NAME - Sai Teja

In [ ]:
```
pip install wbgapi
```

In [1]:
```
import pandas as pd
import wbgapi as wb
```

In [11]:
```
#Pandas function has been used to read the values of the dataset from the indicators fetched from World Indicators Repository
dfr1=pd.read_csv(r"C:\\Sai Teja\Applied Data Science 2\World Bank Data Final.csv", low_memory=False)
```

In [12]:
```
#Visualisation of the loaded data
dfr1.head(5)
```

Out[12]:

	economy	AFG	AFG.1	AFG.2	AFG.3	AFG.4	AFG.5	AFG.6	AFG.7	AUS	...	
0	series	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	...	NY.GDP.MKTP
1	YR1972	NaN	300.694	NaN	NaN	103.342627187096	18.1058497936081	NaN	NaN	NaN	...	
2	YR1973	NaN	333.697	NaN	NaN	101.794875071335	14.7435907141683	NaN	NaN	NaN	...	
3	YR1974	NaN	399.703	NaN	NaN	100.824745486024	14.8453612226592	NaN	NaN	NaN	...	
4	YR1975	NaN	476.71	NaN	NaN	101.596249705834	14.2723007777117	NaN	NaN	NaN	...	

5 rows × 81 columns

In [13]:
```
#Setting the index
dfr2=dfr1.set_index('economy')
```

In [14]:
```
#Data visualisation in a transpose form
dfr2.T.head(10)
```

Out[14]:

economy	series	YR1972	YR1973	YR1974	YR1975	YR1976	YR1977	YR1978	YR1979	YR1980	...	YR2012
AFG	EG.ELC.ACCS.RU.ZS	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	60.8491554260254
AFG.1	EN.ATM.CO2E.GF.KT	300.694	333.697	399.703	476.71	300.694	513.38	300.694	385.035	187.017	...	308.028
AFG.2	EN.ATM.PM25.MC.T1.ZS	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	99.9085935266891
AFG.3	ER.LND.PTLD.ZS	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN
AFG.4	NE.DAB.TOTL.ZS	103.342627187096	101.794875071335	100.824745486024	101.596249705834	101.65217590586	103.160269661332	103.030297879808	NaN	NaN	...	NaN
AFG.5	NE.IMP.GNFS.ZS	18.1058497936081	14.7435907141683	14.8453612226592	14.2723007777117	14.8695654136106	14.8231754979077	13.8720537510231	NaN	NaN	...	NaN
AFG.6	NY.GDP.MKTP.PP.CD	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	59667003515.1962
AFG.7	SL.UEM.ADVN.ZS	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	NaN
AUS	EG.ELC.ACCS.RU.ZS	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	...	100.0
AUS.1	EN.ATM.CO2E.GF.KT	5848.865	6490.59	7715.368	8375.428	9266.509	11059.672	13813.589	15298.724	17685.941	...	65430.281

10 rows × 51 columns

In [15]:
```
#Initialising the indicators both related to economy and climate
indi_GD = ['SL.UEM.ADVN.ZS','NE.DAB.TOTL.ZS','NE.IMP.GNFS.ZS','NY.GDP.MKTP.PP.CD']
conty_cde = ["AFG","IND",'AUS','PAK','BGR','GBR','ESP','LUX','CHL','CHE']
indi_CL=['EN.ATM.PM25.MC.T1.ZS','EN.ATM.CO2E.GF.KT','ER.LND.PTLD.ZS','EG.ELC.ACCS.RU.ZS']
G  = wb.data.DataFrame(indi_GD, conty_cde, mrv=7)
C = wb.data.DataFrame(indi_CL, conty_cde, mrv=7)
#SL.UEM.ADVN.ZS: Unemployment with advanced education (% of total labor force with advanced education)
#NE.DAB.TOTL.ZS: Expenditure of the country in total
#NE.IMP.GNFS.ZS: Import of the country in total
#NY.GDP.MKTP.PP.CD: PPP, GDP of a country
#EN.ATM.PM25.MC.T1.ZS: PM2.5 pollution exceeding WHO target levels
#EN.ATM.CO2E.GF.KT: CO2 emissions from fuel consumptions of gas
#ER.LND.PTLD.ZS Terrestrial protected areas (% of total land area)
#EG.ELC.ACCS.RU.ZS: Rural electricity access
```

In [16]:
```
# Economy indicators
G.columns = [s.replace('YR','') for s in G.columns]
G=G.stack().unstack(level=1)
G.index.names = ['Cnt_Cde', 'Year']
G.columns
G.fillna(0)
G.head(10)
```

Out[16]:

Cnt_Cde	Year	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS
AFG	2014	NaN	NaN	6.905834e+10	7.86
	2015	NaN	NaN	7.183170e+10	NaN
	2016	NaN	NaN	7.009796e+10	NaN
	2017	NaN	NaN	7.471192e+10	15.46
	2018	NaN	NaN	7.741557e+10	NaN
	2019	NaN	NaN	8.187980e+10	NaN
	2020	NaN	NaN	8.091834e+10	14.38
AUS	2014	100.279002	21.375957	1.100561e+12	3.73
	2015	101.487056	21.556339	1.101457e+12	3.55
	2016	102.277975	21.547899	1.143149e+12	3.46

In [17]:
```
# Cllimate indicators
C.columns = [s.replace('YR','') for s in C.columns]
C=C.stack().unstack(level=1)
C.index.names = ['Cnt_Cde', 'Year']
C.columns
C.fillna(0)
C.head(10)
```

Out[17]:

Cnt_Cde	Year	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
AFG	2015	64.573357	282.359	99.834570	NaN
	2016	97.099358	319.029	99.637837	0.100000
	2017	97.091972	NaN	99.662950	0.104707
	2018	95.586174	NaN	NaN	0.104707
	2019	97.075630	NaN	NaN	0.104707
	2020	97.066711	NaN	NaN	3.637257
	2021	NaN	NaN	NaN	3.637257
AUS	2015	100.000000	73809.376	0.000000	NaN
	2016	100.000000	79122.859	0.000000	16.980000
	2017	100.000000	NaN	0.000000	19.265622

