EUROPEAN SMART CITIES (SC): THE CASE OF MADRID (SPAIN)

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1. **Introduction**
2. **SC concept**
3. **Methodology**
4. **Data analysis**
5. **Conclusions**

1. **Introduction**

- Growth capacity of cities
- Intellectual confusion
- Electoral agenda
- “Smart cities" (SC)
- Inclusive cities
- Conceptual clarification

2. SC concept

- “Digital combination of facilities and activities in urban spaces of citizens aware of their rights”
- Subordination of technological aspects to social aspects

- **<u>Vectors of SC are</u>**:

✓ Efficiency in the provision of services

✓ Creative and innovative culture

✓ Social equality

✓ A better quality of life

3. Methodology

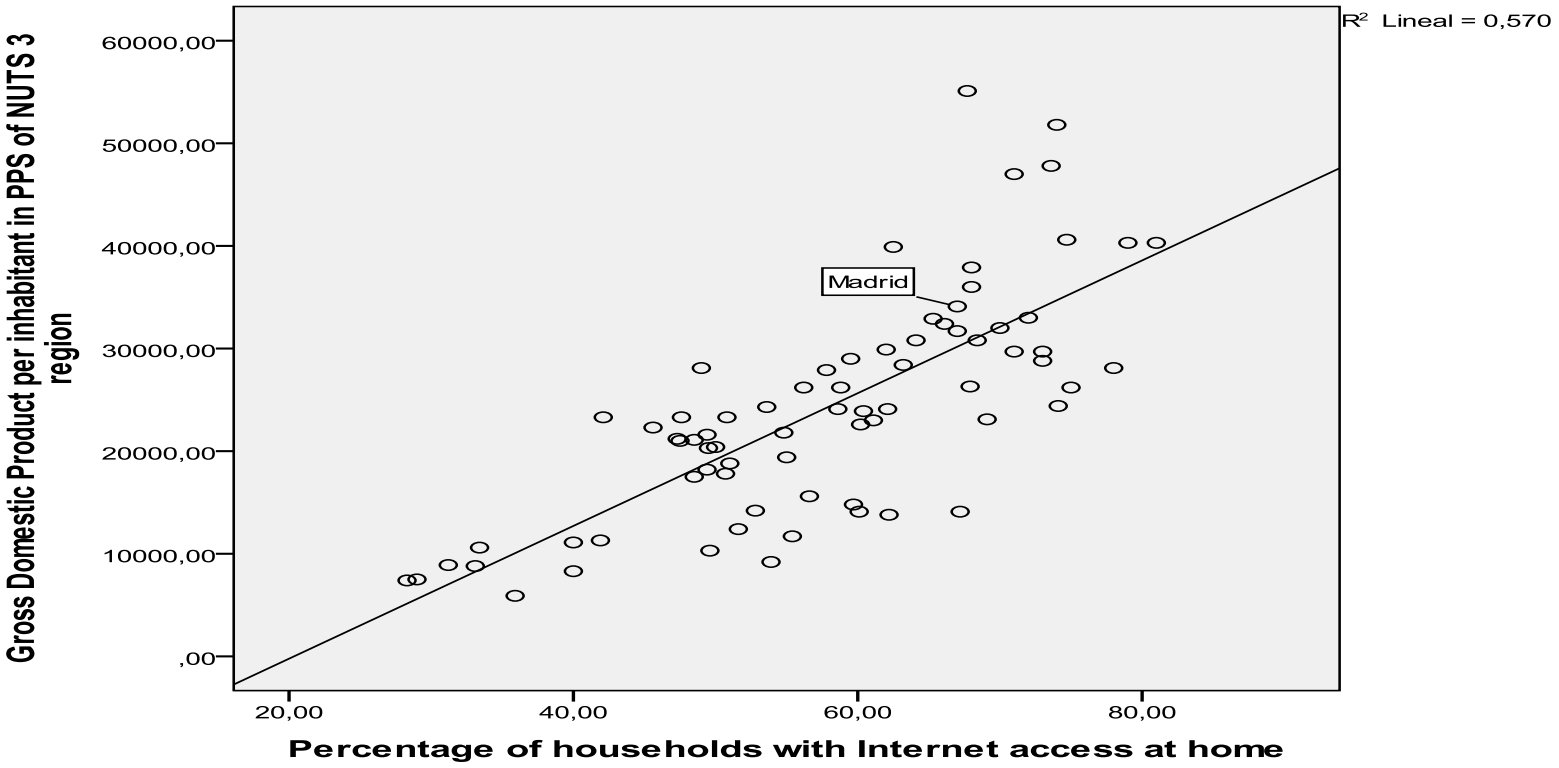
- **3.1. Source**
- "Urban Audit 2009" of Eurostat
- **Dependent Variable**
✓ GDP pc in PPP

- **3.2. Methodology**
- Partial correlation

- **Independent Variables**
✓ % of households with internet access
✓ % of headquarters about the number of companies
✓ multimodal accessibility index
✓ % of employment in cultural activities
✓ % of active population by levels of qualification
✓ Population per km2
✓ indicators of social cohesion
✓ quality of the environment

