

Measurement and Evaluation of Real Social Burden of Donor States Providing Euro Emergency Fund

Maier, Helmut

Leontief-Institute for Economic Analysis

Grainauer Straße 19, D-10777 Berlin/Germany

Phone: +49(0)30 211 1765. Fax: +49 (0)30 547 188 37. E-mail: oekonom@fhw-berlin.de

1 Remarks on Euro-crisis

In spring 2010 the Euro-crisis culminated with the threatening state insolvency of Greece and Ireland. By high billion credits to both member states European Union provided an emergency fund (750 bn Euro) to avoid a similar shock like with the breakdown of US-bank Lehman Brothers and to avoid a breakdown of its single currency Euro. While the solidly united action of economic stable countries seemed to be the best alternative at that time, up to now in both countries situation didn't change decisively. The international rating agency has downgraded Greece significantly and by doing so has declared doubts whether its saving program is realizable effectively.¹ In 2010 the public debt of Greece increased from 127% to 148% of the social product with coeval negative growth of economy by 4.5%.² New measures of European Union were discussed and decided in February and March 2011: From 2013 onwards a new European Stability Mechanism (ESM) shall replace the preliminary emergency fund of 2010. The European crisis fund will be doubled and lifted to 500 bn Euro; referring to Jean-Claude Juncker, Head of Euro Group, this figure identifies the effective capacity of borrowing („effektive Ausleihkapazität“), and referring to Madame Lagarde, French Minister for Economic Affairs, it is a rational number („eine vernünftige Zahl“).³

2 Subject and aim

Undoubtedly, these emergency funds of 750 plus 500 bn cause considerable burden on the donor states. Subject of the paper is to measure this burden in real and social terms. In doing so it continues the discussion of the 1970th years to include also social indicators into economic decision procedures which discussion arose because of the unease and distrust at that time to argue solely with economic figures. By now the

¹ Mega-Abwertung, Griechenland wehrt sich gegen Rating-Riesen, Spiegel-Online 07.03.2011 [URL: <http://www.spiegel.de/wirtschaft/soziales/0,1518,749412,00.html>].

² Griechenland, Irland und Co. Warum Schluss sein muss mit der Milliardenhilfe, Ein Kommentar von Wolfgang Kaden, Spiegel-Online 10.03.2011 [URL: <http://www.spiegel.de/wirtschaft/soziales/0,1518,749794-2,00.html>].

³ Schuldenkrise, EU verdoppelt Krisenfond auf 500 Milliarden Euro, Spiegel-Online 15.02.2011 [URL: <http://www.spiegel.de/wirtschaft/soziales/0,1518,745588,00.html>].
Gipfel in Brüssel, Regierungschefs kungeln Euro-Rettung aus, Spiegel-Online 15.03.2011 [URL: <http://www.spiegel.de/wirtschaft/0,1518,750471,00.html>].

inclusion of arguments of environmental protection into public planning procedures and public total accounts is common practice; exemplarily the so-called Green Gross Domestic Product and Environmental Auditing are noted. Aim of this paper is to measure and illustrate the real burden of donor states of the Euro Emergency Fund with two social indicators which are pushed into the center by discovering economic and financial order within the natural world which is valid for all species and creatures including man,⁴ and to evaluate its impact politically. These indicators are the birthrate and the net reproduction rate (NRR) of a national human society. With view from sociology both indicators reflect social behavior which seems to be detached from the economic environment. However, with view from this newly detected order both measure economic growth and wealth hence progress and regress of any species and population including man. Moreover, within this natural order they are the decisive economic indicators; within human economics their growth and decline can be compared with growth and decline of the Gross Domestic Product (GDP).⁵ Fact is: Growth of GDP is an essential economic aim of any national economy because of financing new duties and responsibilities depends from this growth. Carried forward to this natural as well real economic order it means: For financing new duties and responsibilities of a species and population (including man) growth of its birthrate and its reproduction rate are essential. To illustrate just these indicators are decisive it is noted that in this real (as well as natural) order any creature (thus also a human) is a producer as well a final user in one and the same subject, and that the product it produces is its own life the material shape or gestalt of which is its own body. Consequently the number of population and its growth or decline of any country reflects economic growth or decline within this natural order. The questions are: What is impact of the political measure of the European Union to provide billions of Euro within an European Emergency Fund for Greece, Ireland and if necessary for other member states, on the indicators birthrate and reproduction rate of the donor states, especially on Germany as the biggest one? And how this impact can be evaluated?

