Spring 2013

An Index of Macroeconomic Performance

Leo L. Liyeung
Trinity College, leo.liyeung@trincoll.edu

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By

Leo Liyeung

A Thesis Submitted to the Department of Economics

of Trinity College in Partial Fulfillment of the

Requirements for the Bachelor of Science Degree

Economics 498-99

April 11th, 2013

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Acknowledgements

I knew I was going to be an economics major since my first economics course in tenth grade, and I am happy to report that the journey has been fascinating. From learning what an opportunity cost is to performing rank correlations on weighting schemes for an index, I have always found it very rewarding to be able to explain the rationale behind decisions that people make, which is what captivated me in economics in the first place.

Fortunately, this whole thesis exercise turned out to be much more exciting than I had expected, and I wish all students interested in economics could have as positive an experience as mine. Of course, there were nights where I panicked over the progress, or lack thereof, made, but thankfully, it all came together at the end. This was certainly not a solo journey, and I owe a debt of gratitude to many along the way.

First and foremost, I would like to thank Professor Mark Setterfield for guiding me throughout this process. This entire thesis project would have been impossible without all his instruction and advice, and it is only through his expertise that this project was even conceived. I would also like to thank Professor Arthur Schneider, Professor Adam Grossberg, Professor Shyam Gouri Suresh, and Mr. Mark Rosario for showing me the delightful charm within the field of economics is during my formative years. They solidified my conviction that economics is a wonderful and worthwhile discipline to pursue. Finally, I would like to thank my friends and family, who have been supportive throughout.

It is still incredible to think that my economics education thus far has culminated in a piece of work that might add to the literature. Who knows? Maybe there will be more to come.

Abstract

There exists an abundance of economic indicators and ways to interpret macroeconomic data. While the rates of unemployment, inflation, GDP growth, etc all give important insights into the performance of an economy, all these indicators are, at best, incomplete ones that fail to look at the bigger picture of the economy as a whole.

Several macroeconomists have looked into the development of an Index of Macroeconomic Performance (IMP) that provides a comprehensive account of economic performance, the formulation of which allows for straightforward comparisons of macroeconomic performance internationally and intertemporally. Conventional indicators like unemployment, inflation, and GDP growth are taken into account, but so are some less conventional indicators, such as equality and security, as inspired from Economics of Happiness studies. Special attention must be given to the different weights given to the index components in constituting the index, as different weighting schemes could result in drastically different interpretations of and conclusions about economic performance for the same time period. These weights are also taken from Economics of Happiness studies. In addition, special emphasis will be placed on examining the IMP in light of economic performance during and after the great recession.

Intro

The field of economics employs a multitude of statistics derived from empirical data. Whilst many of the common macroeconomic indicators such as inflation and unemployment are frequently updated and used for policy decisions, they are usually narrow in scope and only capture a specific facet of the macroeconomy. Furthermore, individual indicators often send conflicting signals with regard to the health of an economy, as exemplified by the short-run Phillips Curve. As a result, it is difficult to evaluate the overall performance of a macroeconomy solely by considering the variety of conventional macroeconomic indicators individually. Similarly, it is also difficult to compare the overall performance of macroeconomies, both internationally and inter-temporally by the conventional macroeconomic indicators alone. The purpose of this thesis exercise is to develop a composite Index of Macroeconomic Performance (IMP), which aims to capture, within a single summary statistic, different facets of macroeconomic performance in order to facilitate both macroeconomic evaluation and international or inter-temporal comparisons.

In recent years, many indices have been proposed and developed to improve the measurement of macroeconomic outcomes. Osberg and Sharpe's (2011) Index of Economic Well-Being (IEWB) and the United Nations' (2000) Human Development Index (HDI) provide two prime examples. While these two indices are informative, most of the attention is placed on specific effects of the macroeconomy, namely well-being and human development, instead of macroeconomic performance itself. The IMP differs from these two previous studies in that macroeconomic performance itself is the main focus of the index. However, some of the techniques and concepts used in the development of the

IMP are introduced in the development of the IEWB and the HDI.

In the process of the development of an index, the most important step is the selection of weights. For the IMP, the weights are based on macroeconomics of happiness (MoH) results, which offer a quantitative measure for personal preferences in macroeconomic matters. In effect, this leaves the determination of the relative importance of each component 'to the people,' in accordance with their aggregate personal preferences. As the set of weights is determined, Spearman's rank correlation analysis is used to test its robustness relative to other plausible weighting schemes.

Finally, based on data for fourteen countries between the years of 1980 and 2009, the IMP values are calculated and analysed. The countries are Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, United Kingdom, and United States. General temporal trends of the IMP values are remarked, and countries are compared based on their relative performances. In addition, a few questions are raised in light of the Great Recession of 2007. Which countries fared best or worst? How badly were these countries affected by the Great Recession? These questions have been prominent topics of research for economists in the past half a decade, and perhaps the IMP can offer some answers.

Components

The IMP proposed consists of six components, which are inflation, unemployment, GDP growth, GDP per capita, equality, and security. We can therefore write:

IMP = f(inflation, unemployment, GDP growth, GDP per capita, equality, security)

The first components are rather conventional indicators that are commonly used to gauge macroeconomic performance. While different economists may disagree on the extent to which each component is indicative of strong or weak macroeconomic performance, it is generally accepted that they are relevant to and correlated with macroeconomic performance. It is less contentious in the cases of GDP growth and GDP per capita, where a higher level is unambiguously considered better. Generally, the more goods and services an economy produces and consumes, the better-off the people would be. As an economy strengthens, there would be a rising demand for goods and services, leading to an increased level of production and higher GDP growth. Likewise, as an economy strengthens and the level of production increases, assuming a constant population, GDP per capita would also rise. As a result, the inclusion of GDP growth and GDP per capita is justified by their positive correlation with macroeconomic performance.

On the other hand, the inclusion of inflation and unemployment may not be as straightforward. Both are conventional measures of macroeconomic performance, but the extent of the harm (or benefit) they do is debatable. For example, whilst high inflation is generally considered to be detrimental to society, there is no consensus as to how important it is and how much of a priority it should be to lower it. Neoclassical economists would argue that inflation is but a nominal adjustment to the equilibrium price

level with no real long term effects, but post-Keynesian economists might insist that inflation belies a more structural problem in the economy and may induce a price/wage spiral. A similar disagreement exists for unemployment. Most economists agree that some level of frictional and structural unemployment is acceptable and that high unemployment is detrimental. But what constitutes high unemployment is up for debate. Some economists may maintain that the NAIRU should be targeted, while others may argue that traditional full unemployment should be the goal.

Of course, according to the Phillips Curve, inflation and unemployment are themselves negatively related to each other. This introduces another problem, as the two components could send conflicting signals regarding the performance of an economy, holding all other factors constant. Suppose inflation rose by one percentage point and unemployment dropped by one percentage point in an economy year-on-year. How should one characterize this development? Has the economy improved or worsened? The answer to questions of this nature will be answered at length in the next chapter, where relative weights for each component of the IMP will be discussed. In a nutshell, the weights would represent the relative importance of each component, thus it suffices to show that inflation and unemployment are relevant indicators of the macroeconomy and that it is reasonable to include them in the determination of the IMP. The relative weights will account for the magnitude of the effects of each component.

It is also useful to note that whether high inflation is mainly a cause or an effect of poor economic performance is of little importance to the task at hand. The main focus is to identify a good set of indicators that could contribute meaningful information to the IMP. Whether it is unemployment that causes a weak economy by weakening the purchasing power of households or it is a weak economy

that causes unemployment by decreasing aggregate demand and, derivatively, labor demand, is irrelevant. Both arguments are sensible but, to a certain extent, irrelevant. As long as unemployment does correlate with a weak macroeconomy, its inclusion is justified. The same goes for all the other components. As long as each component does play a part in macroeconomic performance , it is included in the calculation of the index.

The final two components are certainly less conventional macroeconomic indicators than those previously discussed, but they are nonetheless informative and complementary to the other components. GDP growth and GDP per capita only capture an average rate and an average level, but equality and security reflect diversity and distribution of experiences around this average, which are relevant factors to consider as the economy is made up of many heterogeneous agents. This study is not the first instance where equality and security are used in an economic context. Osberg and Sharpe (2011) use the same two components to calculate the Index of Economic Well-being (IEWB) in the hopes that it could "facilitate public policy discussion by aggregating across the domains of economic well-being in a way that respects the diversity of individual values... Economic well-being has multiple dimensions and an index should reflect that fact by aggregating measures of the various domains of economic well-being."(Osberg and Sharpe 2011) If the study of economics should at all be concerned with personal well-being of the people in the economy, then the inclusion of factors such as equality and security, which each measures a facet of the people's well-being, should be accepted.

Equality, in particular, reflects the much-ignored macroeconomic effects of income distribution. In fact, it has long been a part of macroeconomic evaluations, but perhaps not as an explicit indicator of macroeconomic performance as the other components in the IMP. From the Gini Coefficient to the

Hoover Index, a quantitative measure of equality is frequently used to shed light on the effects different distributions have on the economy, thus it makes sense to include equality in an index that aims to capture the macroeconomic effects equality produces.

Similarly, security reflects the macroeconomic effects of expectations on the future. It looks at how an economic agent responds to uncertainty in the future. The first concern of including security may be that such qualitative measures may cloud the desired quantitative objectivity in the IMP. All the other components are easily quantifiable: inflation, unemployment, GDP are commonly found indicators, but security is typically not measured quantitatively. However, Osberg and Sharpe conclude that "it is possible to measure economic security in a comparable way across countries – including both very poor countries and the most affluent... Economic security is therefore a dimension of economic well-being that deserves to be analyzed in its own right – and one which can be measured in a conceptually comparable way." (Osberg and Sharpe 2012) Thus the IMP attempts to capture the macroeconomic effects on individuals' well-being that security produces.

Focusing on the set of components as a whole, one can see that this IMP only includes domestic indicators of macroeconomic performance. "This is not because international macroeconomics is unimportant. Rather, it is because the basic unit of analysis in what follows is the national economy." (Setterfield 2009) The purpose of the IMP is ultimately to compare macroeconomic performance across countries and across time, "and in this context, international macroeconomic variables pose two problems for the construction of an IMP. In the first place, it is difficult to interpret variations in some international macroeconomic variables as either intrinsically or unambiguously good or bad."(Setterfield 2009) For example, currency depreciation may be considered both good, in the sense that it boosts

export competitiveness and shifts consumption from imported goods to domestic goods, and bad, in the sense that it would drive up imported inflation. In either case, it is not currency depreciation that is preferable in itself, but the effects of currency depreciation that are considered good or bad. Those effects are already taken account of in other components such as inflation, unemployment, and GDP growth, therefore factors such as currency depreciation, in and of themselves, need not be included in the calculation of the IMP.

The second problem "is that some of [the international variables] are logically interdependent. For example. a trade surplus in one country creates a trade deficit elsewhere amongst that country's trading partners. Interdependence of this nature are undesirable if an IMP is to be used for cross-country comparisons of macroeconomic performance. " Keeping in mind that the motivation behind this index is to compare macroeconomic performance across countries and time periods, this kind of double-counting is certainly undesirable. For the two problems aforementioned, only domestic indicators are included in the calculation of the IMP.

In the next chapter, the data used to calculate the IMP will be examined.

Data

The analysis examines data taken from multiple sources. Inflation, unemployment, GDP growth, and GDP per capita data are taken from the IMF World Economic Outlook database[1]. Equality and security data are taken from Osberg and Sharpe (2011)[2]. The time period under consideration starts in 1980 and ends in 2009, a span of thirty years, three peak-to-peak business cycles (1980-1989, 1990-1999, 2000-2007), and the full length of the great recession under official NBER definitions.

The more conventional components "are straightforward to measure on the basis of commonly reported statistics. As such, unemployment is measured as the number of unemployed persons as a percentage of the total labour force, and inflation is measured as the rate of change of the consumer price index."(Setterfield 2009) GDP growth and GDP per capita are measured by annual percentage increase in the aggregate measure of production plus net exports and the value of the aggregate measure of product plus net exports divided by the population, respectively.

Equality, as a constituent of the IMP, "consists in two component concepts: income inequality and poverty." (Osberg and Sharpe 2011) Income inequality is measured using the Gini coefficient, and poverty is measured by poverty intensity, which is the product of the poverty rate and the poverty gap. Both the Gini coefficient and poverty intensity in Osberg and Sharpe (2011) are taken from the Luxembourg Income Study (LIS), with the poverty line defined as fifty percent of the median family income, the poverty rate as the proportion of persons whose income is below the poverty line, and the poverty gap as the average percent difference between the poverty line and the incomes of those whose

[1] Inflation, unemployment, GDP per capita, and GDP growth data are provided in Appendix 1
[2] Equality and security data are provided in Appendix 2

incomes fall below it. “High poverty intensity is considered more detrimental to economic well-being than an unequal income distribution.”(Osberg and Sharpe 2011) Hence, the relative weights of income distribution and poverty intensity are .25 and .75 respectively, and the sum of the two yields the equality component for the IMP.

Security consists of four component concepts: risk from unemployment, risk from illness, risk from single parent poverty, and risk from poverty in old age. “Risk from unemployment is determined by two variables, the unemployment rate and the proportion of earnings that are replaced by unemployment benefits. Each of these measures is scaled, and then summed with weights of 0.8 and 0.2, respectively. This weighted sum is the unemployment component of the security index.” (Osberg and Sharpe, 2011) Risk from illness is proxied by the average out-of-pocket medical expense of a citizen. Risk from single parent poverty is measured by the product of single parent poverty intensity and the divorce rate. Risk from old age poverty risk is measured by the poverty intensity of old age, which is the product of the old age poverty rate and the old age poverty gap. The weights of the component concepts of security “are constructed from the relative sizes of the populations subject to each risk,” which are 0.297 for risk from unemployment, 0.437 for risk from illness, 0.146 for risk from single parent poverty, and 0.120 for risk from poverty in old age. (Osberg and Sharpe 2011) In fact, this composite security measure is developed by Osberg and Sharpe (2011) as a component of their Index of Economic Well-Being, which aims to provide a measure of economic well-being for different countries.

A quick look at the data set will show the best and the worst performers according to the conventional indicators. From 1980 to 2009, Norway’s average unemployment was 3.73,the lowest out of all 14 countries, while Spain’s, at 16.25, was the highest. The UK had the lowest average annual

inflation rate of 2.2%, while Spain's and Italy's were the highest, both over 5.8%. Australia had the highest annual GDP growth rate at 3.22%, while Italy had the lowest at 1.75%. Norway's GDP per capita of $31479 (in 2005 USD) was the highest in that time period , while Spain's $17945 was the lowest. Note, however, that these are averages over 30 years, and the values of each fluctuates within that time period significantly. In general, the Nordic economies perform rather well, and the peripheral European economies, particularly Spain and Italy, lag behind the most. Note, also, that this shows that different indicators identify different countries as the best or worst performers; one of the purposes of the IMP is to combine information from all the indicators and hereby eliminate doubt regarding the best or worst performance.

Turning attention to the other two components of the IMP, a slightly different picture emerges. The Nordic countries also score well in the equality measure, hovering around or above 0.7. The United States, on the other hand, scores by far the lowest. At 0.154, it is almost 65% less equal than the second-most unequal economy, the United Kingdom at 0.441. The data on security paint a similar picture. The Netherlands and Sweden both have equality measures of above 0.8, and the United States has by far the lowest security measure of 0.201, which is almost 62% lower than the second-most insecure economy, the United Kingdom at 0.526.

Aside from the data collected for the components of the IMP, also needed are data to determine the weights in order to construct the IMP. Coefficients from regressions are taken from MoH studies, which include Di Tella et. al (2001), Di Tella et. al (2001), Alesina et. al (2001), Wolfers (2003), Di Tella et al. (2005), Schneider (2011), Gandelman and Hernandez-Murillo (2009), Ovaska and Takashima (2010), Dorn et al. (2007), Welsch (2010), Di Tella et al. (2007), Blanchflower

(2007), and Geischecker (2012). The data set for these regressions mostly come from the United States General Social Survey (1972-1994) and the Euro-Barometer Survey Series for U.S. and European studies, respectively. The extraction and treatment of these coefficients from MoH studies will be explained in greater detail in the following Methods section.

Methods

Before the value of the IMP can be calculated, the relative weight for each component must first be determined. “There is an unavoidable element of subjectivity in this process. It would at least be desirable if the choice of weights could be reasoned and justified as something other than simply the arbitrary preferences of the individual analyst - especially as IMP values and hence what an IMP tells us about the stylized facts of comparative macroeconomic performance may be sensitive to the choice of weights.” (Setterfield 2009)

To reduce arbitrariness in the choice of the relative weights of the IMP, there are a few properties that are desirable. Firstly, the weights should be economically sound. Since the aim is to use the IMP for macroeconomic evaluation, it is important that the IMP be consistent with macroeconomic theory. This does not mean that the IMP should be based on a specific school of thought. Rather, the choice of weights of the IMP should be explainable in economic terms. The weights should also be empirically grounded. The relative importance of each component should be determined via an experiment that could measure or quantify the importance of each component individually. Furthermore, the weights should be robust. Since the macroeconomy is always changing, an IMP that reflects the performance of the macroeconomy should be able to capture the changes thoroughly and systematically. If the weights used turn out to be overly sensitive to one particular aspect of the macroeconomy, then the IMP will fail to give us a full, comprehensive picture of the macroeconomy as originally intended. In light of these considerations, the set of weights for the IMP is determined by the importance of each component in macroeconomics of happiness (MoH) studies.

MoH is the study of the relationship between personal well-being and the macroeconomy. In Easterlin (1974), Richard Easterlin found that despite a steady increase in income per capita, self-reported happiness remained stagnant. Since then, many macroeconomists of happiness have examined the relationship between self-reported personal happiness and different macroeconomic indicators, such as the components in the IMP. As macroeconomics is concerned with the aggregate well-being of the people on a macroeconomic scale, and MoH measures the contribution of each macroeconomic component to personal well-being, MoH results provide an intersubjective, empirical way of assigning weights to each of the components with regard to personal well-being or social welfare. The weights thus determined are in accordance with the people's actual tastes and preferences.

In the following section, the process for the determination of the MoH weights will be laid out in full.

Collect coefficients for each component from MoH studies

Many regressions are done in MoH studies that investigate the marginal contribution to happiness from a wide variety of independent variables, some of which include the components of the IMP. Of those that do, the regression coefficients of each component under consideration were taken. This yields a list of coefficients for each component, in reference to personal well-being, taken from all the MoH studies.[3] This list is the first step of the process to determine the relative weights of each component of the IMP.

[3] The set of coefficients is provided in Appendix 3

Filter coefficients that are not statistically significant

Since these coefficients are taken from regressions, standard errors and statistical significance levels are also listed. From the list of coefficients, only those that are statistically significant at the 95% level are accepted. The selection of the 95% level, as opposed to equally valid 90% or 99% levels, is based on convention. All the MoH studies reported 95% levels, thus it is easiest to identify those that fall below this level from the data available. After all the statistically insignificant coefficients are removed, the remaining list of coefficients provides all the coefficients that are deemed significant. The following steps will lay out the mathematical treatment on the coefficients to make the weights easier to use.

Normalize coefficients by study

Since the scale of each study may be different, the coefficients have to be normalized. For example, one study may set the scale of unemployment in percentages, and another may set the scale in decimals. Ceteris paribus, the absolute value of the contributions to happiness of unemployment would be different between the two studies, but the contribution of unemployment relative to the other independent variables should remain the same. Fortunately, all the regressions under consideration included unemployment as one of the variables. Therefore, the coefficient for each component (i = specific component, u = unemployment, k = specific regression) are normalized to unemployment.

$$x_{ik} = \frac{\beta_{x_{ik}}}{\beta_{x_{uk}}}$$

Calculate arithmetic mean of coefficients for each component across all studies

Once all the coefficients are collected, filtered, and normalized, the arithmetic mean of all the normalized coefficients across all studies are calculated. Since all the coefficients are normalized with respect to unemployment, the arithmetic mean of unemployment must be 1. The arithmetic mean for the normalized coefficients for each of the other components is also determined. This yields the average relative importance of each component ($\overline{x_i}$ = arithmetic mean of each component, n = total number of studies) across all the MoH studies.

$$\overline{x_i} = \frac{1}{n}\sum_{1}^{n} x_{ik}$$

Normalize sum of coefficients

The sum of the arithmetic means of the coefficients is then normalized to 1. This is achieved by dividing the arithmetic mean of each coefficient ($\overline{x_{ik}}$) by the sum of the arithmetic means of the coefficients (m). This way, all the weights sum to 1, and if the data from all the components range from 0 to 1, then the IMP, too, will range between 0 and 1. This step yields a set of weights ($\hat{x}_i$ = normalized arithmetic mean of each component) that will be used to calculate the actual IMP .[4]

$$m = \sum \overline{x_i}$$

$$\hat{x}_i = \frac{\overline{x_i}}{m}$$

Normalize the range of the data set

Before the IMP can be calculated, the data will first have to be normalized. Since the scale of

[4] The set of weights is provided in Appendix 4

each component varies, a linear scaling technique is used to standardize the range of the different variables so that they all take values between zero and one. “This serves two purposes. First, it prevents [the index] from being dominated by a few underlying variables that take on very large range of values. Second, it standardizes variables in such a way that an increase is always good for economic well-being and a decrease is always bad.” (Osberg and Sharpe 2011)

In order to do this, the components must be divided into two subsets. In the cases of GDP growth, GDP per capita, equality, and security, the marginal contribution to personal well-being is positive. This means that an increase in any of these components will result in an increase in personal well-being hence an increase in IMP. On the other hand, in the cases of inflation and unemployment, the marginal contribution to personal well-being is negative. This means that an increase in inflation or unemployment will result in a decrease in personal well-being hence a decrease in IMP.

To transform the first set of components where the marginal contribution to the IMP is positive, the maximum and minimum values within the set of data for a specific component are collected. By definition, all the values within the set of data must fall between the maximum (x_{max}) and the minimum(x_{min}). This provides the scale with which the set of values can be normalized. The difference between the maximum and the minimum values is calculated, that difference constitutes the magnitude of the range of the values. Then, 10% of that magnitude is taken and is added to and subtracted from the maximum and the minimum values respectively. The new values are denoted as the scaled maximum and scaled minimum. This operation is taken from Osberg and Sharpe (2011) and provides a buffer to the range of the data set for each component. Henceforth, barring outliers that exceed the maximum or fall short of the maximum by over 10%, new data points can be used to calculate the IMP with the same

equation.

$$x_{scaledmax} = x_{max} + 0.1\,(x_{max} - x_{min})$$

$$x_{scaledmin} = x_{min} - 0.1\,(x_{max} - x_{min})$$

The difference between the scaled maximum and the scaled minimum is also noted. This difference shall be denoted as the extended range. Since each value within the data set must also fall between the scaled maximum and scaled minimum, each of the values of the data set (x_{ijt}, where i = GDP growth, GDP per capita, equality, or security, j = individual country, t = year) can be transformed to a scale between 0 to 1 by:

$$x_{ijt}^{T} = \frac{x_{ijt} - x_{scaledmin}}{x_{scaledmax} - x_{scaledmin}},\ 0 \le x_{ijt}^{T} \le 1$$

For the components where the marginal contribution to the IMP is negative, a slightly different approach is used. Since the aim is to limit the IMP between zero and one, with one being the best performing economy and zero being the worst, the value of the normalized inflation and unemployment must be inversely adjusted. To achieve this, the two normalized values are subtracted from 1 before they are used to calculate the IMP. In other words, for inflation and unemployment, the values (x_{ijt}, where i = inflation or unemployment) is transformed by:

$$x_{ijt}^{T} = 1 - \frac{x_{ijt} - x_{scaledmin}}{x_{scaledmax} - x_{scaledmin}},\ 0 \le x_{ijt}^{T} \le 1$$

Equivalently,

$$x_{ijt}^{T} = \frac{x_{scaledmax} - x_{ijt}}{x_{scaledmax} - x_{scaledmin}},\ 0 \le x_{ijt}^{T} \le 1$$

Transforming the data using this method yields a new set of data where all the values are scaled

between 0 and 1, with 1 being the best performance and 0 being the worst.[5]

Calculating the IMP

With the set of relative weights determined and the set of data transformed, the IMP can finally be calculated. The formula for the IMP can thus be expressed as:

$$IMP_{jt} = \sum(\hat{x}_i * x_{ijt}^T)$$

Fully written out (π = inflation, u = unemployment, g = GDP growth, c = GDP per capita, e = equality), the formula for IMP is:

$$IMP_{jt} = (\hat{\pi} * x_{\pi jt}^T) + (\hat{u} * x_{ujt}^T) + (\hat{g} * x_{gjt}^T) + (\hat{c} * x_{cjt}^T) + (\hat{e} * x_{ejt}^T) + (\hat{s} * x_{sjt}^T)$$

This IMP has a range between 0 and 1.

[5] The transformed data set is provided in Appendix 5

Test for Robustness

The relative weights for each component and the corresponding formula to calculate the IMP are now determined, but it remains to be seen whether or not these weights reliably reflect a country's macroeconomic performance. That is to say, the robustness of the set of weights with respect to macroeconomic performance indication is yet to be shown.

The IMP is formulated using the weights harvested from the MoH studies. Specifically, the weights are calculated using the mean value of the estimated coefficients in the regressions. As laid out in the previous chapter, the set of weights represents the relative importance of each component. The specific values of the weights are determined by collecting coefficients for each component, filtering out statistically insignificant coefficients, normalizing coefficients by study, calculating the arithmetic mean of normalized coefficients for each component, and normalizing the sum of coefficients. Since the mean values of the estimated coefficients are used, the set of weights represents the relative importance of each component at their estimated mean value. The set of weights used is denoted as the base set of weights.

Next, since the estimated regression coefficients are statistical approximations across a distribution, there is a range of values under which the population mean is likely to fall. Assuming the estimated coefficients are drawn from normal distributions, there is a 95% likelihood that the population mean would fall within two standard errors of the estimated mean. In light of this inherent range of values, the set of weights remains consistent and robust with regard to the possible values of the population mean within the range of statistical significance.

Aside from the mean value of the estimation coefficient, the standard errors are also noted. In addition, the regressions are sorted by their source (i.e. whether the study is done with US data or European data). Using the same procedure laid out in the previous chapter, four new sets of weights are thus determined.

The first set is determined by excluding equality and security from the base set and generating the relative weights only for the components of unemployment, inflation, GDP per capita, and GDP growth. Security and equality are taken out of the equation, thus their effects on the IMP are removed. This set of weights represents the relative importance only of the conventional indicators and is denoted as the core set of weights.

The second set is determined from the same procedure and same components as the base set, but two standard errors are added to the mean of the estimated coefficient for GDP per capita, GDP growth, security, and equality (i.e. the 'positive' components). Likewise, two standard errors are subtracted from the mean of the estimated coefficient for inflation and unemployment (i.e. the 'negative' components). This new set of weights represents the relative importance of each component to the IMP if the magnitude of the population mean of each component were at the maximum in the 95% range. The reason for the distinction between the positive and negative components is that the estimations have different signs. Since the aim is to maximize the magnitude of the estimated coefficient, the standard errors are added to the positive components but subtracted from the negative ones. In other words, this set is generated to reflect the relative importance of the each component if each of them were at the 'important' extreme of the 95% range. This set is denoted as the +2se set of weights.

The third set is similarly generated, but instead of adding two standard errors to the positive

components and subtracting two standard errors from the negative components, the reverse operations are performed. Two standard errors are subtracted from the positive components, and two standard errors are added to the negative components. Hence, this set of weights minimizes the magnitude of the estimated coefficient. This set thus represents the relative importance of each component if each of them were at the 'unimportant' extreme of the 95% range. This set is denoted as the -2se set of weights.

The final set is generated by using only the values taken from studies done in Europe. Since all the regressions are taken from US and European studies, there is an implicit assumption that the coefficients are similar across geographical lines. As Alesina et al. (2001) suggest, Americans and Europeans have different tastes for inequality. Extrapolating from that finding, there may be differences between Americans and Europeans with respect to the relative importance they place on each of the components, too. By using only coefficients from European studies, the European preferences are generated, and this set is denoted as the EU set of weights.

With these four new, 'modified' weighting schemes, the robustness of the base set of weights can now be determined. Firstly, the IMP is determined using the data and each of the four sets of weights. Evidently, the different sets of weights yield different IMP values. However, since the data input for the components remain the same, each weighting scheme should be reflect the performance of the same macroeconomy, albeit from a slightly different perspective. Consequently, although the absolute value of the IMP under these weights may be different from the base set, their relative values should be comparable. In order to check how similar each new weighting scheme is to the base set, the Spearman rank correlation coefficients are used for comparison.

The rank correlation coefficient between a specific modified weighting scheme and the base set

over a specific business cycle is calculated in the following steps. First, the average IMP for each country is determined for each of the business cycle, where the time period for each business cycle is taken from the NBER definition. This step yields a set of 14 IMP values for each of weighting scheme over each of the business cycles. Second, the countries are ranked according to their IMP values. This step assigns a rank, from 1 to 14, to each country for each business cycle under each weighting scheme. The set of rankings from the base set is then compared with the set of rankings from each of the modified weighting schemes. For each business cycle, the difference between the IMP rankings of each country, as calculated by the base set and by a modified weighting scheme, is calculated (d = difference, r = rank, c = country, b = business cycle, w = base set of weights, s = specific modified weighting scheme).

$$d_{cbs} = (r_{cbw} - r_{cbs})$$

The differences between the IMP rankings of all countries under the two weighting schemes are squared then summed. This step yields the a measure of how different the two sets of rankings are for a particular business cycle.

$$d_{bs} = \sum_{c=1}^{14} ((d_{cbs})^2)$$

Multiplying that number by six, dividing the product by 2548 (n^3-n, where n=14, the sample size and the degrees of freedom), and subtracting the quotient from one yield the rank correlation coefficient (ρ) between the specific set of weights and the base set over a specific business cycle with 14 degrees of freedom. [6]

$$\rho_{bs} = 1 - \frac{6d_{bs}}{(n^3 - n)} = \frac{6d_{bs}}{2548}$$

[6] The set of rankings is provided in Appendix 6

The process is then performed for each business cycle for each weighting scheme. The result is a set of twelve rank correlation coefficients, one for each combination of business cycle and weighting scheme. The actual rank correlation coefficients are listed below.