In [18]:
```
#Dataset prep
dp1=G.reset_index()
dp2=C.reset_index()
dp3=dp1.fillna(0)
dp4=dp2.fillna(0)
```

In [19]:
```
#Merging the values
dpfinal = pd.merge(dp3, dp4)
dpfinal.head(14)
```

Out[19]:

series	Cnt_Cde	Year	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
0	AFG	2015	0.000000	0.000000	7.183170e+10	0.00	64.573357	282.359	99.834570	0.000000
1	AFG	2016	0.000000	0.000000	7.009796e+10	0.00	97.099358	319.029	99.637837	0.100000
2	AFG	2017	0.000000	0.000000	7.471192e+10	15.46	97.091972	0.000	99.662950	0.104707
3	AFG	2018	0.000000	0.000000	7.741557e+10	0.00	95.586174	0.000	0.000000	0.104707
4	AFG	2019	0.000000	0.000000	8.187980e+10	0.00	97.075630	0.000	0.000000	0.104707
5	AFG	2020	0.000000	0.000000	8.091834e+10	14.38	97.066711	0.000	0.000000	3.637257
6	AUS	2015	101.487056	21.556339	1.101457e+12	3.55	100.000000	73809.376	0.000000	0.000000
7	AUS	2016	102.277975	21.547899	1.143149e+12	3.46	100.000000	79122.859	0.000000	16.980000
8	AUS	2017	99.489005	20.714438	1.190694e+12	3.31	100.000000	0.000	0.000000	19.265622
9	AUS	2018	99.642692	21.512513	1.253361e+12	0.00	100.000000	0.000	0.000000	19.265622
10	AUS	2019	97.505534	21.675312	1.312637e+12	0.00	100.000000	0.000	0.000000	19.265620
11	AUS	2020	96.071819	20.055673	1.369885e+12	0.00	100.000000	0.000	0.000000	20.338760
12	BGR	2015	99.100768	62.900855	1.320171e+11	3.95	100.000000	5944.207	0.109980	0.000000
13	BGR	2016	95.092863	58.963344	1.430866e+11	3.37	100.000000	6153.226	0.109389	34.690000

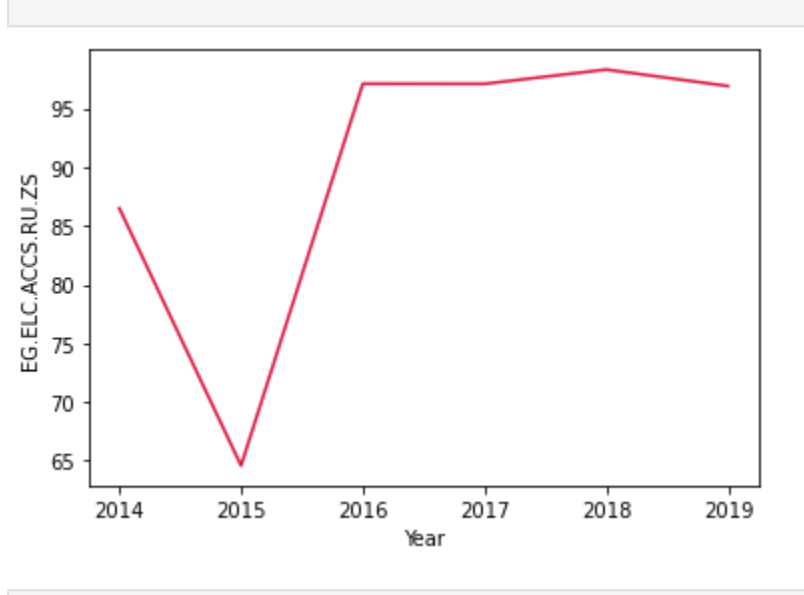
In [20]:
```
# Summary of Afghanistan
su1=dpfinal[(dpfinal['Cnt_Cde']=='AFG')]
su1.describe()
```

Out[20]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.0	6.0	6.000000e+00	6.000000	6.000000	6.000000	6.000000	6.000000
mean	0.0	0.0	7.614255e+10	4.973333	91.415534	100.231333	49.855893	0.675230
std	0.0	0.0	4.785647e+09	7.712221	13.163564	155.710107	54.614436	1.451683
min	0.0	0.0	7.009796e+10	0.000000	64.573357	0.000000	0.000000	0.000000
25%	0.0	0.0	7.255175e+10	0.000000	95.956308	0.000000	0.000000	0.101177
50%	0.0	0.0	7.606375e+10	0.000000	97.071171	0.000000	49.818919	0.104707
75%	0.0	0.0	8.004265e+10	10.785000	97.087887	211.769250	99.656672	0.104707
max	0.0	0.0	8.187980e+10	15.460000	97.099358	319.029000	99.834570	3.637257

The average total access to rural electricity in Afghanistan is 90.08%

In [23]:
```
# Line plot to understand rural electricity access of Afghanistan
import matplotlib.pyplot as plt
plt.plot(su1["Year"], su1["EG.ELC.ACCS.RU.ZS"],color="crimson")
plt.xlabel("Year")
plt.ylabel("EG.ELC.ACCS.RU.ZS")
plt.show()
```