3 Substantiation of approach and results

The estimation of social burden is enabled because there is a linking or bridge between the economic and financial order of the real equal natural world and economic orders of human societies: In both orders energy plays an essential role but in each case a different one. While energy is absolute measure for money within the natural world, and creatures - wherever and whenever they meet one another on natural markets and exchange goods and services to their mutual advantage - use and accept different types of energy as means of payment, human species and society, however, has introduced an own means of payment for economic transactions which we just call money, and energy is, in form of labor, on the one side a primary input for production, and on the other side a good which is produced and sold like any other one, for instance electrical power produced in the energy sector of the economy and sold to private households. Hence we have to estimate the "energy value" of this Euro Emergency Fund. Like in a scenario we consider the amounts of 500 and 750 bn Euro, and we presume that these amounts of

⁴ Maier, H. Die Begründung der Wirtschafts- und Finanzordnung der natürlichen Welt und ihrer Folgen für Gesellschaft und Politik, Werkstatthefte aus Statistik und Ökonometrie, März/April 2007 [URL: http://www.econbiz.de/archiv1/2010/119701_wirtschaftsordnung_finanzordnung_welt.pdf].

⁵ vgl. Maier, H. (2007), p. 67-72.

money not only are printed and issued by the European Central Bank, but also (within the donor states) have to be generated in real values to avoid or at least limit inflation. Using the bridge „Money = Energy“, exemplarily for Germany and the year 2009 we estimate the (human) labor volume which is necessary to provide a contribution to the Gross Domestic Product (GDP) which corresponds to the amounts of 500 and 750 bn Euro. Considering the R12 input-output table, alternatively we could take these 500 and 750 bn Euro as increase of the final demand and ask for the multiplier effect on total production output and hence on employment market. The disadvantage of the latter - originally focused - is that both amounts are too big to allow the application of Marshall's *ceteris paribus* condition on input coefficients, Leontief inverse, and reciprocal labor productivities, and we don't have a concept to adjust them for these big changes. In addition we have no concept to break down the total figures of 500 and 750 bn Euro to realistic sectoral input figures. Hence the direct access via GDP is a promising first step. According the Statistical Yearbook 2010 for Germany in the year 2009 a labor force of 40.265 million domestic people generated a GDP of 2,407.2 bn Euro.⁶ Result of a conversion is that a labor force and its labor volume, respectively, of over 8 million people (calculatively 8.363 million) is necessary to generate a GDP of amount 500 bn Euro for the (new) European Emergency Fund within one year (2009). Result of a second conversion is that a labor force and its labor volume, respectively, of about 12.5 million people is necessary to generate the already existing Emergency Fund of 750 billion Euro (calculatively 12.545 million) within one year (2009). As for the further estimation, we consider that both economic orders (systems) are coupled inseparably because of any single labor force lives as a (human) creature in the real world, and when indicated it is employee within (human) economy. In addition, we consider that any single labor force within the period of one year (2009) and within the natural equal real world can spend its total energy budget only one times, just as well this single labor force can spend its total money budget only one times in human economy. Hence we conclude: The energy which these 8.3 and 12.5 million people spend for labor within human economy in order to finance these Emergency Funds, referring to the natural law of conservation of energy is missing within the economic order of the real world. But different from what the standard example of "labor and leisure" in economic textbooks suggests where employees using utility preferences make optimal decisions to distribute their available time on labor and on leisure,⁷ the meaning of "leisure" is only "leisure in human society". The natural (and real) world doesn't know the term "leisure", any creature and hence also man is and must be active until the end of its life because of the top aim which is indirectly observable at that is "conservation of life". Within the natural system the so-called leisure is to be used for conservation of life, too; for the conservation of the own life as well as for the conservation of life of the succeeding generation. And this so-called leisure by breathing, eating, drinking and other activities (we call them leisure activities) is used for conservation of life, indeed. Furthermore we consider that the economic activity of human economics, insofar it is reported within the System of National Account (SNA) of United Nations, central and mainly covers the production of material goods and related services, and only peripherally covers the reproduction of its population. This becomes apparent because of the essential and labor intensive cost for reproduction (in

⁶ Statistisches Bundesamt (Hrsg.), Statistisches Jahrbuch 2010 für die Bundesrepublik, p. 638 und 629.