	Base/Core	+2se/B	-2se/B	EU/B
1980-1989	0.538	0.938	0.934	0.996
1990-1999	0.455	0.982	0.877	0.987
2000-2007	0.371	0.969	0.837	0.987

In order to understand these rank correlation coefficients, a t-test is performed to determine whether the different modified weighting schemes are significantly different from the base set. To set up a t-test, a null hypothesis and an alternative hypothesis are required. Here, the null hypothesis is that there is no significant statistical correlation between the IMP values from the base set and from the modified set of weights. The alternative hypothesis, then, is that such a correlation does exist. In this test, the sample size is 14 (fourteen countries), which gives 14 degrees of freedom. At the 95% level of statistical significance, the critical value for the Spearman rank correlation coefficient is 0.538.[7]

Each of the rank correlation coefficients between the base set and the +2se, -2se, and EU weighting schemes is greater than the critical value of 0.538 (95% significance with 14 degrees of freedom). Therefore, the null hypothesis is rejected, which means that the base set of weights is robust within the range of possible values under the 95% level of statistical significance and across geographical lines. This high correlation suggests that the base, +2se, -2se, and EU sets of weights are

[7] The table of critical values of the Spearman rank correlation coefficients is provided in Appendix 7.

interchangeable. Hence, for the sake of convenience, only one set of weights need be considered as the other three would yield statistically equivalent results.

On the other hand, the rank correlation coefficients between the base set and the core set of weights in the 1990-1999 and 2000-2007 business cycles are less than the critical value. Therefore, the null hypothesis is not rejected, which means that the correlation between the base set and the core set of weights is not statistically significant at the 95% level. This result shows that the narrower collection of inflation, unemployment, GDP per capita and GDP growth alone do not capture all the effects that the IMP does. By the initial hypothesis of this investigation, the inclusion of equality and security as components in the IMP aims to capture heterogeneity among agents in the macroeconomy, especially with regard to wealth distribution and expectations. The core set, on the other hand, only uses the mean of the estimated regression coefficients and implicitly employs a representative agent. While both provide useful information on macroeconomic performance, the base set of weights contains the desired feature of taking the heterogeneity of macroeconomic agents into account. Therefore, the base set is used to calculate the IMP in the subsequent analysis.

Analysis

Finally, with the complete procedure outlined in the previous chapters, the IMP values for each of the fourteen countries from 1980 to 2009 can be analyzed.[8] Based on these values, international and intertemporal comparisons of macroeconomic performance can immediately be made. While comparisons of macroeconomic indicators are already often made in the field of economics, the IMP tells a more comprehensive story about the macroeconomy. For example, unemployment data are often used to track macroeconomic activity, such as that examined by Gangl (2004), and GDP per capita data are used to compare the standard of living among nations, such as in the calculation of the HDI (United Nations 2000). On the other hand, the IMP, as a succinct summary statistic, captures facets of the macroeconomy that each of the individual components, alone, fails to capture. In order to demonstrate the trends of IMP values for each country more clearly, a graph in which each line traces the rise and fall of the IMP of a specific country is plotted. The graph is presented below.

[8] The table of IMP values is provided in Appendix 8

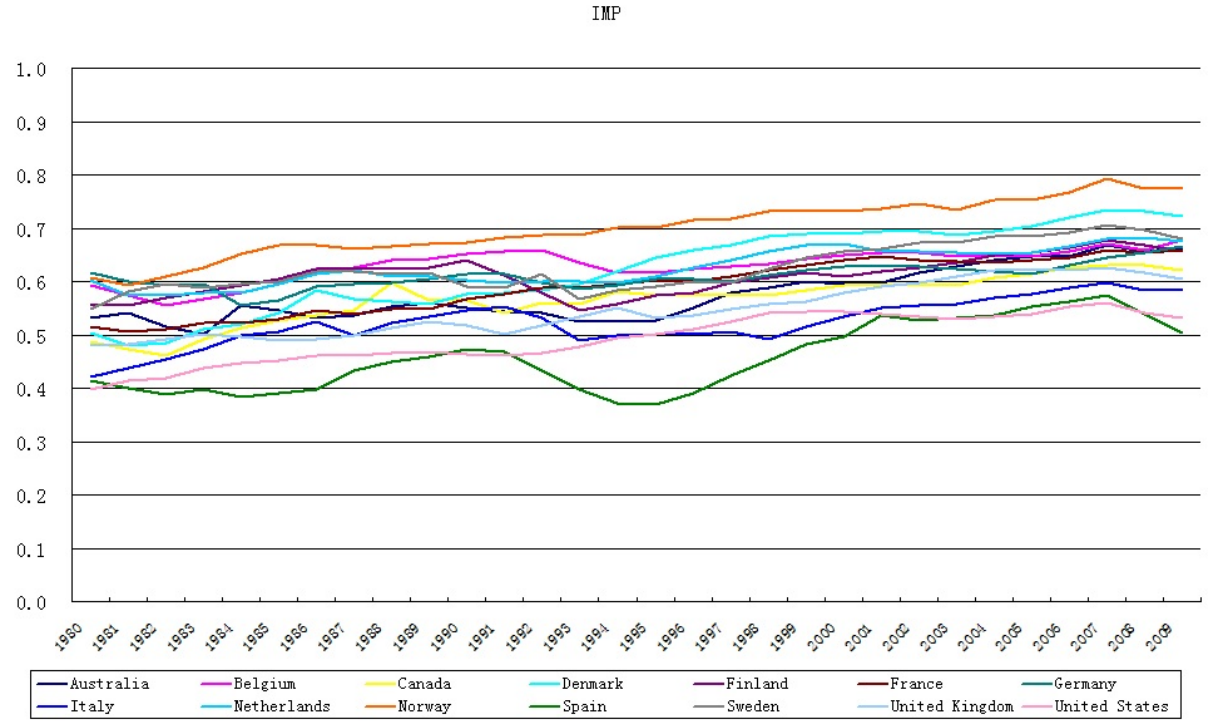

Figure 1: IMP values

A few trends are immediately apparent. Firstly, there is a general upwards trend in the IMP for each country, suggesting that the macroeconomic performance for the countries under consideration has improved since the 1980s. This trend can explained by the component of GDP per capita, which grows over time.

Secondly, in general, northern European countries have a much higher IMP level than the other countries throughout the time period under consideration. In particular, Norway has the highest IMP level out of all fourteen countries for all but two years. It has the highest average IMP of 0.700, followed by Belgium with an average of 0.631. On the other end of the spectrum, Spain and United States have the worst IMP levels, at 0.458 and 0.494, respectively. This result revisits one of the questions posed in Setterfield (2009) of whether the emphasis on an Anglo-Saxon economy, as epitomized by the

"US-model" of laissez-faire, is justified. On the basis of IMP values, in fact, Nordic countries perform much better than both the United States and the United Kingdom, driven mostly by the immense chasm between the two sets of economies in the equality and security indices but also the significant difference in unemployment rates and GDP per capita. This, of course, does not automatically mean that the Nordic countries have an unquestionably better economic system. As Setterfield (2009) remarked, "[it may] be the case that there are varieties of advanced capitalism, many of which are capable of delivering successful macroeconomic performance." Indeed, from the IMP results alone, it is dangerous to conclude the superiority of any economic system over another. It could simply be external factors, rather than the intrinsic properties of the different economic systems, that manifest into the disparity among the countries' IMP values.

Other than simply comparing the values of the IMP among countries, the IMP values for each country can be normalized to a specific base year level to demonstrate the rate of growth of the IMP for each country from the base year onwards, shifting the focus from IMP values to IMP growth rates. Instead of identifying the countries that perform best overall, this identifies the countries that improve the most. Again, there are many studies in comparative macroeconomic growth in the existing literature, such as Dowrick and Nguyen (1989) and Jan de Vries (2000). The IMP may offer a different perspective. The graph where IMP values are normalized to the 1980 base value is presented below.

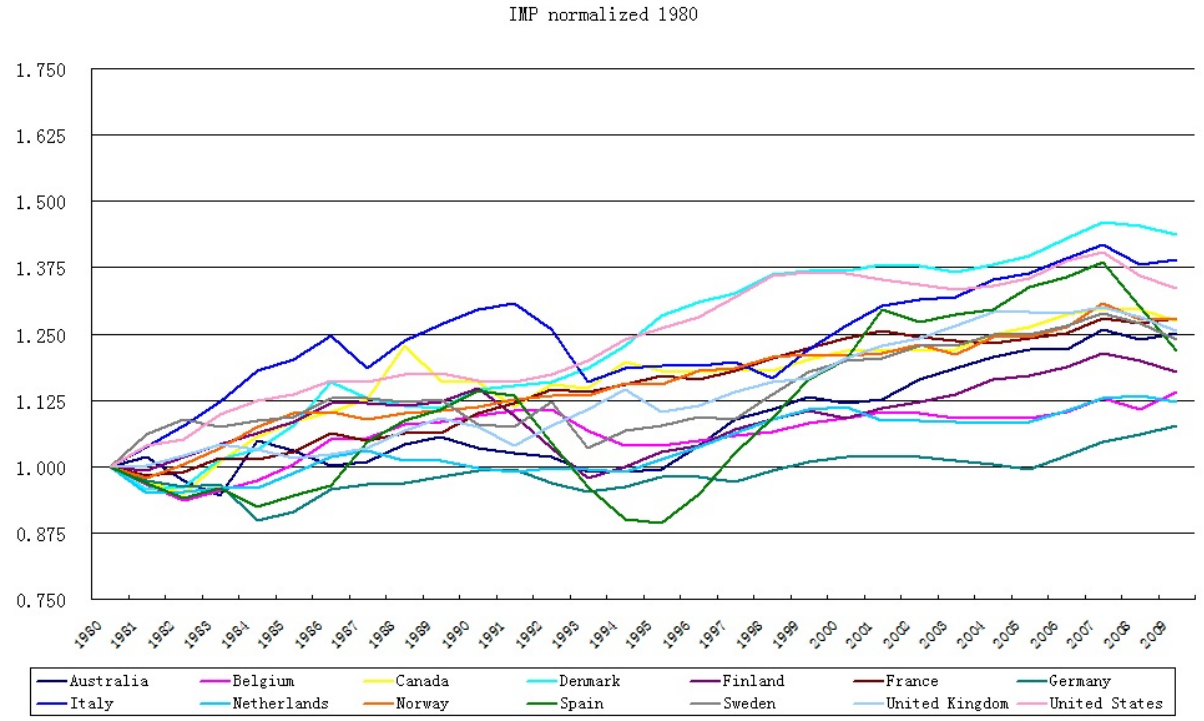

Figure 2: IMP values, normalized to 1980 year levels

From the normalized graph, it is evident that Denmark and the Italy have the highest growth rate of the IMP from 1980 to 2009, at 43.7% and 39.0% over thirty years, respectively. But referring back to the IMP values in *Figure 1*, it can be seen that Denmark has a much higher initial IMP level than Italy does. As a result, in 2009, the IMP of Italy remains the third lowest among the selected countries despite thirty years of rapid growth, while the IMP of Denmark has climbed from ninth to second in the same thirty years. On the other hand, Germany has seen the lowest growth rate of the IMP, at 7.8% over thirty years. Referring again back to *Figure 1*, it can be seen that Germany began with the highest IMP value of 0.617 in 1980, which made Germany the only country other than Norway to have led the fourteen countries in the IMP over the thirty-year span. But soon after, in 1983, there was a big drop in Germany's IMP, driven by a spike in unemployment, which dragged Germany from first in 1980 to sixth in 1984.

However, Germany's IMP remained steady afterwards and even survived the reunification without any significant drop in the IMP value. Germany remains sixth among the fourteen countries in 2009 in terms of the IMP.

While the effects of the early 1980s recession can easily be seen in the normalized values in Figure 2, the effects of the Great Recession of 2007 are less clear. The Great Recession is arguably the single most important event in the thirty-year span under consideration and has affected virtually all aspects of the global economy. The study of its causes and effects has dominated much of economic research since, and many different metrics or measures have been used. As Bernanke (1995) suggests, the study of a large set of countries could help identify the forces that drive the world into depression. The aim of the IMP is to provide a different perspective to the existing literature.

The question posed in the introduction of this thesis can now be entertained: which countries fared best during the Great Recession, and which countries fared worst? The following graph is normalized to the 2007 base values.

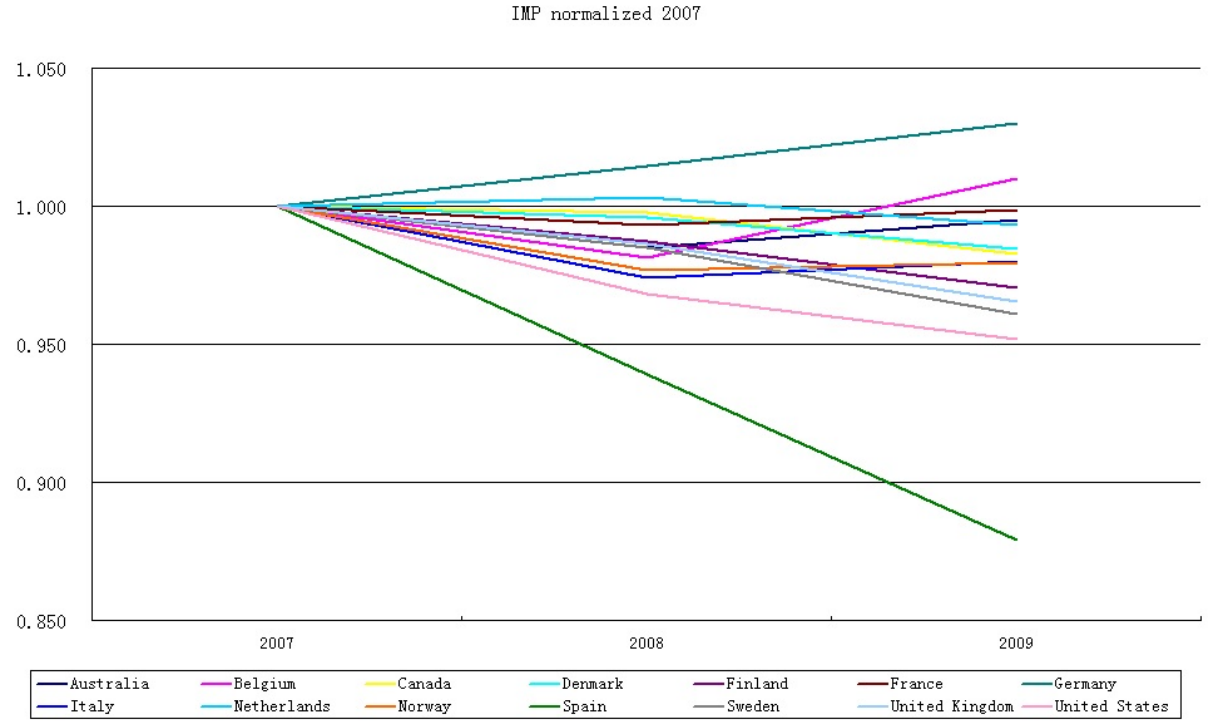

Figure 3: IMP values, normalized to 2007 levels

Figure 3 shows the change in the level of the IMP of each country from 2007 to 2009. According to NBER business cycle dating, 2007 to 2009 was the period in which the Great Recession occurred, but the graph suggests that the economies have reached the trough and have begun recovering in 2008. Spain's IMP dropped the most during the Great Recession, with a 6.1% drop from 2007 to 2008 and a further 6.4% drop from 2008 to 2009. With the exception of Spain, the average drop in the IMP from 2007 to 2008 was at about 1.2%, and the average drop in the IMP from 2008 to 2009 was at about 0.3%. In fact, the IMP of Germany still grew throughout the Great Recession, and four other countries joined Germany with a higher IMP value in 2009 than 2007.

The United States and the United Kingdom are generally thought to be the epicenters of the Great Recession. Accordingly, their IMPs have two of the steepest drops from 2007 to 2009, at about 4.8% and

3.5%, respectively. Not all countries saw their IMP values drop in the Great Recession, though. Both Germany and Belgium saw their IMP values rise in the two-year period. Australia, France, Italy, and Norway joined Germany and Belgium and saw their IMP values rise from 2008 to 2009.

Conclusion

The purpose of this thesis exercise has been to develop a comprehensive Index of Macroeconomic Performance (IMP) in order to facilitate international and intertemporal comparisons. The components of this IMP are inflation, unemployment, GDP growth, GDP per capita, equality, and security, for which the weights are found to be 0.184, 0.208, 0.096, 0.178, 0.215, and 0.119, respectively. This weighting scheme is determined by a survey of Macroeconomics of Happiness (MoH) studies and is found to be robust with regard both to the possible values of the population mean within the range of 95% statistical significance and to geographical divisions but not to the set of weights that excludes equality and security. Equality captures heterogeneity among economic agents, and security captures the effect of expectations within economic decisions, therefore both components are desired and included in the final determination of the IMP.

Between the years 1980 and 2009, there is an upward trend in IMP values. Norway has the highest average IMP value, followed by the Netherlands, while Spain has the lowest average IMP value, followed by the United States. Within the same 30 years, Denmark has the highest IMP growth rate, followed by Italy. However, due to different initial values, Denmark rises to second place among all fourteen countries in 2009, while Italy is eleventh. During the Great Recession, Spain has seen its IMP drop the most, by over 12%, followed by the United States, whose IMP dropped about 4.8% from 2007 to 2009.

Bibliography

Alberto Alesina; Rafael Di Tella; Robert MacCulloch (2001): Inequality and happiness: are Europeans and Americans different?, National Bureau of Economic Research, Working Paper 8198 (accessed April 2013, from http://www.nber.org/papers/w8198)

Ben Bernanke (1995): The macroeconomics of the great depression: A comparative approach. *Journal of Money, Credit, and Banking, 27*(1), 1-1. (accessed April 2013, from http://search.proquest.com/docview/195341222?accountid=14405)

Jan de Vries (2000). Dutch economic growth in comparative-historical perspective, 1500-2000. *De Economist, 148*(4), 443-467. (accessed April 2013, from http://search.proquest.com/docview/207632351?accountid=14405)

David G. Blanchflower (2007): Is unemployment more costly than inflation?, National Bureau of Economic Research, Working Paper 13505 (accessed April 2013, from http://www.nber.org/papers/w13505)

Rafael Di Tella; Robert J. MacCulloch; Andrew J. Oswald (2001): The American Economic Review, Vol. 91, No. 1. pp. 335-341. (accessed April 2013, from http://links.jstor.org/sici?sici=0002-8282%28200103%2991%3A1%3C335%3APOIAUE%3E2.0.CO%3B2-R)

Rafael Di Tella; Robert J. MacCulloch; Andrew J. Oswald (2001): The Macroeconomics of happiness, Warwick Economic Research Papers, No. 615 (accessed April 2013, from http://www2.warwick.ac.uk/fac/soc/economics/research/workingpapers/2008/twerp615.pdf)

Rafael Di Tella; Robert MacCulloch (2005): Partisan Social Happiness, Review of Economic Studies (2005) 72, pp.367–393

Rafael Di Tella; Robert MacCulloch (2007): Happiness, contentment and other emotions for central banks, National Bureau of Economic Research, Working Paper 13622 (accessed April 2013, from http://www.nber.org/papers/w13622)

David Dorn; Justina A.V. Fischer; Gebhard Kirchgassner; Alfonso Sousa-Poza (2007): Is it culture or democracy? The impact of democracy and culture on happiness, Social Indicators Research

(2007) 82: pp.505–526 doi: 10.1007/s11205-006-9048-4

Steve Dowrick, & Duc-Tho Nguyen. (1989): OECD comparative economic growth 1950-85: Catch-up and convergence. *American Economic Review, 79*(5), 1010-1030. (accessed April 2013, from http://search.proquest.com/docview/56402804?accountid=14405)

Nestor Gandelman; Ruben Hernandez-Murillo (2009). The impact of inflation and unemployment on subjective personal and country evaluations. *Federal Reserve Bank of St.Louis Review, 91*(3), 107-126

Markus Gangl (2004). Welfare states and the scar effects of unemployment: A comparative analysis of the united states and west Germany1. *The American Journal of Sociology, 109*(6), 1319-1364. (accessed April 2013, from http://search.proquest.com/docview/195952997?accountid=14405)

Ingo Geishecker (2012): Simultaneity bias in the analysis of perceived job insecurity and subjective well-being, *Economics Letters, Elsevier, Vol. 116(3)*, pp.319-321.

Lars Osberg; Andrew Sharpe (2011): Moving from a GDP-based to a well-being based metric of economic performance and social progress: results from the index of economic well-being for OECD countries, 1980-2009, Paper presented at the International Statistical Institute Conference, Dublin, Ireland. (accessed April 2013, from http://www.csls.ca/reports/csls2009-13.pdf)

Lars Osberg; Andrew Sharpe (2012): Measuring economic insecurity in rich and poor nations, Paper presented at the International Conference on Economic Security, Paris, France (accessed April 2013, from http://www.csls.ca/reports/csls2012-03.pdf)

Tomi Ovaska; Ryo Takashima (2010): Does a rising tide lift all the boats? Explaining the national inequality of happiness. *Journal of Economic Issues; Mar 2010*; 44, 1; 205–223 , doi: 10.2753/jei0021-3624440110

Simone Schneider (2012). Income inequality and its consequences for life satisfaction: What role do social cognitions play? *Social Indicators Research, 106*(3), pp.419-438. (accessed April 2013, from http://dx.doi.org/10.1007/s11205-011-9816-7)

Mark Setterfield (2009): An index of macroeconomic performance, International Review of Applied

Economics, 23:5, pp.625-649

United Nations (2000): Human development report. New York: United Nations.

Heinz Welsch (2010): The magic triangle of macroeconomics: how do European countries score?, *Oxford Economic Papers 63* (2011), pp.71–93 doi:10.1093/oep/gpq020

Justin Wolfers (2003): Is business cycle volatility costly? Evidence from surveys of subjective wellbeing, National Bureau of Economic Research, Working Paper 9619 (accessed April 2013, from http://www.nber.org/papers/w9619)

Data Sources

Lars Osberg; Andrew Sharpe (2011), Center for the Study of Living Stamdards (accessed April 2013, from http://www.csls.ca/iwb/IEWB_OECD.xlsx)

International Monetary Fund (2012), World Economic Outlook Database (accessed April 2013, from http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/index.aspx)

Appendix 1: inflation, unemployment, GDP g														
inflation raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Australia	10.186	9.614	11.229	10.052	3.937	6.742	9.084	8.491	7.256	7.548	7.278	3.223	0.986	1.813
Belgium	6.656	7.626	8.723	7.663	6.348	4.868	1.296	1.554	1.162	3.105	3.453	3.167	2.244	2.49
Canada	10.1	12.472	10.769	5.864	4.305	3.962	4.195	4.356	-0.774	4.984	4.78	5.626	1.49	1.865
Denmark	10.704	11.298	10.419	6.143	6.029	4.699	0.665	3.148	5.009	5.236	3.141	2.637	2.101	1.424
Finland	11.602	12	9.3	8.4	7	5.82	2.9	4.082	5.135	6.572	4.957	4.163	2.866	2.199
France	13.057	13.333	11.978	9.46	7.674	5.831	2.539	3.289	2.701	3.498	3.38	3.217	2.366	2.106
Germany	5.447	6.324	5.256	3.284	2.396	2.084	-0.125	0.242	1.274	2.778	2.687	3.474	5.046	4.476
Italy	21.8	19.51	16.46	14.7	10.74	9.24	5.82	4.72	5.09	6.276	6.099	6.222	5.003	4.497
Netherlands	6.547	6.8	5.9	2.9	3.4	2.3	0	-1	0.5	1.1	2.5	3.1	3.2	2.6
Norway	10.912	13.657	11.322	8.415	6.31	5.65	7.194	8.722	6.681	4.54	4.125	3.424	2.348	2.285
Spain	15.578	14.549	14.416	12.174	11.28	8.815	8.795	5.248	4.837	6.791	6.722	5.934	7.145	4.569
Sweden	17.452	12.108	8.578	8.907	8.021	7.367	4.233	4.222	5.798	6.437	10.47	9.337	2.282	4.827
United Kingdom	16.849	12.189	8.511	5.198	4.448	5.16	3.626	4.066	4.612	5.197	7.036	7.413	4.297	2.497
United States	13.502	10.378	6.158	3.16	4.368	3.528	1.944	3.578	4.1	4.791	5.419	4.216	3.042	2.97
unemployment raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Australia	6.142	5.783	7.192	9.975	8.967	8.267	8.108	8.125	7.2	6.167	6.683	9.292	10.492	10.6
Belgium	8.3	10	11.5	10.9	10.8	10.1	10	9.8	8.8	7.4	6.6	6.4	7.1	8.6
Canada	7.508	7.575	11.058	11.925	11.308	10.617	9.65	8.808	7.767	7.508	8.15	10.317	11.225	11.383
Denmark	7.1	9.3	10	10.7	10.3	9.2	7.899	7.9	7.69	8.405	8.624	9.364	10.055	11.012
Finland	4.634	5.092	5.854	5.19	5.185	5.027	5.372	4.738	4.517	3.478	3.2	6.606	11.725	16.357
France	6.349	7.438	8.069	8.421	9.771	10.23	10.363	10.5	10.006	9.396	8.975	9.467	9.85	11.117
Germany	3.359	4.831	6.734	8.099	8.058	8.124	7.834	7.843	7.735	6.79	6.155	5.47	6.342	7.617
Italy	7.37	7.649	8.288	7.375	7.842	8.167	8.867	9.625	9.683	9.667	8.875	8.533	8.808	9.833
Netherlands	3.711	5.36	7.838	10.111	9.718	8.376	7.651	7.254	7.071	6.248	5.858	5.475	5.325	6.233
Norway	1.65	2.001	2.606	3.426	3.147	2.588	1.962	2.084	3.149	4.908	5.229	5.469	5.915	5.948
Spain	11.011	13.755	15.77	17.215	19.937	21.305	20.907	20.223	19.238	17.24	16.238	16.313	18.353	22.64
Sweden	2.033	2.642	3.333	3.658	3.275	2.883	2.692	2.192	1.792	1.558	1.725	3.1	5.55	9.05
United Kingdom	6.491	9.373	10.614	11.398	11.777	11.402	11.327	10.634	8.786	7.348	7.04	8.57	9.835	10.391
United States	7.175	7.617	9.708	9.6	7.508	7.192	7	6.175	5.492	5.258	5.617	6.85	7.492	6.908

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.895	4.638	2.612	0.25	0.853	1.465	4.475	4.381	3.003	2.771	2.344	2.669	3.538	2.332	4.353	1.82
2.392	1.267	1.794	1.493	0.916	1.128	2.678	2.437	1.553	1.505	1.862	2.534	2.335	1.815	4.492	-0.009
0.136	2.189	1.58	1.612	0.987	1.744	2.738	2.507	2.276	2.742	1.841	2.23	2.018	2.131	2.378	0.292
1.644	1.949	1.949	2.212	1.434	2.151	3.137	2.35	2.41	2.107	1.152	1.832	1.875	1.721	3.392	1.319
1.076	1	1.069	1.219	1.351	1.316	2.951	2.664	2.003	1.297	0.14	0.777	1.279	1.584	3.9	1.6
1.661	1.778	2.084	1.283	0.667	0.562	1.827	1.781	1.938	2.169	2.342	1.9	1.912	1.607	3.159	0.103
2.717	1.729	1.193	1.533	0.602	0.635	1.4	1.904	1.355	1.031	1.79	1.92	1.784	2.276	2.754	0.234
4.164	5.393	3.983	1.895	1.98	1.657	2.575	2.323	2.61	2.812	2.274	2.206	2.217	2.038	3.5	0.764
2.7	2	1.429	1.858	1.775	2.034	2.341	5.106	3.825	2.236	1.38	1.502	1.651	1.583	2.21	0.974
1.397	2.448	1.248	2.579	2.267	2.333	3.086	3.017	1.288	2.475	0.465	1.522	2.332	0.729	3.766	2.167
4.718	4.674	3.599	1.877	1.764	2.235	3.484	2.827	3.589	3.102	3.053	3.382	3.563	2.844	4.13	-0.238
2.158	2.561	1.027	1.809	1.032	0.549	1.29	2.673	1.928	2.34	1.019	0.822	1.498	1.677	3.298	1.988
2.071	2.625	2.442	1.816	1.561	1.317	0.867	1.182	1.274	1.363	1.344	2.041	2.3	2.346	3.629	2.12
2.596	2.805	2.937	2.338	1.547	2.193	3.367	2.817	1.596	2.298	2.668	3.366	3.218	2.87	3.816	-0.324

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
9.45	8.225	8.225	8.242	7.725	6.933	6.283	6.767	6.367	5.942	5.392	5.048	4.783	4.367	4.249	5.592
9.8	9.7	9.5	9.2	9.3	8.5	6.9	6.6	7.5	8.2	8.4	8.5	8.3	7.5	7	7.722
10.392	9.475	9.642	9.108	8.3	7.558	6.85	7.258	7.65	7.592	7.183	6.75	6.283	6.042	6.158	8.283
10.885	9.218	7.878	7.013	5.833	5.042	4.841	4.651	4.777	5.727	5.824	5.107	3.909	2.763	1.864	3.592
16.606	15.397	14.578	12.641	11.364	10.2	9.811	9.136	9.119	9.038	8.828	8.359	7.704	6.841	6.363	8.252
11.683	11.15	11.583	11.542	11.067	10.458	9.083	8.392	8.908	8.967	9.225	9.267	9.25	8.342	7.833	9.433
8.208	8	8.667	9.375	9.05	8.267	7.525	7.617	8.358	9.308	9.775	10.617	9.833	8.367	7.3	7.492
10.633	11.15	11.15	11.242	11.333	10.942	10.1	9.1	8.608	8.45	8.033	7.683	6.8	6.167	6.742	7.808
6.775	6.567	5.958	4.933	3.825	3.233	2.833	2.242	2.758	3.692	4.575	4.7	3.917	3.192	2.75	3.51
5.393	4.906	4.833	4.034	3.186	3.172	3.426	3.546	3.889	4.494	4.471	4.616	3.433	2.513	2.595	3.166
24.118	22.9	22.08	20.61	18.605	15.64	13.873	10.553	11.475	11.48	10.97	9.16	8.513	8.263	11.327	18.01
9.367	8.8	9.55	9.883	8.2	6.742	5.608	4.858	4.917	5.617	6.333	7.633	7.042	6.117	6.167	8.3
9.655	8.703	8.155	7.134	6.307	6.02	5.532	5.106	5.198	5.044	4.782	4.792	5.4	5.395	5.551	7.453
6.1	5.592	5.408	4.942	4.5	4.217	3.967	4.742	5.783	5.992	5.542	5.083	4.608	4.608	5.817	9.275