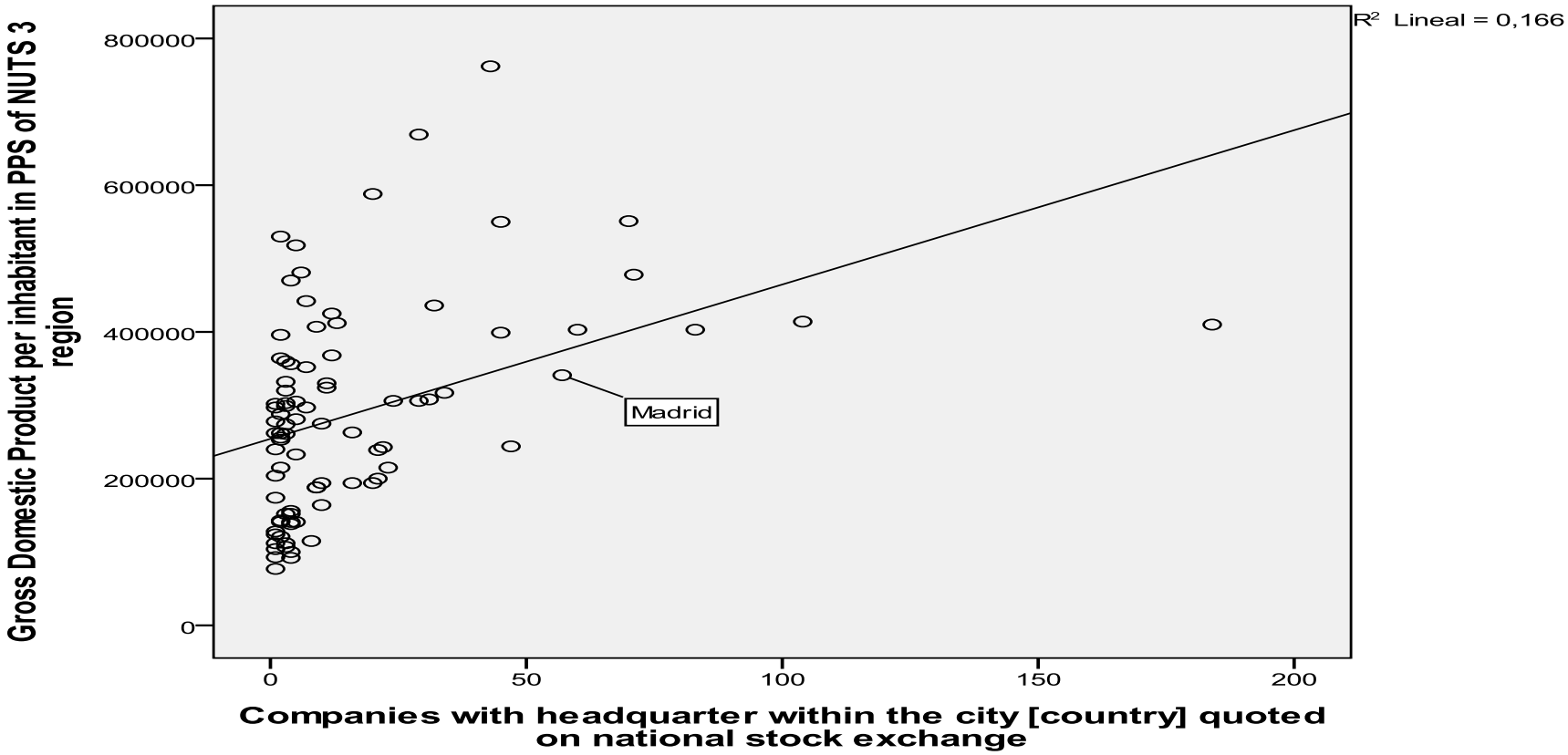
4. Data analysis

- **4.1 Infrastructures**
- **Figure 1. Relation between the GDP PC and y the % of homes with access to internet**