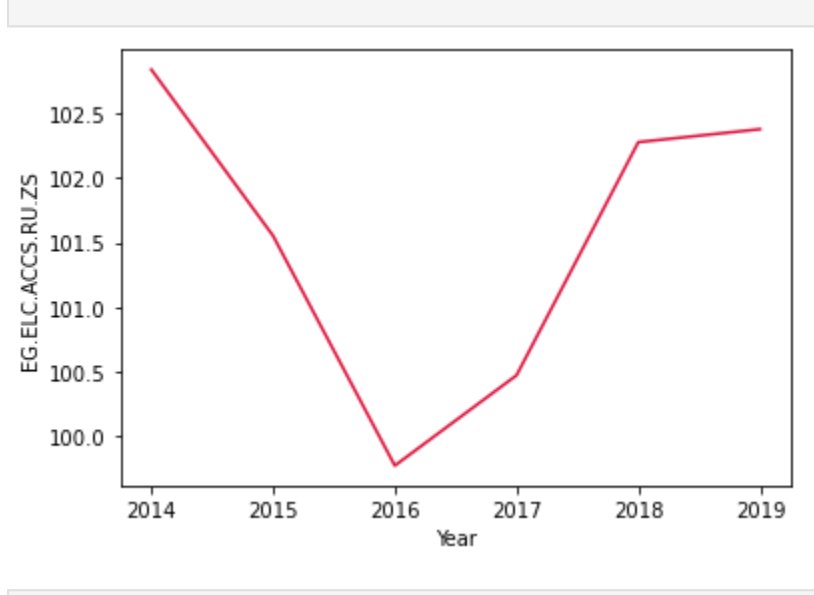
In [21]:
```
# Summary of India
su2=dpfinal[(dpfinal['Cnt_Cde']=='IND')]
su2.describe()
```

Out[21]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.000000	6.000000	6.000000	6.000000
mean	101.135728	21.467888	8.456432e+12	7.675000	90.889268	32470.673833	42.717875	4.972679
std	1.085993	1.490181	9.004338e+11	8.409618	6.192672	50313.305046	46.804118	2.436106
min	99.776521	19.207818	7.159798e+12	0.000000	83.367935	0.000000	0.000000	0.000000
25%	100.388477	20.932534	7.870485e+12	0.000000	85.763985	0.000000	0.000000	5.966519
50%	101.013413	21.454058	8.626206e+12	7.555000	91.355110	0.000000	42.223355	5.966519
75%	102.094731	22.069977	9.015901e+12	15.222500	95.509195	71872.283250	84.678506	5.966519
max	102.375684	23.657416	9.562006e+12	15.680000	98.463287	98994.332000	87.104769	5.970000

The average PPP, GDP of India is higher than that of Afghanistan. The average terrestrial protected areas (% of total land area) of India is higher than that of Afghanistan.

In [29]:
```
# Line plot to understand total expenditure of India
import matplotlib.pyplot as plt
plt.plot(su2["Year"], su2["NE.DAB.TOTL.ZS"],color="crimson")
plt.xlabel("Year")
plt.ylabel("NE.DAB.TOTL.ZS")
plt.show()
```



In [22]:
```
# Summary of Australia
su3=dpfinal[(dpfinal['Cnt_Cde']=='AUS')]
su3.describe()
```

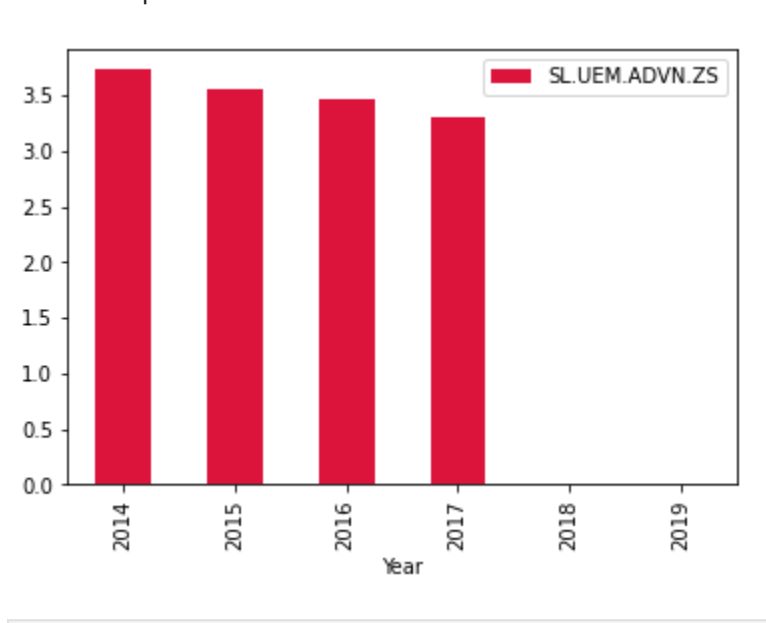
Out[22]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.0	6.000000	6.0	6.000000
mean	99.412347	21.177029	1.228530e+12	1.720000	100.0	25488.705833	0.0	15.852604
std	2.339668	0.650183	1.025094e+11	1.885725	0.0	39522.667044	0.0	7.844077
min	96.071819	20.055673	1.101457e+12	0.000000	100.0	0.000000	0.0	0.000000
25%	98.001402	20.913956	1.155035e+12	0.000000	100.0	0.000000	0.0	17.551405
50%	99.565849	21.530206	1.222028e+12	1.655000	100.0	0.000000	0.0	19.265621
75%	101.025965	21.554229	1.297818e+12	3.422500	100.0	55357.032000	0.0	19.265622
max	102.277975	21.675312	1.369885e+12	3.550000	100.0	79122.859000	0.0	20.338760

The average unemployment with advanced education (% of total labor force with advanced education) of Australia is lower than that of Afghanistan and India. The average total expenditure of Australia is less than that of India

In [33]:
```
# Bar plot to understand unemployment with advanced education in Australia
su3.plot(x="Year", y="SL.UEM.ADVN.ZS", kind="bar",color="crimson")
```

Out[33]: <AxesSubplot:xlabel='Year'>



In [34]:
```
# Summary of Pakistan
su4=dpfinal[(dpfinal['Cnt_Cde']=='PAK')]
su4.describe()
```