GDP growth raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Australia	2.598	4.156	-0.01	-0.526	6.414	5.716	2.111	4.396	4.03	4.241	1.319	-0.885	2.735	3.824
Belgium	4.135	0.146	0.58	0.397	2.102	1.847	1.853	2.373	4.566	3.618	3.09	1.801	1.332	-0.693
Canada	2.163	3.503	-2.859	2.718	5.814	4.78	2.421	4.253	4.974	2.619	0.193	-2.092	0.875	2.339
Denmark	-0.365	-0.887	3.714	2.652	4.166	4.024	4.949	0.29	-0.143	0.573	1.607	1.3	1.975	-0.09
Finland	5.366	1.291	3.042	3.016	3.112	3.301	2.638	3.491	5.215	5.059	0.531	-6.013	-3.488	-0.802
France	1.809	0.969	2.415	1.239	1.548	1.799	2.38	2.512	4.466	4.332	2.645	1.011	1.187	-0.817
Germany	1.272	0.11	-0.788	1.555	2.826	2.192	2.417	1.469	3.736	3.913	5.723	5.011	2.226	-0.796
Italy	-1.414	0.781	0.668	0.913	3.226	2.798	2.86	3.192	4.194	3.388	2.053	1.534	0.773	-0.888
Netherlands	-0.328	-0.514	-1.283	1.758	3.119	2.656	3.125	1.851	2.98	4.785	4.064	2.405	1.489	0.651
Norway	4.504	1.547	0.125	3.867	5.894	5.354	4.038	1.78	-0.173	0.998	1.928	3.105	3.523	2.787
Spain	1.203	-0.408	1.239	1.652	1.698	2.362	3.432	5.709	5.285	5.004	3.847	2.525	0.851	-1.314
Sweden	4.555	-0.202	1.193	1.81	4.271	2.19	2.861	3.457	2.666	2.779	1.01	-1.121	-1.204	-2.058
United Kingdom	-2.034	-1.216	2.203	3.691	2.692	3.624	4.014	4.562	5.032	2.281	0.779	-1.392	0.147	2.222
United States	-0.274	2.538	-1.942	4.518	7.186	4.137	3.465	3.199	4.111	3.573	1.877	-0.234	3.393	2.852
GDP per capita raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Australia	10,082	11,304	11,796	12,034	13,127	14,105	14,508	15,347	16,237	17,283	17,844	18,084	18,809	19,759
Belgium	9,759	10,683	11,397	11,896	12,603	13,220	13,757	14,481	15,581	16,726	17,856	18,751	19,373	19,588
Canada	11,110	12,417	12,646	13,368	14,539	15,551	16,121	17,076	18,299	19,155	19,632	19,650	20,050	20,733
Denmark	10,029	10,867	11,970	12,780	13,824	14,819	15,880	16,361	16,884	17,620	18,574	19,440	20,233	20,588
Finland	8,598	9,477	10,298	10,964	11,673	12,381	12,949	13,754	14,920	16,202	16,834	16,284	16,006	16,155
France	9,958	10,905	11,783	12,337	12,939	13,507	14,067	14,765	15,871	17,091	18,128	18,872	19,458	19,648
Germany	9,834	10,748	11,321	11,994	12,848	13,561	14,186	14,809	15,794	16,863	18,168	19,502	20,283	20,445
Italy	8,994	9,898	10,563	11,074	11,860	12,556	13,198	14,015	15,101	16,191	17,147	18,011	18,571	18,797
Netherlands	10,686	11,549	12,040	12,688	13,522	14,234	14,921	15,539	16,446	17,776	19,080	20,073	20,774	21,217
Norway	12,558	13,898	14,709	15,836	17,351	18,773	19,892	20,713	21,274	22,232	23,443	24,885	26,218	27,382
Spain	7,281	7,856	8,394	8,828	9,279	9,751	10,279	11,155	12,122	13,183	14,193	15,028	15,464	15,549
Sweden	9,984	10,886	11,681	12,357	13,356	14,039	14,725	15,624	16,517	17,499	18,216	18,525	18,626	18,536
United Kingdom	8,601	9,289	10,084	10,865	11,557	12,307	13,054	14,016	15,197	16,086	16,789	17,082	17,468	18,210
United States	12,249	13,600	14,015	15,089	16,635	17,690	18,538	19,511	20,821	22,169	23,198	23,648	24,700	25,629

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
4.818	3.356	4.279	4.045	5.075	4.233	3.285	2.564	3.913	3.233	3.629	3.203	2.554	4.811	2.243	1.246
3.292	4.277	1.106	3.911	1.918	3.528	3.796	0.713	1.36	0.784	3.068	2.02	2.69	2.793	0.795	-2.653
4.804	2.808	1.619	4.226	4.097	5.532	5.233	1.784	2.925	1.881	3.12	3.019	2.823	2.2	0.518	-2.462
5.525	3.065	2.834	3.199	2.16	2.561	3.529	0.705	0.466	0.384	2.296	2.445	3.395	1.693	-0.87	-4.74
3.616	3.964	3.585	6.204	5.02	3.902	5.342	2.286	1.821	2.001	4.113	2.918	4.41	5.333	0.922	-8.019
2.17	2.248	1.061	2.199	3.549	3.188	4.08	1.774	1.064	1.077	2.253	1.961	2.418	2.323	0.091	-2.547
2.654	1.891	0.991	1.802	2.033	2.019	3.21	1.235	-0.002	-0.215	1.208	0.751	3.369	2.663	0.988	-4.72
2.152	2.827	1.095	1.872	1.401	1.464	3.693	1.818	0.454	-0.017	1.532	0.656	2.036	1.482	-1.319	-5.038
2.865	3.033	3.406	4.278	3.924	4.684	3.941	1.926	0.076	0.336	2.237	2.047	3.394	3.921	1.881	-3.915
5.051	4.186	5.1	5.393	2.683	2.026	3.254	1.99	1.502	1.014	3.864	2.739	2.281	2.731	0.751	-1.434
2.335	4.122	2.421	3.865	4.469	4.745	5.053	3.645	2.704	3.098	3.267	3.615	4.017	3.572	0.864	-3.722
4.013	3.939	1.612	2.708	4.205	4.66	4.452	1.262	2.483	2.336	4.235	3.161	4.297	3.314	-0.409	-5.144
4.28	3.052	2.885	3.307	3.607	3.473	3.916	2.461	2.097	2.808	2.951	2.173	2.788	2.685	-0.065	-4.897
4.074	2.515	3.741	4.457	4.355	4.826	4.139	1.08	1.814	2.49	3.573	3.054	2.673	1.947	0	-2.633

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
20,922	21,778	22,860	23,959	25,182	26,321	27,436	28,390	29,619	30,859	32,306	33,878	35,308	37,398	38,246	38,663
20,594	21,886	22,489	23,730	24,405	25,576	27,058	27,739	28,448	29,173	30,687	32,100	33,799	35,530	36,339	35,534
21,951	22,799	23,364	24,534	25,608	27,203	28,979	29,847	30,883	31,843	33,409	35,150	36,943	38,449	39,031	37,947
22,115	23,182	24,130	25,226	25,965	26,926	28,392	29,133	29,637	30,305	31,766	33,528	35,689	37,227	37,512	35,828
17,022	18,001	18,944	20,415	21,630	22,754	24,442	25,498	26,325	27,359	29,142	30,436	32,680	35,278	36,205	33,445
20,429	21,255	21,821	22,623	23,614	24,607	25,995	26,866	27,399	28,098	29,250	30,546	32,086	33,598	34,178	33,434
21,320	22,088	22,672	23,454	24,187	25,030	26,378	27,284	27,670	28,176	29,323	30,508	32,596	34,483	35,656	34,388
19,599	20,572	21,193	21,958	22,526	23,172	24,489	25,415	25,875	26,420	27,434	28,130	29,456	30,539	30,558	29,068
22,135	23,157	24,292	25,657	26,815	28,293	29,732	30,757	31,080	31,706	33,110	35,021	37,330	39,847	41,323	39,877
29,211	30,915	32,939	35,163	36,290	37,295	39,102	40,613	41,634	42,721	45,127	47,520	49,756	52,065	52,870	51,985
16,204	17,183	17,893	18,863	19,859	20,999	22,349	23,421	24,298	25,161	26,228	27,509	29,060	30,484	30,858	29,625
19,547	20,632	21,330	22,282	23,468	24,903	26,533	27,401	28,444	29,625	31,396	33,146	35,532	37,513	37,878	35,951
19,340	20,289	21,221	22,252	23,251	24,325	25,737	26,862	27,771	29,051	30,668	32,084	33,856	35,561	36,079	34,388
26,907	27,827	29,077	30,541	31,858	33,502	35,252	36,065	36,950	38,324	40,451	42,681	44,823	46,577	47,155	45,934

Appendix 2: equality													
	Australia							Belgium					
Year	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Sca Gin (inc afte A'
1980	0.281	11.3	28.5	0.032	0.566	0.516	0.554	0.227	4.5	25.4	0.011	0.876	
1981	0.281	11.3	28.5	0.032	0.566	0.516	0.554	0.227	4.5	25.4	0.011	0.876	
1982	0.284	11.5	28.3	0.032	0.565	0.503	0.549	0.227	4.5	25.4	0.011	0.876	
1983	0.287	11.6	28.1	0.033	0.563	0.49	0.545	0.227	4.5	25.4	0.011	0.876	
1984	0.289	11.7	27.9	0.033	0.561	0.477	0.54	0.227	4.5	25.4	0.011	0.876	
1985	0.292	11.8	27.7	0.033	0.559	0.464	0.535	0.227	4.5	25.4	0.011	0.876	
1986	0.295	11.9	27.9	0.033	0.551	0.45	0.526	0.228	4.5	25	0.011	0.877	
1987	0.298	12	28.2	0.034	0.542	0.437	0.516	0.23	4.5	24.6	0.011	0.879	
1988	0.301	12.1	28.4	0.034	0.534	0.423	0.506	0.232	4.6	24.2	0.011	0.88	
1989	0.304	12.2	28.6	0.035	0.525	0.408	0.496	0.23	4.7	23.7	0.011	0.878	
1990	0.305	12.6	30.4	0.038	0.476	0.402	0.457	0.228	4.9	23.3	0.011	0.875	
1991	0.307	13	32.3	0.042	0.422	0.395	0.415	0.226	5	22.8	0.012	0.873	
1992	0.308	13.4	34.3	0.046	0.362	0.389	0.369	0.224	5.2	22.4	0.012	0.871	
1993	0.309	13.8	36.5	0.05	0.297	0.382	0.319	0.237	6.2	22.4	0.014	0.839	
1994	0.311	14.3	38.7	0.055	0.226	0.376	0.264	0.251	7.3	22.4	0.016	0.801	
1995	0.312	14.1	37.4	0.053	0.264	0.372	0.291	0.266	8.7	22.4	0.019	0.756	
1996	0.313	13.9	36.2	0.05	0.3	0.367	0.317	0.258	8.3	22.4	0.019	0.768	
1997	0.314	13.7	34.9	0.048	0.335	0.363	0.342	0.25	8	25.6	0.02	0.742	
1998	0.314	13.5	33.8	0.046	0.368	0.359	0.366	0.259	8	25	0.02	0.747	
1999	0.315	13.4	32.6	0.044	0.399	0.355	0.388	0.269	8.1	24.4	0.02	0.753	
2000	0.316	13.2	31.5	0.042	0.429	0.35	0.41	0.279	8.1	23.8	0.019	0.758	
2001	0.317	13	30.5	0.04	0.458	0.346	0.43	0.279	8.1	23.8	0.019	0.758	
2002	0.315	12.6	30.7	0.039	0.472	0.358	0.443	0.279	8.1	23.8	0.019	0.758	
2003	0.312	12.2	31	0.038	0.485	0.37	0.456	0.279	8.1	23.8	0.019	0.758	
2004	0.312	12.2	31	0.038	0.485	0.37	0.456	0.279	8.1	23.8	0.019	0.758	
2005	0.312	12.2	31	0.038	0.485	0.37	0.456	0.279	8.1	23.8	0.019	0.758	
2006	0.312	12.2	31	0.038	0.485	0.37	0.456	0.279	8.1	23.8	0.019	0.758	
2007	0.312	12.2	31	0.038	0.485	0.37	0.456	0.279	8.1	23.8	0.019	0.758	
2008	0.312	12.2	31	0.038	0.485	0.37	0.456	0.279	8.1	23.8	0.019	0.758	
2009	0.312	12.2	31	0.038	0.485	0.37	0.456	0.279	8.1	23.8	0.019	0.758	

		Canada							Denmark				
led i Coeff. ome r tax)	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'
0.776	0.851	0.28	12.4	32	0.04	0.455	0.503	0.467	0.25	10.1	33.5	0.034	0.5
0.776	0.851	0.28	12.4	32	0.04	0.455	0.503	0.467	0.25	10.1	33.5	0.034	0.5
0.776	0.851	0.28	12.2	30.5	0.037	0.491	0.504	0.494	0.25	10.1	33.5	0.034	0.5
0.776	0.851	0.28	12.1	30.5	0.037	0.5	0.505	0.501	0.25	10.1	33.5	0.034	0.5
0.776	0.851	0.28	11.9	30.4	0.036	0.508	0.506	0.508	0.25	10.1	33.5	0.034	0.5
0.776	0.851	0.28	11.7	30.4	0.036	0.517	0.507	0.514	0.25	10.1	33.5	0.034	0.5
0.767	0.85	0.28	11.5	30.3	0.035	0.526	0.508	0.521	0.25	10.1	33.5	0.034	0.5
0.758	0.849	0.28	11.4	30.3	0.034	0.533	0.509	0.527	0.25	10.1	33.5	0.034	0.5
0.75	0.848	0.28	11.3	29.9	0.034	0.545	0.511	0.537	0.25	9.5	34.9	0.033	0.5
0.76	0.848	0.28	11.2	29.5	0.033	0.557	0.513	0.546	0.25	8.9	36.4	0.032	0.5
0.77	0.849	0.28	11.1	29.1	0.032	0.568	0.515	0.554	0.24	8.3	37.9	0.031	0.5
0.78	0.85	0.28	11	28.7	0.031	0.578	0.517	0.563	0.24	7.7	39.5	0.031	0.5
0.79	0.851	0.28	11.1	28.8	0.032	0.573	0.512	0.557	0.24	7.2	41.1	0.03	0.6
0.727	0.811	0.28	11.2	28.9	0.032	0.567	0.507	0.552	0.23	6.5	36.8	0.024	0.6
0.659	0.766	0.28	11.3	29	0.033	0.56	0.503	0.546	0.22	5.8	32.9	0.019	0.7
0.588	0.714	0.29	11.5	30	0.034	0.534	0.491	0.523	0.22	5.2	29.4	0.015	0.8
0.627	0.733	0.29	11.7	31.1	0.036	0.506	0.48	0.499	0.22	5.2	29	0.015	0.8
0.664	0.722	0.29	11.9	32.2	0.038	0.476	0.468	0.474	0.22	5.3	28.6	0.015	0.8
0.62	0.715	0.3	12.8	33.7	0.043	0.408	0.404	0.407	0.22	5.3	28.2	0.015	0.8
0.575	0.708	0.31	12.6	33	0.042	0.43	0.381	0.418	0.22	5.4	27.8	0.015	0.8
0.527	0.7	0.31	12.4	32.4	0.04	0.45	0.357	0.427	0.22	5.4	27.4	0.015	0.8
0.527	0.7	0.32	12.5	32	0.04	0.45	0.353	0.426	0.23	5.4	28.5	0.016	0.8
0.527	0.7	0.32	12.7	31.7	0.04	0.45	0.349	0.425	0.23	5.5	29.8	0.016	0.8
0.527	0.7	0.32	12.8	31.3	0.04	0.45	0.345	0.423	0.23	5.5	31	0.017	0.7
0.527	0.7	0.32	13	30.9	0.04	0.449	0.34	0.422	0.23	5.6	32.4	0.018	0.7
0.527	0.7	0.32	13	30.9	0.04	0.449	0.34	0.422	0.23	5.6	32.4	0.018	0.7
0.527	0.7	0.32	13	30.9	0.04	0.449	0.34	0.422	0.23	5.6	32.4	0.018	0.7
0.527	0.7	0.32	13	30.9	0.04	0.449	0.34	0.422	0.23	5.6	32.4	0.018	0.7
0.527	0.7	0.32	13	30.9	0.04	0.449	0.34	0.422	0.23	5.6	32.4	0.018	0.7
0.527	0.7	0.32	13	30.9	0.04	0.449	0.34	0.422	0.23	5.6	32.4	0.018	0.7

			Finland							France			
/	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C
542	0.645	0.567	0.209	5.4	24.9	0.013	0.846	0.862	0.85	0.29	7.3	35.2	0.026
542	0.645	0.567	0.209	5.4	24.9	0.013	0.846	0.862	0.85	0.29	7.3	35.2	0.026
542	0.645	0.567	0.209	5.4	24.9	0.013	0.846	0.862	0.85	0.29	7.5	35.8	0.027
542	0.645	0.567	0.209	5.4	24.9	0.013	0.846	0.862	0.85	0.29	7.7	36.4	0.028
542	0.645	0.567	0.209	5.4	24.9	0.013	0.846	0.862	0.85	0.29	7.9	37	0.029
542	0.645	0.567	0.209	5.4	24.9	0.013	0.846	0.862	0.85	0.29	8.1	37.6	0.03
542	0.645	0.567	0.209	5.4	24.9	0.013	0.846	0.862	0.85	0.29	8.3	38.2	0.032
542	0.645	0.567	0.21	5.4	24.9	0.013	0.846	0.862	0.85	0.29	8.5	38.8	0.033
555	0.662	0.581	0.209	5.4	24.9	0.014	0.843	0.86	0.847	0.29	8.7	39.5	0.034
567	0.679	0.595	0.209	5.5	24.9	0.014	0.84	0.859	0.845	0.29	8.9	40.1	0.036
579	0.696	0.609	0.209	5.6	24.9	0.014	0.837	0.858	0.842	0.29	8.7	35.8	0.031
591	0.713	0.622	0.21	5.7	24.9	0.014	0.833	0.856	0.839	0.29	8.5	32	0.027
603	0.729	0.635	0.211	5.3	23.7	0.013	0.858	0.848	0.856	0.29	8.3	28.5	0.024
691	0.759	0.708	0.213	4.9	22.6	0.011	0.88	0.84	0.87	0.29	8.1	25.4	0.021
761	0.789	0.768	0.215	4.5	21.6	0.01	0.9	0.831	0.883	0.29	8	22.7	0.018
818	0.817	0.817	0.22	4.2	20.6	0.009	0.917	0.823	0.893	0.29	7.8	22.9	0.018
819	0.811	0.817	0.222	4.4	21.5	0.009	0.904	0.796	0.877	0.28	7.7	23.2	0.018
821	0.804	0.817	0.228	4.6	22.4	0.01	0.89	0.769	0.86	0.28	7.6	23.4	0.018
822	0.798	0.816	0.234	4.9	23.4	0.011	0.874	0.741	0.841	0.28	7.5	23.6	0.018
823	0.791	0.815	0.24	5.2	24.5	0.013	0.857	0.712	0.821	0.28	7.4	23.9	0.018
825	0.785	0.815	0.25	5.4	25.6	0.014	0.838	0.683	0.799	0.28	7.3	24.1	0.018
813	0.78	0.805	0.25	5.7	24.4	0.014	0.838	0.676	0.798	0.28	7.51	24.44	0.018
801	0.775	0.795	0.25	6	23.2	0.014	0.839	0.669	0.796	0.28	7.72	24.77	0.019
789	0.77	0.784	0.25	6.2	22.1	0.014	0.839	0.662	0.795	0.28	7.93	25.1	0.02
775	0.767	0.773	0.25	6.5	21	0.014	0.84	0.655	0.793	0.28	8.16	25.44	0.021
775	0.767	0.773	0.25	6.5	21	0.014	0.84	0.655	0.793	0.28	8.4	25.8	0.022
775	0.767	0.773	0.25	6.5	21	0.014	0.84	0.655	0.793	0.28	8.4	25.8	0.022
775	0.767	0.773	0.25	6.5	21	0.014	0.84	0.655	0.793	0.28	8.4	25.8	0.022
775	0.767	0.773	0.25	6.5	21	0.014	0.84	0.655	0.793	0.28	8.4	25.8	0.022
775	0.767	0.773	0.25	6.5	21	0.014	0.84	0.655	0.793	0.28	8.4	25.8	0.022

			Germany							Italy			
Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Pove Inter D=B
0.664	0.483	0.619	0.24	5.3	26.1	0.014	0.839	0.694	0.803	0.31	10.5	25.9	
0.664	0.483	0.619	0.24	5.3	26.1	0.014	0.839	0.694	0.803	0.31	10.5	25.9	
0.648	0.484	0.607	0.25	5.6	23	0.013	0.854	0.655	0.804	0.31	10.5	25.9	
0.631	0.485	0.595	0.26	5.8	20.3	0.012	0.868	0.616	0.805	0.31	10.5	25.9	
0.614	0.486	0.582	0.27	7.9	37.2	0.029	0.608	0.578	0.6	0.31	10.5	25.9	
0.595	0.487	0.568	0.27	7.4	37	0.027	0.637	0.589	0.625	0.31	10.5	25.9	
0.576	0.488	0.554	0.26	7	36.8	0.026	0.664	0.599	0.647	0.31	10.5	25.9	
0.556	0.488	0.539	0.26	6.5	36.6	0.024	0.689	0.609	0.669	0.33	11.2	32.6	
0.535	0.489	0.524	0.26	6.1	36.5	0.022	0.712	0.62	0.689	0.32	10.4	27.8	
0.513	0.49	0.508	0.26	5.8	36.3	0.021	0.734	0.63	0.708	0.3	9.7	23.7	
0.581	0.489	0.558	0.26	6.2	35	0.022	0.723	0.616	0.696	0.3	10.1	23.3	
0.64	0.487	0.602	0.26	6.6	33.8	0.022	0.712	0.601	0.684	0.29	10.4	22.8	
0.692	0.486	0.64	0.27	7.1	32.7	0.023	0.7	0.587	0.672	0.31	12.1	27.8	
0.737	0.484	0.674	0.27	7.6	31.6	0.024	0.687	0.573	0.659	0.34	14	33.7	
0.776	0.483	0.703	0.27	8.2	30.5	0.025	0.675	0.558	0.645	0.34	14	29.5	
0.777	0.491	0.706	0.27	8.2	29.9	0.025	0.681	0.556	0.649	0.34	14	25.9	
0.778	0.5	0.709	0.27	8.2	29.3	0.024	0.686	0.554	0.653	0.34	14.1	28.7	
0.78	0.509	0.712	0.27	8.3	28.7	0.024	0.692	0.553	0.657	0.34	14.1	31.8	
0.781	0.517	0.715	0.27	8.3	28.1	0.023	0.698	0.551	0.661	0.35	14.2	35.3	
0.782	0.526	0.718	0.27	8.4	27.5	0.023	0.703	0.549	0.665	0.34	13.5	33.5	
0.783	0.534	0.721	0.27	8.4	27	0.023	0.709	0.547	0.668	0.33	12.8	31.8	
0.772	0.531	0.712	0.28	8.43	26.16	0.022	0.717	0.544	0.674	0.33	12.62	31.74	
0.761	0.528	0.702	0.28	8.46	25.39	0.021	0.726	0.54	0.679	0.34	12.48	31.69	
0.749	0.524	0.693	0.28	8.49	24.64	0.021	0.734	0.536	0.684	0.34	12.38	31.65	
0.737	0.521	0.683	0.28	8.5	23.9	0.02	0.742	0.532	0.69	0.34	12.1	31.5	
0.724	0.518	0.672	0.28	8.5	23.9	0.02	0.742	0.532	0.69	0.34	12.1	31.5	
0.724	0.518	0.672	0.28	8.5	23.9	0.02	0.742	0.532	0.69	0.34	12.1	31.5	
0.724	0.518	0.672	0.28	8.5	23.9	0.02	0.742	0.532	0.69	0.34	12.1	31.5	
0.724	0.518	0.672	0.28	8.5	23.9	0.02	0.742	0.532	0.69	0.34	12.1	31.5	
0.724	0.518	0.672	0.28	8.5	23.9	0.02	0.742	0.532	0.69	0.34	12.1	31.5	

				Netherlands							Norway		
erty nsity *C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)
0.027	0.643	0.397	0.581	0.26	3.91	42.07	0.0165	0.8	0.618	0.755	0.22	5.2	
0.027	0.643	0.397	0.581	0.26	3.91	42.07	0.0165	0.8	0.618	0.755	0.23	5.5	40
0.027	0.643	0.397	0.581	0.26	3.91	42.07	0.0165	0.8	0.618	0.755	0.23	5.8	36
0.027	0.643	0.397	0.581	0.26	3.91	42.07	0.0165	0.8	0.618	0.755	0.23	6.1	32
0.027	0.643	0.397	0.581	0.259	4.09	44.41	0.0182	0.775	0.623	0.737	0.23	6.5	28
0.027	0.643	0.397	0.581	0.258	4.27	46.88	0.02	0.747	0.627	0.717	0.23	6.8	25
0.027	0.643	0.397	0.581	0.257	4.46	49.48	0.0221	0.717	0.632	0.696	0.23	7.2	22
0.037	0.503	0.276	0.446	0.256	4.66	52.22	0.0243	0.683	0.636	0.672	0.23	7.1	23
0.029	0.614	0.346	0.547	0.258	5.03	52.34	0.0263	0.654	0.625	0.647	0.23	6.9	23
0.023	0.702	0.414	0.63	0.261	5.43	52.46	0.0285	0.622	0.613	0.62	0.23	6.7	23
0.023	0.697	0.444	0.634	0.263	5.86	52.58	0.0308	0.587	0.602	0.591	0.23	6.6	23
0.024	0.691	0.474	0.637	0.266	6.33	52.7	0.0334	0.55	0.59	0.56	0.23	6.4	
0.033	0.548	0.363	0.502	0.263	6.61	50.91	0.0337	0.546	0.603	0.56	0.23	6.6	25
0.047	0.347	0.243	0.321	0.26	6.9	49.19	0.0339	0.541	0.617	0.56	0.23	6.7	26
0.041	0.432	0.245	0.385	0.257	7.21	47.53	0.0342	0.537	0.63	0.56	0.24	6.8	
0.036	0.506	0.247	0.441	0.252	7.23	45.92	0.0332	0.552	0.656	0.578	0.24	6.9	29
0.04	0.445	0.234	0.392	0.246	7.26	44.36	0.0322	0.567	0.682	0.596	0.24	6.8	29
0.045	0.377	0.222	0.338	0.241	7.29	42.86	0.0313	0.581	0.707	0.613	0.24	6.7	30
0.05	0.301	0.209	0.278	0.236	7.32	41.41	0.0303	0.595	0.732	0.629	0.25	6.6	30
0.045	0.375	0.239	0.341	0.231	7.35	40.01	0.0294	0.609	0.756	0.646	0.25	6.5	31
0.041	0.441	0.268	0.398	0.237	7.128	42.716	0.0304	0.593	0.727	0.627	0.25	6.4	31
0.04	0.451	0.263	0.404	0.243	6.913	45.607	0.0315	0.577	0.697	0.607	0.25	6.6	31
0.04	0.459	0.259	0.409	0.25	6.704	48.694	0.0326	0.561	0.667	0.587	0.25	6.7	31
0.039	0.464	0.256	0.412	0.256	6.502	51.989	0.0338	0.544	0.635	0.566	0.25	6.9	31
0.038	0.48	0.247	0.422	0.263	6.31	55.51	0.035	0.526	0.603	0.545	0.26	7.1	31
0.038	0.48	0.247	0.422	0.263	6.31	55.51	0.035	0.526	0.603	0.545	0.26	7.1	31
0.038	0.48	0.247	0.422	0.263	6.31	55.51	0.035	0.526	0.603	0.545	0.26	7.1	31
0.038	0.48	0.247	0.422	0.263	6.31	55.51	0.035	0.526	0.603	0.545	0.26	7.1	31
0.038	0.48	0.247	0.422	0.263	6.31	55.51	0.035	0.526	0.603	0.545	0.26	7.1	31
0.038	0.48	0.247	0.422	0.263	6.31	55.51	0.035	0.526	0.603	0.545	0.26	7.1	31

					Spain							Sweden	
of	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)
46	0.024	0.691	0.786	0.715	0.32	12.1	28.7	0.035	0.528	0.342	0.481	0.2	5.5
.9	0.022	0.712	0.779	0.729	0.32	11.9	28.5	0.034	0.54	0.349	0.492	0.2	5.32
.4	0.021	0.731	0.773	0.742	0.31	11.7	28.4	0.033	0.552	0.356	0.503	0.2	5.63
.5	0.02	0.75	0.766	0.754	0.31	11.5	28.2	0.032	0.564	0.363	0.514	0.2	5.96
.9	0.019	0.767	0.76	0.765	0.31	11.3	28.1	0.032	0.575	0.37	0.524	0.21	6.31
.8	0.018	0.783	0.753	0.775	0.31	11.1	27.9	0.031	0.586	0.378	0.534	0.21	6.68
.9	0.017	0.798	0.746	0.785	0.31	10.9	27.8	0.03	0.597	0.385	0.544	0.21	7.07
.1	0.016	0.801	0.748	0.788	0.31	10.7	27.6	0.029	0.608	0.392	0.554	0.22	7.48
.4	0.016	0.805	0.749	0.791	0.31	10.5	27.5	0.029	0.618	0.399	0.563	0.22	7.31
.6	0.016	0.808	0.751	0.794	0.3	10.3	27.3	0.028	0.628	0.406	0.573	0.22	7.1
.8	0.016	0.811	0.752	0.797	0.3	10.1	27.2	0.027	0.638	0.413	0.582	0.22	7
24	0.015	0.815	0.754	0.799	0.31	10.7	28.7	0.031	0.589	0.368	0.533	0.23	6.8
.3	0.017	0.798	0.746	0.785	0.32	11.4	30.3	0.035	0.533	0.321	0.48	0.23	6.7
.6	0.018	0.781	0.739	0.77	0.33	12.1	32	0.039	0.47	0.273	0.421	0.23	6.6
28	0.019	0.762	0.731	0.754	0.34	12.9	33.7	0.044	0.4	0.224	0.356	0.22	6.6
.4	0.02	0.742	0.723	0.737	0.35	13.7	35.6	0.049	0.321	0.173	0.284	0.22	6.6
.8	0.02	0.742	0.712	0.735	0.35	13.8	33.9	0.047	0.351	0.19	0.311	0.23	6.6
.3	0.02	0.743	0.7	0.732	0.35	13.9	32.2	0.045	0.381	0.207	0.337	0.23	6.6
.7	0.02	0.743	0.687	0.729	0.34	14	30.6	0.043	0.409	0.224	0.363	0.24	6.6
1.1	0.02	0.744	0.675	0.727	0.34	14.1	29.1	0.041	0.436	0.241	0.387	0.25	6.6
1.6	0.02	0.745	0.663	0.724	0.34	14.2	27.7	0.039	0.461	0.257	0.41	0.25	6.6
1.6	0.021	0.737	0.657	0.717	0.33	14.2	27.7	0.039	0.462	0.282	0.417	0.25	6.4
1.6	0.021	0.729	0.651	0.709	0.33	14.1	27.7	0.039	0.464	0.307	0.425	0.25	6.2
1.6	0.022	0.72	0.644	0.701	0.32	14.1	27.7	0.039	0.465	0.332	0.432	0.24	6
1.8	0.023	0.71	0.638	0.692	0.32	14.1	29.2	0.041	0.435	0.356	0.415	0.24	5.8
1.8	0.023	0.71	0.638	0.692	0.32	14.1	29.2	0.041	0.435	0.356	0.415	0.24	5.6
1.8	0.023	0.71	0.638	0.692	0.32	14.1	29.2	0.041	0.435	0.356	0.415	0.24	5.6
1.8	0.023	0.71	0.638	0.692	0.32	14.1	29.2	0.041	0.435	0.356	0.415	0.24	5.6
1.8	0.023	0.71	0.638	0.692	0.32	14.1	29.2	0.041	0.435	0.356	0.415	0.24	5.6
1.8	0.023	0.71	0.638	0.692	0.32	14.1	29.2	0.041	0.435	0.356	0.415	0.24	5.6