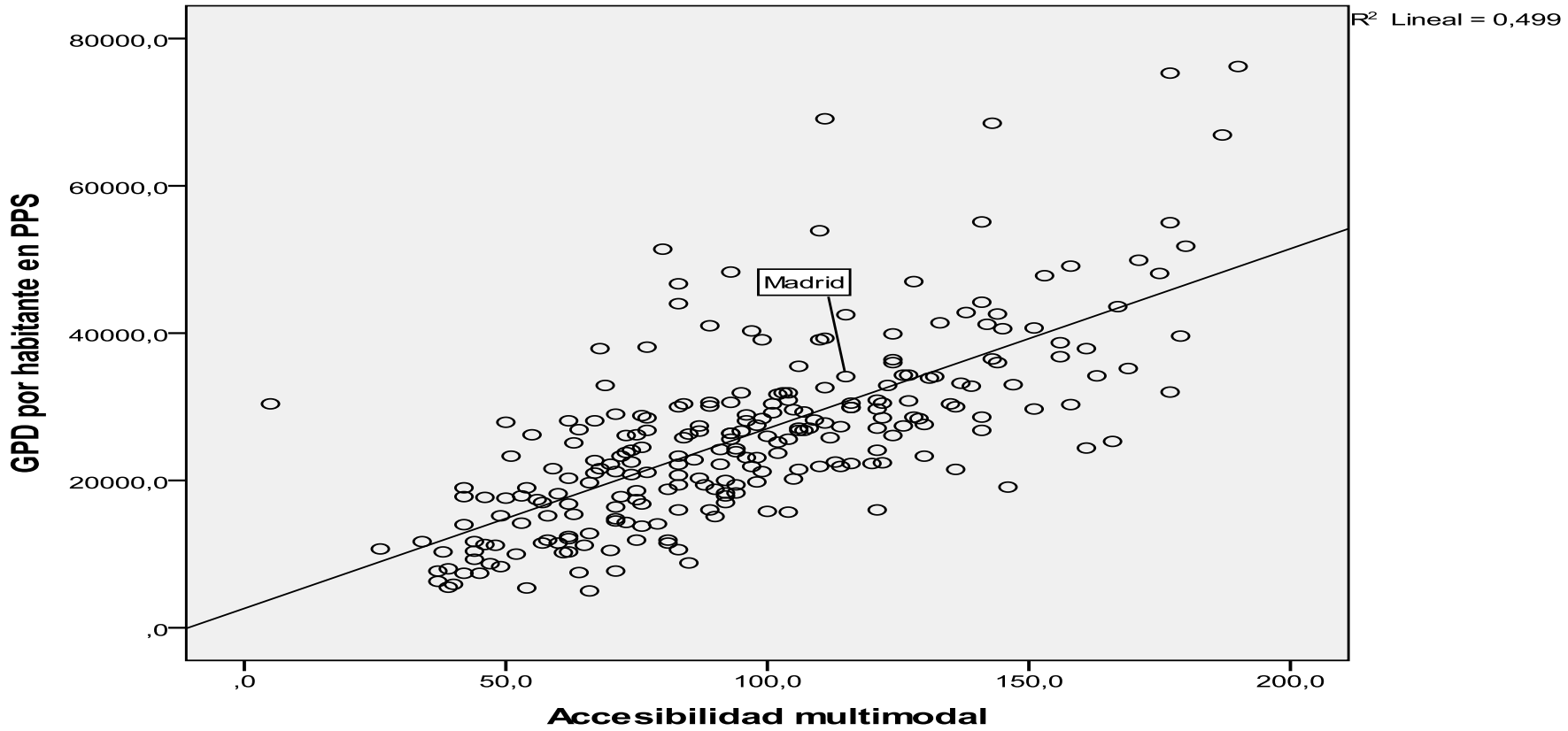
4. Data analysis

- **Figure 2. Relation between the GDP PC and the companies with headquarters**



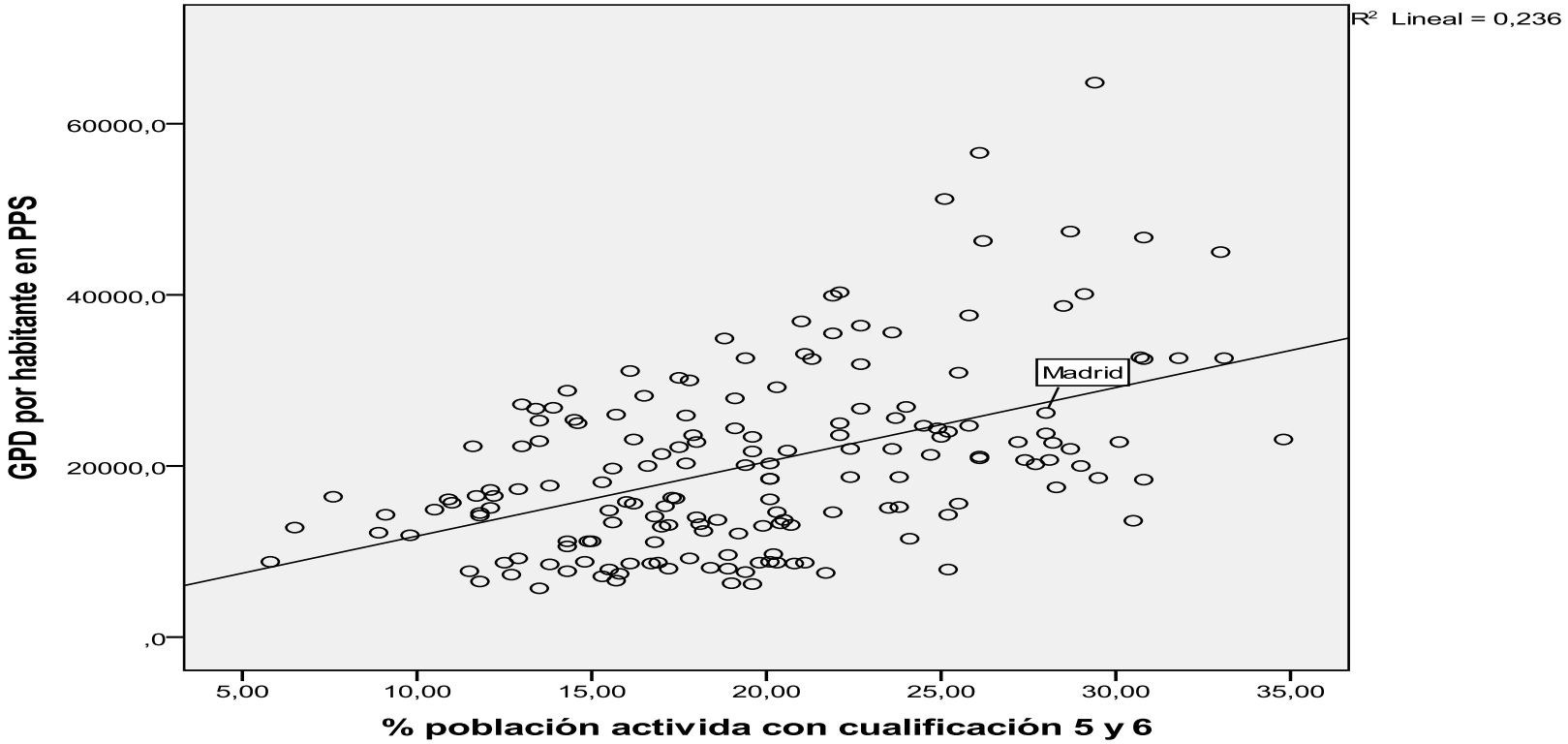
4. Data analysis

- **Figure 3. Relation between the GDP PC and the multimodal accessibility index**



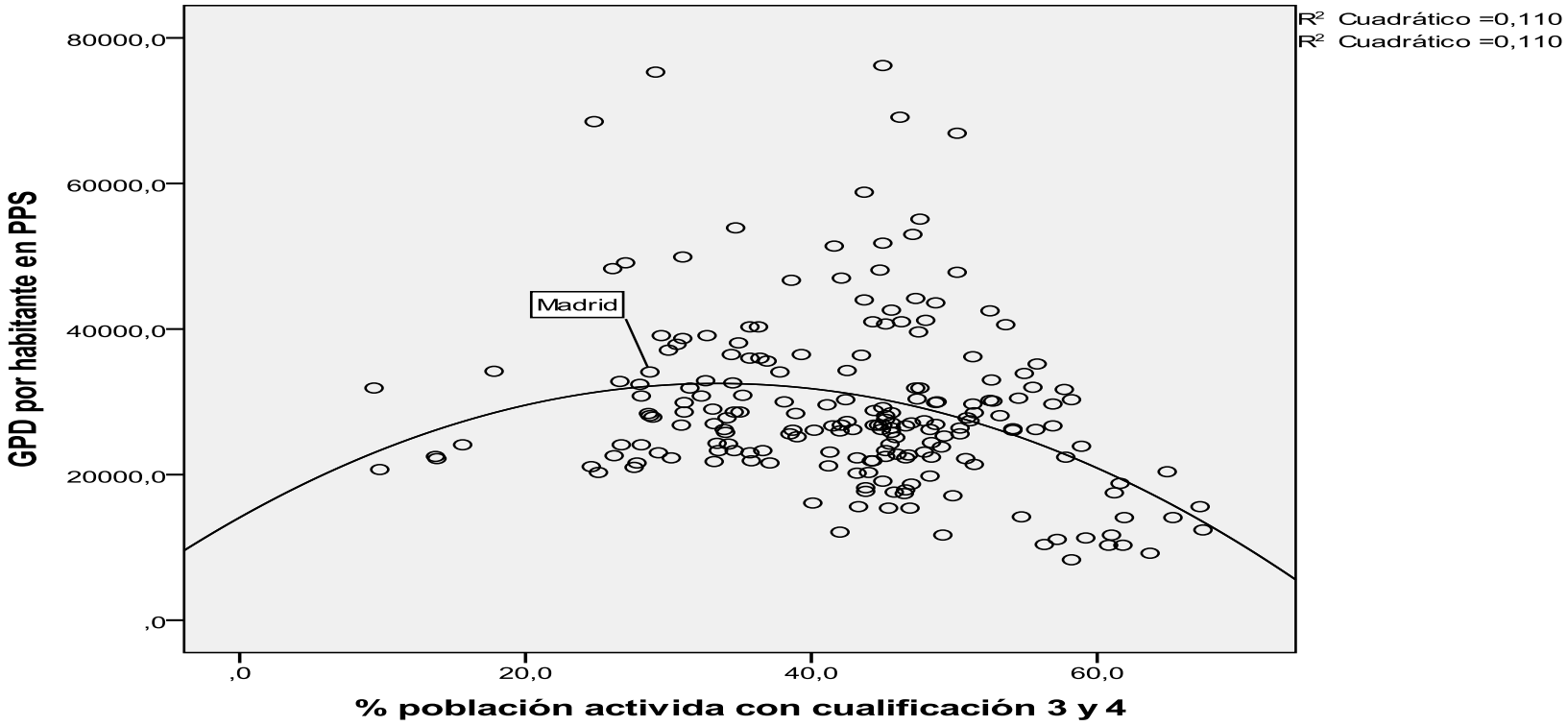
4. Data analysis

- **Figure 5. Relation between the GDP PC and the active population of highest qualification**