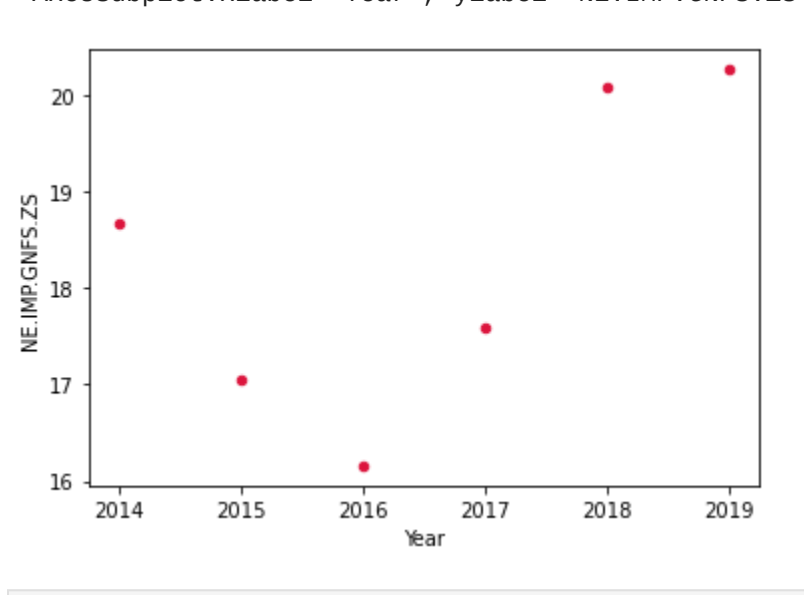
Out[34]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.000000	6.000000	6.000000	6.000000
mean	108.413992	18.299119	9.397851e+11	6.975000	56.232964	37521.355167	66.401669	6.156528
std	2.047972	1.657546	9.127706e+10	6.466420	1.464469	41103.382842	51.434520	6.744139
min	106.416077	16.160505	8.278264e+11	0.000000	54.207423	0.000000	0.000000	0.000000
25%	106.588081	17.186575	8.785766e+11	1.752500	55.829267	0.000000	24.887323	0.000000
50%	108.176487	18.127089	9.241988e+11	7.080000	55.933569	37335.560500	99.577553	6.155000
75%	109.961795	19.718182	1.010096e+12	9.962500	56.638494	74904.892250	99.612132	12.313439
max	111.099389	20.258413	1.060389e+12	16.790001	58.655255	75474.194000	99.640670	12.314585

The average electricity access to rural population is lower than that of India, Australia and Afghanistan. The average CO2 emissions from fuel consumptions of gas is lower than that of India and Australia

In [35]:
```
# Scatter plot to understand import in Pakistan
su4.plot(x="Year", y="NE.IMP.GNFS.ZS", kind="scatter",color="crimson")
```

Out[35]: <AxesSubplot:xlabel='Year', ylabel='NE.IMP.GNFS.ZS'>



In [36]:
```
# Summary of Bulgaria
su5=dpfinal[(dpfinal['Cnt_Cde']=='BGR')]
su5.describe()
```

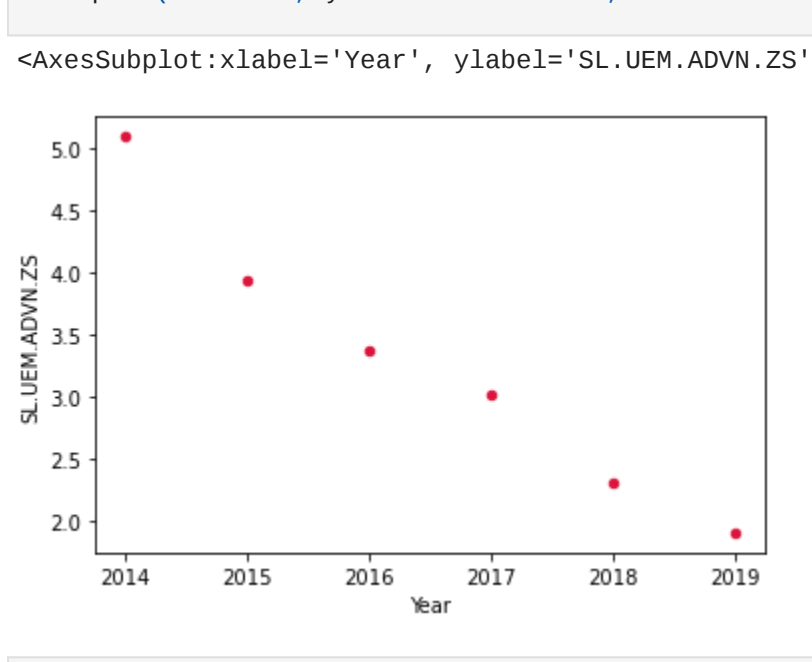
Out[36]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.0	6.000000	6.000000	6.000000
mean	97.533041	62.349101	1.478110e+11	3.278333	100.0	2918.320833	0.072935	17.349527
std	2.237123	2.296373	1.696759e+10	1.153229	0.0	3205.971859	0.056498	19.005455
min	95.092863	58.963344	1.272635e+11	1.910000	100.0	0.000000	0.000000	0.000000
25%	95.958490	61.200065	1.347845e+11	2.490000	100.0	0.000000	0.027070	0.000000
50%	97.115846	62.791428	1.475034e+11	3.200000	100.0	2706.246000	0.108835	17.345000
75%	98.690563	63.092150	1.591098e+11	3.805000	100.0	5811.278250	0.109817	34.700185
max	101.085516	65.686403	1.710721e+11	5.100000	100.0	6153.226000	0.109980	34.703580

The average PM2.5 pollution exceeding WHO target levels is lower than that of Pakistan, India and Afghanistan. The average expenditure is less than Pakistan, Australia and India

In [37]:
```
# Scatter plot to understand Unemployment with advanced education (% of total labor force with advanced education) in Bulgaria
su5.plot(x="Year", y="SL.UEM.ADVN.ZS", kind="scatter",color="crimson")
```

Out[37]: <AxesSubplot:xlabel='Year', ylabel='SL.UEM.ADVN.ZS'>



In [38]:
```
# Summary of Great Britain
su6=dpfinal[(dpfinal['Cnt_Cde']=='GBR')]
su6.describe()
```