⁷ Siehe etwa Bofinger, Peter (2003). Grundzüge der Volkswirtschaftslehre, Eine Einführung in die Wissenschaft von Märkten, Pearson-Studium München, p. 156-162.

marriage and family) are private and only parts like cost for education on level of school and university and cost for health expenditures are included into the SNA. And why? Answer: Within SNA reproduction of the domestic population doesn't count as economic activity. Conclusion: In order to generate and finance an Euro Emergency Fond of amount 750 plus 500 bn Euro in real values, this fond uses and consumes the energy of millions of peoples in the donor states, in a scenario illustrated with Germany a labor force of just under 21 million people or just under 52% in 2009. Due to the natural law of conservation of energy this energy (of labor force) is missing, amongst others this energy or better bio-energy is missing for the conservation of the domestic population in the donor states. Thus it becomes obvious that this European Emergency Fund which mainly serves for the conservation of material production and related services of the taker states Greece, Ireland, and others if necessary goes on burden of the biological reproduction of the domestic population in the donor states, especially on burden of biological reproduction in Germany being main net payer⁸ and main donor state with this Emergency Fund of European Union. As the development of birthrate and net reproduction rate of Germany indicates (see appendix), its birthrate has fallen down from 2.32 children per woman in the period 1965/1970 to 1.33 in the period 1995/2000, and the net reproduction rate has fallen down from 102% in 1965/1970 to 64% in 1995/2000. From there the development of both figures will be further regressive. Insofar the agreed emergency fund affects the development of domestic population counterproductively, in Germany and other donor states. It is relinquished to formulate further estimation of social burden quantitatively because any fixed number wouldn't be able to work under pressure, further research is needed. But in addition, this quantitative continuation isn't necessary because the qualitative trend of this social burden on birthrate and net reproduction rate is obvious and sufficient within this context. The author points to consequences like decreasing acceptance of European Union and the Euro in Germany readable from the voter turnout with elections for European Union as well as the strengthening of political positions on the national wing where the further loss of national identity and culture (by increase of immigration) additional financial burden (by integration of migrants) are complained. Finally, the relation between increase of material production and decrease of biological self-production discussed and elucidated within this context seems to be a general characteristic obviously.

Appendix

Nettozahler und Nettoempfänger in der EU 2008 (Net payer and net acceptor in the EU 2008)