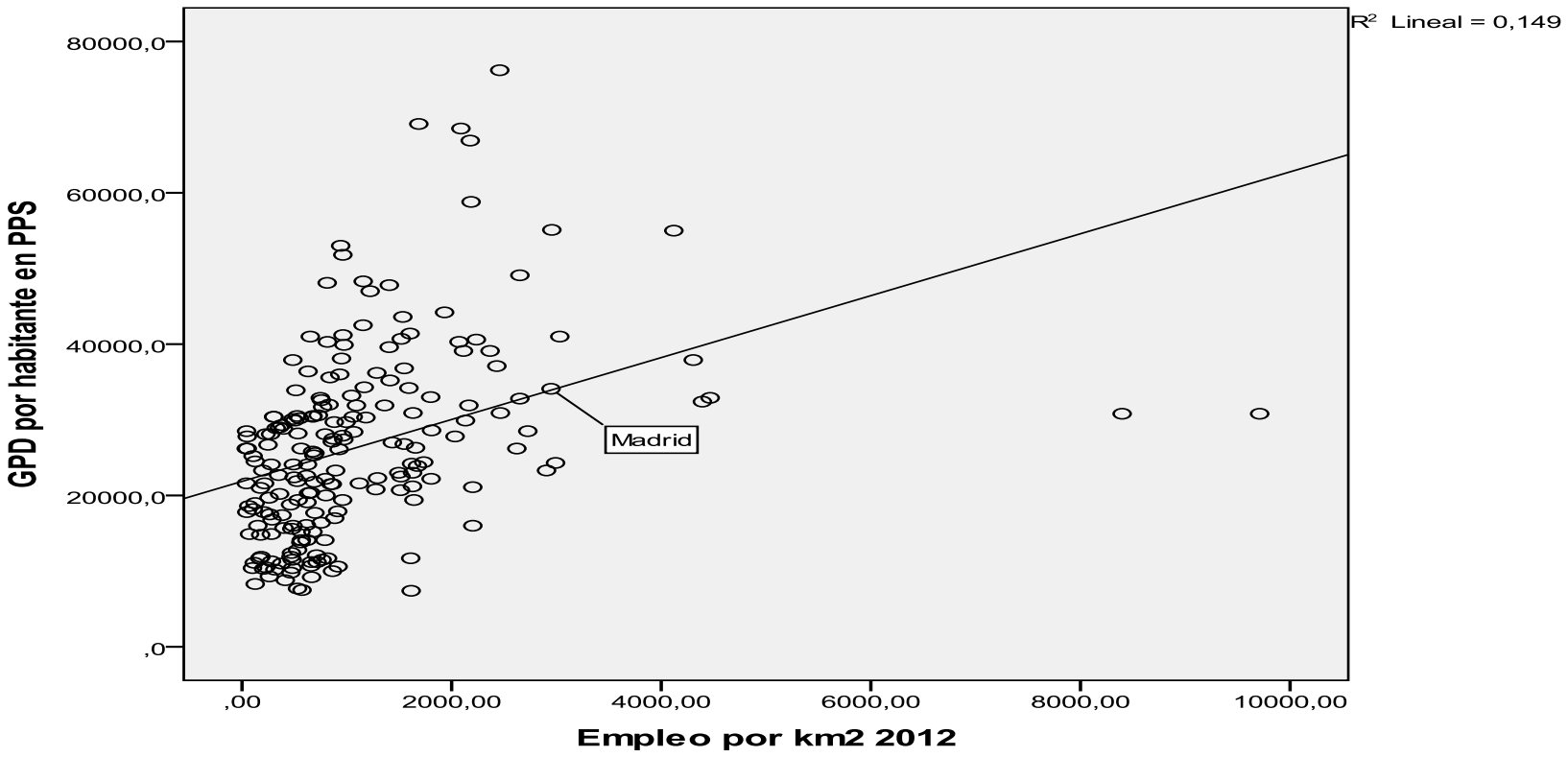
4. Data analysis

- **Figure 6. Relation between the GDP PC and the active population with intermediate qualification**



