🌍📈 The Global Boom: Population Growth since 1950

In [80]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import plotly.express as px
```

In [81]:
```
data = pd.read_csv('Population Growth.csv')
```

In [82]:
```
print(data.head())
```

```
   Year Population Growth Rate Growth Rate
0  1950          2,499,322,157       0.00%
1  1951          2,543,130,380       1.75%
2  1952          2,590,270,899       1.85%
3  1953          2,640,278,797       1.93%
4  1954          2,691,979,339       1.96%
```

In [83]:
```
print(data.info())
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 74 entries, 0 to 73
Data columns (total 3 columns):
 #   Column                  Non-Null Count  Dtype 
---  ------                  --------------  ----- 
 0   Year                    74 non-null     int64 
 1   Population Growth Rate  74 non-null     object
 2   Growth Rate             74 non-null     object
dtypes: int64(1), object(2)
memory usage: 1.9+ KB
None
```

In [84]:
```
print(data.describe())
```

```
              Year
count    74.000000
mean   1986.500000
std      21.505813
min    1950.000000
25%    1968.250000
50%    1986.500000
75%    2004.750000
max    2023.000000
```

In [85]:
```
year = data['Year']
population_growth_rate = data['Population Growth Rate']
population_growth_rate = pd.to_numeric(data['Population Growth Rate'].str.replace(
pop_gr = data['Growth Rate']

min_value = pop_gr.min()
max_value = pop_gr.max()
num_data = len(pop_gr)

print("Mínimo:", min_value)
print("Máximo:", max_value)
print("Número de datos:", num_data)
```

```
Mínimo: 0.00%
Máximo: 2.24%
Número de datos: 74
```

In [86]:
```
fig = px.line(data, x="Year", y="Population Growth Rate", title='Population from 19
              labels={'Year': 'Year', 'Population Growth Rate': 'Population Growth
              line_shape='spline', markers=True, template='plotly_white')

fig.update_traces(line=dict(color='blue'))

fig.show()
```

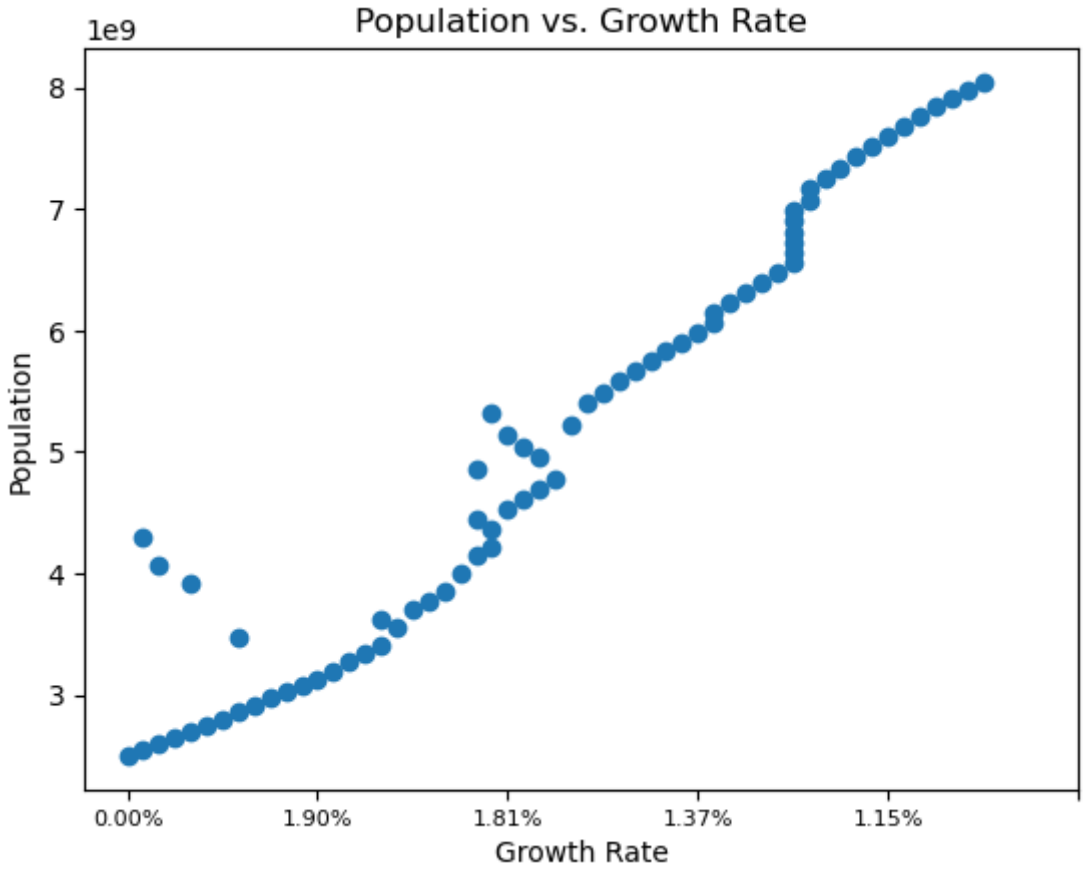
In [87]:
```
fig = px.line(data, x="Year", y="Growth Rate", title='Population Growth Rate from 1
              line_shape='spline', markers=True, template='plotly_white')

fig.update_traces(line=dict(color='blue'))

fig.show()
```

In [112…

```
plt.scatter(data['Growth Rate'], population_growth_rate)
plt.xlabel('Growth Rate')
plt.ylabel('Population')
plt.title('Population vs. Growth Rate')

x_min = 0; x_max = 60;

# Crear una lista con los valores deseados para mostrar en el eje x
x_ticks = [x_min, x_min + (x_max - x_min) / 5, x_min + (2 * (x_max - x_min) / 5),
           x_min + (3 * (x_max - x_min) / 5), x_min + (4 * (x_max - x_min) / 5), x

print(x_ticks)

plt.xticks(x_ticks)
plt.xticks(fontsize=8)

plt.figure(figsize=(18, 8))
```

Out[112]:

```
[0, 12.0, 24.0, 36.0, 48.0, 60]
<Figure size 1800x800 with 0 Axes>
```



<Figure size 1800x800 with 0 Axes>