					United Kingdom							United States	
Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Poverty Rate (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25	Gini Coefficient (A)	Pove Rate
39.27	0.022	0.724	0.903	0.769	0.27	9.1	27.2	0.025	0.676	0.548	0.644	0.31	
41.35	0.022	0.718	0.917	0.768	0.28	9.1	29.7	0.027	0.642	0.526	0.613	0.31	
41.82	0.024	0.695	0.901	0.747	0.28	9.1	32.5	0.03	0.605	0.504	0.58	0.32	
42.3	0.025	0.671	0.885	0.724	0.29	9.1	35.6	0.032	0.564	0.482	0.544	0.32	
42.79	0.027	0.644	0.869	0.7	0.29	9.1	39	0.035	0.52	0.459	0.505	0.33	
43.28	0.029	0.616	0.852	0.675	0.3	9.1	42.6	0.039	0.472	0.436	0.463	0.33	
43.78	0.031	0.586	0.835	0.648	0.3	9.1	46.6	0.042	0.419	0.412	0.417	0.34	
44.28	0.033	0.553	0.818	0.62	0.31	10	41.4	0.041	0.433	0.382	0.42	0.34	
44.72	0.033	0.56	0.808	0.622	0.32	11	36.8	0.04	0.447	0.351	0.423	0.34	
45.2	0.032	0.566	0.797	0.624	0.32	12.1	32.7	0.039	0.461	0.32	0.426	0.34	
45.6	0.032	0.572	0.786	0.626	0.33	13.3	29	0.038	0.475	0.288	0.428	0.34	
46.1	0.031	0.578	0.775	0.628	0.34	14.6	25.8	0.038	0.488	0.256	0.43	0.34	
46.5	0.031	0.584	0.764	0.629	0.34	13.2	26.8	0.035	0.521	0.25	0.453	0.34	
47.5	0.032	0.577	0.776	0.627	0.34	12	27.8	0.033	0.551	0.245	0.475	0.35	
48.5	0.032	0.569	0.789	0.624	0.34	10.8	28.9	0.031	0.581	0.24	0.495	0.36	
49.6	0.033	0.562	0.801	0.621	0.34	13.4	31.4	0.042	0.419	0.217	0.368	0.36	
46.3	0.03	0.593	0.773	0.638	0.34	13.5	32.1	0.043	0.402	0.214	0.355	0.37	
43.3	0.029	0.621	0.745	0.652	0.35	13.6	32.8	0.045	0.385	0.21	0.341	0.37	
40.5	0.027	0.649	0.716	0.665	0.35	13.6	33.6	0.046	0.367	0.207	0.327	0.37	
37.9	0.025	0.674	0.686	0.677	0.35	13.7	34.3	0.047	0.349	0.204	0.312	0.37	
35.4	0.023	0.698	0.656	0.687	0.35	13.3	33.5	0.044	0.388	0.206	0.342	0.37	
34	0.022	0.722	0.671	0.709	0.35	12.8	32.7	0.042	0.424	0.208	0.37	0.37	
32.6	0.02	0.746	0.685	0.73	0.35	12.4	31.9	0.04	0.459	0.211	0.397	0.37	
31.3	0.019	0.767	0.7	0.75	0.35	12	31.1	0.037	0.492	0.213	0.422	0.37	
30	0.017	0.787	0.714	0.769	0.34	11.6	30.4	0.035	0.523	0.215	0.446	0.37	
28.8	0.016	0.805	0.728	0.786	0.34	11.6	30.4	0.035	0.523	0.215	0.446	0.37	
28.8	0.016	0.805	0.728	0.786	0.34	11.6	30.4	0.035	0.523	0.215	0.446	0.37	
28.8	0.016	0.805	0.728	0.786	0.34	11.6	30.4	0.035	0.523	0.215	0.446	0.37	
28.8	0.016	0.805	0.728	0.786	0.34	11.6	30.4	0.035	0.523	0.215	0.446	0.37	
28.8	0.016	0.805	0.728	0.786	0.34	11.6	30.4	0.035	0.523	0.215	0.446	0.37	

erty (B)	Poverty gap (% of poverty line) (C)	Poverty Intensity D=B*C	Scaled Poverty Intensity D'	Scaled Gini Coeff. (income after tax) A'	Scaled Overall equality E= D' * 0.75 + A' * 0.25
16	34.6	0.056	0.222	0.399	0.266
16.3	34.9	0.057	0.2	0.377	0.244
16.6	35.2	0.059	0.178	0.354	0.222
16.9	35.6	0.06	0.155	0.331	0.199
17.2	35.9	0.062	0.132	0.308	0.176
17.5	36.2	0.063	0.108	0.285	0.152
17.8	36.5	0.065	0.083	0.261	0.128
17.8	36.3	0.065	0.085	0.257	0.128
17.9	36.2	0.065	0.086	0.254	0.128
18	36	0.065	0.087	0.251	0.128
18	35.8	0.065	0.089	0.248	0.128
18.1	35.6	0.064	0.09	0.245	0.129
18	35.3	0.064	0.103	0.218	0.131
17.9	35.1	0.063	0.115	0.191	0.134
17.8	34.8	0.062	0.127	0.164	0.136
17.5	34.6	0.06	0.149	0.138	0.146
17.2	34.3	0.059	0.17	0.111	0.155
16.9	34.1	0.058	0.191	0.083	0.164
16.9	33.6	0.057	0.201	0.09	0.173
17	33.6	0.057	0.199	0.097	0.173
17	33.4	0.057	0.203	0.103	0.178
17.1	33.9	0.058	0.187	0.0983	0.165
17.2	34.4	0.059	0.17	0.0933	0.151
17.2	34.4	0.059	0.17	0.0883	0.15
17.3	35.5	0.061	0.136	0.0833	0.123
17.3	35.5	0.061	0.136	0.0833	0.123
17.3	35.5	0.061	0.136	0.0833	0.123
17.3	35.5	0.061	0.136	0.0833	0.123
17.3	35.5	0.061	0.136	0.0833	0.123
17.3	35.5	0.061	0.136	0.0833	0.123

Appendix 2: security													
	Australia									Belgium			
Year	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Sca sec fron Age Pov
1980	0.677	0.738	0.631	0.596	0.19	0.323	0.125	0.05	0.688	0.675	0.879	0.875	
1981	0.683	0.729	0.62	0.596	0.192	0.319	0.122	0.05	0.684	0.605	0.871	0.875	
1982	0.643	0.702	0.593	0.599	0.182	0.308	0.116	0.05	0.655	0.551	0.864	0.875	
1983	0.56	0.73	0.589	0.603	0.159	0.32	0.114	0.05	0.644	0.511	0.857	0.87	
1984	0.59	0.78	0.585	0.606	0.169	0.342	0.112	0.051	0.674	0.509	0.854	0.875	
1985	0.613	0.794	0.603	0.609	0.176	0.349	0.115	0.051	0.69	0.536	0.851	0.871	
1986	0.62	0.777	0.613	0.594	0.179	0.342	0.116	0.049	0.686	0.556	0.849	0.9	
1987	0.62	0.783	0.617	0.577	0.18	0.345	0.115	0.048	0.688	0.564	0.847	0.906	
1988	0.647	0.778	0.614	0.56	0.188	0.343	0.114	0.046	0.691	0.595	0.847	0.911	
1989	0.678	0.77	0.619	0.542	0.198	0.34	0.114	0.045	0.697	0.626	0.844	0.909	
1990	0.658	0.751	0.637	0.477	0.192	0.332	0.115	0.04	0.68	0.641	0.84	0.898	
1991	0.582	0.739	0.643	0.401	0.17	0.328	0.114	0.034	0.647	0.624	0.835	0.893	
1992	0.547	0.733	0.667	0.311	0.16	0.326	0.117	0.027	0.63	0.593	0.829	0.883	
1993	0.545	0.726	0.675	0.206	0.16	0.324	0.116	0.018	0.618	0.542	0.822	0.869	
1994	0.579	0.725	0.697	0.083	0.17	0.324	0.118	0.008	0.619	0.513	0.818	0.852	
1995	0.616	0.73	0.709	0.181	0.181	0.326	0.12	0.017	0.643	0.513	0.811	0.832	
1996	0.613	0.723	0.716	0.267	0.18	0.322	0.121	0.025	0.647	0.522	0.813	0.838	
1997	0.616	0.734	0.736	0.343	0.181	0.326	0.124	0.032	0.663	0.528	0.796	0.843	
1998	0.635	0.721	0.751	0.41	0.187	0.319	0.126	0.039	0.671	0.552	0.789	0.85	
1999	0.656	0.735	0.761	0.47	0.192	0.325	0.127	0.046	0.69	0.645	0.782	0.833	
2000	0.675	0.714	0.782	0.522	0.197	0.315	0.131	0.052	0.695	0.69	0.779	0.809	
2001	0.66	0.707	0.78	0.568	0.193	0.311	0.13	0.058	0.692	0.701	0.779	0.799	
2002	0.669	0.706	0.789	0.524	0.196	0.311	0.13	0.054	0.69	0.678	0.761	0.794	
2003	0.679	0.705	0.797	0.475	0.199	0.31	0.13	0.049	0.689	0.663	0.703	0.792	
2004	0.695	0.702	0.8	0.475	0.204	0.308	0.13	0.05	0.692	0.655	0.711	0.792	
2005	0.705	0.711	0.802	0.475	0.206	0.312	0.13	0.051	0.699	0.653	0.702	0.795	
2006	0.71	0.708	0.806	0.475	0.208	0.31	0.131	0.051	0.699	0.658	0.687	0.803	
2007	0.72	0.716	0.817	0.475	0.21	0.314	0.132	0.051	0.707	0.68	0.676	0.8	
2008	0.723	0.712	0.82	0.475	0.211	0.312	0.133	0.052	0.707	0.694	0.647	0.8	
2009	0.684	0.709	0.82	0.475	0.198	0.311	0.133	0.052	0.694	0.666	0.613	0.8	

						Canada							
ıled urity ı Old erty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighte Scaled security from Ol Age Poverty
0.725	0.291	0.459	0.147	0.103	0.803	0.621	0.817	0.566	0.536	0.18	0.356	0.109	0.0
0.725	0.293	0.458	0.147	0.103	0.778	0.618	0.814	0.566	0.536	0.181	0.355	0.108	0.0
0.725	0.294	0.457	0.147	0.103	0.759	0.519	0.797	0.567	0.573	0.152	0.349	0.106	0.0
0.725	0.295	0.456	0.146	0.102	0.743	0.491	0.797	0.59	0.609	0.145	0.349	0.109	0
0.725	0.299	0.451	0.145	0.105	0.741	0.511	0.795	0.621	0.645	0.151	0.349	0.113	0.0
0.725	0.301	0.448	0.144	0.107	0.746	0.532	0.79	0.648	0.68	0.158	0.348	0.117	0.0
0.721	0.302	0.451	0.141	0.106	0.754	0.56	0.78	0.626	0.713	0.167	0.344	0.112	0.0
0.717	0.304	0.453	0.138	0.105	0.755	0.586	0.782	0.605	0.746	0.174	0.347	0.107	0.0
0.712	0.304	0.456	0.136	0.103	0.765	0.617	0.783	0.607	0.781	0.183	0.348	0.107	0.0
0.712	0.302	0.453	0.142	0.103	0.774	0.624	0.776	0.608	0.809	0.184	0.346	0.107	0.0
0.712	0.299	0.45	0.15	0.101	0.776	0.606	0.762	0.61	0.831	0.179	0.34	0.106	0
0.712	0.296	0.447	0.157	0.1	0.769	0.542	0.744	0.622	0.849	0.16	0.332	0.108	0.0
0.712	0.292	0.443	0.165	0.1	0.757	0.516	0.731	0.651	0.851	0.152	0.326	0.112	0.0
0.667	0.292	0.442	0.166	0.1	0.732	0.51	0.721	0.669	0.853	0.151	0.322	0.113	0.0
0.611	0.291	0.441	0.167	0.101	0.714	0.539	0.725	0.687	0.854	0.159	0.324	0.115	0.0
0.544	0.291	0.44	0.169	0.101	0.701	0.566	0.728	0.683	0.849	0.167	0.325	0.114	0.0
0.643	0.294	0.446	0.157	0.103	0.714	0.557	0.729	0.697	0.843	0.164	0.325	0.115	0.0
0.716	0.298	0.452	0.145	0.105	0.715	0.566	0.725	0.705	0.836	0.167	0.323	0.116	0
0.699	0.295	0.45	0.15	0.104	0.719	0.591	0.722	0.684	0.732	0.175	0.321	0.111	0.0
0.68	0.293	0.446	0.156	0.105	0.739	0.612	0.72	0.722	0.789	0.182	0.32	0.115	0.0
0.66	0.291	0.443	0.161	0.105	0.745	0.635	0.726	0.753	0.804	0.188	0.323	0.118	0.0
0.66	0.29	0.443	0.161	0.106	0.747	0.623	0.708	0.745	0.81	0.185	0.314	0.115	0.0
0.66	0.289	0.442	0.161	0.107	0.732	0.609	0.696	0.738	0.816	0.182	0.308	0.112	0.0
0.66	0.289	0.442	0.161	0.108	0.701	0.612	0.696	0.727	0.822	0.183	0.308	0.109	0
0.66	0.289	0.441	0.161	0.109	0.702	0.619	0.698	0.72	0.827	0.185	0.308	0.106	0.0
0.66	0.289	0.44	0.16	0.111	0.698	0.627	0.697	0.717	0.827	0.188	0.307	0.105	0.0
0.66	0.289	0.439	0.16	0.113	0.694	0.64	0.692	0.717	0.827	0.191	0.304	0.105	0.0
0.66	0.289	0.438	0.159	0.114	0.695	0.649	0.688	0.717	0.827	0.194	0.301	0.105	0.0
0.66	0.289	0.437	0.159	0.116	0.686	0.646	0.675	0.717	0.827	0.192	0.295	0.105	0.0
0.66	0.288	0.436	0.159	0.117	0.664	0.582	0.65	0.717	0.827	0.173	0.284	0.105	0.0

		Denmark									Finland		
ed d	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty
043	0.689	0.726	0.87	0.888	0.422	0.292	0.452	0.161	0.095	0.788	0.723	0.852	0.908
044	0.687	0.628	0.865	0.886	0.422	0.293	0.452	0.161	0.095	0.757	0.713	0.849	0.908
047	0.654	0.612	0.861	0.885	0.422	0.294	0.451	0.16	0.095	0.75	0.7	0.849	0.908
.05	0.653	0.6	0.857	0.884	0.422	0.295	0.45	0.16	0.095	0.744	0.7	0.84	0.908
053	0.667	0.684	0.857	0.885	0.422	0.295	0.45	0.16	0.094	0.769	0.719	0.837	0.908
056	0.679	0.717	0.854	0.886	0.422	0.295	0.45	0.16	0.095	0.778	0.736	0.831	0.909
059	0.682	0.766	0.852	0.885	0.422	0.296	0.448	0.159	0.097	0.79	0.728	0.836	0.908
062	0.689	0.763	0.845	0.886	0.422	0.297	0.449	0.16	0.095	0.787	0.738	0.835	0.907
065	0.703	0.734	0.845	0.881	0.479	0.299	0.448	0.157	0.096	0.782	0.752	0.84	0.9
068	0.704	0.687	0.842	0.876	0.53	0.3	0.449	0.154	0.098	0.77	0.793	0.841	0.891
.07	0.695	0.682	0.832	0.878	0.574	0.301	0.449	0.151	0.1	0.768	0.797	0.835	0.892
072	0.672	0.659	0.839	0.878	0.614	0.302	0.448	0.148	0.102	0.767	0.7	0.81	0.889
074	0.664	0.661	0.837	0.873	0.649	0.301	0.449	0.146	0.105	0.77	0.55	0.788	0.896
076	0.662	0.61	0.826	0.885	0.715	0.3	0.448	0.145	0.106	0.758	0.411	0.772	0.903
077	0.675	0.706	0.826	0.892	0.765	0.299	0.448	0.145	0.107	0.793	0.401	0.787	0.904
078	0.684	0.754	0.835	0.908	0.803	0.298	0.447	0.147	0.109	0.818	0.433	0.785	0.908
079	0.683	0.755	0.832	0.908	0.799	0.298	0.446	0.147	0.11	0.816	0.455	0.781	0.906
.08	0.686	0.776	0.833	0.907	0.794	0.296	0.445	0.147	0.112	0.822	0.51	0.795	0.903
071	0.678	0.793	0.826	0.906	0.789	0.296	0.446	0.147	0.111	0.824	0.547	0.799	0.899
079	0.695	0.789	0.825	0.905	0.785	0.295	0.446	0.148	0.111	0.822	0.581	0.797	0.894
082	0.711	0.804	0.828	0.904	0.779	0.294	0.444	0.148	0.114	0.827	0.595	0.778	0.889
084	0.699	0.785	0.826	0.902	0.787	0.293	0.444	0.149	0.114	0.821	0.617	0.781	0.89
087	0.69	0.786	0.826	0.899	0.794	0.291	0.443	0.149	0.116	0.821	0.618	0.776	0.89
.09	0.689	0.759	0.827	0.896	0.801	0.291	0.443	0.15	0.116	0.815	0.621	0.764	0.889
092	0.692	0.755	0.825	0.894	0.807	0.291	0.442	0.151	0.116	0.813	0.627	0.769	0.889
094	0.694	0.775	0.829	0.895	0.807	0.291	0.442	0.151	0.117	0.82	0.639	0.764	0.889
096	0.696	0.8	0.83	0.897	0.807	0.29	0.442	0.151	0.117	0.829	0.658	0.774	0.889
097	0.697	0.801	0.83	0.898	0.807	0.289	0.442	0.151	0.118	0.829	0.682	0.778	0.89
098	0.691	0.82	0.825	0.897	0.807	0.289	0.442	0.151	0.118	0.832	0.696	0.771	0.889
099	0.661	0.739	0.81	0.897	0.807	0.288	0.443	0.151	0.117	0.803	0.64	0.745	0.889

						France							
Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Wei Scal secu from Age Pov
0.769	0.301	0.444	0.161	0.094	0.814	0.697	0.843	0.776	0.79	0.26	0.423	0.231	
0.769	0.301	0.443	0.161	0.095	0.81	0.676	0.836	0.771	0.79	0.245	0.394	0.279	
0.769	0.301	0.443	0.161	0.094	0.806	0.658	0.83	0.771	0.766	0.252	0.401	0.263	
0.769	0.301	0.443	0.161	0.095	0.802	0.649	0.822	0.78	0.737	0.258	0.408	0.248	
0.769	0.301	0.443	0.161	0.095	0.806	0.615	0.815	0.788	0.702	0.264	0.415	0.233	
0.769	0.301	0.443	0.161	0.095	0.809	0.604	0.809	0.797	0.661	0.269	0.423	0.22	
0.769	0.301	0.442	0.161	0.096	0.808	0.607	0.784	0.81	0.613	0.274	0.43	0.207	
0.769	0.3	0.443	0.161	0.096	0.811	0.607	0.784	0.824	0.555	0.278	0.437	0.195	
0.763	0.3	0.443	0.162	0.096	0.816	0.618	0.788	0.835	0.486	0.283	0.444	0.184	
0.757	0.298	0.443	0.163	0.096	0.827	0.637	0.79	0.845	0.404	0.287	0.45	0.173	
0.751	0.298	0.443	0.163	0.097	0.825	0.655	0.789	0.849	0.506	0.287	0.451	0.172	
0.744	0.296	0.441	0.164	0.099	0.784	0.65	0.78	0.851	0.588	0.285	0.452	0.171	
0.792	0.296	0.441	0.162	0.101	0.736	0.623	0.777	0.853	0.654	0.285	0.452	0.17	
0.827	0.295	0.441	0.161	0.104	0.692	0.59	0.766	0.856	0.707	0.284	0.452	0.169	
0.852	0.295	0.44	0.159	0.106	0.699	0.573	0.761	0.856	0.749	0.284	0.452	0.168	
0.871	0.294	0.441	0.158	0.108	0.71	0.59	0.773	0.854	0.747	0.284	0.452	0.168	
0.864	0.294	0.441	0.156	0.11	0.714	0.573	0.772	0.855	0.745	0.283	0.452	0.167	
0.856	0.294	0.441	0.154	0.112	0.735	0.569	0.776	0.856	0.743	0.283	0.451	0.167	
0.846	0.294	0.44	0.152	0.114	0.745	0.585	0.778	0.855	0.741	0.282	0.451	0.167	
0.836	0.294	0.44	0.151	0.116	0.752	0.596	0.778	0.855	0.739	0.282	0.451	0.167	
0.824	0.294	0.44	0.149	0.117	0.746	0.648	0.777	0.857	0.737	0.281	0.451	0.166	
0.819	0.294	0.439	0.147	0.119	0.753	0.68	0.773	0.858	0.734	0.281	0.45	0.166	
0.814	0.294	0.439	0.146	0.121	0.751	0.671	0.769	0.856	0.732	0.28	0.45	0.165	
0.809	0.294	0.44	0.145	0.122	0.746	0.649	0.758	0.85	0.729	0.282	0.449	0.165	
0.804	0.294	0.44	0.144	0.123	0.749	0.637	0.754	0.846	0.726	0.281	0.449	0.164	
0.804	0.293	0.44	0.144	0.124	0.75	0.636	0.75	0.833	0.724	0.281	0.449	0.164	
0.804	0.293	0.44	0.143	0.124	0.76	0.638	0.751	0.844	0.724	0.28	0.448	0.164	
0.804	0.292	0.44	0.143	0.125	0.769	0.662	0.75	0.847	0.724	0.28	0.448	0.163	
0.804	0.292	0.439	0.143	0.126	0.77	0.678	0.74	0.847	0.724	0.279	0.448	0.163	
0.804	0.292	0.439	0.143	0.126	0.742	0.626	0.736	0.847	0.724	0.277	0.448	0.163	

		Germany									Italy		
ghted ed urity Old erty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from sing Parent Poverty
0.086	0.785	0.778	0.779	0.914	0.59	0.195	0.375	0.17	0.049	0.788	0.573	0.851	0.9
0.081	0.775	0.737	0.768	0.912	0.59	0.188	0.37	0.162	0.05	0.77	0.562	0.845	0.9
0.084	0.766	0.679	0.767	0.89	0.621	0.172	0.363	0.167	0.054	0.755	0.543	0.841	0.9
0.086	0.76	0.634	0.759	0.839	0.649	0.16	0.352	0.165	0.057	0.734	0.517	0.842	0.9
0.088	0.746	0.658	0.758	0.707	0.241	0.175	0.369	0.108	0.023	0.674	0.498	0.84	0.9
0.089	0.738	0.654	0.754	0.748	0.306	0.175	0.366	0.112	0.03	0.683	0.49	0.833	0.9
0.089	0.726	0.675	0.767	0.786	0.365	0.181	0.373	0.116	0.036	0.706	0.466	0.834	0.9
0.089	0.722	0.681	0.765	0.804	0.418	0.183	0.372	0.117	0.042	0.714	0.44	0.841	0.8
0.09	0.721	0.682	0.76	0.827	0.466	0.183	0.371	0.119	0.047	0.719	0.443	0.834	0.9
0.09	0.72	0.702	0.762	0.847	0.51	0.189	0.373	0.12	0.051	0.733	0.446	0.827	0.9
0.09	0.735	0.728	0.765	0.841	0.544	0.197	0.373	0.12	0.054	0.744	0.464	0.832	0.9
0.091	0.737	0.704	0.784	0.835	0.575	0.216	0.348	0.109	0.068	0.741	0.477	0.826	0.9
0.093	0.735	0.672	0.806	0.82	0.603	0.205	0.359	0.109	0.07	0.743	0.507	0.809	0.8
0.094	0.726	0.633	0.798	0.782	0.629	0.193	0.355	0.105	0.073	0.726	0.539	0.795	0.8
0.096	0.722	0.616	0.793	0.747	0.653	0.187	0.353	0.101	0.076	0.717	0.514	0.787	0.8
0.097	0.732	0.622	0.796	0.745	0.661	0.188	0.355	0.1	0.077	0.721	0.5	0.778	0.8
0.098	0.727	0.599	0.796	0.74	0.668	0.182	0.356	0.099	0.078	0.714	0.498	0.775	0.8
0.099	0.727	0.57	0.783	0.728	0.675	0.173	0.35	0.097	0.08	0.699	0.494	0.771	0.8
0.1	0.732	0.59	0.776	0.729	0.681	0.179	0.346	0.096	0.081	0.702	0.512	0.767	0.8
0.101	0.736	0.616	0.771	0.728	0.688	0.185	0.346	0.096	0.082	0.709	0.545	0.768	0.8
0.102	0.75	0.639	0.767	0.725	0.694	0.192	0.344	0.095	0.084	0.714	0.57	0.769	0.8
0.103	0.757	0.64	0.759	0.728	0.717	0.192	0.341	0.095	0.087	0.714	0.601	0.783	0.8
0.104	0.752	0.618	0.754	0.727	0.737	0.185	0.339	0.095	0.089	0.707	0.616	0.778	0.8
0.104	0.74	0.596	0.745	0.724	0.756	0.178	0.335	0.094	0.091	0.699	0.625	0.776	0.8
0.105	0.734	0.56	0.736	0.729	0.772	0.167	0.332	0.095	0.093	0.687	0.642	0.779	0.8
0.106	0.729	0.527	0.732	0.74	0.772	0.158	0.331	0.097	0.091	0.676	0.65	0.774	0.8
0.108	0.731	0.553	0.736	0.75	0.772	0.166	0.332	0.098	0.091	0.687	0.677	0.776	0.8
0.109	0.738	0.601	0.738	0.753	0.772	0.179	0.334	0.098	0.092	0.703	0.697	0.779	0.
0.11	0.738	0.635	0.73	0.749	0.772	0.189	0.329	0.098	0.094	0.709	0.677	0.769	0.
0.112	0.722	0.628	0.709	0.749	0.772	0.186	0.319	0.097	0.095	0.698	0.646	0.757	0.

							Netherlands							
gle	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	
017	0.682	0.303	0.457	0.165	0.076	0.765	0.738	0.757	0.909	0.753	0.32	0.483	0.196	
016	0.682	0.303	0.456	0.164	0.076	0.758	0.665	0.756	0.202	0.753	0.293	0.44	0.179	
014	0.682	0.305	0.455	0.164	0.077	0.75	0.578	0.75	0.905	0.753	0.294	0.439	0.179	
015	0.682	0.298	0.437	0.158	0.107	0.739	0.565	0.761	0.904	0.753	0.296	0.438	0.178	
014	0.682	0.3	0.435	0.157	0.109	0.732	0.569	0.769	0.898	0.865	0.298	0.438	0.176	
013	0.682	0.301	0.434	0.156	0.109	0.726	0.61	0.769	0.893	0.901	0.299	0.437	0.174	
012	0.682	0.301	0.433	0.156	0.109	0.718	0.63	0.743	0.892	0.913	0.301	0.437	0.173	
095	0.687	0.304	0.437	0.149	0.11	0.71	0.656	0.739	0.888	0.917	0.302	0.438	0.171	
003	0.674	0.307	0.437	0.145	0.111	0.706	0.666	0.722	0.876	0.913	0.302	0.439	0.17	
007	0.66	0.307	0.439	0.142	0.111	0.703	0.691	0.716	0.859	0.904	0.303	0.439	0.168	
006	0.657	0.311	0.442	0.139	0.108	0.709	0.712	0.708	0.837	0.876	0.303	0.44	0.166	
006	0.654	0.314	0.441	0.136	0.109	0.709	0.725	0.719	0.811	0.795	0.303	0.44	0.165	
092	0.664	0.312	0.441	0.138	0.109	0.71	0.733	0.742	0.816	0.78	0.301	0.442	0.162	
072	0.674	0.304	0.445	0.142	0.109	0.715	0.749	0.747	0.828	0.763	0.301	0.442	0.159	
073	0.667	0.306	0.448	0.136	0.11	0.702	0.728	0.747	0.822	0.744	0.301	0.443	0.156	
082	0.661	0.308	0.45	0.13	0.112	0.693	0.722	0.735	0.818	0.801	0.301	0.443	0.156	
079	0.625	0.308	0.45	0.13	0.112	0.687	0.738	0.697	0.804	0.839	0.3	0.443	0.154	
076	0.585	0.307	0.45	0.13	0.112	0.678	0.768	0.722	0.796	0.865	0.3	0.443	0.154	
059	0.539	0.307	0.45	0.13	0.113	0.675	0.803	0.682	0.788	0.882	0.299	0.443	0.153	
075	0.579	0.307	0.45	0.13	0.113	0.692	0.828	0.676	0.769	0.894	0.299	0.443	0.152	
085	0.615	0.307	0.451	0.129	0.113	0.705	0.852	0.686	0.765	0.889	0.298	0.442	0.152	
078	0.64	0.307	0.452	0.127	0.114	0.723	0.871	0.669	0.755	0.882	0.297	0.441	0.153	
072	0.663	0.307	0.453	0.125	0.115	0.726	0.858	0.645	0.774	0.874	0.296	0.44	0.154	
064	0.684	0.307	0.456	0.123	0.114	0.73	0.826	0.62	0.783	0.864	0.295	0.439	0.154	
057	0.703	0.304	0.46	0.122	0.115	0.738	0.773	0.603	0.873	0.852	0.294	0.438	0.155	
055	0.703	0.303	0.46	0.122	0.115	0.738	0.748	0.574	0.872	0.852	0.293	0.438	0.155	
051	0.703	0.302	0.46	0.122	0.116	0.747	0.771	0.568	0.872	0.852	0.293	0.437	0.155	
.85	0.703	0.302	0.46	0.122	0.117	0.754	0.79	0.547	0.872	0.852	0.292	0.436	0.154	
.85	0.703	0.301	0.459	0.122	0.118	0.744	0.803	0.503	0.872	0.852	0.291	0.436	0.154	
.85	0.703	0.3	0.459	0.121	0.12	0.728	0.784	0.428	0.872	0.852	0.29	0.436	0.154	

		Norway									Spain		
Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scal secu from Pare Pove
0.001	0.781	0.81	0.869	0.842	0.69	0.212	0.368	0.189	0.063	0.831	0.52	0.869	
0.087	0.63	0.811	0.892	0.834	0.684	0.216	0.382	0.179	0.062	0.839	0.45	0.856	
0.088	0.728	0.793	0.889	0.834	0.679	0.215	0.384	0.172	0.062	0.833	0.396	0.856	
0.088	0.728	0.769	0.88	0.827	0.673	0.208	0.388	0.164	0.06	0.821	0.353	0.886	
0.089	0.741	0.79	0.883	0.822	0.667	0.217	0.393	0.157	0.06	0.827	0.28	0.873	
0.089	0.754	0.82	0.882	0.82	0.661	0.229	0.396	0.149	0.059	0.834	0.247	0.872	
0.089	0.75	0.838	0.884	0.823	0.655	0.237	0.401	0.144	0.058	0.84	0.26	0.869	
0.089	0.755	0.835	0.873	0.826	0.688	0.238	0.396	0.143	0.06	0.838	0.283	0.867	
0.089	0.748	0.802	0.86	0.832	0.716	0.231	0.39	0.142	0.063	0.826	0.313	0.854	
0.09	0.749	0.749	0.853	0.837	0.741	0.216	0.387	0.142	0.066	0.81	0.372	0.845	
0.091	0.746	0.74	0.841	0.836	0.763	0.213	0.382	0.141	0.068	0.804	0.401	0.842	
0.092	0.743	0.733	0.849	0.844	0.782	0.211	0.385	0.14	0.071	0.808	0.399	0.831	
0.095	0.755	0.719	0.852	0.843	0.778	0.208	0.386	0.14	0.072	0.806	0.335	0.824	
0.097	0.762	0.718	0.853	0.836	0.775	0.207	0.386	0.138	0.073	0.804	0.205	0.811	
0.099	0.753	0.735	0.856	0.834	0.771	0.211	0.387	0.137	0.074	0.809	0.174	0.803	
0.101	0.751	0.75	0.854	0.838	0.767	0.215	0.386	0.136	0.076	0.813	0.219	0.78	
0.102	0.74	0.752	0.857	0.846	0.768	0.216	0.387	0.137	0.076	0.816	0.242	0.779	
0.104	0.762	0.776	0.827	0.852	0.768	0.222	0.373	0.138	0.077	0.811	0.286	0.783	
0.105	0.755	0.805	0.818	0.861	0.769	0.231	0.368	0.139	0.078	0.816	0.344	0.783	
0.106	0.759	0.807	0.823	0.867	0.77	0.231	0.37	0.14	0.08	0.82	0.431	0.781	
0.108	0.769	0.803	0.839	0.865	0.771	0.23	0.376	0.139	0.081	0.826	0.481	0.778	
0.109	0.765	0.802	0.844	0.863	0.791	0.229	0.377	0.139	0.084	0.829	0.578	0.774	
0.11	0.753	0.78	0.83	0.861	0.809	0.223	0.37	0.139	0.087	0.818	0.55	0.775	
0.111	0.733	0.749	0.829	0.859	0.824	0.214	0.368	0.138	0.09	0.811	0.549	0.744	
0.113	0.723	0.751	0.834	0.857	0.837	0.214	0.37	0.138	0.092	0.814	0.564	0.741	
0.114	0.703	0.747	0.845	0.857	0.837	0.213	0.374	0.138	0.093	0.818	0.618	0.737	
0.116	0.708	0.781	0.854	0.861	0.837	0.226	0.375	0.138	0.093	0.832	0.637	0.739	
0.117	0.704	0.809	0.85	0.863	0.837	0.235	0.373	0.138	0.093	0.839	0.644	0.739	
0.119	0.689	0.807	0.849	0.865	0.837	0.234	0.372	0.138	0.094	0.838	0.553	0.721	
0.12	0.65	0.789	0.841	0.865	0.837	0.229	0.368	0.138	0.094	0.829	0.355	0.7	

							Sweden						
ed rity single nt erty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from sing Parent Poverty
0.904	0.497	0.262	0.437	0.207	0.094	0.75	0.796	0.914	0.885	0.891	0.225	0.413	0.1
0.904	0.529	0.265	0.437	0.203	0.094	0.727	0.78	0.906	0.874	0.899	0.222	0.41	0.1
0.903	0.559	0.267	0.438	0.2	0.095	0.715	0.761	0.9	0.879	0.889	0.217	0.408	0.1
0.902	0.586	0.27	0.439	0.196	0.095	0.717	0.754	0.898	0.884	0.873	0.216	0.407	0.1
0.901	0.612	0.272	0.44	0.193	0.096	0.692	0.766	0.898	0.89	0.849	0.22	0.407	0.
0.901	0.635	0.275	0.44	0.189	0.096	0.683	0.778	0.891	0.895	0.811	0.224	0.406	0.
0.9	0.657	0.277	0.442	0.186	0.096	0.686	0.785	0.892	0.899	0.754	0.227	0.408	0.
0.899	0.677	0.279	0.442	0.183	0.096	0.692	0.805	0.888	0.903	0.666	0.232	0.407	0.
0.898	0.695	0.282	0.442	0.179	0.096	0.694	0.817	0.882	0.907	0.713	0.236	0.403	0.1
0.897	0.712	0.285	0.443	0.176	0.096	0.707	0.824	0.882	0.908	0.752	0.237	0.402	0.1
0.896	0.728	0.287	0.444	0.173	0.096	0.714	0.819	0.887	0.91	0.784	0.235	0.404	0.1
0.893	0.731	0.29	0.446	0.167	0.097	0.706	0.776	0.881	0.912	0.809	0.222	0.4	0.1
0.885	0.734	0.292	0.448	0.162	0.097	0.682	0.699	0.876	0.912	0.83	0.199	0.397	0.1
0.875	0.737	0.295	0.45	0.157	0.098	0.635	0.59	0.874	0.908	0.836	0.167	0.396	0.1
0.865	0.74	0.297	0.452	0.153	0.098	0.619	0.579	0.879	0.903	0.842	0.164	0.398	0.1
0.856	0.743	0.3	0.454	0.148	0.099	0.619	0.594	0.878	0.896	0.848	0.168	0.397	0.
0.862	0.714	0.301	0.455	0.144	0.099	0.623	0.571	0.877	0.895	0.84	0.162	0.396	0.
0.863	0.679	0.303	0.457	0.141	0.1	0.633	0.565	0.87	0.893	0.831	0.16	0.393	0.1
0.865	0.638	0.304	0.458	0.138	0.1	0.646	0.613	0.869	0.89	0.821	0.173	0.391	0.1
0.868	0.59	0.305	0.46	0.134	0.101	0.667	0.648	0.866	0.886	0.81	0.183	0.389	0.1
0.87	0.535	0.306	0.461	0.131	0.101	0.675	0.685	0.859	0.881	0.797	0.194	0.385	0.1
0.868	0.521	0.306	0.461	0.132	0.101	0.701	0.708	0.822	0.884	0.806	0.201	0.368	0.1
0.861	0.508	0.304	0.462	0.132	0.102	0.691	0.705	0.817	0.884	0.814	0.2	0.365	0.1
0.853	0.493	0.301	0.463	0.133	0.103	0.674	0.687	0.823	0.886	0.822	0.195	0.368	0.1
0.841	0.479	0.307	0.456	0.132	0.105	0.673	0.663	0.818	0.889	0.829	0.189	0.365	0.1
0.806	0.479	0.307	0.455	0.131	0.106	0.682	0.628	0.817	0.891	0.835	0.179	0.365	0.1
0.718	0.479	0.307	0.454	0.131	0.108	0.677	0.66	0.82	0.89	0.835	0.189	0.365	0.1
0.724	0.479	0.307	0.454	0.131	0.109	0.68	0.698	0.825	0.89	0.835	0.2	0.368	0.1
0.752	0.479	0.306	0.453	0.131	0.11	0.647	0.696	0.818	0.889	0.835	0.2	0.365	0.1
0.752	0.479	0.305	0.453	0.131	0.111	0.577	0.635	0.797	0.889	0.835	0.184	0.354	0.1

			United Kingdom									United States		
ıle	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security	Scaled security from Unemploy-ment	Scaled security from illness	S s fı F F
44	0.091	0.873	0.69	0.917	0.837	0.707	0.189	0.401	0.158	0.07	0.819	0.62	0.521	
42	0.091	0.864	0.591	0.911	0.837	0.729	0.163	0.399	0.157	0.072	0.791	0.609	0.506	
41	0.09	0.856	0.545	0.906	0.836	0.749	0.151	0.398	0.155	0.074	0.778	0.547	0.467	
41	0.088	0.852	0.517	0.903	0.835	0.766	0.144	0.397	0.153	0.075	0.77	0.549	0.451	
14	0.085	0.854	0.501	0.9	0.837	0.782	0.14	0.397	0.152	0.076	0.766	0.611	0.455	
14	0.081	0.851	0.516	0.895	0.828	0.796	0.145	0.396	0.149	0.077	0.767	0.622	0.438	
14	0.075	0.849	0.529	0.892	0.832	0.809	0.149	0.396	0.148	0.077	0.771	0.624	0.431	
14	0.066	0.844	0.524	0.886	0.82	0.779	0.149	0.395	0.144	0.074	0.762	0.643	0.423	
41	0.071	0.85	0.583	0.886	0.802	0.742	0.166	0.397	0.138	0.07	0.771	0.663	0.396	
42	0.075	0.857	0.628	0.882	0.783	0.694	0.18	0.396	0.132	0.066	0.775	0.67	0.369	
42	0.079	0.861	0.64	0.882	0.759	0.634	0.184	0.398	0.126	0.061	0.768	0.66	0.332	
43	0.083	0.849	0.594	0.875	0.726	0.557	0.17	0.396	0.119	0.054	0.739	0.624	0.317	
44	0.086	0.826	0.557	0.875	0.777	0.57	0.159	0.396	0.126	0.056	0.738	0.605	0.306	
43	0.088	0.795	0.539	0.878	0.815	0.583	0.154	0.398	0.132	0.058	0.742	0.623	0.3	
42	0.09	0.794	0.56	0.87	0.848	0.595	0.159	0.394	0.136	0.06	0.75	0.647	0.326	
14	0.091	0.797	0.588	0.87	0.762	0.723	0.164	0.388	0.132	0.073	0.757	0.662	0.331	
14	0.092	0.789	0.603	0.864	0.762	0.691	0.169	0.387	0.129	0.07	0.756	0.67	0.336	
39	0.092	0.783	0.636	0.852	0.775	0.654	0.179	0.383	0.128	0.067	0.758	0.687	0.343	
38	0.091	0.794	0.661	0.854	0.777	0.611	0.187	0.385	0.126	0.063	0.762	0.699	0.338	
37	0.091	0.801	0.663	0.85	0.779	0.56	0.188	0.385	0.123	0.059	0.755	0.707	0.331	
36	0.091	0.806	0.673	0.84	0.79	0.576	0.191	0.38	0.125	0.061	0.757	0.714	0.304	
36	0.092	0.797	0.69	0.842	0.795	0.59	0.196	0.38	0.125	0.063	0.765	0.692	0.281	
35	0.094	0.795	0.68	0.837	0.798	0.604	0.194	0.378	0.125	0.065	0.761	0.661	0.236	
35	0.095	0.794	0.686	0.835	0.8	0.618	0.195	0.377	0.125	0.067	0.764	0.656	0.205	
35	0.097	0.786	0.692	0.841	0.806	0.631	0.197	0.379	0.126	0.068	0.77	0.669	0.209	
35	0.098	0.777	0.691	0.84	0.816	0.631	0.196	0.378	0.127	0.069	0.771	0.681	0.208	
35	0.098	0.787	0.672	0.835	0.82	0.631	0.191	0.376	0.128	0.07	0.764	0.695	0.218	
35	0.097	0.8	0.68	0.835	0.825	0.631	0.193	0.375	0.128	0.07	0.766	0.695	0.194	
35	0.097	0.796	0.679	0.831	0.825	0.631	0.196	0.371	0.127	0.07	0.764	0.661	0.142	
34	0.096	0.768	0.607	0.816	0.825	0.631	0.174	0.364	0.127	0.071	0.737	0.558	0.083	

Scaled security from single Parent Poverty	Scaled security from Old Age Poverty	Weighted scaled security from Unemploy-ment	Weighted Scaled security from illness	Weighted Scaled security from single Parent Poverty	Weighted Scaled security from Old Age Poverty	Average Weighted Index of Economic Security
0.2	0.199	0.172	0.23	0.039	0.017	0.458
0.164	0.219	0.17	0.224	0.032	0.019	0.444
0.169	0.239	0.153	0.207	0.032	0.02	0.413
0.155	0.258	0.154	0.201	0.029	0.022	0.406
0.123	0.276	0.173	0.203	0.023	0.023	0.421
0.085	0.294	0.176	0.196	0.016	0.025	0.412
0.083	0.312	0.177	0.193	0.016	0.026	0.411
0.099	0.321	0.183	0.189	0.018	0.027	0.417
0.108	0.329	0.189	0.177	0.02	0.027	0.414
0.134	0.338	0.191	0.165	0.025	0.028	0.409
0.157	0.347	0.189	0.149	0.029	0.028	0.395
0.171	0.355	0.178	0.142	0.031	0.029	0.381
0.182	0.364	0.172	0.137	0.033	0.03	0.373
0.226	0.373	0.176	0.135	0.042	0.031	0.384
0.25	0.381	0.182	0.146	0.047	0.033	0.407
0.274	0.384	0.185	0.148	0.051	0.033	0.418
0.298	0.387	0.187	0.15	0.056	0.034	0.427
0.303	0.39	0.192	0.153	0.056	0.035	0.436
0.347	0.347	0.195	0.151	0.063	0.032	0.441
0.368	0.301	0.198	0.148	0.066	0.028	0.44
0.389	0.251	0.201	0.135	0.068	0.024	0.429
0.375	0.255	0.195	0.124	0.066	0.025	0.411
0.362	0.258	0.186	0.104	0.063	0.026	0.38
0.348	0.262	0.186	0.09	0.06	0.027	0.363
0.333	0.266	0.189	0.092	0.058	0.028	0.366
0.333	0.266	0.193	0.091	0.057	0.028	0.37
0.333	0.266	0.196	0.095	0.057	0.029	0.378
0.333	0.266	0.196	0.085	0.057	0.029	0.368
0.333	0.266	0.186	0.062	0.057	0.029	0.335
0.333	0.266	0.157	0.036	0.057	0.03	0.28

Appendix 3: MoH coefficients													
	bold is significant at 5%	inflation	se inflation	unemployment	se unemployment	GDP growth	se GDP growth	GDP per capita	se GDP per capita	equality	se equality	security	se security
Preferences over Inflation and Unemployment (Di Tella)		**1**		**1.7**									
	Table 1 EU (no time trend)	**-1.2**	**0.3**	**-2.8**	**0.6**								
	Table 1 EU (time trend)	**-1.4**	**0.4**	**-2**	**0.6**								
	Table 1 EU (pre 84)	-0.5	0.7	-0.4	1.6								
	Table 1 EU (post 83)	**-2**	**1.1**	**-2**	**0.8**								
The Macroeconomics of Happiness (Di Tella, MacCulloch, Oswald)	Table 6 EU (GDP per capita)			**-0.502**	**0.02**			**1.094**	**0.335**				
	Table 6 EU (change in GDP per capita)			**-0.503**	**0.02**	0.953	0.719						
	Table 6 EU (lagged change in GDP per capita)			**-0.504**	**0.02**	**1.761**	**0.78**						
	Table 8 EU (no country specific time)	**-0.994**	**0.464**	**-1.909**	**0.664**			**1.408**	**0.361**				
	Table 8 EU (no country specific time)	-0.78	0.47	**-2.703**	**2.694**	0.775	0.725						
	Table 8 EU (with country specific time)	-1.042	0.585	1.291	0.823			**1.132**	**0.552**				
	Table 8 EU (with country specific time)	-0.845	0.6	**-1.954**	**0.673**	**1.184**	**0.583**						
	Table 9 EU (no country specific time)	**-0.718**	**0.313**	**-1.659**	**0.726**			**1.275**	**0.361**				
	Table 9 EU (no country specific time)	-0.55	0.322	**-2.426**	**0.709**	**1.608 (-1)**	**0.713**						
	Table 9 EU (with country specific time)	-0.464 (-1)	0.36	-1.188(-1)	0.637	**1.771(-1)**	**0.549**						
	Table 10 EU (employed)	**-1.388**	**0.508**	**-1.66**	**0.747**			**1.418**	**0.439**				
	Table 10 EU (unemployed)	**-1.602**	**0.809**	**-3.046**	**1.096**			1.053	0.6143				
	Table 10 EU (The gap)	0.422	0.836	1.778	1.256			0.208	0.714				
	Table 10 EU (employed)	**-1.117**	**0.506**	**-2.486**	**0.778**	1.028	0.853						
	Table 10 EU (unemployed)	-1.551	0.857	**-3.573**	**1.033**	0.991	1.11						
	Table 10 EU (The gap)	0.634	0.871	1.573	1.177	0.084	1.249						
	Table 11 EU (employed)	**-1.54**	**0.642**	-0.858	0.969			**1.394**	**0.642**				
	Table 11 EU (unemployed)	-1.498	0.845	-2.233	1.248			**2.473**	**0.911**				
	Table 11 EU (the gap)	0.162	0.718	1.683	1.415			-0.133	0.999				
	Table 11 EU (employed)	**-1.295**	**0.658**	**-1.709**	**0.785**	**1.463**	**0.708**						
	Table 11 EU (unemployed)	-1.096	0.88	**-4.093**	**1.058**	1.592	1.061						
	Table 11 EU (the gap)	-0.035	0.746	**2.88**	**1.21**	-0.294	1.213						
Inequality and Happiness: Are Europeans and Americans Different? (Alesina, Di Tella)	Table 3.1 US (with inequality and output and unemployment)	-0.046	0.688	**-0.693**	**0.076**					**-2.262**	**0.992**		
	Table 3.2 US (left)	0.364	1.084	**-4.402**	**1.498**					**-3.081**	**1.488**		
	Table 3.2 US(right)	0.41	1.109	-3.115	2.306					-0.221	1.753		
	Table 3.3 US (poor)	-0.355	0.915	**-5.266**	**1.27**					-0.169	1.201		
	Table 3.3 US (rich)	0.243	0.931	-2.624	1.821					**-4.302**	**1.344**		
	Table 3.4 US(all with year fixed effects)			**-2.701**	**1.429**					-0.238	2.215		
	Table 3.4 US (left with year fixed effects)			**-2.975**	**1.392**					-0.343	3.211		
	Table 3.4 US (right with year fixed effects)			-3.589	2.759					-1.484	3.46		
	Table 3.4 US (poor with year fixed effects)			**-4.135**	**1.746**					4.521	4.269		
	Table 3.4 US (rich with year fixed effects)			-1.632	1.664					-5.424	4.261		
	Table 4.1 EU	**-3.12**	**1.492**	-0.969	1.902					**-3.367**	**1.46**		
	Table 4.2 EU (left)	-2.202	1.92	0.781	2.27					**-6.142**	**1.149**		
	Table 4.2 EU (right)	**-2.931**	**1.516**	1.316	2.788					-1.088	1.492		
	Table 4.3 EU (poor)	**-2.99**	**1.279**	-2.242	1.589					**-4.667**	**1.392**		
	Table 4.3 EU (rich)	-2.949	1.77	0.332	2.449					-1.602	1.586		
Is Business Cycle Volatility Costly (Wolfers)	Table 1 EU	**-0.626**	**0.23**	**-2.305**	**0.331**								
	Table 4 EU (volatility: over time)	-0.623	0.343	**-3.109**	**0.507**								
Partisan Social Happiness (Di Tella and MacCulloch)	Table A5 10 OECD (Left)	-1.636	1.35	**-6.668**	**2.535**								

	Table A5 10 OECD (Right)	-6.09	1.118	-4.963	2.328								
	Table A6 (All)	-1.43	1.328	-8.894	3.492								
	Table A7 (All)	-2.064	1.482	-4.996	2.581								
	Table A7 (All)	-1.997	1.6	-4.955	2.581								
	Table A11 (All)	-4.086	1.106	-5.991	1.775								
Income inequality and its consequences for life satisfaction (Schneider)	Table 6 Germany			-0.75	0.00128865979					-0.06	0.02489626556		
Inflation and unemployment on subjective personal and country evaluations (Gandelman and Hernandez-Murillo)	Table 5 world, gallup poll (current life satisfaction)	-0.06536	0.03127272727	-0.05961	0.01157475728								
	Table 5 world, gallup poll (current country situation)	-0.05685	0.01851791530	-0.06799	0.01789210526								
	Table 6 world, gallup poll (current life satisfaction)	-0.06799	0.03162325581	-0.05045	0.01501488095								
	Table 6 world, gallup poll (current country situation)	-0.0602	0.03025125628	-0.05465	0.01815614617								
Does a rising tide lift all the boats: explaining the national inequality of happiness (Ovaska, Rakashima)	Table 2 world, world happiness database			0.001	0.00181818181					0.004	0.00140350877		
				0.003	0.00309278350					0.004	0.00176211453		
				0.003	0.00258620689					0.004	0.00162601626		
Is it culture or democracy (dorn, fischer, kirchgassner)	table 3 28 countries from ISSP (models with the polity IV index)	0.011	0.01692307692	0.009	0.01058823529	0.026	0.03333333333						
	table 3 28 countries from ISSP (models with the freedom house index)	0.01	0.02127659574	0.011	0.01325301204	0.024	0.03478260869						
The magic triangle of macroeconomics (Welsch)	Table 3 EU	-0.008	0.00224719101	-0.018	0.00335820895	0.005	0.00102669404						
	Table 3 EU	-0.023	0.00303830911	-0.024	0.00382775119	0.005	0.00123762376						
	Table 4 EU (w/country dummies)	-0.008	0.00224719101	-0.018	0.00335820895	0.005	0.00102669404						
	Table 4 EU (w/country dummies, per capita income)	-0.014	0.00253164556	-0.026	0.00361613351	0.004	0.00090497737	-0.011	0.00162721893				
	Table 4 EU (w/country dummies, corruption)	-0.009	0.00270270270	-0.019	-0.00415754923	0.005	0.00112359550						
	Table 4 EU (w/country dummies, civil liberties)	-0.01	-0.00266666666	-0.018	0.00355731225	0.005	0.00101214574						
	Table 4 EU (w/country dummies, chruch attendance)	-0.02	0.00280112044	-0.026	0.00359116022	0.004	0.00112994350						
	Table 4 EU (w/country dummies, all)	-0.02	-0.00308166409	-0.027	0.00421875	0.004	0.00115942028	-0.006	-0.00196078431				
	Table 4 EU (w/country and year dummies)	-0.023	0.00303830911	-0.024	0.00382775119	0.004	0.00099009900						
	Table 4 EU (w/country and year dummies, and per capita income)	-0.021	0.00342577487	-0.025	0.00425170068	0.004	0.001	-0.003	-0.00416666666				
	Table 4 EU (w/country and year dummies, and corruption)	-0.025	0.00330687830	-0.028	0.00448	0.003	0.00095846645						
	Table 4 EU (w/country and year dummies, and civil liberties)	-0.024	0.00321715817	-0.023	0.00373983739	0.004	0.00098039215						
	Table 4 EU (w/country and year dummies, and church attendance)	-0.023	0.00302631578	-0.024	0.00380952380	0.004	0.00104712041						
	Table 4 EU (w/country and year dummies, all)	-0.022	0.00446247464	-0.027	0.00461538461	0.004	0.00120481927	-0.004	-0.00425531914				
happiness, contentment and other emotions for central banks (Di Tella, Oswald)	Table 1 OECD (no country time trend)	-1.2	0.3	-1.6	0.4								
	Table 1 OECD (w/country time trend)	-1.9	0.5	-2.3	0.6								
	Table 1 OECD (w/ GDP per capita)	-1.9	0.4	-1.2	0.4			0.09	0.02				
	Table 1 OECD (w/ GDP per capita and hours)	-2	0.4	-1.1	0.4			0.7	0.04				
	Table 3 OECD	-2.1	0.8	-2	0.4								
	Table 3 OECD	-1	0.4	-3.2	1.5								
is unemployment more costly than inflation? (blanchflower)	Table 3 EU (with GDP per capita)	-0.0062	0.00183431952	-0.0118	0.00257080610			0.223	0.20648148148				
	Table 3 OECD (with GDP per capita, lagged life satisfaction)	-0.0031	0.00130801687	-0.0046	0.00174904942			0.0675	0.13235294117				
	Table 3 OECD (only unemployment and inflation)	-0.0057	0.00177018633	-0.0124	0.00246520874								
	Table 4 OECD	-0.0029	0.00125	-0.0046	0.00166064981								
	Table 4 OECD (with nominal interest rate)	-0.0007	0.00162790697	-0.0043	0.00172690763								
	Table 4 OECD (with real interest rate)	-0.0049	0.00155063291	-0.0044	0.00176706827								
	Table 4 OECD (with real interest rate and GDP per capita)	-0.005	0.00157232704	-0.004	0.00199004975			0.0859	0.19976744186				
	Table 4 OECD (with real interest rate, no lagged life satisfaction)	-0.01	0.00222717149	-0.0122	0.00254166666								
	Table 5 EU (w/ GDP per capita)	-0.0241	0.00516059957	-0.0234	0.00535469107			0.0886	0.04520408163				

	Table 5 EU (w/ GDP per capita and real interest rate)	-0.0287	0.00556201550	-0.0233	0.00640109890			0.0657	0.07821428571				
	Table 5 EU (with country trends)	-0.0115	0.00271867612	-0.015	0.00308008213								
	Table 5 EU (without country trends)	-0.009	0.00176817288	-0.011	0.00187713310								
	Table 6 EU (richest)	-0.0404	0.00742647058	-0.0179	0.00568253968			0	0				
	Table 6 EU (poorest)	-0.0382	0.00920481927	-0.0522	0.01338461538			0.0002	0.00005277044				
	Table 6 EU (East Europe)	-0.0365	0.00955497382	-0.0293	0.00751282051			0.0017	0.00125				
	Table 6 EU (South Europe)	-0.0139	0.00914473684	-0.0263	0.01223255813			0.0002	0.00003067484				
	Table 6 EU (North Europe)	-0.0298	0.01536082474	-0.0032	0.02			0	0				
Simultaneity bias in the analysis of perceived job insecurity	somewhat concerned, IFE			-0.0145	0.003							-0.112	0.01
	very concerned, IFE			-0.0145	0.003							-0.251	0.019
	somewhat concerned, IIFE			0.0124	0.003							-0.3015	0.032
	very concerned, IIFE			0.0124	0.003							-0.5468	0.019

Appendix 4: core/base weights

				inflation			unemployment			GDP growth			GDP per capita			equality			security	(sum of normalized coeffiseicnts)
	arithmetic mean of normalized coefficients			0.882			1.000			0.461			0.854			1.032			0.573	
	core weights			0.276			0.313			0.144			0.267							3.197
	base weights			0.184			0.208			0.096			0.178			0.215			0.119	4.802

	bold is significant at 5%	Inflation	se inflation	normalized inflation	Unemployment	se unemployment	normalized unemployment	GDP growth	se GDP growth	normalized GDP growth	GDP per capita	se GDP per capita	normalized GDP per capita	Equality	se equality	normalized equality	security	se security	normalized security	
Preferences over Inflation and Unemployment (Di Tella)		1.000		0.588	1.700		1.000													
	Table 1 EU (no time trend)	-1.200	0.300	0.429	-2.800	0.600	1.000													
	Table 1 EU (time trend)	-1.400	0.400	0.700	-2.000	0.600	1.000													
	Table 1 EU (post 83)	-2.000	1.100	1.000	-2.000	0.800	1.000													
The Macroeconomics of Happiness (Di Tella, MacCulloch, Oswald)	Table 6 EU (GDP per capita)				-0.502	0.020	1.000				1.094	0.335	-2.179							
	Table 6 EU (lagged change in GDP per capita)				-0.504	0.020	1.000	1.761	0.780	-3.494										
	Table 8 EU (no country specific time)	-0.994	0.464	0.521	-1.909	0.664	1.000				1.408	0.361	-0.738							
	Table 8 EU (with country specific time)	-0.845	0.600	0.432	-1.954	0.673	1.000	1.184	0.583	-0.606										
	Table 9 EU (no country specific time)	-0.718	0.313	0.433	-1.659	0.726	1.000				1.275	0.361	-0.769							
	Table 9 EU (no country specific time)	-0.550	0.322	0.227	-2.426	0.709	1.000	1.608	0.713	-0.663										
	Table 10 EU (employed)	-1.388	0.508	0.836	-1.660	0.747	1.000				1.418	0.439	-0.854							
	Table 10 EU (unemployed)	-1.602	0.809	0.526	-3.046	1.096	1.000				1.053	0.614	-0.346							
	Table 10 EU (employed)	-1.117	0.506	0.449	-2.486	0.778	1.000	1.028	0.853	-0.414										
	Table 11 EU (employed)	-1.540	0.642	1.795	-0.858	0.969	1.000				1.394	0.642	-1.625							
	Table 11 EU (employed)	-1.295	0.658	0.758	-1.709	0.785	1.000	1.463	0.708	-0.856										
Inequality and Happiness: Are Europeans and Americans Different? (Alesina, Di Tella)	Table 3.1 US (with inequality and output and unemployment)	-0.046	0.688	0.010	-4.626	1.329	1.000							-2.262	0.992	0.489				
	Table 3.2 US (left)	0.364	1.084	-0.083	-4.402	1.498	1.000							-3.081	1.488	0.700				
	Table 4.1 EU	-3.120	1.492	1.678	-1.859	1.978	1.000							-3.367	1.460	1.811				
	Table 4.3 EU (poor)	-2.990	1.279	1.334	-2.242	1.589	1.000							-4.667	1.392	2.082				
Is Business Cycle Volatility Costly (Wolfers)	Table 1 EU	-0.626	0.230	0.272	-2.305	0.331	1.000													
Partisan Social Happiness (Di Tella and MacCulloch)	Table A5 10 OECD (Right)	-6.090	1.118	1.004	-6.068	2.402	1.000													
	Table A11 (All)	-4.086	1.106	0.579	-7.052	1.827	1.000													
Income inequality and its consequences for life satisfaction (Schneider)	Table 6 Germany				-0.750	0.001	1.000							-0.060	0.025	0.080				
Inflation and unemployment on subjective personal and country evaluations (Gandelman and Hernandez-Murillo)	Table 5 world, gallup poll (current life satisfaction)	-0.065	0.031	1.096	-0.060	0.012	1.000													
	Table 5 world, gallup poll (current country situation)	-0.057	0.019	0.836	-0.068	0.018	1.000													
	Table 6 world, gallup poll (current life satisfaction)	-0.068	0.032	1.348	-0.050	0.015	1.000													
	Table 6 world, gallup poll (current country situation)	-0.060	0.030	1.102	-0.055	0.018	1.000													
The magic triangle of macroeconomics (Welsch)	Table 3 EU	-0.008	0.002	0.444	-0.018	0.003	1.000	0.005	0.001	-0.278										
	Table 3 EU	-0.023	0.003	0.958	-0.024	0.004	1.000	0.005	0.001	-0.208										
	Table 4 EU (w/country dummies)	-0.008	0.002	0.444	-0.018	0.003	1.000	0.005	0.001	-0.278										
	Table 4 EU (w/country dummies, per capita income)	-0.014	0.003	0.538	-0.026	0.004	1.000	0.004	0.001	-0.154	-0.011	0.002	0.423							
	Table 4 EU (w/country dummies, corruption)	-0.009	0.003	0.474	-0.019	-0.004	1.000	0.005	0.001	-0.263										
	Table 4 EU (w/country dummies, civil liberties)	-0.010	-0.003	0.556	-0.018	0.004	1.000	0.005	0.001	-0.278										
	Table 4 EU (w/country dummies, chruch attendance)	-0.020	0.003	0.769	-0.026	0.004	1.000	0.004	0.001	-0.154										
	Table 4 EU (w/country dummies, all)	-0.020	-0.003	0.741	-0.027	0.004	1.000	0.004	0.001	-0.148	-0.006	-0.002	0.222							
	Table 4 EU (w/country and year dummies)	-0.023	0.003	0.958	-0.024	0.004	1.000	0.004	0.001	-0.167										
	Table 4 EU (w/country and year dummies, and per capita income)	-0.021	0.003	0.840	-0.025	0.004	1.000	0.004	0.001	-0.160	-0.003	-0.004	0.120							
	Table 4 EU (w/country and year dummies, and corruption)	-0.025	0.003	0.893	-0.028	0.004	1.000	0.003	0.001	-0.107										
	Table 4 EU (w/country and year dummies, and civil liberties)	-0.024	0.003	1.043	-0.023	0.004	1.000	0.004	0.001	-0.174										
	Table 4 EU (w/country and year dummies, and church attendance)	-0.023	0.003	0.958	-0.024	0.004	1.000	0.004	0.001	-0.167										
	Table 4 EU (w/country and year dummies, all)	-0.022	0.004	0.815	-0.027	0.005	1.000	0.004	0.001	-0.148	-0.004	-0.004	0.148							
happiness, contentment and other emotions for central banks (Di Tella, Oswald)	Table 1 OECD (no country time trend)	-1.200	0.300	0.750	-1.600	0.400	1.000													
	Table 1 OECD (w/country time trend)	-1.900	0.500	0.826	-2.300	0.600	1.000													
	Table 1 OECD (w/ GDP per capita)	-1.900	0.400	1.583	-1.200	0.400	1.000				0.090	0.020	-0.075							
	Table 1 OECD (w/ GDP per capita and hours)	-2.000	0.400	1.818	-1.100	0.400	1.000				0.700	0.040	-0.636							
	Table 3 OECD	-2.100	0.800	1.050	-2.000	0.400	1.000													
	Table 3 OECD	-1.000	0.400	0.313	-3.200	1.500	1.000													
is unemployment more costly than inflation? (blanchflower)	Table 3 EU (with GDP per capita)	-0.006	0.002	0.525	-0.012	0.003	1.000				0.223	0.206	-18.898							
	Table 3 OECD (with GDP per capita, lagged life satisfaction)	-0.003	0.001	0.674	-0.005	0.002	1.000				0.068	0.132	-14.674							
	Table 3 OECD (only unemployment and inflation)	-0.006	0.002	0.460	-0.012	0.002	1.000													
	Table 4 OECD	-0.003	0.001	0.630	-0.005	0.002	1.000													
	Table 4 OECD (with real interest rate)	-0.005	0.002	1.114	-0.004	0.002	1.000													
	Table 4 OECD (with real interest rate and GDP per capita)	-0.005	0.002	1.250	-0.004	0.002	1.000				0.086	0.200	-21.475							
	Table 4 OECD (with real interest rate, no lagged life satisfaction)	-0.010	0.002	0.820	-0.012	0.003	1.000													
	Table 5 EU (w/ GDP per capita)	-0.024	0.005	1.030	-0.023	0.005	1.000				0.089	0.045	-3.786							
	Table 5 EU (w/ GDP per capita and real interest rate)	-0.029	0.006	1.232	-0.023	0.006	1.000				0.066	0.078	-2.820							
	Table 5 EU (with country trends)	-0.012	0.003	0.767	-0.015	0.003	1.000													
	Table 5 EU (without country trends)	-0.009	0.002	0.818	-0.011	0.002	1.000													
	Table 6 EU (richest)	-0.040	0.007	2.257	-0.018	0.006	1.000				0.000	0.000	0.000							
	Table 6 EU (poorest)	-0.038	0.009	0.732	-0.052	0.013	1.000				0.000	0.000	-0.004							

	Table 6 EU (East Europe)	-0.037	0.010	1.246	-0.029	0.008	1.000				0.002	0.001	-0.058							
	Table 6 EU (South Europe)	-0.014	0.009	0.529	-0.026	0.012	1.000				0.000	0.000	-0.008							
Simultaneity bias in the analysis of perceived job insecurity	somewhat concerned, IFE				-0.427	0.014	1.000										-0.112	0.010	0.262	
	very concerned, IFE				-0.427	0.014	1.000										-0.251	0.019	0.588	
	somewhat concerned, IIFE				-0.588	0.020	1.000										-0.302	0.032	0.513	
	very concerned, IIFE				-0.588	0.020	1.000										-0.547	0.019	0.930	

Appendix 4: +2se weights																										
					inflation				unemployment				GDP growth				GDP per capita				equality				security	(sum of normalized coefficients)
	arithmetic mean of normalized coefficients +2se				0.826				1.000				0.165				0.646				0.399				0.531	
	+2se weights				0.231				0.280				0.046				0.181				0.112				0.149	3.568
	bold is significant at 5%	Inflation	se inflation	inflation +2se	normalized inflation +2se	Unemployment	se unemployment	unemployment +2se	normalized unemployment +2se	GDP growth	se GDP growth	GDP growth -2 se	normalized GDP growth -2 se	GDP per capita	se GDP per capita	GDP per capita -2se	normalized GDP per capita -2se	equality	se equality	equality +2se	normalized equality	security	se security	security +2se	normalized security +2se	
Preferences over Inflation and Unemployment (Di Tella)		1.000				1.700			1.000																	
	Table 1 EU (no time trend)	-1.200	0.300	-0.600	0.375	-2.800	0.600	-1.600	1.000																	
	Table 1 EU (time trend)	-1.400	0.400	-0.600	0.750	-2.000	0.600	-0.800	1.000																	
	Table 1 EU (post 83)	-2.000	1.100	0.200	-0.500	-2.000	0.800	-0.400	1.000																	
The Macroeconomics of Happiness (Di Tella, MacCulloch, Oswald)	Table 6 EU (GDP per capita)					-0.502	0.020	-0.462	1.000					1.094	0.335	0.424	-0.918									
	Table 6 EU (lagged change in GDP per capita)					-0.504	0.020	-0.464	1.000	1.761	0.780	0.201	-0.433													
	Table 8 EU (no country specific time)	-0.994	0.464	-0.066	0.114	-1.909	0.664	-0.581	1.000					1.408	0.361	0.686	-1.181									
	Table 8 EU (with country specific time)	-0.845	0.600	0.355	-0.584	-1.954	0.673	-0.608	1.000	1.184	0.583	0.018	-0.030													
	Table 9 EU (no country specific time)	-0.718	0.313	-0.092	0.444	-1.659	0.726	-0.207	1.000					1.275	0.361	0.553	-2.671									
	Table 9 EU (no country specific time)	-0.550	0.322	0.094	-0.093	-2.426	0.709	-1.008	1.000	1.608	0.713	0.182	-0.181													
	Table 10 EU (employed)	-1.388	0.508	-0.372	2.241	-1.660	0.747	-0.166	1.000					1.418	0.439	0.540	-3.253									
	Table 10 EU (unemployed)	-1.602	0.809	0.016	-0.019	-3.046	1.096	-0.854	1.000					1.053	0.614	-0.176	0.206									
	Table 10 EU (employed)	-1.117	0.506	-0.105	0.113	-2.486	0.778	-0.930	1.000	1.028	0.853	-0.678	0.729													
	Table 11 EU (employed)	-1.540	0.642	-0.256	-0.237	-0.858	0.969	1.080	1.000					1.394	0.642	0.110	0.102									
	Table 11 EU (employed)	-1.295	0.658	0.021	-0.151	-1.709	0.785	-0.139	1.000	1.463	0.708	0.047	-0.338													
Inequality and Happiness: Are Europeans and Americans Different? (Alesina, Di Tella)	Table 3.1 US (with inequality and output and unemployment)	-0.046	0.688	1.330	-0.676	-4.626	1.329	-1.968	1.000									-2.262	0.992	-0.278	0.141					
	Table 3.2 US (left)	0.364	1.084	2.532	-1.801	-4.402	1.498	-1.406	1.000									-3.081	1.488	-0.105	0.075					
	Table 4.1 EU	-3.120	1.492	-0.136	-0.065	-1.859	1.978	2.097	1.000									-3.367	1.460	-0.447	-0.213					
	Table 4.3 EU (poor)	-2.990	1.279	-0.432	-0.462	-2.242	1.589	0.936	1.000									-4.667	1.392	-1.883	-2.012					
Is Business Cycle Volatility Costly (Wolfers)	Table 1 EU	-0.626	0.230	-0.166	0.101	-2.305	0.331	-1.643	1.000																	
Partisan Social Happiness (Di Tella and MacCulloch)	Table A5 10 OECD (Right)	-6.090	1.118	-3.854	3.049	-6.068	2.402	-1.264	1.000																	
	Table A11 (All)	-4.086	1.106	-1.874	0.552	-7.052	1.827	-3.398	1.000																	
Income inequality and its consequences for life satisfaction (Schneider)	Table 6 Germany					-0.750	0.001	-0.747	1.000									-0.060	0.025	-0.010	0.014					
Inflation and unemployment on subjective personal and country evaluations (Gandelman and Hernandez-Murillo)	Table 5 world, gallup poll (current life satisfaction)	-0.065	0.031	-0.003	0.077	-0.060	0.012	-0.036	1.000																	
	Table 5 world, gallup poll (current country situation)	-0.057	0.019	-0.020	0.615	-0.068	0.018	-0.032	1.000																	
	Table 6 world, gallup poll (current life satisfaction)	-0.068	0.032	-0.005	0.232	-0.050	0.015	-0.020	1.000																	
	Table 6 world, gallup poll (current country situation)	-0.060	0.030	0.000	-0.016	-0.055	0.018	-0.018	1.000																	
The magic triangle of macroeconomics (Welsch)	Table 3 EU	-0.008	0.002	-0.004	0.311	-0.018	0.003	-0.011	1.000	0.005	0.001	0.003	-0.261													
	Table 3 EU	-0.023	0.003	-0.017	1.035	-0.024	0.004	-0.016	1.000	0.005	0.001	0.003	-0.154													
	Table 4 EU (w/country dummies)	-0.008	0.002	-0.004	0.311	-0.018	0.003	-0.011	1.000	0.005	0.001	0.003	-0.261													
	Table 4 EU (w/country dummies, per capita income)	-0.014	0.003	-0.009	0.476	-0.026	0.004	-0.019	1.000	0.004	0.001	0.002	-0.117	-0.011	0.002	-0.014	0.760									
	Table 4 EU (w/country dummies, corruption)	-0.009	0.003	-0.004	0.132	-0.019	-0.004	-0.027	1.000	0.005	0.001	0.003	-0.101													
	Table 4 EU (w/country dummies, civil liberties)	-0.010	-0.003	-0.015	1.409	-0.018	0.004	-0.011	1.000	0.005	0.001	0.003	-0.273													
	Table 4 EU (w/country dummies, chruch attendance)	-0.020	0.003	-0.014	0.765	-0.026	0.004	-0.019	1.000	0.004	0.001	0.002	-0.092													
	Table 4 EU (w/country dummies, all)	-0.020	-0.003	-0.026	1.409	-0.027	0.004	-0.019	1.000	0.004	0.001	0.002	-0.091	-0.006	-0.002	-0.002	0.112									
	Table 4 EU (w/country and year dummies)	-0.023	0.003	-0.017	1.035	-0.024	0.004	-0.016	1.000	0.004	0.001	0.002	-0.124													
	Table 4 EU (w/country and year dummies, and per capita income)	-0.021	0.003	-0.014	0.858	-0.025	0.004	-0.016	1.000	0.004	0.001	0.002	-0.121	-0.003	-0.004	0.005	-0.323									
	Table 4 EU (w/country and year dummies, and corruption)	-0.025	0.003	-0.018	0.966	-0.028	0.004	-0.019	1.000	0.003	0.001	0.001	-0.057													
	Table 4 EU (w/country and year dummies, and civil liberties)	-0.024	0.003	-0.018	1.132	-0.023	0.004	-0.016	1.000	0.004	0.001	0.002	-0.131													
	Table 4 EU (w/country and year dummies, and church attendance)	-0.023	0.003	-0.017	1.035	-0.024	0.004	-0.016	1.000	0.004	0.001	0.002	-0.116													
	Table 4 EU (w/country and year dummies, all)	-0.022	0.004	-0.013	0.736	-0.027	0.005	-0.018	1.000	0.004	0.001	0.002	-0.090	-0.004	-0.004	0.005	-0.254									
happiness, contentment and other emotions for central banks (Di Tella, Oswald)	Table 1 OECD (no country time trend)	-1.200	0.300	-0.600	0.750	-1.600	0.400	-0.800	1.000																	
	Table 1 OECD (w/country time trend)	-1.900	0.500	-0.900	0.818	-2.300	0.600	-1.100	1.000																	
	Table 1 OECD (w/ GDP per capita)	-1.900	0.400	-1.100	2.750	-1.200	0.400	-0.400	1.000					0.090	0.020	0.050	-0.125									
	Table 1 OECD (w/ GDP per capita and hours)	-2.000	0.400	-1.200	4.000	-1.100	0.400	-0.300	1.000					0.700	0.040	0.620	-2.067									
	Table 3 OECD	-2.100	0.800	-0.500	0.417	-2.000	0.400	-1.200	1.000																	
	Table 3 OECD	-1.000	0.400	-0.200	1.000	-3.200	1.500	-0.200	1.000																	
is unemployment more costly than inflation? (blanchflower)	Table 3 EU (with GDP per capita)	-0.006	0.002	-0.003	0.380	-0.012	0.003	-0.007	1.000					0.223	0.206	-0.190	28.530									
	Table 3 OECD (with GDP per capita, lagged life satisfaction)	-0.003	0.001	0.000	0.439	-0.005	0.002	-0.001	1.000					0.068	0.132	-0.197	178.969									
	Table 3 OECD (only unemployment and inflation)	-0.006	0.002	-0.002	0.289	-0.012	0.002	-0.007	1.000																	
	Table 4 OECD	-0.003	0.001	0.000	0.313	-0.005	0.002	-0.001	1.000																	
	Table 4 OECD (with real interest rate)	-0.005	0.002	-0.002	2.077	-0.004	0.002	-0.001	1.000																	
	Table 4 OECD (with real interest rate and GDP per capita)	-0.005	0.002	-0.002	93.231	-0.004	0.002	0.000	1.000					0.086	0.200	-0.314	15,760.153									
	Table 4 OECD (with real interest rate, no lagged life satisfaction)	-0.010	0.002	-0.006	0.779	-0.012	0.003	-0.007	1.000																	
	Table 5 EU (w/ GDP per capita)	-0.024	0.005	-0.014	1.086	-0.023	0.005	-0.013	1.000					0.089	0.045	-0.002	0.142									
	Table 5 EU (w/ GDP per capita and real interest rate)	-0.029	0.006	-0.018	1.674	-0.023	0.006	-0.010	1.000					0.066	0.078	-0.091	8.643									
	Table 5 EU (with country trends)	-0.012	0.003	-0.006	0.686	-0.015	0.003	-0.009	1.000																	
	Table 5 EU (without country trends)	-0.009	0.002	-0.005	0.754	-0.011	0.002	-0.007	1.000																	
	Table 6 EU (richest)	-0.040	0.007	-0.026	3.909	-0.018	0.006	-0.007	1.000					0.000	0.000	0.000	0.000									
	Table 6 EU (poorest)	-0.038	0.009	-0.020	0.778	-0.052	0.013	-0.025	1.000					0.000	0.000	0.000	-0.004									
	Table 6 EU (East Europe)	-0.037	0.010	-0.017	1.218	-0.029	0.008	-0.014	1.000					0.002	0.001	-0.001	0.056									
	Table 6 EU (South Europe)	-0.014	0.009	0.004	-2.392	-0.026	0.012	-0.002	1.000					0.000	0.000	0.000	-0.076									
Simultaneity bias in the analysis of perceived job insecurity	somewhat concerned, IFE					-0.427	0.014	-0.399	1.000													-0.112	0.010	-0.092	0.231	
	very concerned, IFE					-0.427	0.014	-0.399	1.000													-0.251	0.019	-0.213	0.534	
	somewhat concerned, IIFE					-0.588	0.020	-0.548	1.000													-0.302	0.032	-0.238	0.433	
	very concerned, IIFE					-0.588	0.020	-0.548	1.000													-0.547	0.019	-0.509	0.928	

Appendix 4: -2se weights																												
					inflation				unemployment				GDP growth				GDP per capita				equality				security	(sum of normalized coefficients)
	arithmetic mean of normalized coefficients -2se				0.852				1.000				0.246				0.047				0.828				1.242	
	-2se weights				0.202				0.237				0.058				0.011				0.196				0.295	4.215
	bold is significant at 5%	inflation	se inflation	inflation -2se	normalized inflation +2se	unemployment	se unemployment	unemployment -2se	normalized unemployment +2se	GDP growth	se GDP growth	GDP growth +2se	normalized GDP growth +2se	GDP per capita	se GDP per capita	GDP per capita +2se	normalized GDP per capita +2se	equality	se equality	equality -2se	normalized equality -2se	security	se security	security -2se	normalized security -2se	
Preferences over Inflation and Unemployment (Di Tella)		1.000				1.700			1.000																	
	Table 1 EU (no time trend)	-1.200	0.300	-1.800	0.450	-2.800	0.600	-4.000	1.000																	
	Table 1 EU (time trend)	-1.400	0.400	-2.200	1.100	-2.000	0.000	-2.000	1.000																	
	Table 1 EU (post 83)	-2.000	1.100	-4.200	1.167	-2.000	0.800	-3.600	1.000																	
The Macroeconomics of Happiness (Di Tella, MacCulloch, Oswald)	Table 6 EU (GDP per capita)					-0.502	0.020	-0.542	1.000					1.094	0.335	1.764	-3.255									
	Table 6 EU (lagged change in GDP per capita)					-0.504	0.020	-0.544	1.000	1.761	0.780	3.321	-6.105													
	Table 8 EU (no country specific time)	-0.994	0.464	-1.922	0.594	-1.909	0.664	-3.237	1.000					1.408	0.361	2.130	-0.658									
	Table 8 EU (with country specific time)	-0.845	0.600	-2.045	0.620	-1.954	0.673	-3.300	1.000	1.184	0.583	2.350	-0.712													
	Table 9 EU (no country specific time)	-0.718	0.313	-1.344	0.432	-1.659	0.726	-3.111	1.000					1.275	0.361	1.997	-0.642									
	Table 9 EU (no country specific time)	-0.550	0.322	-1.194	0.311	-2.426	0.709	-3.844	1.000	1.608	0.713	3.034	-0.789													
	Table 10 EU (employed)	-1.388	0.508	-2.404	0.762	-1.660	0.747	-3.154	1.000					1.418	0.439	2.296	-0.728									
	Table 10 EU (unemployed)	-1.602	0.809	-3.220	0.615	-3.046	1.096	-5.238	1.000					1.053	0.614	2.282	-0.436									
	Table 10 EU (employed)	-1.117	0.506	-2.129	0.527	-2.486	0.778	-4.042	1.000	1.028	0.853	2.734	-0.676													
	Table 11 EU (employed)	-1.540	0.642	-2.824	1.010	-0.858	0.969	-2.796	1.000					1.394	0.642	2.678	-0.958									
	Table 11 EU (employed)	-1.295	0.658	-2.611	0.796	-1.709	0.785	-3.279	1.000	1.463	0.708	2.879	-0.878													
Inequality and Happiness: Are Europeans and Americans Different? (Alesina, Di Tella)	Table 3.1 US (with inequality and output and unemployment)	-0.046	0.688	-1.422	0.195	-4.626	1.329	-7.284	1.000									-2.262	0.992	-4.246	0.583					
	Table 3.2 US (left)	0.364	1.084	-1.804	0.244	-4.402	1.498	-7.398	1.000									-3.081	1.488	-6.057	0.819					
	Table 4.1 EU	-3.120	1.492	-6.104	1.050	-1.859	1.978	-5.815	1.000									-3.367	1.460	-6.287	1.081					
	Table 4.3 EU (poor)	-2.990	1.279	-5.548	1.024	-2.242	1.589	-5.420	1.000									-4.667	1.392	-7.451	1.375					
Is Business Cycle Volatility Costly (Wolfers)	Table 1 EU	-0.626	0.230	-1.086	0.366	-2.305	0.331	-2.967	1.000																	
Partisan Social Happiness (Di Tella and MacCulloch)	Table A5 10 OECD (Right)	-6.090	1.118	-8.326	0.766	-6.068	2.402	-10.872	1.000																	
	Table A11 (All)	-4.086	1.106	-6.298	0.588	-7.052	1.827	-10.706	1.000																	
Income inequality and its consequences for life satisfaction (Schneider)	Table 6 Germany					-0.750	0.001	-0.753	1.000									-0.060	0.025	-0.110	0.146					
Inflation and unemployment on subjective personal and country evaluations (Gandelman and Hernandez-Murillo)	Table 5 world, gallup poll (current life satisfaction)	-0.065	0.031	-0.128	1.546	-0.060	0.012	-0.083	1.000																	
	Table 5 world, gallup poll (current country situation)	-0.057	0.019	-0.094	0.905	-0.068	0.018	-0.104	1.000																	
	Table 6 world, gallup poll (current life satisfaction)	-0.068	0.032	-0.131	1.631	-0.050	0.015	-0.080	1.000																	
	Table 6 world, gallup poll (current country situation)	-0.060	0.030	-0.121	1.327	-0.055	0.018	-0.091	1.000																	
The magic triangle of macroeconomics (Welsch)	Table 3 EU	-0.008	0.002	-0.012	0.506	-0.018	0.003	-0.025	1.000	0.005	0.001	0.007	-0.285													
	Table 3 EU	-0.023	0.003	-0.029	0.919	-0.024	0.004	-0.032	1.000	0.005	0.001	0.007	-0.236													
	Table 4 EU (w/country dummies)	-0.008	0.002	-0.012	0.506	-0.018	0.003	-0.025	1.000	0.005	0.001	0.007	-0.285													
	Table 4 EU (w/country dummies, per capita income)	-0.014	0.003	-0.019	0.574	-0.026	0.004	-0.033	1.000	0.004	0.001	0.006	-0.175	-0.011	0.002	-0.008	0.233									
	Table 4 EU (w/country dummies, corruption)	-0.009	0.003	-0.014	1.348	-0.019	-0.004	-0.011	1.000	0.005	0.001	0.007	-0.678													
	Table 4 EU (w/country dummies, civil liberties)	-0.010	-0.003	-0.005	0.186	-0.018	0.004	-0.025	1.000	0.005	0.001	0.007	-0.280													
	Table 4 EU (w/country dummies, chruch attendance)	-0.020	0.003	-0.026	0.772	-0.026	0.004	-0.033	1.000	0.004	0.001	0.006	-0.189													
	Table 4 EU (w/country dummies, all)	-0.020	-0.003	-0.014	0.390	-0.027	0.004	-0.035	1.000	0.004	0.001	0.006	-0.178	-0.006	-0.002	-0.010	0.280									
	Table 4 EU (w/country and year dummies)	-0.023	0.003	-0.029	0.919	-0.024	0.004	-0.032	1.000	0.004	0.001	0.006	-0.189													
	Table 4 EU (w/country and year dummies, and per capita income)	-0.021	0.003	-0.028	0.831	-0.025	0.004	-0.034	1.000	0.004	0.001	0.006	-0.179	-0.003	-0.004	-0.011	0.338									
	Table 4 EU (w/country and year dummies, and corruption)	-0.025	0.003	-0.032	0.855	-0.028	0.004	-0.037	1.000	0.003	0.001	0.005	-0.133													
	Table 4 EU (w/country and year dummies, and civil liberties)	-0.024	0.003	-0.030	0.999	-0.023	0.004	-0.030	1.000	0.004	0.001	0.006	-0.196													
	Table 4 EU (w/country and year dummies, and church attendance)	-0.023	0.003	-0.029	0.919	-0.024	0.004	-0.032	1.000	0.004	0.001	0.006	-0.193													
	Table 4 EU (w/country and year dummies, all)	-0.022	0.004	-0.031	0.854	-0.027	0.005	-0.036	1.000	0.004	0.001	0.006	-0.177	-0.004	-0.004	-0.013	0.345									
happiness, contentment and other emotions for central banks (Di Tella, Oswald)	Table 1 OECD (no country time trend)	-1.200	0.300	-1.800	0.750	-1.600	0.400	-2.400	1.000																	
	Table 1 OECD (w/country time trend)	-1.900	0.500	-2.900	0.829	-2.300	0.600	-3.500	1.000																	
	Table 1 OECD (w/ GDP per capita)	-1.900	0.400	-2.700	1.350	-1.200	0.400	-2.000	1.000					0.090	0.020	0.130	-0.065									
	Table 1 OECD (w/ GDP per capita and hours)	-2.000	0.400	-2.800	1.474	-1.100	0.400	-1.900	1.000					0.700	0.040	0.780	-0.411									
	Table 3 OECD	-2.100	0.800	-3.700	1.321	-2.000	0.400	-2.800	1.000																	
	Table 3 OECD	-1.000	0.400	-1.800	0.290	-3.200	1.500	-6.200	1.000																	
is unemployment more costly than inflation? (blanchflower)	Table 3 EU (with GDP per capita)	-0.006	0.002	-0.010	0.583	-0.012	0.003	-0.017	1.000					0.223	0.206	0.636	-37.539									
	Table 3 OECD (with GDP per capita, lagged life satisfaction)	-0.003	0.001	-0.006	0.706	-0.005	0.002	-0.008	1.000					0.068	0.132	0.332	-41.023									
	Table 3 OECD (only unemployment and inflation)	-0.006	0.002	-0.009	0.533	-0.012	0.002	-0.017	1.000																	
	Table 4 OECD	-0.003	0.001	-0.005	0.682	-0.005	0.002	-0.008	1.000																	
	Table 4 OECD (with real interest rate)	-0.005	0.002	-0.008	1.008	-0.004	0.002	-0.008	1.000																	
	Table 4 OECD (with real interest rate and GDP per capita)	-0.005	0.002	-0.008	1.021	-0.004	0.002	-0.008	1.000					0.086	0.200	0.485	-60.831									
	Table 4 OECD (with real interest rate, no lagged life satisfaction)	-0.010	0.002	-0.014	0.836	-0.012	0.003	-0.017	1.000																	
	Table 5 EU (w/ GDP per capita)	-0.024	0.005	-0.034	1.009	-0.023	0.005	-0.034	1.000					0.089	0.045	0.179	-5.248									
	Table 5 EU (w/ GDP per capita and real interest rate)	-0.029	0.006	-0.040	1.103	-0.023	0.006	-0.036	1.000					0.066	0.078	0.222	-6.153									
	Table 5 EU (with country trends)	-0.012	0.003	-0.017	0.800	-0.015	0.003	-0.021	1.000																	
	Table 5 EU (without country trends)	-0.009	0.002	-0.013	0.850	-0.011	0.002	-0.015	1.000																	
	Table 6 EU (richest)	-0.040	0.007	-0.055	1.888	-0.018	0.006	-0.029	1.000					0.000	0.000	0.000	0.000									
	Table 6 EU (poorest)	-0.038	0.009	-0.057	0.717	-0.052	0.013	-0.079	1.000					0.000	0.000	0.000	-0.004									
	Table 6 EU (East Europe)	-0.037	0.010	-0.056	1.255	-0.029	0.008	-0.044	1.000					0.002	0.001	0.004	-0.095									
	Table 6 EU (South Europe)	-0.014	0.009	-0.032	0.634	-0.026	0.012	-0.051	1.000					0.000	0.000	0.000	-0.005									
Simultaneity bias in the analysis of perceived job insecurity	somewhat concerned, IFE					-0.427	0.014	-0.455	1.000													-0.112	0.010	-0.132	2.600	
	very concerned, IFE					-0.427	0.014	-0.455	1.000													-0.251	0.019	-0.289	0.635	
	somewhat concerned, IIFE					-0.588	0.020	-0.628	1.000													-0.302	0.032	-0.366	0.803	
	very concerned, IIFE					-0.588	0.020	-0.628	1.000													-0.547	0.019	-0.585	0.931	

Appendix 4: EU weights																				
				inflation			unemployment			GDP growth			GDP per capita			equality			security	(sum of normalized coefficients)
	arithmetic mean of normalized coefficients EU			0.843			1.000			0.461			0.932			1.324			0.573	
	EU weights			0.164			0.195			0.090			0.181			0.258			0.112	5.134
	bold is significant at 5%	Inflation	se inflation	normalized EU inflation	unemployment	se unemployment	normalized EU unemployment	GDP growth	se GDP growth	normalized EU GDP growth	GDP per capita	se GDP per capita	normalized EU GDP per capita	equality	se equality	normalized EU equality	insecurity	se insecurity	normalized EU security	
Preferences over Inflation and Unemployment (Di Tella)		1.000		0.588	1.700		1.000													
	Table 1 EU (no time trend)	-1.200	0.300	0.429	-2.800	0.600	1.000													
	Table 1 EU (time trend)	-1.400	0.400	0.700	-2.000	0.600	1.000													
	Table 1 EU (post 83)	-2.000	1.100	1.000	-2.000	0.800	1.000													
The Macroeconomics of Happiness (Di Tella, MacCulloch, Oswald)					-0.502	0.020	1.000				1.094	0.335	-2.179							
	Table 6 EU (lagged change in GDP per capita)				-0.504	0.020	1.000	1.761	0.780	-3.494										
	Table 8 EU (no country specific time)	-0.994	0.464	0.521	-1.909	0.664	1.000				1.408	0.361	-0.738							
	Table 8 EU (with country specific time)	-0.845	0.600	0.432	-1.954	0.673	1.000	1.184	0.583	-0.606										
	Table 9 EU (no country specific time)	-0.718	0.313	0.433	-1.659	0.726	1.000				1.275	0.361	-0.769							
	Table 9 EU (no country specific time)	-0.550	0.322	0.227	-2.426	0.709	1.000	1.608	0.713	-0.663										
	Table 10 EU (employed)	-1.388	0.508	0.836	-1.660	0.747	1.000				1.418	0.439	-0.854							
	Table 10 EU (unemployed)	-1.602	0.809	0.526	-3.046	1.096	1.000				1.053	0.614	-0.346							
	Table 10 EU (employed)	-1.117	0.506	0.449	-2.486	0.778	1.000	1.028	0.853	-0.414										
	Table 11 EU (employed)	-1.540	0.642	1.795	-0.858	0.969	1.000				1.394	0.642	-1.625							
	Table 11 EU (employed)	-1.295	0.658	0.758	-1.709	0.785	1.000	1.463	0.708	-0.856										
Inequality and Happiness: Are Europeans and Americans Different? (Alesina, Di Tella)	Table 4.1 EU	-3.120	1.492	1.678	-1.859	1.978	1.000							-3.367	1.460	1.811				
	Table 4.3 EU (poor)	-2.990	1.279	1.334	-2.242	1.589	1.000							-4.667	1.392	2.082				
Is Business Cycle Volatility Costly (Wolfers)	Table 1 EU	-0.626	0.230	0.272	-2.305	0.331	1.000													
Income inequality and its consequences for life satisfaction (Schneider)	Table 6 Germany				-0.750	0.001	1.000							-0.060	0.025	0.080				
The magic triangle of macroeconomics (Welsch)	Table 3 EU	-0.008	0.002	0.444	-0.018	0.003	1.000	0.005	0.001	-0.278										
	Table 3 EU	-0.023	0.003	0.958	-0.024	0.004	1.000	0.005	0.001	-0.208										
	Table 4 EU (w/country dummies)	-0.008	0.002	0.444	-0.018	0.003	1.000	0.005	0.001	-0.278										
	Table 4 EU (w/country dummies, per capita income)	-0.014	0.003	0.538	-0.026	0.004	1.000	0.004	0.001	-0.154	-0.011	0.002	0.423							
	Table 4 EU (w/country dummies, corruption)	-0.009	0.003	0.474	-0.019	-0.004	1.000	0.005	0.001	-0.263										
	Table 4 EU (w/country dummies, civil liberties)	-0.010	-0.003	0.556	-0.018	0.004	1.000	0.005	0.001	-0.278										
	Table 4 EU (w/country dummies, chruch attendance)	-0.020	0.003	0.769	-0.026	0.004	1.000	0.004	0.001	-0.154										
	Table 4 EU (w/country dummies, all)	-0.020	-0.003	0.741	-0.027	0.004	1.000	0.004	0.001	-0.148	-0.006	-0.002	0.222							
	Table 4 EU (w/country and year dummies)	-0.023	0.003	0.958	-0.024	0.004	1.000	0.004	0.001	-0.167										
	Table 4 EU (w/country and year dummies, and per capita income)	-0.021	0.003	0.840	-0.025	0.004	1.000	0.004	0.001	-0.160	-0.003	-0.004	0.120							
	Table 4 EU (w/country and year dummies, and corruption)	-0.025	0.003	0.893	-0.028	0.004	1.000	0.003	0.001	-0.107										
	Table 4 EU (w/country and year dummies, and civil liberties)	-0.024	0.003	1.043	-0.023	0.004	1.000	0.004	0.001	-0.174										
	Table 4 EU (w/country and year dummies, and church attendance)	-0.023	0.003	0.958	-0.024	0.004	1.000	0.004	0.001	-0.167										
	Table 4 EU (w/country and year dummies, all)	-0.022	0.004	0.815	-0.027	0.005	1.000	0.004	0.001	-0.148	-0.004	-0.004	0.148							
is unemployment more costly than inflation? (blanchflower)	Table 3 EU (with GDP per capita)	-0.006	0.002	0.525	-0.012	0.003	1.000				0.223	0.206	-18.898							
	Table 5 EU (w/ GDP per capita)	-0.024	0.005	1.030	-0.023	0.005	1.000				0.089	0.045	-3.786							
	Table 5 EU (w/ GDP per capita and real interest rate)	-0.029	0.006	1.232	-0.023	0.006	1.000				0.066	0.078	-2.820							
	Table 5 EU (with country trends)	-0.012	0.003	0.767	-0.015	0.003	1.000													
	Table 5 EU (without country trends)	-0.009	0.002	0.818	-0.011	0.002	1.000													
	Table 6 EU (richest)	-0.040	0.007	2.257	-0.018	0.006	1.000				0.000	0.000	0.000							
	Table 6 EU (poorest)	-0.038	0.009	0.732	-0.052	0.013	1.000				0.000	0.000	-0.004							
	Table 6 EU (East Europe)	-0.037	0.010	1.246	-0.029	0.008	1.000				0.002	0.001	-0.058							
	Table 6 EU (South Europe)	-0.014	0.009	0.529	-0.026	0.012	1.000				0.000	0.000	-0.008							
Simultaneity bias in the analysis of perceived job insecurity	somewhat concerned, IFE				-0.427	0.014	1.000										-0.112	0.010	0.262	
	very concerned, IFE				-0.427	0.014	1.000										-0.251	0.019	0.588	
	somewhat concerned, IIFE				-0.588	0.020	1.000										-0.302	0.032	0.513	
	very concerned, IIFE				-0.588	0.020	1.000										-0.547	0.019	0.930	

Appendix 5: transformed inflation data															
raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Australia	10.186	9.614	11.229	10.052	3.937	6.742	9.084	8.491	7.256	7.548	7.278	3.223	0.986	1.813	
Belgium	6.656	7.626	8.723	7.663	6.348	4.868	1.296	1.554	1.162	3.105	3.453	3.167	2.244	2.490	
Canada	10.100	12.472	10.769	5.864	4.305	3.962	4.195	4.356	-0.774	4.984	4.780	5.626	1.490	1.865	
Denmark	10.704	11.298	10.419	6.143	6.029	4.699	0.665	3.148	5.009	5.236	3.141	2.637	2.101	1.424	
Finland	11.602	12.000	9.300	8.400	7.000	5.820	2.900	4.082	5.135	6.572	4.957	4.163	2.866	2.199	
France	13.057	13.333	11.978	9.460	7.674	5.831	2.539	3.289	2.701	3.498	3.380	3.217	2.366	2.106	
Germany	5.447	6.324	5.256	3.284	2.396	2.084	-0.125	0.242	1.274	2.778	2.687	3.474	5.046	4.476	
Italy	21.800	19.510	16.460	14.700	10.740	9.240	5.820	4.720	5.090	6.276	6.099	6.222	5.003	4.497	
Netherlands	6.547	6.800	5.900	2.900	3.400	2.300	0.000	-1.000	0.500	1.100	2.500	3.100	3.200	2.600	
Norway	10.912	13.657	11.322	8.415	6.310	5.650	7.194	8.722	6.681	4.540	4.125	3.424	2.348	2.285	
Spain	15.578	14.549	14.416	12.174	11.280	8.815	8.795	5.248	4.837	6.791	6.722	5.934	7.145	4.569	
Sweden	17.452	12.108	8.578	8.907	8.021	7.367	4.233	4.222	5.798	6.437	10.470	9.337	2.282	4.827	
United Kingdom	16.849	12.189	8.511	5.198	4.448	5.160	3.626	4.066	4.612	5.197	7.036	7.413	4.297	2.497	
United States	13.502	10.378	6.158	3.160	4.368	3.528	1.944	3.578	4.100	4.791	5.419	4.216	3.042	2.970	
		hi	21.80		diff	22.8		scalemax	24.08						
		low	-1.00		10%diff	2.28		scalemin	-3.28						
								scalediff	27.36						
transformed data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Australia	0.5078216	0.5287280	0.4697002	0.5127192	0.7362207	0.6336988	0.5480994	0.5697733	0.6149122	0.6042397	0.6141081	0.7623172	0.8440789	0.8138523	0.8
Belgium	0.6368421	0.6013888	0.5612938	0.6000365	0.6480994	0.7021929	0.8327485	0.8233187	0.8376461	0.7666301	0.7539108	0.7643640	0.7980994	0.7891081	0.7
Canada	0.5109649	0.4242690	0.4865131	0.6657894	0.7227704	0.7353070	0.7267909	0.7209064	0.9084064	0.6979532	0.7054093	0.6744883	0.8256578	0.8119517	0.8
Denmark	0.4888888	0.4671783	0.4993055	0.6555921	0.6597587	0.7083698	0.8558114	0.7650584	0.6970394	0.6887426	0.7653143	0.7837353	0.8033260	0.8280701	0.8
Finland	0.4560672	0.4415204	0.5402046	0.5730994	0.6242690	0.6673976	0.7741228	0.7309210	0.6924342	0.6399122	0.6989400	0.7279605	0.7753654	0.7997441	0.8
France	0.4028874	0.3927997	0.4423245	0.5343567	0.5996345	0.6669956	0.7873172	0.7599049	0.7813961	0.7522660	0.7565789	0.7625365	0.7936403	0.8031432	0.8
Germany	0.6810307	0.6489766	0.6880116	0.7600877	0.7925438	0.8039473	0.8846856	0.8712719	0.8335526	0.7785818	0.7819078	0.7531432	0.6956871	0.7165204	0.7
Italy	0.0833333	0.1670321	0.2785087	0.3428362	0.4875730	0.5423976	0.6673976	0.7076023	0.6940789	0.6507309	0.6572002	0.6527046	0.6972587	0.7157529	0.7
Netherlands	0.6408260	0.6315789	0.6644736	0.7741228	0.7558479	0.7960526	0.8801169	0.9166666	0.8618421	0.8399122	0.7887426	0.7668128	0.7631578	0.7850877	0.7
Norway	0.4812865	0.3809576	0.4663011	0.5725511	0.6494883	0.6736111	0.6171783	0.5613304	0.6359283	0.7141812	0.7293494	0.7549707	0.7942982	0.7966008	0.8
Spain	0.3107456	0.3483552	0.3532163	0.4351608	0.4678362	0.5579312	0.5586622	0.6883040	0.7033260	0.6319078	0.6344298	0.6632309	0.6189692	0.7131213	0.7
Sweden	0.2422514	0.4375730	0.5665935	0.5545687	0.5869517	0.6108552	0.7254020	0.7258040	0.6682017	0.6448464	0.4974415	0.5388523	0.7967105	0.7036915	0.8
United Kingdom	0.2642909	0.4346125	0.5690423	0.6901315	0.7175438	0.6915204	0.7475877	0.7315058	0.7115497	0.6901681	0.6229532	0.6091739	0.7230628	0.7888523	0.8
United States	0.3866228	0.5008040	0.6550438	0.7646198	0.7204678	0.7511695	0.8090643	0.7493421	0.7302631	0.7050073	0.6820540	0.7260233	0.7689327	0.7715643	0.7

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.895	4.638	2.612	0.250	0.853	1.465	4.475	4.381	3.003	2.771	2.344	2.669	3.538	2.332	4.353	1.820
2.392	1.267	1.794	1.493	0.916	1.128	2.678	2.437	1.553	1.505	1.862	2.534	2.335	1.815	4.492	-0.009
0.136	2.189	1.580	1.612	0.987	1.744	2.738	2.507	2.276	2.742	1.841	2.230	2.018	2.131	2.378	0.292
1.644	1.949	1.949	2.212	1.434	2.151	3.137	2.350	2.410	2.107	1.152	1.832	1.875	1.721	3.392	1.319
1.076	1.000	1.069	1.219	1.351	1.316	2.951	2.664	2.003	1.297	0.140	0.777	1.279	1.584	3.900	1.600
1.661	1.778	2.084	1.283	0.667	0.562	1.827	1.781	1.938	2.169	2.342	1.900	1.912	1.607	3.159	0.103
2.717	1.729	1.193	1.533	0.602	0.635	1.400	1.904	1.355	1.031	1.790	1.920	1.784	2.276	2.754	0.234
4.164	5.393	3.983	1.895	1.980	1.657	2.575	2.323	2.610	2.812	2.274	2.206	2.217	2.038	3.500	0.764
2.700	2.000	1.429	1.858	1.775	2.034	2.341	5.106	3.825	2.236	1.380	1.502	1.651	1.583	2.210	0.974
1.397	2.448	1.248	2.579	2.267	2.333	3.086	3.017	1.288	2.475	0.465	1.522	2.332	0.729	3.766	2.167
4.718	4.674	3.599	1.877	1.764	2.235	3.484	2.827	3.589	3.102	3.053	3.382	3.563	2.844	4.130	-0.238
2.158	2.561	1.027	1.809	1.032	0.549	1.290	2.673	1.928	2.340	1.019	0.822	1.498	1.677	3.298	1.988
2.071	2.625	2.442	1.816	1.561	1.317	0.867	1.182	1.274	1.363	1.344	2.041	2.300	2.346	3.629	2.120
2.596	2.805	2.937	2.338	1.547	2.193	3.367	2.817	1.596	2.298	2.668	3.366	3.218	2.870	3.816	-0.324

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
108552	0.7105994	0.7846491	0.8709795	0.8489400	0.8265716	0.7165570	0.7199926	0.7703581	0.7788377	0.7944444	0.7825657	0.7508040	0.7948830	0.7210160	0.8135964
926900	0.8338084	0.8145467	0.8255482	0.8466374	0.8388888	0.7822368	0.7910453	0.8233552	0.8251096	0.8120614	0.7875	0.7947733	0.8137792	0.7159356	0.8804459
751461	0.8001096	0.8223684	0.8211988	0.8440423	0.8163742	0.7800438	0.7884868	0.7969298	0.7798976	0.8128289	0.7986111	0.8063596	0.8022295	0.7932017	0.8694444
200292	0.8088815	0.8088815	0.7992690	0.8277046	0.8014985	0.7654605	0.7942251	0.7920321	0.8031067	0.8380116	0.8131578	0.8115862	0.8172149	0.7561403	0.8319078
407894	0.8435672	0.8410453	0.8355628	0.8307383	0.8320175	0.7722587	0.7827485	0.8069078	0.8327119	0.875	0.8517178	0.8333698	0.8222222	0.7375730	0.8216374
194078	0.8151315	0.8039473	0.8332236	0.8557383	0.8595760	0.8133406	0.8150219	0.8092836	0.8008406	0.7945175	0.8106725	0.8102339	0.8213815	0.7646564	0.8763523
808114	0.8169225	0.8365131	0.8240862	0.8581140	0.8569078	0.8289473	0.8105263	0.8305921	0.8424342	0.8146929	0.8099415	0.8149122	0.7969298	0.7794590	0.8715643
279239	0.6830043	0.7345394	0.8108552	0.8077485	0.8195540	0.7860014	0.7952119	0.7847222	0.7773391	0.7970029	0.7994883	0.7990862	0.8056286	0.7521929	0.8521929
814327	0.8070175	0.8278874	0.8122076	0.8152412	0.8057748	0.7945540	0.6934941	0.7403143	0.7983918	0.8296783	0.8252192	0.8197733	0.8222587	0.7993421	0.8445175
290570	0.7906432	0.8345029	0.7858552	0.7972587	0.7948464	0.7673245	0.7698464	0.8330409	0.7896564	0.8631213	0.8244883	0.7948830	0.8534722	0.7424707	0.8009137
076754	0.7092836	0.7485745	0.8115131	0.8156432	0.7984283	0.7527777	0.7767909	0.7489400	0.7667397	0.7685307	0.7565058	0.7498903	0.7761695	0.7291666	0.8888157
012426	0.7865131	0.8425804	0.8139985	0.8423976	0.8600511	0.8329678	0.7824195	0.8096491	0.7945906	0.8428728	0.8500730	0.8253654	0.8188230	0.7595760	0.8074561
044225	0.7841739	0.7908625	0.8137426	0.8230628	0.8319809	0.8484283	0.8369152	0.8335526	0.8302997	0.8309941	0.8055190	0.7960526	0.7943713	0.7474780	0.8026315
852339	0.7775950	0.7727704	0.7946637	0.8235745	0.7999634	0.7570540	0.7771564	0.8217836	0.7961257	0.7826023	0.7570906	0.7625	0.7752192	0.7406432	0.8919590

Appendix 5: transformed unemployment data															
raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Australia	6.142	5.783	7.192	9.975	8.967	8.267	8.108	8.125	7.2	6.167	6.683	9.292	10.492	10.6	
Belgium	8.3	10	11.5	10.9	10.8	10.1	10	9.8	8.8	7.4	6.6	6.4	7.1	8.6	
Canada	7.508	7.575	11.058	11.925	11.308	10.617	9.65	8.808	7.767	7.508	8.15	10.317	11.225	11.383	
Denmark	7.1	9.3	10	10.7	10.3	9.2	7.899	7.9	7.69	8.405	8.624	9.364	10.055	11.012	
Finland	4.634	5.092	5.854	5.19	5.185	5.027	5.372	4.738	4.517	3.478	3.2	6.606	11.725	16.357	
France	6.349	7.438	8.069	8.421	9.771	10.23	10.363	10.5	10.006	9.396	8.975	9.467	9.85	11.117	
Germany	3.359	4.831	6.734	8.099	8.058	8.124	7.834	7.843	7.735	6.79	6.155	5.47	6.342	7.617	
Italy	7.37	7.649	8.288	7.375	7.842	8.167	8.867	9.625	9.683	9.667	8.875	8.533	8.808	9.833	
Netherlands	3.711	5.36	7.838	10.111	9.718	8.376	7.651	7.254	7.071	6.248	5.858	5.475	5.325	6.233	
Norway	1.65	2.001	2.606	3.426	3.147	2.588	1.962	2.084	3.149	4.908	5.229	5.469	5.915	5.948	
Spain	11.011	13.755	15.77	17.215	19.937	21.305	20.907	20.223	19.238	17.24	16.238	16.313	18.353	22.64	
Sweden	2.033	2.642	3.333	3.658	3.275	2.883	2.692	2.192	1.792	1.558	1.725	3.1	5.55	9.05	
United Kingdom	6.491	9.373	10.614	11.398	11.777	11.402	11.327	10.634	8.786	7.348	7.04	8.57	9.835	10.391	
United States	7.175	7.617	9.708	9.6	7.508	7.192	7	6.175	5.492	5.258	5.617	6.85	7.492	6.908	
		hi	24.12		diff	22.56		scalemax	26.374						
		low	1.56		10%diff	2.256		scalemin	-0.698						
								scalediff	27.072						
transformed data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Australia	0.747	0.761	0.709	0.606	0.643	0.669	0.675	0.674	0.708	0.746	0.727	0.631	0.587	0.583	
Belgium	0.668	0.605	0.549	0.572	0.575	0.601	0.605	0.612	0.649	0.701	0.730	0.738	0.712	0.657	
Canada	0.697	0.694	0.566	0.534	0.557	0.582	0.618	0.649	0.687	0.697	0.673	0.593	0.560	0.554	
Denmark	0.712	0.631	0.605	0.579	0.594	0.634	0.682	0.682	0.690	0.664	0.656	0.628	0.603	0.567	
Finland	0.803	0.786	0.758	0.783	0.783	0.789	0.776	0.799	0.807	0.846	0.856	0.730	0.541	0.370	
France	0.740	0.699	0.676	0.663	0.613	0.596	0.591	0.586	0.605	0.627	0.643	0.625	0.610	0.564	
Germany	0.850	0.796	0.725	0.675	0.677	0.674	0.685	0.685	0.688	0.723	0.747	0.772	0.740	0.693	
Italy	0.702	0.692	0.668	0.702	0.685	0.673	0.647	0.619	0.617	0.617	0.646	0.659	0.649	0.611	
Netherlands	0.837	0.776	0.685	0.601	0.615	0.665	0.692	0.706	0.713	0.743	0.758	0.772	0.778	0.744	
Norway	0.913	0.900	0.878	0.848	0.858	0.879	0.902	0.897	0.858	0.793	0.781	0.772	0.756	0.755	
Spain	0.567	0.466	0.392	0.338	0.238	0.187	0.202	0.227	0.264	0.337	0.374	0.372	0.296	0.138	
Sweden	0.899	0.877	0.851	0.839	0.853	0.868	0.875	0.893	0.908	0.917	0.910	0.860	0.769	0.640	
United Kingdom	0.734	0.628	0.582	0.553	0.539	0.553	0.556	0.581	0.650	0.703	0.714	0.658	0.611	0.590	
United States	0.709	0.693	0.616	0.620	0.697	0.709	0.716	0.746	0.771	0.780	0.767	0.721	0.697	0.719	

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
9.45	8.225	8.225	8.242	7.725	6.933	6.283	6.767	6.367	5.942	5.392	5.048	4.783	4.367	4.249	5.592
9.8	9.7	9.5	9.2	9.3	8.5	6.9	6.6	7.5	8.2	8.4	8.5	8.3	7.5	7	7.722
10.392	9.475	9.642	9.108	8.3	7.558	6.85	7.258	7.65	7.592	7.183	6.75	6.283	6.042	6.158	8.283
10.885	9.218	7.878	7.013	5.833	5.042	4.841	4.651	4.777	5.727	5.824	5.107	3.909	2.763	1.864	3.592
16.606	15.397	14.578	12.641	11.364	10.2	9.811	9.136	9.119	9.038	8.828	8.359	7.704	6.841	6.363	8.252
11.683	11.15	11.583	11.542	11.067	10.458	9.083	8.392	8.908	8.967	9.225	9.267	9.25	8.342	7.833	9.433
8.208	8	8.667	9.375	9.05	8.267	7.525	7.617	8.358	9.308	9.775	10.617	9.833	8.367	7.3	7.492
10.633	11.15	11.15	11.242	11.333	10.942	10.1	9.1	8.608	8.45	8.033	7.683	6.8	6.167	6.742	7.808
6.775	6.567	5.958	4.933	3.825	3.233	2.833	2.242	2.758	3.692	4.575	4.7	3.917	3.192	2.75	3.51
5.393	4.906	4.833	4.034	3.186	3.172	3.426	3.546	3.889	4.494	4.471	4.616	3.433	2.513	2.595	3.166
24.118	22.9	22.08	20.61	18.605	15.64	13.873	10.553	11.475	11.48	10.97	9.16	8.513	8.263	11.327	18.01
9.367	8.8	9.55	9.883	8.2	6.742	5.608	4.858	4.917	5.617	6.333	7.633	7.042	6.117	6.167	8.3
9.655	8.703	8.155	7.134	6.307	6.02	5.532	5.106	5.198	5.044	4.782	4.792	5.4	5.395	5.551	7.453
6.1	5.592	5.408	4.942	4.5	4.217	3.967	4.742	5.783	5.992	5.542	5.083	4.608	4.608	5.817	9.275
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.625	0.670	0.670	0.670	0.689	0.718	0.742	0.724	0.739	0.755	0.775	0.788	0.798	0.813	0.817	0.768
0.612	0.616	0.623	0.634	0.631	0.660	0.719	0.730	0.697	0.671	0.664	0.660	0.668	0.697	0.716	0.689
0.590	0.624	0.618	0.638	0.668	0.695	0.721	0.706	0.692	0.694	0.709	0.725	0.742	0.751	0.747	0.668
0.572	0.634	0.683	0.715	0.759	0.788	0.795	0.802	0.798	0.763	0.759	0.786	0.830	0.872	0.905	0.842
0.361	0.405	0.436	0.507	0.554	0.597	0.612	0.637	0.637	0.640	0.648	0.665	0.690	0.722	0.739	0.669
0.543	0.562	0.546	0.548	0.565	0.588	0.639	0.664	0.645	0.643	0.633	0.632	0.633	0.666	0.685	0.626
0.671	0.679	0.654	0.628	0.640	0.669	0.696	0.693	0.665	0.630	0.613	0.582	0.611	0.665	0.705	0.697
0.581	0.562	0.562	0.559	0.556	0.570	0.601	0.638	0.656	0.662	0.677	0.690	0.723	0.746	0.725	0.686
0.724	0.732	0.754	0.792	0.833	0.855	0.870	0.891	0.872	0.838	0.805	0.801	0.830	0.856	0.873	0.845
0.775	0.793	0.796	0.825	0.857	0.857	0.848	0.843	0.831	0.808	0.809	0.804	0.847	0.881	0.878	0.857
0.083	0.128	0.159	0.213	0.287	0.396	0.462	0.584	0.550	0.550	0.569	0.636	0.660	0.669	0.556	0.309
0.628	0.649	0.621	0.609	0.671	0.725	0.767	0.795	0.793	0.767	0.740	0.692	0.714	0.748	0.746	0.668
0.618	0.653	0.673	0.711	0.741	0.752	0.770	0.786	0.782	0.788	0.798	0.797	0.775	0.775	0.769	0.699
0.749	0.768	0.774	0.792	0.808	0.818	0.828	0.799	0.761	0.753	0.770	0.786	0.804	0.804	0.759	0.632

Appendix 5: transformed GDP growth data														
raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Australia	2.598	4.156	-0.01	-0.526	6.414	5.716	2.111	4.396	4.03	4.241	1.319	-0.885	2.735	3.824
Belgium	4.135	0.146	0.58	0.397	2.102	1.847	1.853	2.373	4.566	3.618	3.09	1.801	1.332	-0.693
Canada	2.163	3.503	-2.859	2.718	5.814	4.78	2.421	4.253	4.974	2.619	0.193	-2.092	0.875	2.339
Denmark	-0.365	-0.887	3.714	2.652	4.166	4.024	4.949	0.29	-0.143	0.573	1.607	1.3	1.975	-0.09
Finland	5.366	1.291	3.042	3.016	3.112	3.301	2.638	3.491	5.215	5.059	0.531	-6.013	-3.488	-0.802
France	1.809	0.969	2.415	1.239	1.548	1.799	2.38	2.512	4.466	4.332	2.645	1.011	1.187	-0.817
Germany	1.272	0.11	-0.788	1.555	2.826	2.192	2.417	1.469	3.736	3.913	5.723	5.011	2.226	-0.796
Italy	-1.414	0.781	0.668	0.913	3.226	2.798	2.86	3.192	4.194	3.388	2.053	1.534	0.773	-0.888
Netherlands	-0.328	-0.514	-1.283	1.758	3.119	2.656	3.125	1.851	2.98	4.785	4.064	2.405	1.489	0.651
Norway	4.504	1.547	0.125	3.867	5.894	5.354	4.038	1.78	-0.173	0.998	1.928	3.105	3.523	2.787
Spain	1.203	-0.408	1.239	1.652	1.698	2.362	3.432	5.709	5.285	5.004	3.847	2.525	0.851	-1.314
Sweden	4.555	-0.202	1.193	1.81	4.271	2.19	2.861	3.457	2.666	2.779	1.01	-1.121	-1.204	-2.058
United Kingdom	-2.034	-1.216	2.203	3.691	2.692	3.624	4.014	4.562	5.032	2.281	0.779	-1.392	0.147	2.222
United States	-0.274	2.538	-1.942	4.518	7.186	4.137	3.465	3.199	4.111	3.573	1.877	-0.234	3.393	2.852
		hi	7.19		diff	15.205		scalemax	8.7065					
		low	-8.02		10%diff	1.5205		scalemin	-9.5395					
								scalediff	18.246					
transformed data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Australia	0.665	0.751	0.522	0.494	0.874	0.836	0.639	0.764	0.744	0.755	0.595	0.474	0.673	0.732
Belgium	0.749	0.531	0.555	0.545	0.638	0.624	0.624	0.653	0.773	0.721	0.692	0.622	0.596	0.485
Canada	0.641	0.715	0.366	0.672	0.841	0.785	0.656	0.756	0.795	0.666	0.533	0.408	0.571	0.651
Denmark	0.503	0.474	0.726	0.668	0.751	0.743	0.794	0.539	0.515	0.554	0.611	0.594	0.631	0.518
Finland	0.817	0.594	0.690	0.688	0.693	0.704	0.667	0.714	0.809	0.800	0.552	0.193	0.332	0.479
France	0.622	0.576	0.655	0.591	0.608	0.621	0.653	0.661	0.768	0.760	0.668	0.578	0.588	0.478
Germany	0.593	0.529	0.480	0.608	0.678	0.643	0.655	0.603	0.728	0.737	0.836	0.797	0.645	0.479
Italy	0.445	0.566	0.559	0.573	0.700	0.676	0.680	0.698	0.753	0.709	0.635	0.607	0.565	0.474
Netherlands	0.505	0.495	0.453	0.619	0.694	0.668	0.694	0.624	0.686	0.785	0.746	0.655	0.604	0.559
Norway	0.770	0.608	0.530	0.735	0.846	0.816	0.744	0.620	0.513	0.578	0.628	0.693	0.716	0.676
Spain	0.589	0.500	0.591	0.613	0.616	0.652	0.711	0.836	0.812	0.797	0.734	0.661	0.569	0.451
Sweden	0.772	0.512	0.588	0.622	0.757	0.643	0.680	0.712	0.669	0.675	0.578	0.461	0.457	0.410
United Kingdom	0.411	0.456	0.644	0.725	0.670	0.721	0.743	0.773	0.799	0.648	0.566	0.447	0.531	0.645
United States	0.508	0.662	0.416	0.770	0.917	0.750	0.713	0.698	0.748	0.719	0.626	0.510	0.709	0.679

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
4.818	3.356	4.279	4.045	5.075	4.233	3.285	2.564	3.913	3.233	3.629	3.203	2.554	4.811	2.243	1.246
3.292	4.277	1.106	3.911	1.918	3.528	3.796	0.713	1.36	0.784	3.068	2.02	2.69	2.793	0.795	-2.653
4.804	2.808	1.619	4.226	4.097	5.532	5.233	1.784	2.925	1.881	3.12	3.019	2.823	2.2	0.518	-2.462
5.525	3.065	2.834	3.199	2.16	2.561	3.529	0.705	0.466	0.384	2.296	2.445	3.395	1.693	-0.87	-4.74
3.616	3.964	3.585	6.204	5.02	3.902	5.342	2.286	1.821	2.001	4.113	2.918	4.41	5.333	0.922	-8.019
2.17	2.248	1.061	2.199	3.549	3.188	4.08	1.774	1.064	1.077	2.253	1.961	2.418	2.323	0.091	-2.547
2.654	1.891	0.991	1.802	2.033	2.019	3.21	1.235	-0.002	-0.215	1.208	0.751	3.369	2.663	0.988	-4.72
2.152	2.827	1.095	1.872	1.401	1.464	3.693	1.818	0.454	-0.017	1.532	0.656	2.036	1.482	-1.319	-5.038
2.865	3.033	3.406	4.278	3.924	4.684	3.941	1.926	0.076	0.336	2.237	2.047	3.394	3.921	1.881	-3.915
5.051	4.186	5.1	5.393	2.683	2.026	3.254	1.99	1.502	1.014	3.864	2.739	2.281	2.731	0.751	-1.434
2.335	4.122	2.421	3.865	4.469	4.745	5.053	3.645	2.704	3.098	3.267	3.615	4.017	3.572	0.864	-3.722
4.013	3.939	1.612	2.708	4.205	4.66	4.452	1.262	2.483	2.336	4.235	3.161	4.297	3.314	-0.409	-5.144
4.28	3.052	2.885	3.307	3.607	3.473	3.916	2.461	2.097	2.808	2.951	2.173	2.788	2.685	-0.065	-4.897
4.074	2.515	3.741	4.457	4.355	4.826	4.139	1.08	1.814	2.49	3.573	3.054	2.673	1.947	0	-2.633

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.787	0.707	0.757	0.745	0.801	0.755	0.703	0.663	0.737	0.700	0.722	0.698	0.663	0.787	0.646	0.591
0.703	0.757	0.583	0.737	0.628	0.716	0.731	0.562	0.597	0.566	0.691	0.634	0.670	0.676	0.566	0.377
0.786	0.677	0.612	0.754	0.747	0.826	0.810	0.621	0.683	0.626	0.694	0.688	0.678	0.643	0.551	0.388
0.826	0.691	0.678	0.698	0.641	0.663	0.716	0.561	0.548	0.544	0.649	0.657	0.709	0.616	0.475	0.263
0.721	0.740	0.719	0.863	0.798	0.737	0.816	0.648	0.623	0.632	0.748	0.683	0.765	0.815	0.573	0.083
0.642	0.646	0.581	0.643	0.717	0.698	0.746	0.620	0.581	0.582	0.646	0.630	0.655	0.650	0.528	0.383
0.668	0.626	0.577	0.622	0.634	0.633	0.699	0.591	0.523	0.511	0.589	0.564	0.707	0.669	0.577	0.264
0.641	0.678	0.583	0.625	0.600	0.603	0.725	0.622	0.548	0.522	0.607	0.559	0.634	0.604	0.451	0.247
0.680	0.689	0.709	0.757	0.738	0.780	0.739	0.628	0.527	0.541	0.645	0.635	0.709	0.738	0.626	0.308
0.800	0.752	0.802	0.818	0.670	0.634	0.701	0.632	0.605	0.578	0.735	0.673	0.648	0.673	0.564	0.444
0.651	0.749	0.656	0.735	0.768	0.783	0.800	0.723	0.671	0.693	0.702	0.721	0.743	0.719	0.570	0.319
0.743	0.739	0.611	0.671	0.753	0.778	0.767	0.592	0.659	0.651	0.755	0.696	0.758	0.704	0.500	0.241
0.757	0.690	0.681	0.704	0.721	0.713	0.737	0.658	0.638	0.677	0.685	0.642	0.676	0.670	0.519	0.254
0.746	0.661	0.728	0.767	0.762	0.787	0.750	0.582	0.622	0.659	0.719	0.690	0.669	0.630	0.523	0.379

Appendix 5: transformed GDP per capita data															
raw data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Australia	10,082	11,304	11,796	12,034	13,127	14,105	14,508	15,347	16,237	17,283	17,844	18,084	18,809	19,759	
Belgium	9,759	10,683	11,397	11,896	12,603	13,220	13,757	14,481	15,581	16,726	17,856	18,751	19,373	19,588	
Canada	11,110	12,417	12,646	13,368	14,539	15,551	16,121	17,076	18,299	19,155	19,632	19,650	20,050	20,733	
Denmark	10,029	10,867	11,970	12,780	13,824	14,819	15,880	16,361	16,884	17,620	18,574	19,440	20,233	20,588	
Finland	8,598	9,477	10,298	10,964	11,673	12,381	12,949	13,754	14,920	16,202	16,834	16,284	16,006	16,155	
France	9,958	10,905	11,783	12,337	12,939	13,507	14,067	14,765	15,871	17,091	18,128	18,872	19,458	19,648	
Germany	9,834	10,748	11,321	11,994	12,848	13,561	14,186	14,809	15,794	16,863	18,168	19,502	20,283	20,445	
Italy	8,994	9,898	10,563	11,074	11,860	12,556	13,198	14,015	15,101	16,191	17,147	18,011	18,571	18,797	
Netherlands	10,686	11,549	12,040	12,688	13,522	14,234	14,921	15,539	16,446	17,776	19,080	20,073	20,774	21,217	
Norway	12,558	13,898	14,709	15,836	17,351	18,773	19,892	20,713	21,274	22,232	23,443	24,885	26,218	27,382	
Spain	7,281	7,856	8,394	8,828	9,279	9,751	10,279	11,155	12,122	13,183	14,193	15,028	15,464	15,549	
Sweden	9,984	10,886	11,681	12,357	13,356	14,039	14,725	15,624	16,517	17,499	18,216	18,525	18,626	18,536	
United Kingdom	8,601	9,289	10,084	10,865	11,557	12,307	13,054	14,016	15,197	16,086	16,789	17,082	17,468	18,210	
United States	12,249	13,600	14,015	15,089	16,635	17,690	18,538	19,511	20,821	22,169	23,198	23,648	24,700	25,629	
		hi	52,870		diff	45,589		scalemax	57,429						
		low	7,281		10%diff	4,559		scalemin	2,722						
								scalediff	54,707						
transformed data	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Australia	0.135	0.157	0.166	0.170	0.190	0.208	0.215	0.231	0.247	0.266	0.276	0.281	0.294	0.311	
Belgium	0.129	0.146	0.159	0.168	0.181	0.192	0.202	0.215	0.235	0.256	0.277	0.293	0.304	0.308	
Canada	0.153	0.177	0.181	0.195	0.216	0.235	0.245	0.262	0.285	0.300	0.309	0.309	0.317	0.329	
Denmark	0.134	0.149	0.169	0.184	0.203	0.221	0.241	0.249	0.259	0.272	0.290	0.306	0.320	0.327	
Finland	0.107	0.123	0.138	0.151	0.164	0.177	0.187	0.202	0.223	0.246	0.258	0.248	0.243	0.246	
France	0.132	0.150	0.166	0.176	0.187	0.197	0.207	0.220	0.240	0.263	0.282	0.295	0.306	0.309	
Germany	0.130	0.147	0.157	0.169	0.185	0.198	0.210	0.221	0.239	0.258	0.282	0.307	0.321	0.324	
Italy	0.115	0.131	0.143	0.153	0.167	0.180	0.191	0.206	0.226	0.246	0.264	0.279	0.290	0.294	
Netherlands	0.146	0.161	0.170	0.182	0.197	0.210	0.223	0.234	0.251	0.275	0.299	0.317	0.330	0.338	
Norway	0.180	0.204	0.219	0.240	0.267	0.293	0.314	0.329	0.339	0.357	0.379	0.405	0.429	0.451	
Spain	0.083	0.094	0.104	0.112	0.120	0.128	0.138	0.154	0.172	0.191	0.210	0.225	0.233	0.234	
Sweden	0.133	0.149	0.164	0.176	0.194	0.207	0.219	0.236	0.252	0.270	0.283	0.289	0.291	0.289	
United Kingdom	0.107	0.120	0.135	0.149	0.162	0.175	0.189	0.206	0.228	0.244	0.257	0.262	0.270	0.283	
United States	0.174	0.199	0.206	0.226	0.254	0.274	0.289	0.307	0.331	0.355	0.374	0.383	0.402	0.419	

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
20,922	21,778	22,860	23,959	25,182	26,321	27,436	28,390	29,619	30,859	32,306	33,878	35,308	37,398	38,246	38,663
20,594	21,886	22,489	23,730	24,405	25,576	27,058	27,739	28,448	29,173	30,687	32,100	33,799	35,530	36,339	35,534
21,951	22,799	23,364	24,534	25,608	27,203	28,979	29,847	30,883	31,843	33,409	35,150	36,943	38,449	39,031	37,947
22,115	23,182	24,130	25,226	25,965	26,926	28,392	29,133	29,637	30,305	31,766	33,528	35,689	37,227	37,512	35,828
17,022	18,001	18,944	20,415	21,630	22,754	24,442	25,498	26,325	27,359	29,142	30,436	32,680	35,278	36,205	33,445
20,429	21,255	21,821	22,623	23,614	24,607	25,995	26,866	27,399	28,098	29,250	30,546	32,086	33,598	34,178	33,434
21,320	22,088	22,672	23,454	24,187	25,030	26,378	27,284	27,670	28,176	29,323	30,508	32,596	34,483	35,656	34,388
19,599	20,572	21,193	21,958	22,526	23,172	24,489	25,415	25,875	26,420	27,434	28,130	29,456	30,539	30,558	29,068
22,135	23,157	24,292	25,657	26,815	28,293	29,732	30,757	31,080	31,706	33,110	35,021	37,330	39,847	41,323	39,877
29,211	30,915	32,939	35,163	36,290	37,295	39,102	40,613	41,634	42,721	45,127	47,520	49,756	52,065	52,870	51,985
16,204	17,183	17,893	18,863	19,859	20,999	22,349	23,421	24,298	25,161	26,228	27,509	29,060	30,484	30,858	29,625
19,547	20,632	21,330	22,282	23,468	24,903	26,533	27,401	28,444	29,625	31,396	33,146	35,532	37,513	37,878	35,951
19,340	20,289	21,221	22,252	23,251	24,325	25,737	26,862	27,771	29,051	30,668	32,084	33,856	35,561	36,079	34,388
26,907	27,827	29,077	30,541	31,858	33,502	35,252	36,065	36,950	38,324	40,451	42,681	44,823	46,577	47,155	45,934

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.333	0.348	0.368	0.388	0.411	0.431	0.452	0.469	0.492	0.514	0.541	0.569	0.596	0.634	0.649	0.657
0.327	0.350	0.361	0.384	0.396	0.418	0.445	0.457	0.470	0.483	0.511	0.537	0.568	0.600	0.614	0.600
0.351	0.367	0.377	0.399	0.418	0.447	0.480	0.496	0.515	0.532	0.561	0.593	0.626	0.653	0.664	0.644
0.354	0.374	0.391	0.411	0.425	0.442	0.469	0.483	0.492	0.504	0.531	0.563	0.603	0.631	0.636	0.605
0.261	0.279	0.297	0.323	0.346	0.366	0.397	0.416	0.431	0.450	0.483	0.507	0.548	0.595	0.612	0.562
0.324	0.339	0.349	0.364	0.382	0.400	0.425	0.441	0.451	0.464	0.485	0.509	0.537	0.564	0.575	0.561
0.340	0.354	0.365	0.379	0.392	0.408	0.432	0.449	0.456	0.465	0.486	0.508	0.546	0.581	0.602	0.579
0.308	0.326	0.338	0.352	0.362	0.374	0.398	0.415	0.423	0.433	0.452	0.464	0.489	0.508	0.509	0.482
0.355	0.374	0.394	0.419	0.440	0.467	0.494	0.512	0.518	0.530	0.555	0.590	0.633	0.679	0.706	0.679
0.484	0.515	0.552	0.593	0.614	0.632	0.665	0.693	0.711	0.731	0.775	0.819	0.860	0.902	0.917	0.900
0.246	0.264	0.277	0.295	0.313	0.334	0.359	0.378	0.394	0.410	0.430	0.453	0.481	0.507	0.514	0.492
0.308	0.327	0.340	0.358	0.379	0.405	0.435	0.451	0.470	0.492	0.524	0.556	0.600	0.636	0.643	0.607
0.304	0.321	0.338	0.357	0.375	0.395	0.421	0.441	0.458	0.481	0.511	0.537	0.569	0.600	0.610	0.579
0.442	0.459	0.482	0.509	0.533	0.563	0.595	0.609	0.626	0.651	0.690	0.730	0.770	0.802	0.812	0.790

Appendix 6: rank correlations									
	Bus. Cycles	Core	Base	Core rank	Base rank	d	d^2		
Australia	1980-1989	0.5133	0.5371	9	8	1	1		
Belgium	1980-1989	0.4900	0.5998	7	13	-6	36		
Canada	1980-1989	0.4945	0.5197	8	5	3	9		
Denmark	1980-1989	0.4749	0.5311	4	7	-3	9		
Finland	1980-1989	0.4753	0.5957	5	11	-6	36		
France	1980-1989	0.4760	0.5287	6	6	0	0		
Germany	1980-1989	0.5273	0.5917	11	9	2	4		
Italy	1980-1989	0.4171	0.4873	2	3	-1	1		
Netherlands	1980-1989	0.5333	0.5957	13	10	3	9		
Norway	1980-1989	0.5690	0.6420	14	14	0	0	Σd^2	
Spain	1980-1989	0.3207	0.4114	1	1	0	0	210	
Sweden	1980-1989	0.5218	0.5976	10	12	-2	4		
United Kingd	1980-1989	0.4450	0.4972	3	4	-1	1	ρ	
United States	1980-1989	0.5320	0.4424	12	2	10	100	0.538	
Australia	1990-1999	0.6003	0.5531	11	5	6	36		
Belgium	1990-1999	0.5749	0.6362	10	13	-3	9		
Canada	1990-1999	0.5677	0.5685	9	6	3	9		
Denmark	1990-1999	0.5637	0.6298	7	12	-5	25		
Finland	1990-1999	0.4776	0.5906	2	7	-5	25		
France	1990-1999	0.5495	0.5978	5	8	-3	9		
Germany	1990-1999	0.5649	0.6049	8	10	-2	4		
Italy	1990-1999	0.5085	0.5135	3	3	0	0		
Netherlands	1990-1999	0.6057	0.6197	12	11	1	1		
Norway	1990-1999	0.6664	0.7030	14	14	0	0	Σd^2	
Spain	1990-1999	0.3920	0.4262	1	1	0	0	248	
Sweden	1990-1999	0.5501	0.6000	6	9	-3	9		
United Kingd	1990-1999	0.5408	0.5355	4	4	0	0	ρ	
United States	1990-1999	0.6271	0.4980	13	2	11	121	0.455	
Australia	2000-2007	0.6782	0.6302	12	7	5	25		
Belgium	2000-2007	0.6274	0.6534	6	10	-4	16		
Canada	2000-2007	0.6486	0.6059	9	4	5	25		
Denmark	2000-2007	0.6530	0.7019	10	13	-3	9		
Finland	2000-2007	0.5719	0.6415	2	8	-6	36		
France	2000-2007	0.6095	0.6428	5	9	-4	16		
Germany	2000-2007	0.5965	0.6273	4	6	-2	4		
Italy	2000-2007	0.5849	0.5657	3	3	0	0		
Netherlands	2000-2007	0.6776	0.6612	11	11	0	0		
Norway	2000-2007	0.7544	0.7515	14	14	0	0	Σd^2	
Spain	2000-2007	0.5531	0.5394	1	1	0	0	286	
Sweden	2000-2007	0.6351	0.6787	7	12	-5	25		
United Kingd	2000-2007	0.6428	0.6082	8	5	3	9	ρ	
United States	2000-2007	0.6986	0.5412	13	2	11	121	0.371	

	Bus. Cycles	Base	-2se	Base rank	-2se rank	d	d^2		
Australia	1980-1989	0.5371	0.5540	8	6	2	4		
Belgium	1980-1989	0.5998	0.6295	13	9	4	16		
Canada	1980-1989	0.5197	0.5468	5	5	0	0		
Denmark	1980-1989	0.5311	0.5699	7	8	-1	1		
Finland	1980-1989	0.5957	0.6490	11	13	-2	4		
France	1980-1989	0.5287	0.5591	6	7	-1	1		
Germany	1980-1989	0.5917	0.6313	9	10	-1	1		
Italy	1980-1989	0.4873	0.5239	3	3	0	0		
Netherlands	1980-1989	0.5957	0.6325	10	11	-1	1		
Norway	1980-1989	0.6420	0.6757	14	14	0	0	Σd^2	
Spain	1980-1989	0.4114	0.4347	1	1	0	0		28
Sweden	1980-1989	0.5976	0.6467	12	12	0	0		
United King	1980-1989	0.4972	0.5367	4	4	0	0	ρ	
United State	1980-1989	0.4424	0.4624	2	2	0	0		0.938
Australia	1990-1999	0.5531	0.5683	5	4	1	1		
Belgium	1990-1999	0.6362	0.6643	13	12	1	1		
Canada	1990-1999	0.5685	0.5939	6	6	0	0		
Denmark	1990-1999	0.6298	0.6670	12	13	-1	1		
Finland	1990-1999	0.5906	0.6325	7	8	-1	1		
France	1990-1999	0.5978	0.6241	8	7	1	1		
Germany	1990-1999	0.6049	0.6403	10	9	1	1		
Italy	1990-1999	0.5135	0.5478	3	3	0	0		
Netherlands	1990-1999	0.6197	0.6566	11	11	0	0		
Norway	1990-1999	0.7030	0.7309	14	14	0	0	Σd^2	
Spain	1990-1999	0.4262	0.4454	1	1	0	0		8
Sweden	1990-1999	0.6000	0.6415	9	10	-1	1		
United King	1990-1999	0.5355	0.5748	4	5	-1	1	ρ	
United State	1990-1999	0.4980	0.5159	2	2	0	0		0.982
Australia	2000-2007	0.6302	0.6450	7	5	2	4		
Belgium	2000-2007	0.6534	0.6780	10	9	1	1		
Canada	2000-2007	0.6059	0.6308	4	4	0	0		
Denmark	2000-2007	0.7019	0.7399	13	13	0	0		
Finland	2000-2007	0.6415	0.6838	8	10	-2	4		
France	2000-2007	0.6428	0.6677	9	8	1	1		
Germany	2000-2007	0.6273	0.6570	6	7	-1	1		
Italy	2000-2007	0.5657	0.6018	3	3	0	0		
Netherlands	2000-2007	0.6612	0.6947	11	11	0	0		
Norway	2000-2007	0.7515	0.7754	14	14	0	0	Σd^2	
Spain	2000-2007	0.5394	0.5665	1	2	-1	1		14
Sweden	2000-2007	0.6787	0.7160	12	12	0	0		
United King	2000-2007	0.6082	0.6477	5	6	-1	1	ρ	
United State	2000-2007	0.5412	0.5533	2	1	1	1		0.969

		Bus. Cycles	Base	+2se	Base rank	+2se rank	d	d^2	
	Australia	1980-1989	0.5371	0.6384	8	7	1	1	
	Belgium	1980-1989	0.5998	0.6589	13	9	4	16	
	Canada	1980-1989	0.5197	0.6252	5	4	1	1	
	Denmark	1980-1989	0.5311	0.6456	7	8	-1	1	
	Finland	1980-1989	0.5957	0.6839	11	10	1	1	
	France	1980-1989	0.5287	0.6350	6	6	0	0	
	Germany	1980-1989	0.5917	0.6918	9	11	-2	4	
	Italy	1980-1989	0.4873	0.5856	3	3	0	0	
	Netherlands	1980-1989	0.5957	0.6939	10	12	-2	4	
	Norway	1980-1989	0.6420	0.7338	14	14	0	0	Σd^2
	Spain	1980-1989	0.4114	0.4844	1	1	0	0	30
	Sweden	1980-1989	0.5976	0.7249	12	13	-1	1	
	United Kingd	1980-1989	0.4972	0.6257	4	5	-1	1	ρ
	United States	1980-1989	0.4424	0.5741	2	2	0	0	0.934
	Australia	1990-1999	0.5531	0.6769	5	8	-3	9	
	Belgium	1990-1999	0.6362	0.6960	13	10	3	9	
	Canada	1990-1999	0.5685	0.6630	6	5	1	1	
	Denmark	1990-1999	0.6298	0.7045	12	11	1	1	
	Finland	1990-1999	0.5906	0.6329	7	4	3	9	
	France	1990-1999	0.5978	0.6689	8	6	2	4	
	Germany	1990-1999	0.6049	0.6873	10	9	1	1	
	Italy	1990-1999	0.5135	0.6278	3	3	0	0	
	Netherlands	1990-1999	0.6197	0.7277	11	13	-2	4	
	Norway	1990-1999	0.7030	0.7660	14	14	0	0	Σd^2
	Spain	1990-1999	0.4262	0.5038	1	1	0	0	56
	Sweden	1990-1999	0.6000	0.7047	9	12	-3	9	
	United Kingd	1990-1999	0.5355	0.6769	4	7	-3	9	ρ
	United States	1990-1999	0.4980	0.6171	2	2	0	0	0.877
	Australia	2000-2007	0.6302	0.7228	7	9	-2	4	
	Belgium	2000-2007	0.6534	0.7001	10	8	2	4	
	Canada	2000-2007	0.6059	0.6997	4	7	-3	9	
	Denmark	2000-2007	0.7019	0.7607	13	13	0	0	
	Finland	2000-2007	0.6415	0.6836	8	5	3	9	
	France	2000-2007	0.6428	0.6953	9	6	3	9	
	Germany	2000-2007	0.6273	0.6758	6	3	3	9	
	Italy	2000-2007	0.5657	0.6827	3	4	-1	1	
	Netherlands	2000-2007	0.6612	0.7462	11	12	-1	1	
	Norway	2000-2007	0.7515	0.7909	14	14	0	0	Σd^2
	Spain	2000-2007	0.5394	0.6357	1	2	-1	1	74
	Sweden	2000-2007	0.6787	0.7381	12	11	1	1	
	United Kingd	2000-2007	0.6082	0.7370	5	10	-5	25	ρ
	United States	2000-2007	0.5412	0.6235	2	1	1	1	0.837

		Bus. Cycles	Base	EU	Base rank	EU rank	d	d^2	
	Australia	1980-1989	0.5371	0.5315	8	8	0	0	
	Belgium	1980-1989	0.5998	0.6070	13	13	0	0	
	Canada	1980-1989	0.5197	0.5135	5	5	0	0	
	Denmark	1980-1989	0.5311	0.5276	7	7	0	0	
	Finland	1980-1989	0.5957	0.6036	11	12	-1	1	
	France	1980-1989	0.5287	0.5254	6	6	0	0	
	Germany	1980-1989	0.5917	0.5912	9	9	0	0	
	Italy	1980-1989	0.4873	0.4874	3	3	0	0	
	Netherlands	1980-1989	0.5957	0.5949	10	10	0	0	
	Norway	1980-1989	0.6420	0.6438	14	14	0	0	Σd^2
	Spain	1980-1989	0.4114	0.4130	1	1	0	0	2
	Sweden	1980-1989	0.5976	0.5970	12	11	1	1	
	United Kingd	1980-1989	0.4972	0.4916	4	4	0	0	ρ
	United States	1980-1989	0.4424	0.4228	2	2	0	0	0.996
	Australia	1990-1999	0.5531	0.5368	5	5	0	0	
	Belgium	1990-1999	0.6362	0.6382	13	13	0	0	
	Canada	1990-1999	0.5685	0.5603	6	6	0	0	
	Denmark	1990-1999	0.6298	0.6309	12	12	0	0	
	Finland	1990-1999	0.5906	0.5996	7	9	-2	4	
	France	1990-1999	0.5978	0.5966	8	7	1	1	
	Germany	1990-1999	0.6049	0.6030	10	10	0	0	
	Italy	1990-1999	0.5135	0.5040	3	3	0	0	
	Netherlands	1990-1999	0.6197	0.6129	11	11	0	0	
	Norway	1990-1999	0.7030	0.7024	14	14	0	0	Σd^2
	Spain	1990-1999	0.4262	0.4203	1	1	0	0	6
	Sweden	1990-1999	0.6000	0.5970	9	8	1	1	
	United Kingd	1990-1999	0.5355	0.5227	4	4	0	0	ρ
	United States	1990-1999	0.4980	0.4754	2	2	0	0	0.987
	Australia	2000-2007	0.6302	0.6172	7	6	1	1	
	Belgium	2000-2007	0.6534	0.6528	10	10	0	0	
	Canada	2000-2007	0.6059	0.5933	4	4	0	0	
	Denmark	2000-2007	0.7019	0.7034	13	13	0	0	
	Finland	2000-2007	0.6415	0.6465	8	9	-1	1	
	France	2000-2007	0.6428	0.6418	9	8	1	1	
	Germany	2000-2007	0.6273	0.6269	6	7	-1	1	
	Italy	2000-2007	0.5657	0.5536	3	3	0	0	
	Netherlands	2000-2007	0.6612	0.6536	11	11	0	0	
	Norway	2000-2007	0.7515	0.7485	14	14	0	0	Σd^2
	Spain	2000-2007	0.5394	0.5291	1	2	-1	1	6
	Sweden	2000-2007	0.6787	0.6793	12	12	0	0	
	United Kingd	2000-2007	0.6082	0.5940	5	5	0	0	ρ
	United States	2000-2007	0.5412	0.5189	2	1	1	1	0.987

Appendix 7: Critical values of the Spearman Rank Correlation Coefficients						
2-tailed	0.5	0.2	0.1	0.05	0.02	0.01
1-tailed	0.25	0.1	0.05	0.025	0.01	0.005
degrees of freedom: 4	0.600	1.000	1.000			
5	0.500	0.800	0.900	1.000	1.000	
6	0.371	0.657	0.829	0.886	0.943	1.000
7	0.321	0.571	0.714	0.786	0.893	0.929
8	0.310	0.524	0.643	0.738	0.833	0.881
9	0.267	0.483	0.600	0.700	0.783	0.833
10	0.248	0.455	0.564	0.648	0.745	0.794
11	0.236	0.427	0.536	0.618	0.709	0.755
12	0.224	0.406	0.503	0.587	0.671	0.727
13	0.209	0.385	0.484	0.560	0.647	0.703
14	0.200	0.367	0.464	0.538	0.622	0.675
15	0.189	0.354	0.443	0.521	0.604	0.654
16	0.182	0.341	0.429	0.503	0.582	0.635
17	0.176	0.328	0.414	0.485	0.566	0.615
18	0.170	0.317	0.401	0.472	0.550	0.600
19	0.165	0.309	0.391	0.460	0.535	0.584
20	0.161	0.299	0.380	0.447	0.520	0.570
21	0.156	0.292	0.370	0.435	0.508	0.556
22	0.152	0.284	0.361	0.425	0.496	0.544
23	0.148	0.278	0.353	0.415	0.486	0.532
24	0.144	0.271	0.344	0.406	0.476	0.521
25	0.142	0.265	0.337	0.398	0.466	0.511

Appendix 8: IMP values table

	Australia	Belgium	Canada	Denmark	Finland	France	Germany	Italy	Netherlands	Norway	Spain	Sweden	United Kingd	United States
1980	0.531	0.594	0.486	0.503	0.558	0.515	0.617	0.422	0.603	0.606	0.414	0.548	0.481	0.398
1981	0.541	0.574	0.474	0.481	0.554	0.507	0.601	0.437	0.573	0.593	0.401	0.581	0.483	0.413
1982	0.516	0.555	0.461	0.484	0.569	0.510	0.594	0.454	0.574	0.609	0.389	0.596	0.491	0.419
1983	0.501	0.567	0.491	0.510	0.581	0.523	0.596	0.473	0.578	0.627	0.397	0.588	0.502	0.437
1984	0.556	0.578	0.513	0.520	0.594	0.522	0.554	0.498	0.578	0.651	0.383	0.596	0.497	0.447
1985	0.547	0.596	0.527	0.542	0.605	0.529	0.564	0.507	0.596	0.668	0.391	0.599	0.489	0.452
1986	0.531	0.624	0.536	0.584	0.624	0.547	0.591	0.526	0.614	0.669	0.399	0.618	0.493	0.462
1987	0.536	0.626	0.547	0.568	0.624	0.540	0.596	0.500	0.621	0.660	0.433	0.618	0.498	0.461
1988	0.552	0.641	0.597	0.561	0.622	0.548	0.598	0.522	0.609	0.667	0.449	0.615	0.514	0.467
1989	0.560	0.643	0.565	0.558	0.626	0.547	0.605	0.535	0.610	0.670	0.458	0.617	0.525	0.468
1990	0.550	0.651	0.564	0.576	0.640	0.567	0.613	0.547	0.601	0.674	0.473	0.592	0.517	0.463
1991	0.545	0.657	0.541	0.580	0.612	0.577	0.615	0.552	0.597	0.682	0.469	0.589	0.501	0.461
1992	0.541	0.658	0.561	0.583	0.578	0.589	0.597	0.531	0.601	0.687	0.432	0.615	0.518	0.467
1993	0.525	0.634	0.558	0.596	0.545	0.588	0.587	0.489	0.600	0.688	0.398	0.567	0.533	0.477
1994	0.526	0.617	0.581	0.618	0.557	0.595	0.593	0.500	0.597	0.701	0.372	0.585	0.551	0.493
1995	0.528	0.617	0.573	0.646	0.574	0.603	0.605	0.502	0.610	0.700	0.370	0.590	0.531	0.502
1996	0.551	0.623	0.573	0.659	0.580	0.599	0.606	0.502	0.625	0.715	0.392	0.599	0.536	0.510
1997	0.578	0.629	0.576	0.668	0.597	0.608	0.599	0.505	0.641	0.718	0.424	0.597	0.549	0.525
1998	0.588	0.633	0.574	0.685	0.607	0.621	0.612	0.492	0.656	0.731	0.451	0.623	0.558	0.540
1999	0.601	0.642	0.584	0.689	0.617	0.630	0.622	0.515	0.668	0.734	0.482	0.645	0.561	0.543
2000	0.594	0.648	0.593	0.689	0.609	0.639	0.628	0.534	0.671	0.733	0.497	0.657	0.579	0.543
2001	0.598	0.655	0.592	0.695	0.620	0.647	0.628	0.549	0.656	0.736	0.536	0.660	0.591	0.538
2002	0.617	0.654	0.593	0.693	0.626	0.641	0.628	0.554	0.655	0.745	0.527	0.672	0.598	0.535
2003	0.629	0.648	0.593	0.687	0.634	0.637	0.625	0.557	0.654	0.733	0.532	0.672	0.608	0.530
2004	0.641	0.649	0.607	0.695	0.649	0.635	0.619	0.570	0.652	0.753	0.536	0.684	0.622	0.533
2005	0.647	0.648	0.614	0.702	0.653	0.639	0.615	0.576	0.654	0.753	0.553	0.684	0.622	0.539
2006	0.648	0.656	0.625	0.719	0.663	0.645	0.630	0.588	0.667	0.766	0.561	0.693	0.620	0.552
2007	0.667	0.671	0.631	0.734	0.677	0.659	0.646	0.598	0.681	0.792	0.573	0.707	0.626	0.559
2008	0.657	0.658	0.630	0.731	0.669	0.655	0.655	0.583	0.683	0.774	0.538	0.696	0.617	0.541
2009	0.664	0.678	0.620	0.723	0.657	0.659	0.665	0.586	0.676	0.776	0.504	0.679	0.604	0.532