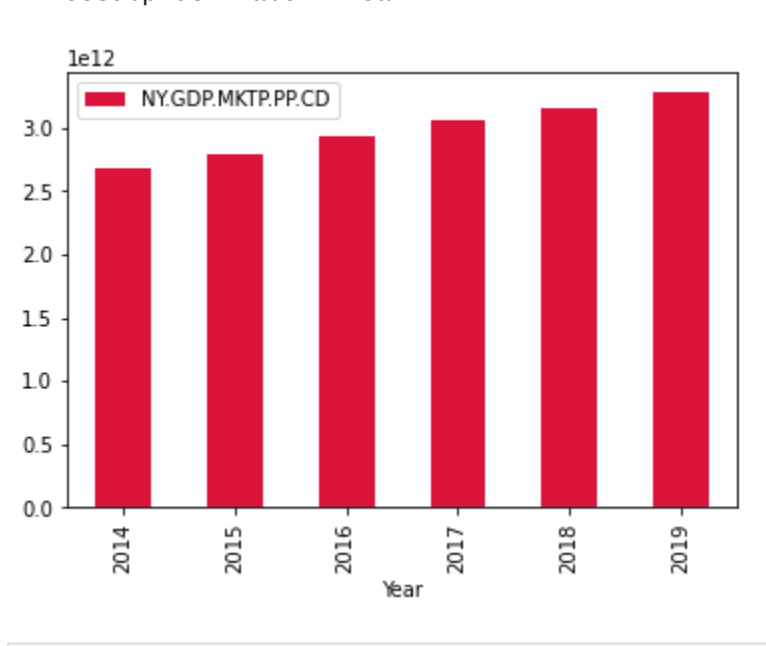
Out[38]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.0	6.000000	6.0	6.000000
mean	101.405124	30.583865	2.985321e+12	2.796667	100.0	72927.462500	0.0	14.267812
std	0.307206	1.286604	2.244524e+11	0.267930	0.0	80220.071016	0.0	15.630444
min	100.917313	28.731477	2.686202e+12	2.480000	100.0	0.000000	0.0	0.000000
25%	101.272896	29.862385	2.827891e+12	2.572500	100.0	0.000000	0.0	0.000000
50%	101.424066	30.591545	2.995950e+12	2.840000	100.0	68640.739500	0.0	14.120000
75%	101.614970	31.683137	3.137140e+12	2.935000	100.0	140312.254500	0.0	28.572578
max	101.764187	31.922291	3.277751e+12	3.170000	100.0	158960.783000	0.0	28.683437

The average terrestrial protected areas (% of total land area) is higher than that of Pakistan, Australia and India. The average CO2 emissions from fuel consumptions of gas is higher than Pakistan, Afghanistan, Australia and India

In [52]:
```
# Bar plot to understand PPP, GDP in Great Britain
su6.plot(x="Year", y="NY.GDP.MKTP.PP.CD", kind="bar",color="crimson")
```

Out[52]: <AxesSubplot:xlabel='Year'>



In [43]:
```
# Summary of Spain
su7=dpfinal[(dpfinal['Cnt_Cde']=='ESP')]
su7.describe()
```

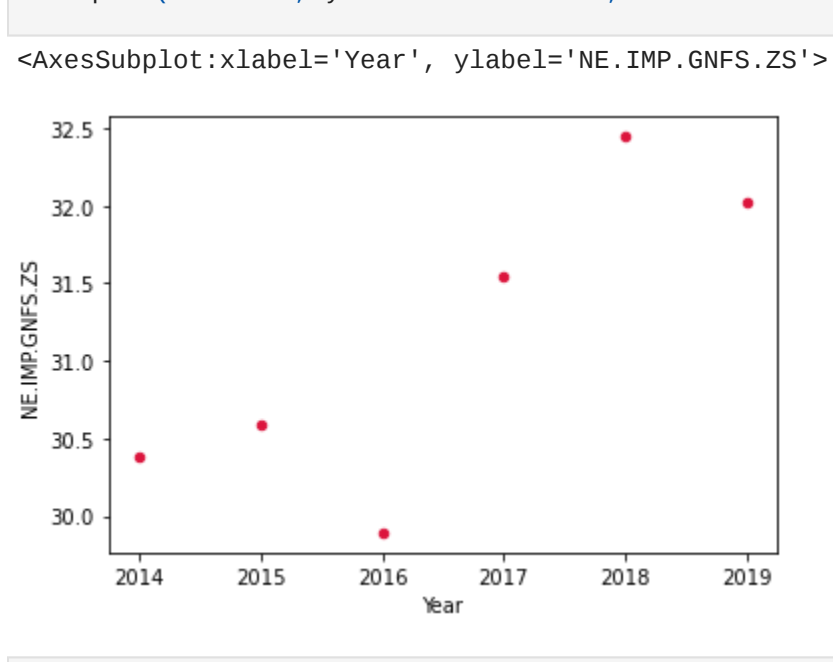
Out[43]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.0	6.000000	6.0	6.000000
mean	96.769858	31.145839	1.770694e+12	11.183333	100.0	27958.430333	0.0	14.025211
std	0.473634	1.008497	1.610758e+11	2.459550	0.0	30643.476127	0.0	15.363858
min	96.012443	29.892534	1.558306e+12	8.610000	100.0	0.000000	0.0	0.000000
25%	96.520356	30.433812	1.649106e+12	9.175000	100.0	0.000000	0.0	0.000000
50%	96.930039	31.064617	1.787498e+12	10.820000	100.0	27100.963500	0.0	14.010000
75%	97.042412	31.904281	1.888820e+12	12.810000	100.0	55700.813250	0.0	28.054225
max	97.282962	32.445550	1.965294e+12	14.750000	100.0	57348.213000	0.0	28.065634

The average total expenditure for Spain is less than that of Pakistan, Bulgaria, Great Britain and Australia. The average terrestrial protected areas (% of total land area) is higher than Pakistan, Australia and India

In [50]:
```
# Scatter plot to understand import in Spain
su7.plot(x="Year", y="NE.IMP.GNFS.ZS", kind="scatter",color="crimson")
```