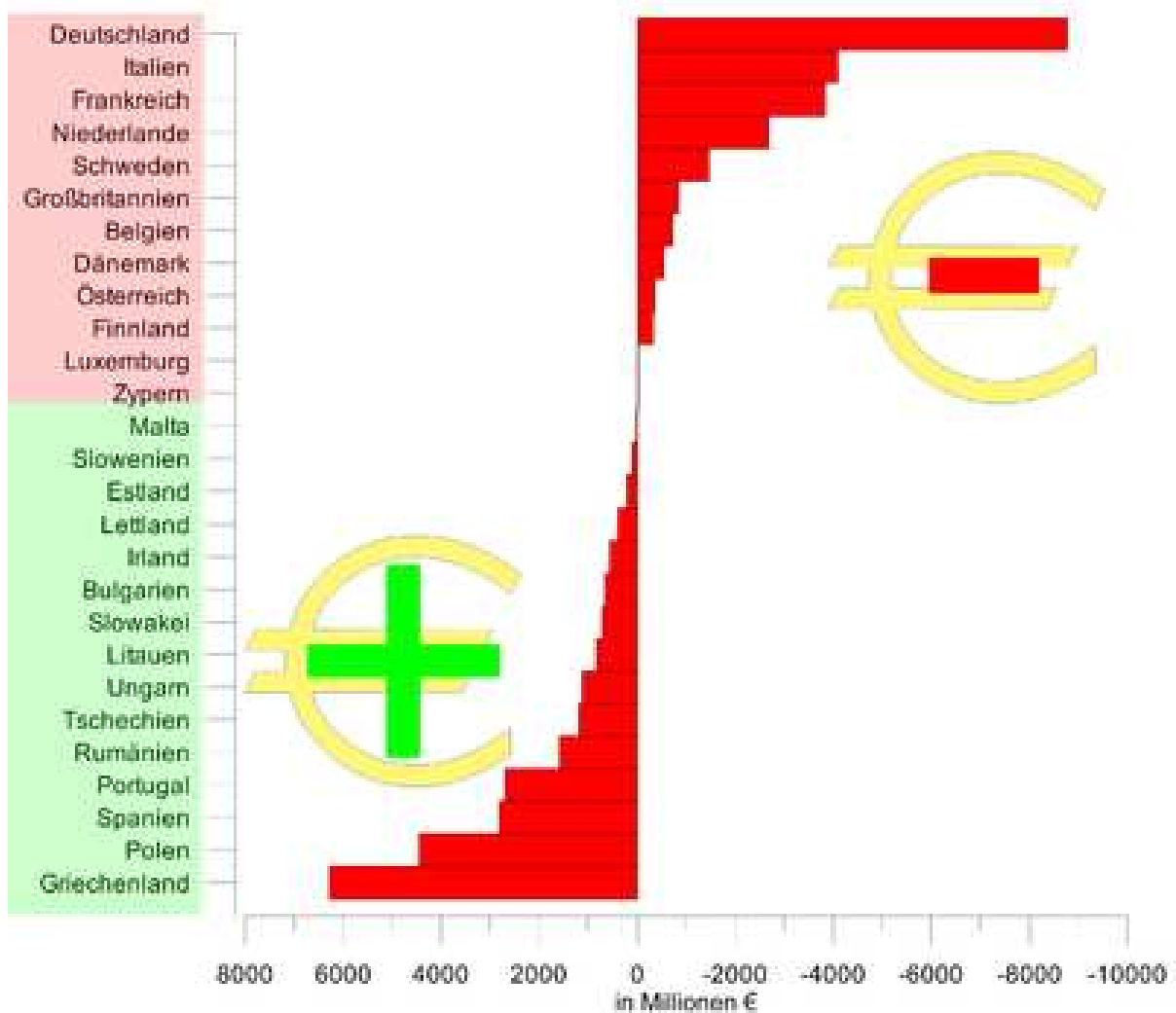
Zusammengefasste Geburtenziffer in ausgewählten Ländern (Condensed birthrate in selected countries)

Nettoreproduktionsziffer in ausgewählten Ländern (Net reproduction rate in selected countries)

⁸ Siehe Grafik „Nettoeinzahler und Nettoempfänger in der EU 2008“, EU-Kommission, Finanzbericht 2008, [URL: http://de.wikipedia.org/wiki/Haushalt_der_Europ%C3%A4ischen_Union#cite_note-22].

Net payer and net acceptor in the EU 2008

Nettozahler und Nettoempfänger in der EU 2008



Q: EU-Kommission, Finanzbericht 2008

Zusammengefasste Geburtenziffer in ausgewählten Ländern (Condensed birthrate in selected countries) ^{*)}