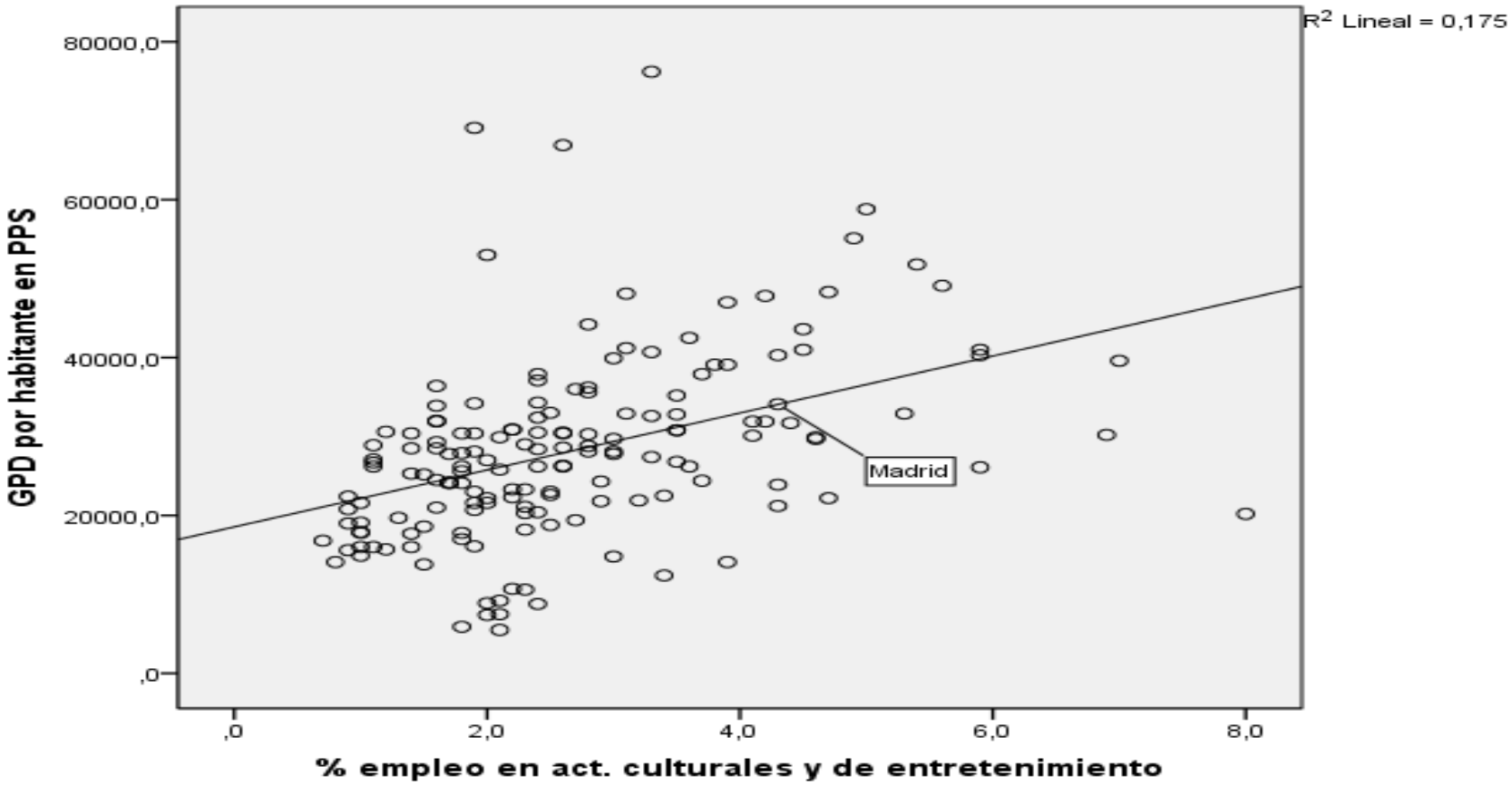
4. Data analysis

- **Figure 7. Relation between the GDP PC and the employment density**



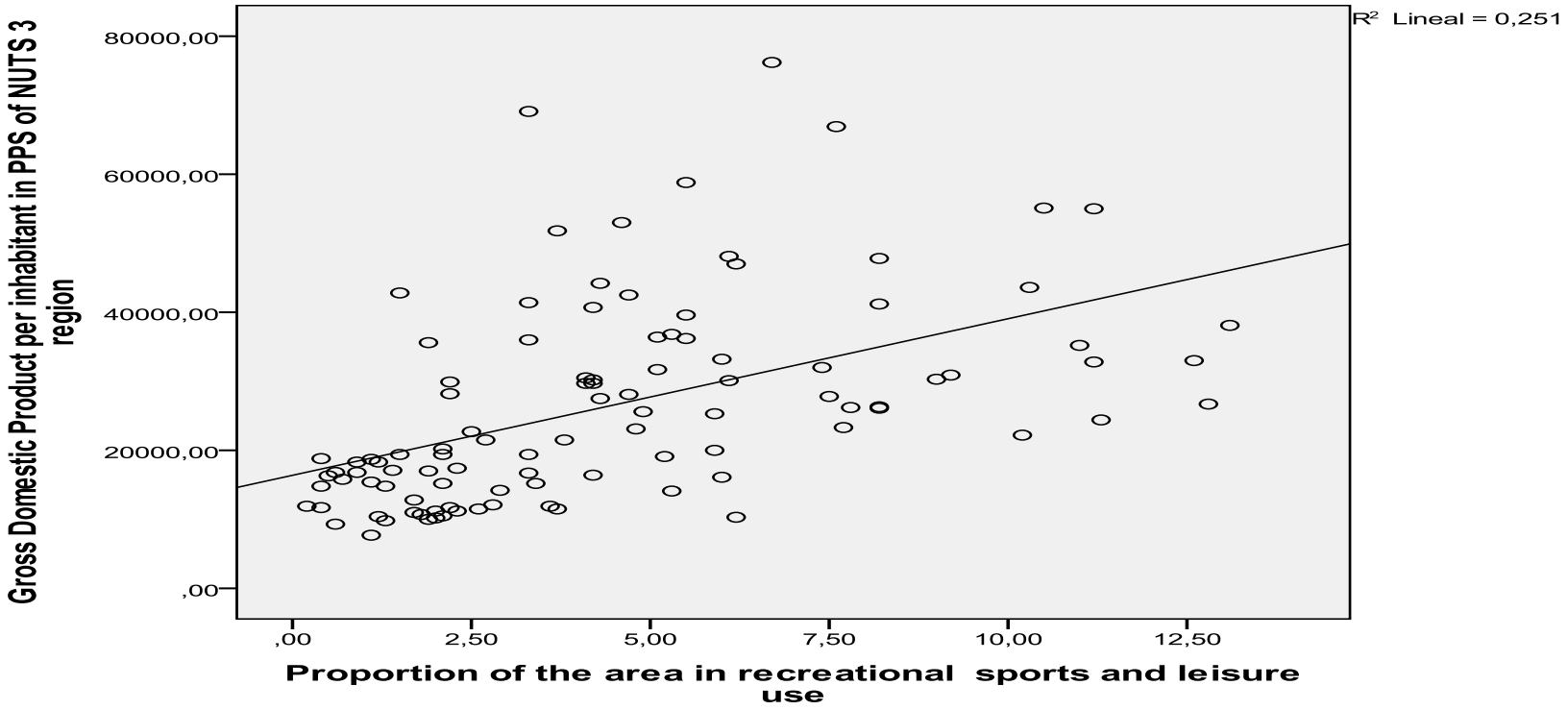
4. Data analysis

- **Figure 8. Relation between the GDP PC and the employment in leisure and cultural activities**



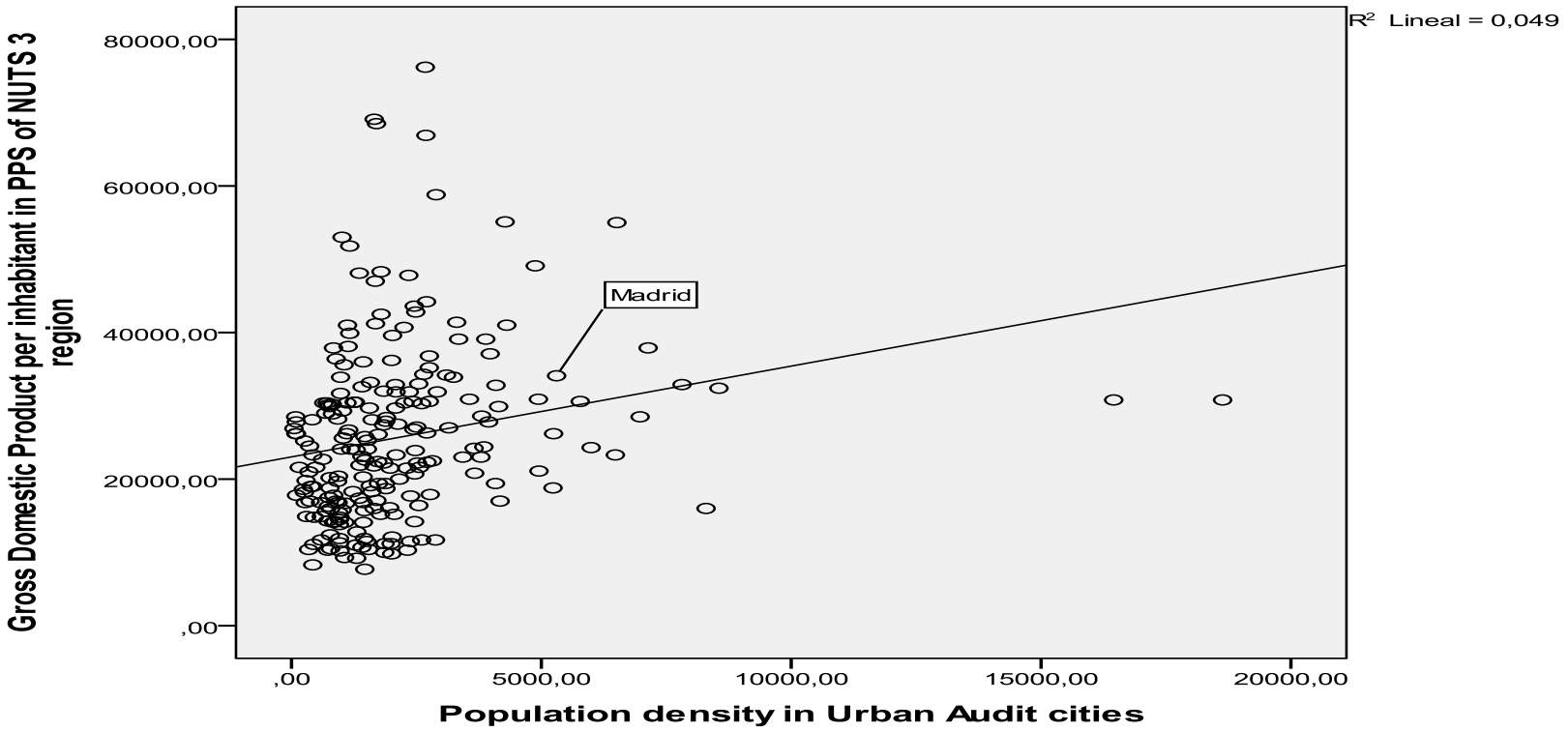
4. Data analysis

- **Figure 9. Relation between the GDP PC and the Surface for leisure and sport**