Out[50]: <AxesSubplot:xlabel='Year', ylabel='NE.IMP.GNFS.ZS'>



In [32]:
```
# Summary of Luxembourg
su8=dpfinal[(dpfinal['Cnt_Cde']=='LUX')]
su8.describe()
```

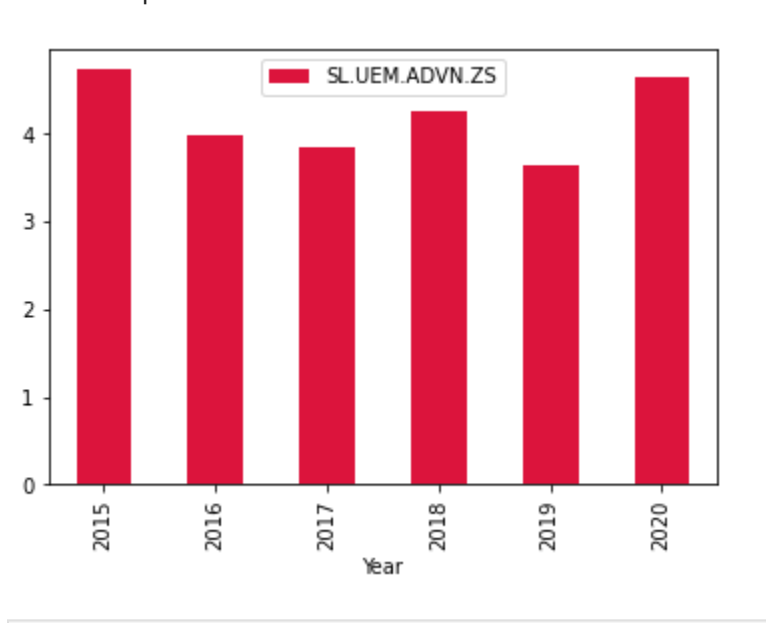
Out[32]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.0	6.000000	6.0	6.000000
mean	67.557757	164.603441	6.902357e+10	4.183333	100.0	564.106833	0.0	36.068104
std	1.027985	6.982415	4.754629e+09	0.440167	0.0	874.963157	0.0	19.074822
min	66.240142	157.338776	6.143731e+10	3.640000	100.0	0.000000	0.0	0.000000
25%	67.008348	159.734016	6.662764e+10	3.882500	100.0	0.000000	0.0	34.420685
50%	67.376905	162.379462	6.983971e+10	4.115000	100.0	0.000000	0.0	40.872741
75%	68.089508	169.631329	7.234139e+10	4.550000	100.0	1218.360750	0.0	48.605225
max	69.140052	174.622130	7.429244e+10	4.730000	100.0	1760.160000	0.0	51.210420

The average total import for Luxembourg is higher than that of Spain, Bulgaria, Australia and Pakistan. The average CO2 emissions from fuel consumptions of gas is lower than that of Spain, Great Britain and Bulgaria

In [33]:
```
# Bar plot to understand Unemployment with advanced education (% of total labor force with advanced education) in Luxembourg
su8.plot(x="Year", y="SL.UEM.ADVN.ZS", kind="bar",color="crimson")
```

Out[33]: <AxesSubplot:xlabel='Year'>



In [55]:
```
# Summary of Chile
su9=dpfinal[(dpfinal['Cnt_Cde']=='CHL')]
su9.describe()
```

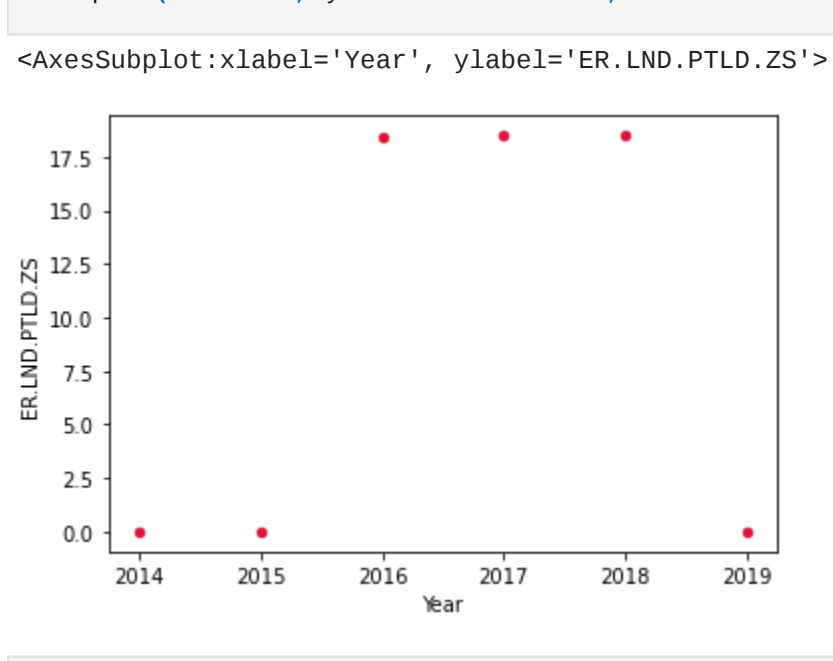
Out[55]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.0	6.000000	6.000000	6.000000
mean	99.762879	29.030024	4.423679e+11	6.163333	100.0	4563.581500	0.352429	9.231485
std	0.806278	1.772865	3.464495e+10	0.904404	0.0	5026.556752	0.325103	10.112644
min	98.780327	27.217174	4.046673e+11	5.080000	100.0	0.000000	0.000000	0.000000
25%	99.136013	27.858170	4.126029e+11	5.355000	100.0	0.000000	0.073031	0.000000
50%	99.805182	28.832895	4.393807e+11	6.345000	100.0	4151.044000	0.333482	9.200000
75%	100.285336	29.409783	4.739684e+11	6.960000	100.0	8915.393750	0.632197	18.470841
max	100.828240	32.161838	4.816044e+11	7.020000	100.0	9959.572000	0.729629	18.494454

The average PM2.5 pollution exceeding WHO target levels is lower than that of Pakistan, India and Afghanistan. The average import is lower than that of Luxembourg, Spain and Great Britain