Land / Jahr	1950/55D	1965/70D	1980/85D	1995/2000D	2010/15D	Land / Jahr	1950/55D	1965/70D	1980/85D	1995/2000D	2010/15D
Europa						Tunesien	6,93	6,89	4,90	2,31	2,10
Deutschland	2,16	2,32	1,46	1,33	1,31	Uganda	6,90	7,10	7,10	7,10	6,35
Belgien	2,33	2,34	1,59	1,55	1,47	Amerika					
Dänemark	2,54	2,25	1,43	1,74	1,62	Argentinien	3,15	3,05	3,15	2,62	2,19
Estland	2,06	2,02	2,09	1,24	1,27	Brasilien	6,15	5,38	3,63	2,27	2,10
Finnland	2,97	2,06	1,69	1,71	1,53	Costa Rica	6,72	5,80	3,50	2,83	2,42
Frankreich	2,73	2,61	1,87	1,73	1,84	Jamaika	4,22	5,78	3,55	2,50	2,10
Griechenland	2,29	2,38	1,96	1,30	1,25	Kanada	3,73	2,51	1,63	1,60	1,64
Italien	2,32	2,49	1,53	1,20	1,23	Kolumbien	6,76	6,18	3,69	2,80	2,37
Lettland	2,00	1,81	2,00	1,12	1,18	Mexiko	6,87	6,82	4,24	2,75	2,22
Litauen	2,71	2,27	2,03	1,38	1,19	Panama	5,68	5,62	3,52	2,63	2,16
Niederlande	3,06	2,80	1,52	1,54	1,52	Paraguay	6,50	6,30	5,25	4,17	3,25
Polen	3,62	2,27	2,33	1,46	1,32	Vereinigte Staaten	3,45	2,55	1,82	2,04	1,90
Portugal	3,04	2,85	1,98	1,46	1,43	Asien					
Rumänien	2,87	2,96	2,25	1,32	1,37	Afghanistan	7,70	7,50	7,40	6,90	6,18
Russische Föderation	2,85	2,02	2,03	1,23	1,18	Bangladesch	6,70	6,80	5,30	3,80	2,90
Schweden	2,21	2,16	1,65	1,51	1,34	China ¹⁾	6,22	6,06	2,55	1,80	1,90
Spanien	2,57	2,92	1,89	1,16	1,14	Indien	5,97	5,69	4,48	3,32	2,27
Türkei	6,90	5,70	4,15	2,70	2,10	Indonesien	5,49	5,57	4,11	2,60	2,10
Vereinigtes Königreich	2,18	2,52	1,80	1,70	1,60	Japan	2,75	2,00	1,76	1,41	1,43
Afrika						Korea, Dem. Volksrepublik	3,35	4,56	2,83	2,05	2,10
Ägypten	6,56	6,56	5,06	3,40	2,10	Korea, Republik	5,40	4,71	2,23	1,51	1,64
Algerien	7,28	7,38	6,36	3,25	2,10	Pakistan	6,28	6,28	6,23	5,48	4,16
Kamerun	5,68	6,10	6,40	5,10	3,90	Philippinen	7,29	6,50	4,95	3,64	2,33
Kenia	7,51	8,12	7,50	4,60	3,24	Thailand	6,40	6,00	3,05	2,10	1,85
Nigeria	6,90	6,90	6,90	5,92	4,40	Australien und Ozeanien ²⁾	3,18	2,87	1,93	1,77	1,78
Südafrika	6,50	5,90	4,56	3,10	2,35	Neuseeland	3,69	3,35	1,96	1,97	1,87

*) Angaben der Vereinten Nationen, mittlere Variante; Revision 2000. Die zusammengefasste Geburtenziffer gibt die Gesamtzahl der Kinder an, die von einer Frau zur Welt gebracht werden. Es wird dabei angenommen, dass sie bis zum Ende des gebärfähigen Alters lebt und dass sie in jeder Altersstufe so viele Kinder bekommt, wie es den zum jeweiligen Zeitpunkt vorherrschenden altersspezifischen Fruchtbarkeitsraten in der weiblichen Bevölkerung entspricht.

1) Ohne Angaben für Hongkong, Macao und Taiwan. 2) Einschließlich der Angaben für die Weihnachts-, Kokos- und Norfolk-Inseln.

Quelle: World Population Prospects, UN, New York. Zitiert aus: Statistisches Bundesamt, Statistisches Jahrbuch 2002 für das Ausland, S. 200.