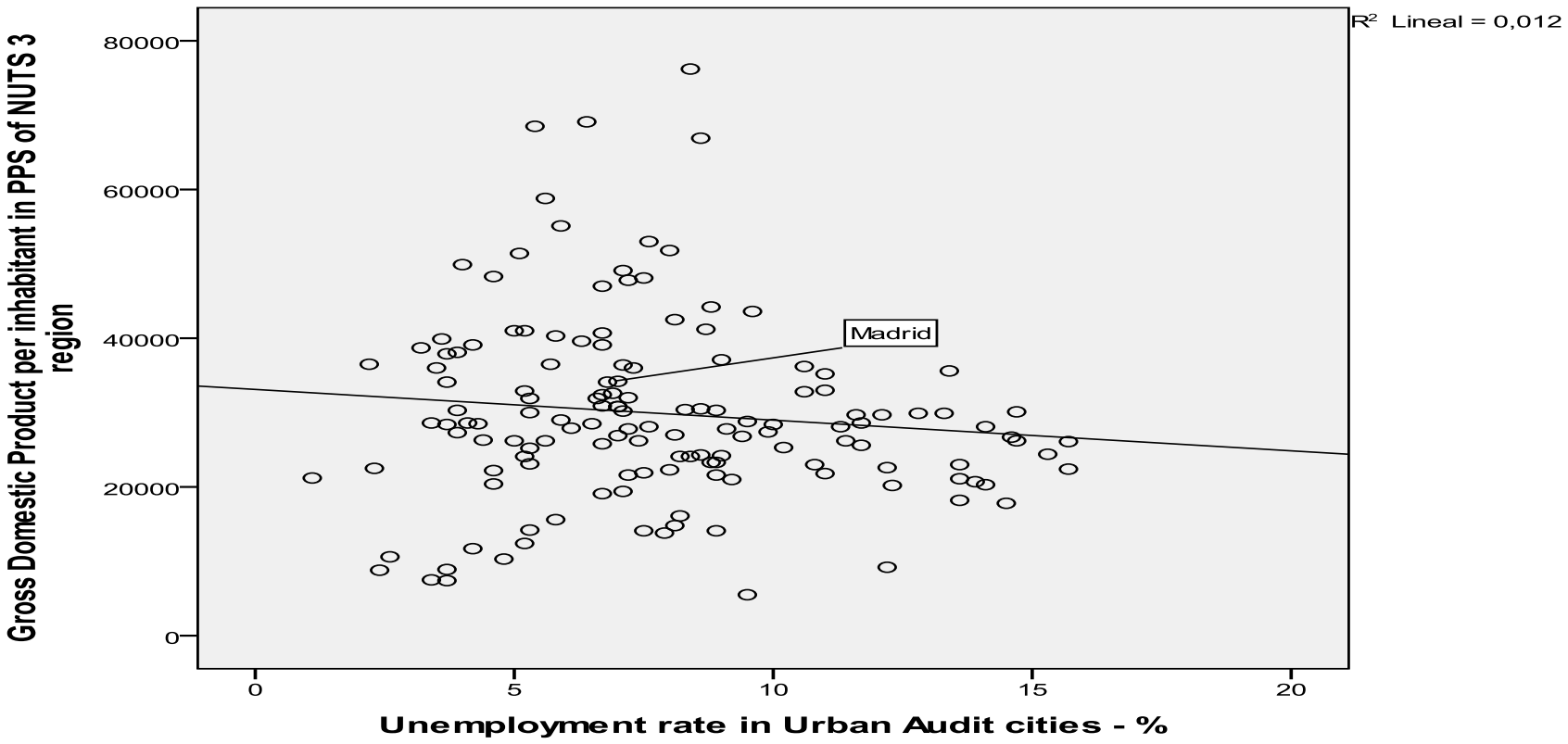
4. Data analysis

- **Figure 10. Relation between the GDP PC and the population density**



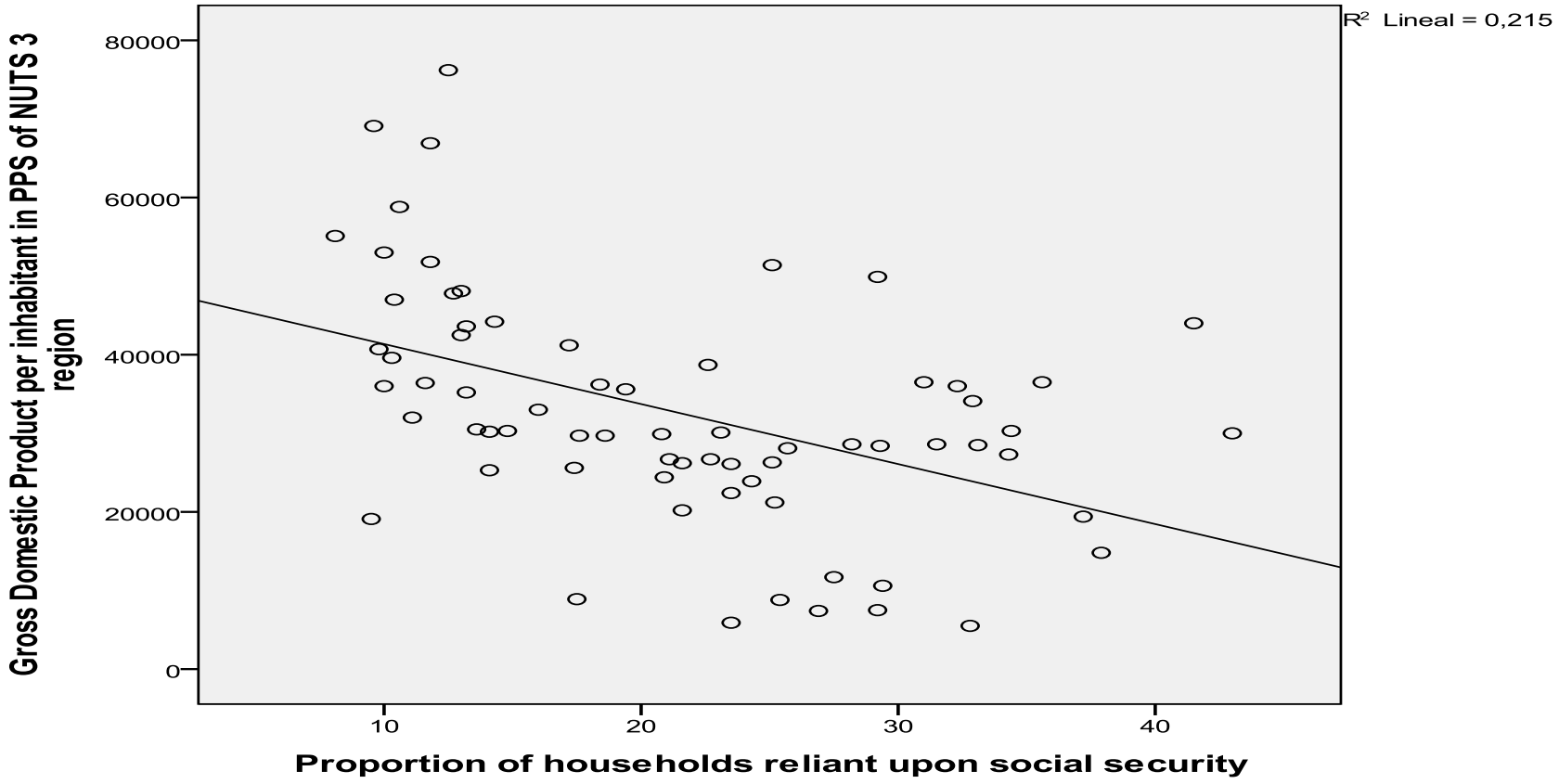
4. Data analysis

- **Figure 11. Relation between the