In [58]:
```
# Scatter plot to understand Terrestrial protected areas (% of total land area) in Chile
su9.plot(x="Year", y="ER.LND.PTLD.ZS", kind="scatter",color="crimson")
```

Out[58]: <AxesSubplot:xlabel='Year', ylabel='ER.LND.PTLD.ZS'>



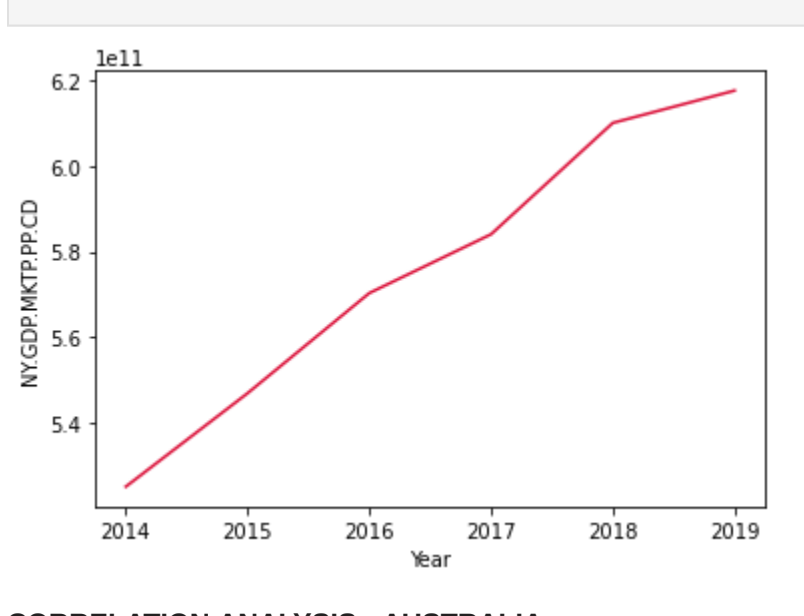
In [43]:
```
# Summary of Switzerland
su10=dpfinal[(dpfinal['Cnt_Cde']=='CHE')]
su10.describe()
```

Out[43]:

series	NE.DAB.TOTL.ZS	NE.IMP.GNFS.ZS	NY.GDP.MKTP.PP.CD	SL.UEM.ADVN.ZS	EG.ELC.ACCS.RU.ZS	EN.ATM.CO2E.GF.KT	EN.ATM.PM25.MC.T1.ZS	ER.LND.PTLD.ZS
count	6.000000	6.000000	6.000000e+00	6.000000	6.0	6.000000	6.0	6.000000
mean	88.807130	53.337068	5.914346e+11	3.470000	100.0	2232.591833	0.0	8.488760
std	1.263878	1.300893	2.942695e+10	0.172047	0.0	3460.325776	0.0	4.253950
min	87.665325	50.725485	5.468055e+11	3.250000	100.0	0.000000	0.0	0.000000
25%	88.196274	53.581494	5.737137e+11	3.360000	100.0	0.000000	0.0	9.653796
50%	88.354748	53.752406	5.970954e+11	3.495000	100.0	0.000000	0.0	9.665184
75%	88.928049	53.996100	6.158180e+11	3.517500	100.0	4898.195250	0.0	9.911364
max	91.205362	54.190254	6.196327e+11	3.740000	100.0	6864.624000	0.0	11.958770

The average expenditure of Switzerland is lower than that of Chile, Spain and Great Britain. The average unemployment with advanced education (% of total labor force with advanced education) is lower than Chile, Luxembourg and Spain

In [60]:
```
# Line plot to understand PPP, GDP of Switzerland
plt.plot(su10["Year"], su10["NY.GDP.MKTP.PP.CD"],color="crimson")
plt.xlabel("Year")
plt.ylabel("NY.GDP.MKTP.PP.CD")
plt.show()
```