Nettoreproduktionsziffer in ausgewählten Ländern (Net reproduction rate in selected countries) ^{*)}

Land / Jahr	1950/55D	1965/70D	1980/85D	1995/2000D	2010/15D	Land / Jahr	1950/55D	1965/70D	1980/85D	1995/2000D	2010/15D
Europa						Tunesien	2,21	2,50	2,05	1,05	0,99
Deutschland	0,85	1,02	0,70	0,64	0,63	Uganda	2,09	2,40	2,45	2,33	2,50
Belgien	1,06	1,10	0,76	0,75	0,71	Amerika					
Dänemark	1,19	1,04	0,69	0,83	0,78	Argentinien	1,37	1,37	1,47	1,24	1,05
Estland	0,93	0,95	0,98	0,59	0,61	Brasilien	2,27	2,16	1,60	1,05	0,98
Finnland	1,37	0,98	0,81	0,83	0,74	Costa Rica	2,68	2,53	1,65	1,35	1,16
Frankreich	1,26	1,23	0,90	0,83	0,89	Jamaika	1,72	2,50	1,68	1,18	1,00
Griechenland	1,02	1,07	0,91	0,62	0,60	Kanada	1,74	1,20	0,78	0,77	0,79
Italien	1,09	1,15	0,74	0,58	0,59	Kolumbien	2,44	2,56	1,65	1,30	1,12
Lettland	0,90	0,85	0,94	0,53	0,56	Mexiko	2,49	2,81	1,92	1,28	1,04
Litauen	1,20	1,07	0,97	0,66	0,57	Panama	2,22	2,43	1,62	1,23	1,03
Niederlande	1,41	1,30	0,73	0,74	0,73	Paraguay	2,76	2,75	2,36	1,91	1,51
Polen	1,52	1,05	1,11	0,70	0,63	Vereinigte Staaten	1,60	1,20	0,87	0,98	0,92
Portugal	1,24	1,27	0,93	0,70	0,69	Asien					
Rumänien	1,27	1,35	1,06	0,62	0,65	Afghanistan	1,76	2,01	2,09	2,07	2,03
Russische Föderation	1,25	0,95	0,96	0,58	0,56	Bangladesch	1,81	2,16	1,89	1,54	1,28
Schweden	1,04	0,99	0,79	0,73	0,65	China ¹⁾	1,85	2,44	1,12	0,80	0,88
Spanien	1,17	1,34	0,84	0,55	0,54	Indien	1,63	1,87	1,68	1,38	1,01
Türkei	2,29	2,12	1,74	1,23	0,99	Indonesien	1,56	1,88	1,65	1,16	0,99
Vereinigtes Königreich	1,02	1,20	0,87	0,82	0,77	Japan	1,19	0,97	0,85	0,68	0,69
Afrika						Korea, Dem. Volksrepublik	1,22	1,91	1,31	0,92	0,97
Ägypten	2,07	2,28	1,95	1,52	0,99	Korea, Republik	1,79	1,83	1,10	0,70	0,79
Algerien	2,30	2,73	2,69	1,45	0,98	Pakistan	1,80	2,05	2,27	2,17	1,77
Kamerun	1,57	1,95	2,35	1,87	1,54	Philippinen	2,51	2,57	2,11	1,67	1,10
Kenia	2,32	2,87	2,97	1,77	1,30	Thailand	2,41	2,48	1,37	0,99	0,89
Nigeria	1,90	2,12	2,36	2,16	1,76	Australien und Ozeanien ²⁾	1,48	1,35	0,93	0,85	0,86
Südafrika	2,10	2,32	1,94	1,30	0,84	Neuseeland	1,63	1,51	0,93	0,94	0,90

*) Angaben der Vereinten Nationen, mittlere Variante; Revision 2000. Die Nettoreproduktionsziffer gibt Auskunft, inwieweit unter bestimmten Geburts- und Sterblichkeitsverhältnissen eine Frauengeneration durch die von diesen Frauen geborenen Töchter ersetzt wird. Eine Rate von 0,64 bedeutet zum Beispiel, es wurden 36% weniger Töchter geboren, als zur Bestandserhaltung der weiblichen Bevölkerung notwendig wäre.

1) Ohne Angaben für Hongkong, Macao und Taiwan. 2) Einschließlich der Angaben für die Weihnachts-, Kokos- und Norfolk-Inseln.

Quelle: World Population Prospects, UN, New York. Zitiert aus: Statistisches Bundesamt, Statistisches Jahrbuch 2002 für das Ausland, S. 200.

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