

## Supplementary Information

# The Effects of Environmental and Social Dimensions of Sustainability in Response to the Economic Crisis of European Cities. *Sustainability* 2015, 7, 8255-8269

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**Table S1.** Cities data.

| Country  | City       | ED    | SD    | GDP<br>2010 | Growth<br>2009/10 GDP | Growth<br>2009/10 Emp. | Group |
|----------|------------|-------|-------|-------------|-----------------------|------------------------|-------|
| Belgium  | Brussels   | 37.71 | 51.11 | 39,094.4    | 5.047                 | 0.592                  | 2     |
|          | Antwerp    | 45.94 | 50.19 | 36,323.9    | 5.979                 | 0.593                  | 2     |
|          | Gent       | 49.64 | 48.25 | 31,800.2    | 5.644                 | 0.920                  | 2     |
|          | Charleroi  | 42.64 | 46.80 | 18,646.9    | 3.778                 | 0.544                  | 1     |
|          | Liège      | 42.18 | 46.82 | 22,285.0    | 4.282                 | 1.047                  | 1     |
| Bulgaria | Sofia      | 40.09 | 53.65 | 21,725.4    | 4.214                 | −2.352                 | 1     |
|          | Plovdiv    | 33.11 | 49.22 | 8607.6      | 3.167                 | −4.280                 | 1     |
| Denmark  | Copenhagen | 50.39 | 55.73 | 36,850.0    | 10.193                | −1.634                 | 2     |
|          | Aarhus     | 61.22 | 55.84 | 27,993.0    | 4.737                 | −2.205                 | 2     |
| Germany  | Berlin     | 44.85 | 49.34 | 24,854.0    | 5.205                 | 0.813                  | 2     |
|          | Hamburg    | 57.00 | 48.24 | 37,163.4    | 6.481                 | 0.275                  | 2     |
|          | Munich     | 44.17 | 52.05 | 46,171.7    | 5.799                 | 1.431                  | 2     |
|          | Köln       | 41.12 | 48.79 | 34,469.2    | 5.090                 | 0.814                  | 2     |
|          | Frankfurt  | 49.44 | 50.27 | 43,303.1    | 5.118                 | 0.027                  | 2     |
|          | Stuttgart  | 45.66 | 48.99 | 36,783.9    | 13.215                | −0.484                 | 2     |

Table S1. Cont.