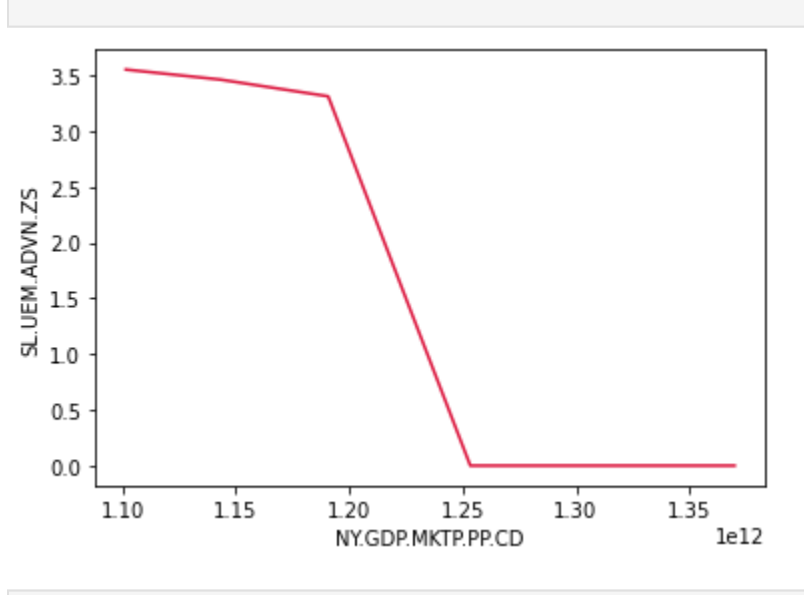


CORRELATION ANALYSIS - AUSTRALIA

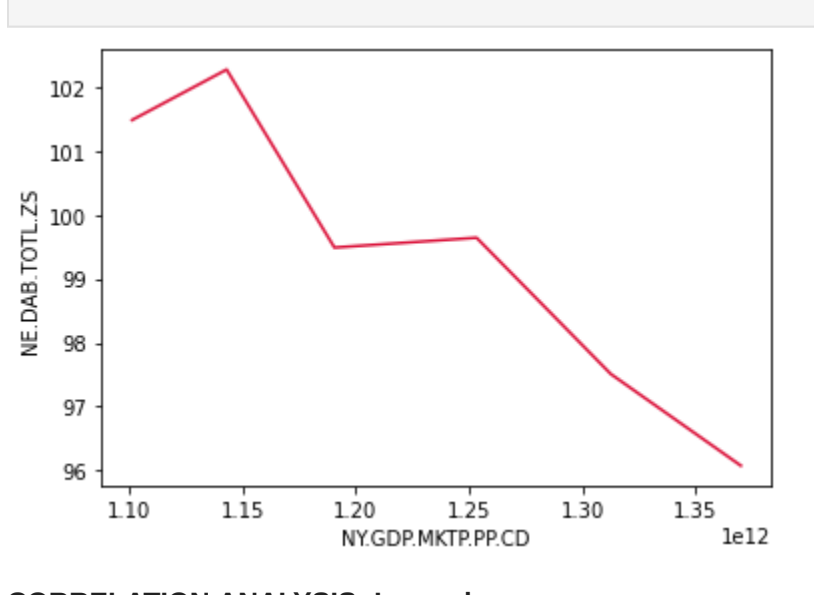
In [26]:
```
#indi_GD = ['SL.UEM.ADVN.ZS','NE.DAB.TOTL.ZS','NE.IMP.GNFS.ZS','NY.GDP.MKTP.PP.CD']

import matplotlib.pyplot as plt

plt.plot(su3["NY.GDP.MKTP.PP.CD"], su3["SL.UEM.ADVN.ZS"],color="crimson")
plt.xlabel("NY.GDP.MKTP.PP.CD")
plt.ylabel("SL.UEM.ADVN.ZS")
plt.show()
```

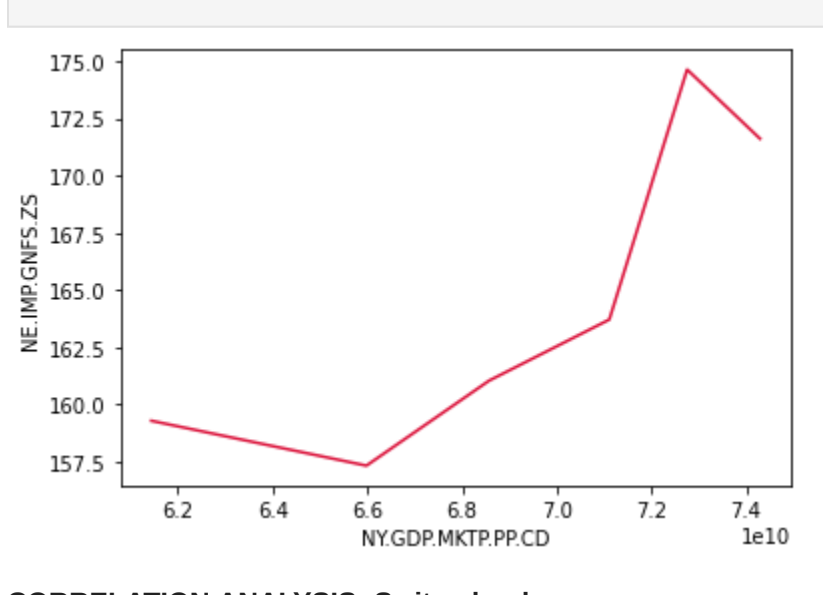


In [30]:
```
plt.plot(su3["NY.GDP.MKTP.PP.CD"], su3["NE.DAB.TOTL.ZS"],color="crimson")
plt.xlabel("NY.GDP.MKTP.PP.CD")
plt.ylabel("NE.DAB.TOTL.ZS")
plt.show()
```



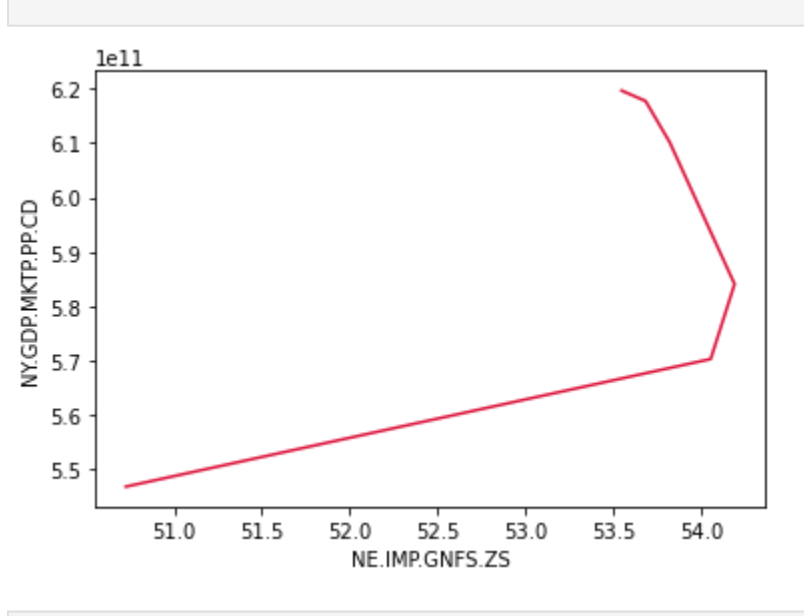
CORRELATION ANALYSIS: Luxembourg

In [37]:
```
plt.plot(su8["NY.GDP.MKTP.PP.CD"], su8["NE.IMP.GNFS.ZS"],color="crimson")
plt.xlabel("NY.GDP.MKTP.PP.CD")
plt.ylabel("NE.IMP.GNFS.ZS")
plt.show()
```



CORRELATION ANALYSIS: Switzerland

In [55]:
```
plt.plot(su10["NE.IMP.GNFS.ZS"], su10["NY.GDP.MKTP.PP.CD"],color="crimson")
plt.xlabel("NE.IMP.GNFS.ZS")
plt.ylabel("NY.GDP.MKTP.PP.CD")
plt.show()
```



In [ ]: