry 3.1:**

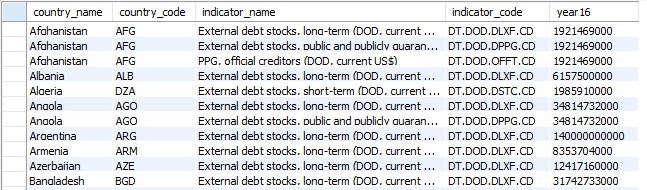
CREATE VIEW Max\_debt\_bycountry AS

SELECT country\_code, max(year16) AS year16 FROM Intl\_debt2 WHERE indicator\_code<> "DT.DOD.DECT.CD" AND indicator\_code<>"DT.DOD.PVLX.CD" GROUP BY country\_code;

Select \* from Max\_debt\_bycountry;

SELECT Intl\_debt2.country\_name, Intl\_debt2.country\_code, Intl\_debt2.indicator\_name, Intl\_debt2.indicator\_code, Intl\_debt2.year16 FROM Intl\_debt2 INNER JOIN Max\_debt\_bycountry ON Intl\_debt2.year16 = Max\_debt\_bycountry.year16;

**SQL Results 3.1 Top few rows: (rest are exported to csv):**



**SQL Querry 3.2:**

Drop view Tot\_Debt\_bycountry;

CREATE VIEW Tot\_Debt\_bycountry AS

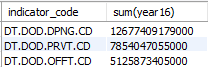
SELECT country\_name, country\_code, indicator\_name, indicator\_code, year16 FROM Intl\_debt6 WHERE indicator\_code= "DT.DOD.DECT.CD" ORDER BY year16 DESC;

Create View LT\_Percent AS

SELECT T1.country\_name, T1.country\_code, T1.indicator\_name, T1.indicator\_code, T1.year16, (T1.year16/T2.year16)\*100 AS Percent\_Of\_Tot\_Debt, T2.year16 AS Tot\_Debt FROM Intl\_debt2 AS T1, Tot\_Debt\_bycountry AS T2 WHERE (T1.indicator\_code= "DT.DOD.OFFT.CD" OR T1.indicator\_code="DT.DOD.PRVT.CD" OR T1.indicator\_code="DT.DOD.DPNG.CD") AND T1.country\_code = T2.country\_code;

Select indicator\_code, sum(year16) from LT\_Percent GROUP BY indicator\_code ORDER BY sum(year16) DESC;

**SQL Result 3.2:**



1. Does the income level has any effect on the debt level of the country?

**ANS:** The average debt of countries with Upper middle income level seems to be

highest(64%) among all the countries and Low income level seems to be the least

**SQL Querry 4.1:**

CREATE VIEW Income\_Groups AS

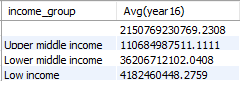
SELECT Intl\_debt2.country\_name, Intl\_debt2.country\_code, Intl\_debt2.indicator\_name, Intl\_debt2.indicator\_code, Intl\_debt2.year16, Country\_summary.region, Country\_summary.income\_group, Country\_summary.wb\_code

FROM Intl\_debt2

JOIN Country\_summary ON Intl\_debt2.country\_code = Country\_summary.country\_code;

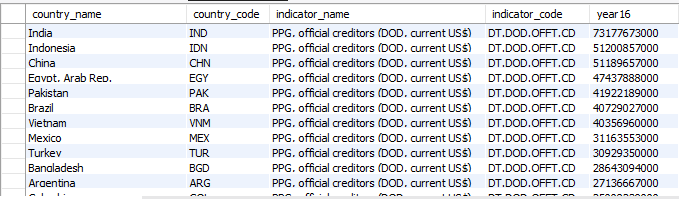
SELECT income\_group, Avg(year16) FROM Income\_Groups WHERE indicator\_code = "DT.DOD.DECT.CD" GROUP BY income\_group ORDER BY Avg(year16) DESC;

**Results 4.1:**



1. What are the top 10 or more countries with the highest debts from private official creditors?

**RESULTS**:



**Associated SQL Querry:**

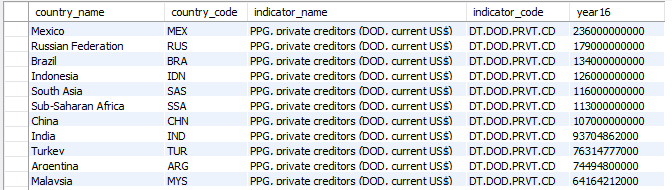
CREATE VIEW Tot\_Debt\_bycountry AS

SELECT country\_name, country\_code, indicator\_name, indicator\_code, year16 FROM Intl\_debt6 WHERE indicator\_code= "DT.DOD.OFFT.CD" ORDER BY year16 DESC;

SELECT \* From Tot\_Debt\_bycountry;

1. What are the top 10 or more countries with the highest debts from private creditors?

**RESULTS**:



**Associated SQL Querry:**

CREATE VIEW Tot\_Debt\_bycountry2 AS

SELECT country\_name, country\_code, indicator\_name, indicator\_code, year16 FROM Intl\_debt6 WHERE indicator\_code= "DT.DOD.PRVT.CD" ORDER BY year16 DESC;

SELECT \* From Tot\_Debt\_bycountry2;