GDP PC and the unemployment rate**



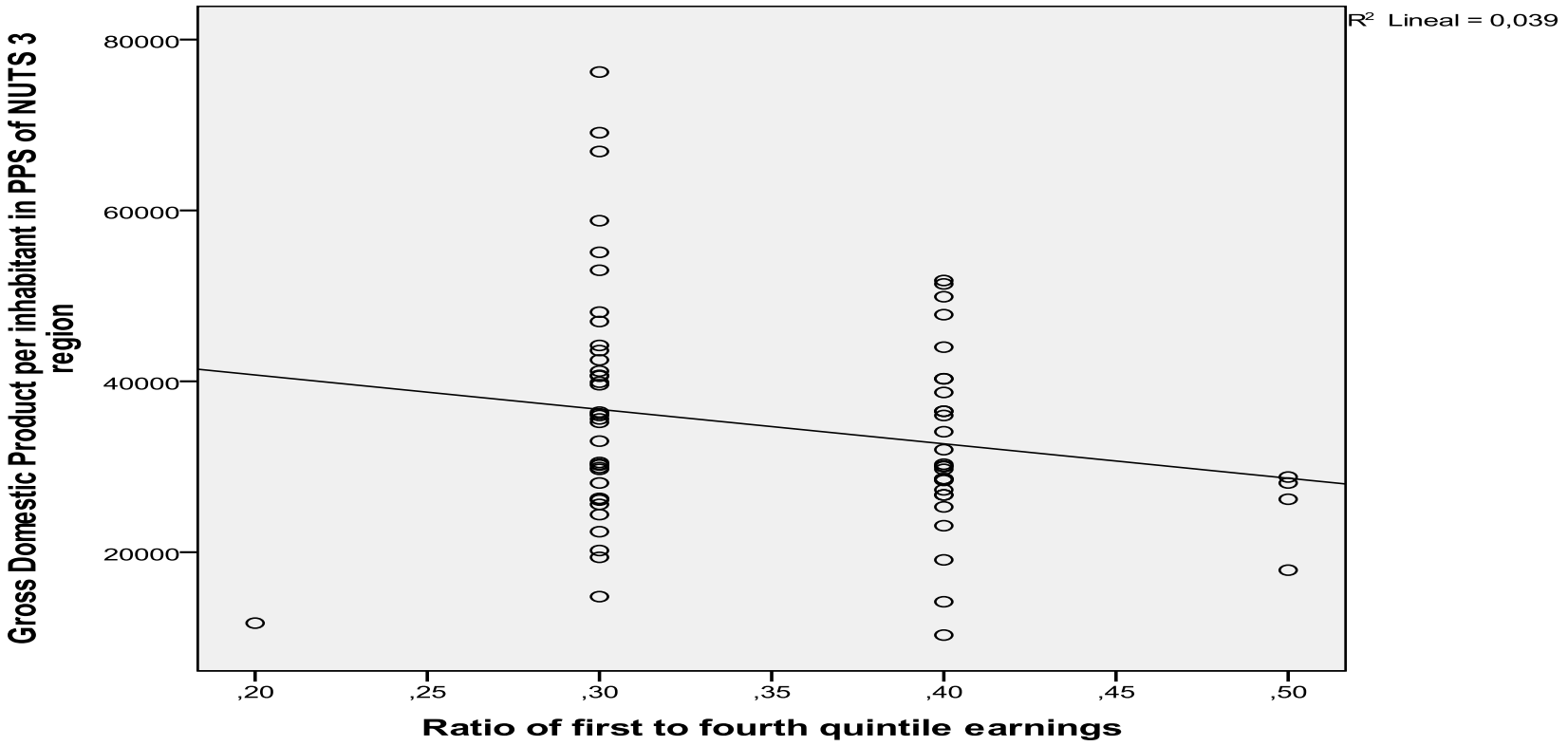
4. Data analysis

- **Figure 12. Relation between the GDP PC and the rate of homes with social security dependents***
- * There are no data for Madrid