| Country     | City                   | ED    | SD       | GDP<br>2010 | Growth<br>2009/10 GDP | Growth<br>2009/10 Emp. | Group |
|-------------|------------------------|-------|----------|-------------|-----------------------|------------------------|-------|
| Germany     | Leipzig                | 45.59 | 51.97    | 22,347.7    | 5.588                 | 0.871                  | 2     |
|             | Dresden                | 57.25 | 53.37    | 21,760.6    | 5.032                 | 0.512                  | 2     |
|             | Düsseldorf             | 40.23 | 48.54    | 42,576.6    | 3.876                 | −0.022                 | 1     |
|             | Bremen                 | 40.03 | 45.65    | 29,578.8    | 9.405                 | 0.443                  | 2     |
|             | Hannover               | 45.91 | 48.37    | 32,283.2    | 7.501                 | 0.515                  | 2     |
|             | Nürnberg               | 48.48 | 46.24    | 33,450.2    | 5.601                 | 0.409                  | 2     |
|             | Bielefeld              | 38.64 | 46.75    | 28,431.1    | 4.794                 | 0.140                  | 2     |
|             | Halle (Saale)          | 39.94 | 48.60    | 23,893.3    | 8.350                 | 0.145                  | 2     |
|             | Magdeburg              | 38.40 | 49.34    | 23,487.4    | 3.919                 | 0.081                  | 1     |
|             | Wiesbaden              | 39.72 | 48.37    | 38,533.4    | 5.621                 | −0.085                 | 2     |
|             | Göttingen              | 45.48 | 48.71    | 24,682.8    | 8.307                 | 1.769                  | 2     |
|             | Darmstadt              | 43.97 | 49.26    | 30,396.4    | 7.521                 | 0.774                  | 2     |
|             | Freiburg               | 37.60 | 51.91    | 27,022.8    | 7.698                 | 1.308                  | 2     |
|             | Regensburg             | 44.58 | 48.17    | 35,460.4    | 14.454                | 0.536                  | 2     |
|             | Schwerin               | 53.32 | 47.88    | 19,847.3    | 3.756                 | −1.060                 | 1     |
|             | Erfurt                 | 50.20 | 51.00    | 22,445.9    | 5.453                 | 0.771                  | 2     |
|             | Augsburg               | 43.53 | 47.23    | 28,912.7    | 6.568                 | 1.005                  | 2     |
|             | Bonn                   | 43.85 | 50.00    | 33,995.9    | 4.321                 | 0.309                  | 1     |
|             | Karlsruhe              | 49.07 | 48.99    | 36,433.4    | 6.859                 | 0.265                  | 2     |
|             | Mönchengladbach        | 52.92 | 43.96    | 25,357.4    | 6.753                 | 0.495                  | 2     |
| Mainz       | 56.82                  | 49.27 | 33,689.3 | 4.165       | 1.351                 | 1                      |       |
| Kiel        | 55.32                  | 48.55 | 25,515.4 | 4.172       | −0.320                | 1                      |       |
| Saarbrücken | 44.26                  | 43.59 | 28,695.2 | 8.513       | 0.839                 | 2                      |       |
| Koblenz     | 39.74                  | 45.85 | 33,081.8 | 6.097       | 0.158                 | 2                      |       |
| Estonia     | Tallinn                | 38.93 | 54.31    | 23,476.9    | 2.374                 | −4.459                 | 1     |
| Spain       | Madrid                 | 37.55 | 46.65    | 31,590.5    | −1.482                | −2.435                 | 1     |
|             | Barcelona              | 35.43 | 44.79    | 28,446.7    | 0.828                 | −2.139                 | 1     |
|             | Valencia               | 35.55 | 45.31    | 22,696.4    | 0.713                 | −2.578                 | 1     |
|             | Seville                | 34.22 | 43.94    | 19,593.2    | −0.819                | −3.013                 | 1     |
|             | Zaragoza               | 34.22 | 44.42    | 27,162.9    | 1.409                 | −2.220                 | 1     |
|             | Málaga                 | 34.75 | 42.56    | 18,841.0    | −1.106                | −2.890                 | 1     |
|             | Murcia                 | 37.68 | 45.32    | 20,295.6    | 0.423                 | −0.907                 | 1     |
|             | Valladolid             | 35.92 | 43.50    | 26,434.3    | 5.082                 | −0.931                 | 2     |
|             | Palma de Mallorca      | 37.71 | 43.29    | 26,461.6    | −1.361                | −4.050                 | 1     |
|             | Santiago de Compostela | 34.85 | 41.36    | 23,653.0    | 1.462                 | −2.366                 | 1     |
|             | Vitoria                | 36.35 | 44.86    | 35,364.3    | 0.680                 | −2.374                 | 1     |
|             | Oviedo                 | 33.04 | 42.40    | 22,651.5    | 0.944                 | −3.837                 | 1     |
|             | Pamplona               | 36.05 | 46.32    | 30,829.5    | 1.316                 | −2.055                 | 1     |
|             | Santander              | 34.55 | 41.98    | 23,667.6    | 1.192                 | −4.890                 | 1     |
|             | Bilbao                 | 34.93 | 42.67    | 30,880.6    | 1.803                 | −0.914                 | 1     |
| Córdoba     | 34.85                  | 43.99 | 17,437.5 | −0.214      | −3.574                | 1                      |       |
| Alicante    | 37.00                  | 45.36 | 19,383.0 | −0.079      | −4.259                | 1                      |       |

Table S1. Cont.

| Country     | City             | ED    | SD    | GDP<br>2010 | Growth<br>2009/10 GDP | Growth<br>2009/10 Emp. | Group |
|-------------|------------------|-------|-------|-------------|-----------------------|------------------------|-------|
| France      | Paris            | 32.40 | 58.47 | 44,167.2    | 6.237                 | -0.074                 | 2     |
|             | Lyon             | 36.92 | 55.28 | 34,276.8    | 2.975                 | 0.480                  | 1     |
|             | Strasbourg       | 37.43 | 53.63 | 26,396.6    | 1.647                 | 0.443                  | 1     |
|             | Bordeaux         | 39.09 | 53.25 | 26,054.1    | 2.223                 | 0.957                  | 1     |
|             | Nantes           | 41.26 | 54.34 | 26,226.0    | 2.169                 | 0.318                  | 1     |
|             | Lille            | 39.64 | 53.27 | 23,049.5    | 2.291                 | -0.166                 | 1     |
|             | Saint-Etienne    | 42.46 | 49.85 | 22,169.0    | 3.185                 | -0.450                 | 1     |
|             | Nancy            | 38.82 | 52.80 | 22,758.7    | 1.032                 | -0.769                 | 1     |
|             | Orléans          | 44.00 | 54.11 | 25,335.9    | 1.666                 | -0.393                 | 1     |
|             | Dijon            | 38.64 | 53.32 | 26,259.2    | 1.075                 | -0.425                 | 1     |
|             | Clermont-Ferrand | 40.49 | 51.28 | 23,916.5    | 2.075                 | -0.227                 | 1     |
|             | Grenoble         | 40.10 | 55.69 | 25,452.4    | 2.902                 | 0.142                  | 1     |
|             | Toulon           | 37.92 | 48.29 | 20,421.4    | 4.381                 | 0.607                  | 1     |
|             | Marseille        | 40.22 | 49.71 | 27,415.4    | 4.405                 | 0.397                  | 1     |
|             | Nice             | 38.89 | 49.12 | 26,859.0    | 4.261                 | -0.401                 | 1     |
| Latvia      | Riga             | 35.77 | 49.99 | 17,772.6    | 4.522                 | -6.883                 | 1     |
| Lithuania   | Vilnius          | 35.79 | 53.37 | 21,748.8    | 8.379                 | -1.286                 | 2     |
| Luxemburg   | Luxemburg        | 45.93 | 50.28 | 65,205.5    | 8.641                 | 1.783                  | 2     |
| Hungary     | Budapest         | 32.91 | 47.90 | 26,111.5    | 1.867                 | -0.801                 | 1     |
|             | Miskolc          | 34.44 | 44.31 | 9856.5      | 3.840                 | 0.603                  | 1     |
|             | Pecs             | 39.09 | 46.06 | 10,726.1    | 0.565                 | -0.980                 | 1     |
| Netherlands | 's-Gravenhage    | 37.56 | 50.62 | 33,577.2    | 2.370                 | 0.524                  | 1     |
|             | Amsterdam        | 36.99 | 54.83 | 37,779.5    | 5.477                 | -0.372                 | 2     |
|             | Rotterdam        | 38.38 | 48.18 | 33,751.5    | 4.059                 | -0.982                 | 1     |
|             | Utrecht          | 41.04 | 55.29 | 37,952.7    | 1.585                 | -1.210                 | 1     |
|             | Groningen        | 44.62 | 50.11 | 53,901.4    | 9.894                 | -0.604                 | 2     |
| Austria     | Wien             | 40.85 | 52.16 | 35,720.9    | 5.624                 | 0.926                  | 2     |
| Poland      | Warszawa         | 35.82 | 51.89 | 31,865.3    | 8.735                 | -6.903                 | 2     |
|             | Lodz             | 36.51 | 45.87 | 16,786.9    | 8.797                 | -1.856                 | 2     |
|             | Krakow           | 35.97 | 51.54 | 16,882.8    | 6.595                 | -2.719                 | 2     |
|             | Wroclaw          | 38.97 | 50.89 | 18,919.6    | 8.168                 | 0.482                  | 2     |
|             | Poznan           | 36.82 | 52.09 | 23,596.4    | 5.192                 | 3.283                  | 2     |
|             | Gdansk           | 36.72 | 51.30 | 17,054.3    | 6.593                 | 6.002                  | 2     |
|             | Szczecin         | 36.17 | 49.30 | 16,166.2    | 6.305                 | -5.840                 | 2     |
|             | Bydgoszcz        | 37.23 | 49.44 | 16,488.4    | 5.036                 | -2.883                 | 2     |
|             | Lublin           | 37.44 | 50.79 | 13,409.4    | 7.705                 | 2.733                  | 2     |
|             | Katowice         | 37.40 | 48.01 | 17,713.4    | 6.223                 | -0.623                 | 2     |
| Portugal    | Lisbon           | 33.96 | 39.54 | 27,444.7    | 3.673                 | -0.357                 | 1     |
|             | Porto            | 34.33 | 34.15 | 19,872.4    | 4.334                 | -1.468                 | 1     |
| Romania     | Bucuresti        | 31.35 | 45.09 | 27,062.4    | 3.446                 | 0.036                  | 1     |
| Slovenia    | Ljubljana        | 35.69 | 52.35 | 28,952.9    | 0.020                 | -1.751                 | 1     |
|             | Maribor          | 39.89 | 49.27 | 17,109.8    | 0.501                 | -2.300                 | 1     |
| Slovakia    | Bratislava       | 55.74 | 51.31 | 43,054.4    | 3.234                 | -4.982                 | 1     |

Table S1. Cont.

| Country        | City                | ED    | SD    | GDP<br>2010 | Growth<br>2009/10 GDP | Growth<br>2009/10 Emp. | Group |
|----------------|---------------------|-------|-------|-------------|-----------------------|------------------------|-------|
| Finland        | Helsinki            | 40.17 | 51.24 | 37,754.5    | 2.934                 | 0.421                  | 1     |
|                | Tampere             | 42.24 | 54.21 | 26,212.3    | 3.799                 | −1.000                 | 1     |
|                | Turku               | 42.70 | 51.25 | 24,415.3    | −4.492                | −1.749                 | 1     |
| Sweden         | Stockholm           | 36.29 | 57.74 | 41,089.4    | 2.236                 | 1.680                  | 1     |
|                | Göteborg            | 37.22 | 54.98 | 28,995.3    | 6.998                 | 1.340                  | 2     |
|                | Malmö               | 39.56 | 54.11 | 26,310.7    | 6.633                 | 1.247                  | 2     |
| United Kingdom | London              | 36.21 | 54.91 | 37,812.8    | 3.450                 | 0.462                  | 1     |
|                | Birmingham          | 36.24 | 51.75 | 23,237.0    | 6.267                 | 0.563                  | 2     |
|                | Leeds               | 37.87 | 50.89 | 26,415.7    | 4.386                 | −1.616                 | 1     |
|                | Bradford            | 38.27 | 51.35 | 20,529.2    | 2.678                 | −6.563                 | 1     |
|                | Liverpool           | 36.34 | 48.66 | 19,749.1    | 2.451                 | 1.880                  | 1     |
|                | Manchester          | 36.34 | 52.82 | 23,450.2    | 4.736                 | 1.525                  | 2     |
|                | Sheffield           | 39.09 | 50.13 | 23,128.0    | 4.540                 | 2.820                  | 1     |
|                | Bristol             | 36.41 | 53.71 | 30,259.0    | 5.965                 | 2.400                  | 2     |
|                | Newcastle upon Tyne | 37.78 | 49.50 | 21,494.6    | 3.546                 | 1.886                  | 1     |
|                | Leicester           | 36.05 | 49.39 | 24,662.8    | 2.131                 | −3.276                 | 1     |
|                | Portsmouth          | 35.32 | 52.76 | 29,152.7    | 11.263                | 3.963                  | 2     |
| Norway         | Oslo                | 36.60 | 56.96 | 47,054.7    | 5.681                 | −0.629                 | 2     |
|                | Bergen              | 39.89 | 52.79 | 35,462.2    | 2.864                 | 0.658                  | 1     |

Source: Own elaboration using information of urban audit database from Eurostat.

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