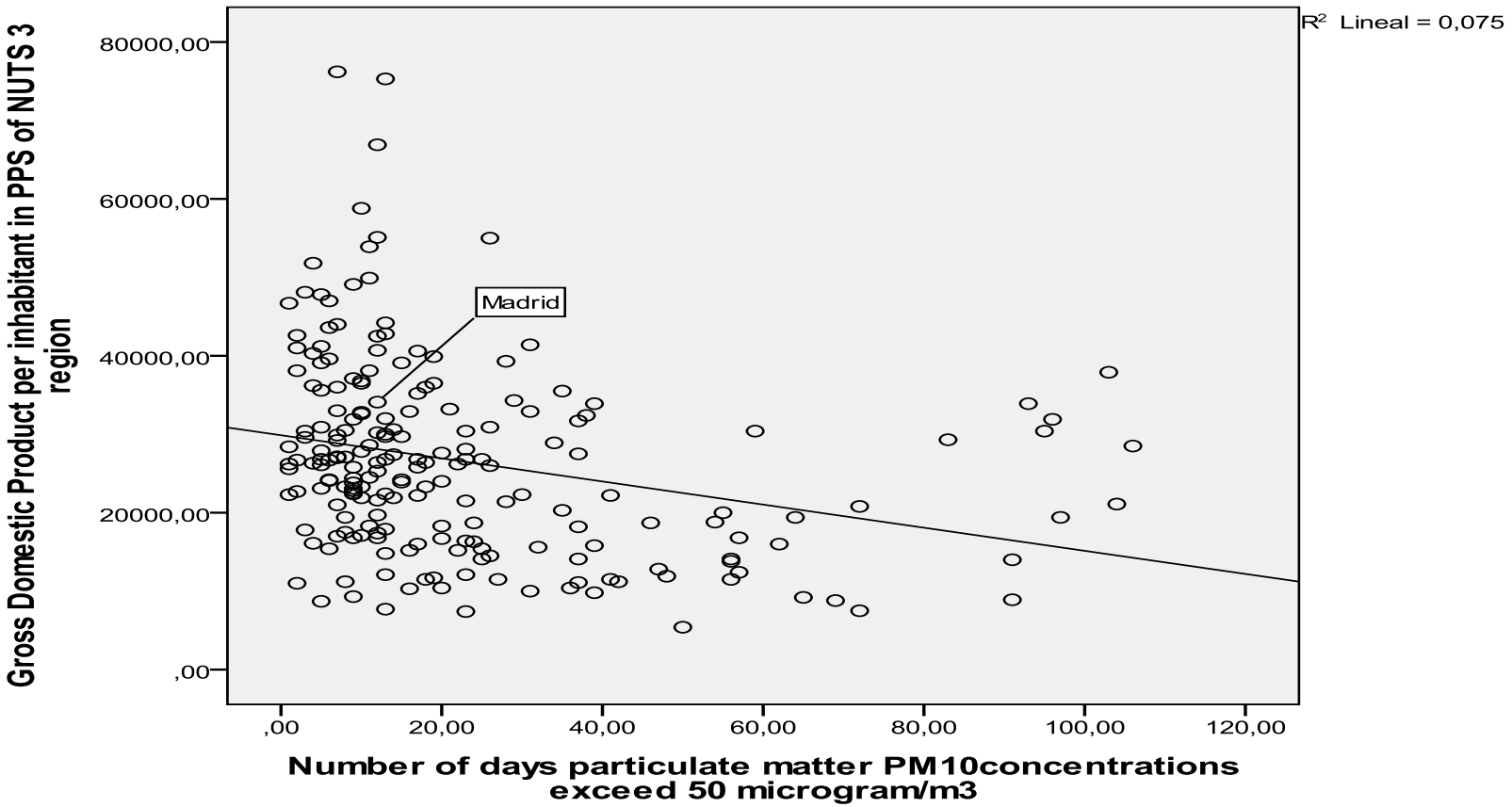
4. Data analysis

- **Figure 17. Relation between the GDP PC and the income distribution*, ****
- * Measured by the quotient between the first and the forth quintile of incomes.
- **. There are no data for Madrid



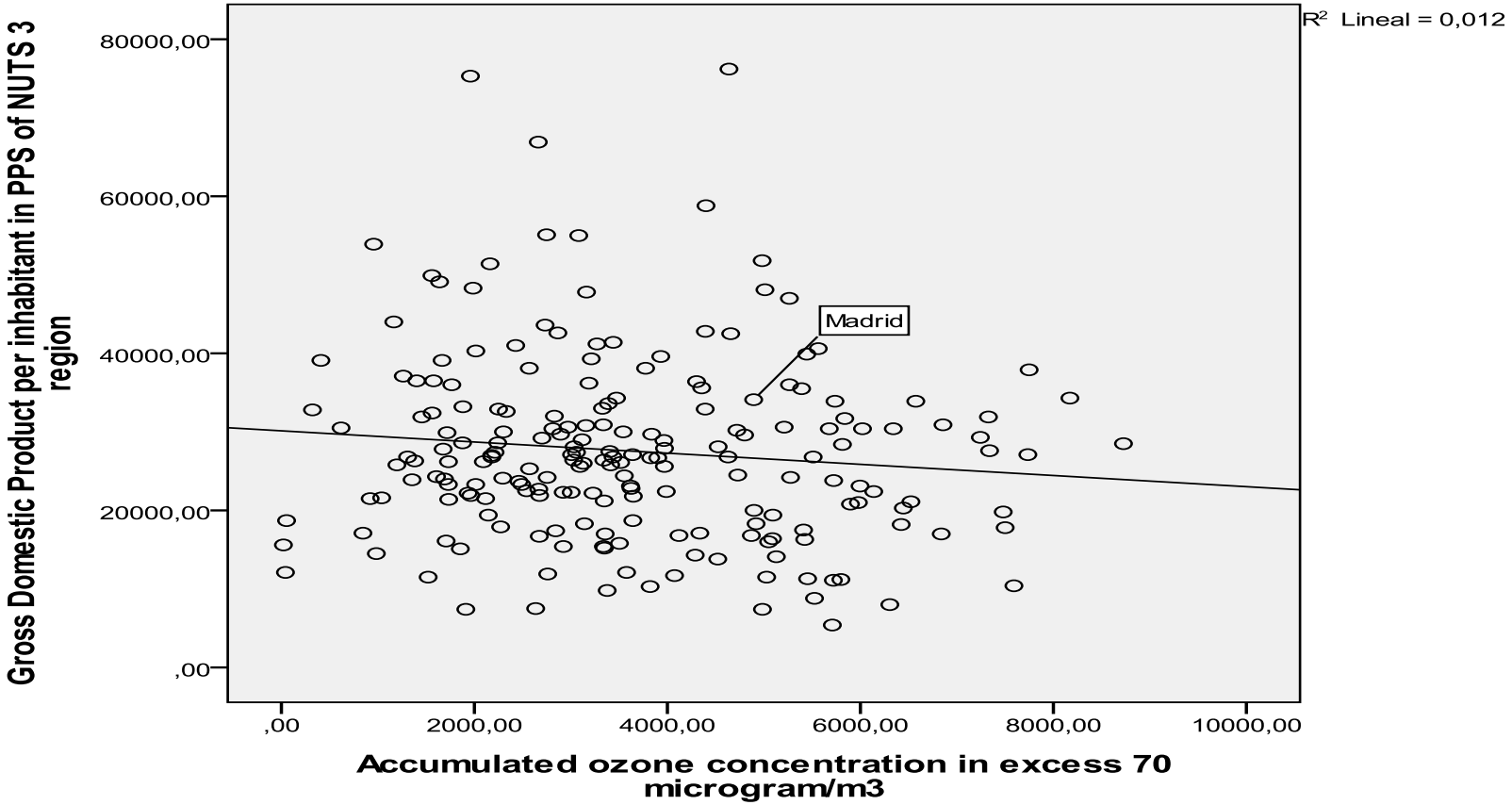
4. Data analysis

- **Figure 18. Number of days with de PM10 particles concentration exceeding 50 microgram/m3**



4. Data analysis

- **Figure 19. Concentration of accumulated ozone exceeding 70 microgram/m^3**



5. Conclusions

- increasingly higher levels of GDP pc

- ✓ further development of ICT
- ✓ Strong decesion capacity of economic actors
- ✓ an improvement of multimodal accessibility
- ✓ an increased productivity
- ✓ investment in higher educational levels
- ✓ fight against excessive unemployment
- ✓ an improved environmental quality
- ✓ an ambition for a society more cohesive

- New conception of SC: appropriate integration of ICT

- ✓ To optimize the economic processes
- ✓ To achieve more sustainable energy consumption
- ✓ To build more inclusive urban societies

- Further econometric analysis will be needed.