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The Effect of Globalization on Gender Equality within Welfare and Work Life

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The aim of this thesis is to analyze what effect different aspects of globalization have had on gender equality in welfare and work life during the period 1970-2012 using data for up to 171 countries. The KOF index of globalization is used as a proxy to include social, political and economic globalization. Furthermore, gender equality is measured by relative changes in health, education and workforce participation.

In general the results indicate that globalization has a positive effect on female relative to male secondary and tertiary schooling as well as labor force participation; strengthening gender equality. Conversely, the relative labor force participation in the industry sector shows a negative trend with more inequality as a result.

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1. Introduction

Gender equality is important both for individual people and economic development (Klasen and Lamanna, 2009). Looking at data on gender equality in welfare and work life it is visible that there still are gaps between women and men. At the same time the world we live in is becoming more globalized. Moreover, globalization is often viewed as having both positive and negative impacts, making some people winners while others become losers (Bussmann, 2009).

In this thesis I have looked at the relationship between globalization and gender equality in welfare and work life. Studies examining the effect of globalization typically take an economic perspective, using measures like trade openness. However, increased globalization, meaning that civilizations become more integrated, might also affect the way people live and behave in a society. Globalization is complex, affecting information flow, spread of technology, social and political norms as well as economic interactions. Globalization makes it possible for countries to specialize their production (Feenstra, 2003) and it allows ideas and norms to spread. (Arribas, Perez, Tortosa-Ausina, 2008). Considering the different aspects of globalization it is reasonable that it might affect the way we look at gender equality. This thesis has therefore analyzed the effect of globalization trying to answer whether globalization increases or decreases gender equality. Furthermore, using the KOF index of globalization, three aspects, social, political and economic globalization, have been considered. This thesis aims to investigate the effect of these three aspects of globalization on gender equality in welfare and work life, thus expanding the already existing literature. Furthermore, contributing to an expansion of the already existing literature, the effect of globalization is measured in relative terms looking at differences in life expectancy, school enrollment and labor force participation using data for up to 171 countries during the time period 1970-2012.

The remainder of this thesis is organized as follows. Next section starts with a background of globalization and inequality, further follows a discussion covering basic principles and results from theory and related studies concluded with a hypothesis. Section 3 explains methodology and variables used in this paper. Section 4 presents the results and section 5 discusses the results. Finally, section 6 concludes the results and present some ideas regarding further research.

2. Background

2.1 Globalization

In this thesis I define globalization as integration between countries, a phenomenon that increases trade of goods and services as well as bringing's people closer together. I try to capture some of the complexity of globalization by considering social, political and economic aspects of globalization. Social globalization concerns norms and cultural values, political globalization includes integration at a political level and economic globalization refers to trade of goods and services as well as investment flows across countries (Dreher, 2006). Globalization is measured using the KOF index of globalization. See table 18 in appendix for a more detailed description of indices and variables included.

2.2 Inequality

Talking about inequality it is important to remember that comparing women to men is not just about justice and equality, it is also a question regarding development. Gender inequality in health, education and employment has been shown to affect the daily life of women and men as well as productivity and economic growth of a country negatively (Klasen and Lamanna, 2009; Niklas Potrafke, 2012). This question is therefore important for all countries and people.

2.3 Theoretical framework and related research

According to trade theories like the Ricardian model, international trade makes it possible for countries to specialize their production to become more productive (Feenstra, 2003). Specialization may in turn affect job creation and people's affordability to pay for health and education. From a macroeconomic perspective it is possible that economic globalization and trade generates higher income for the state. Meaning that the government get more money that they can use for public spending like investments in better education and health facilities (Bussmann, 2009). Studies examining the effect of globalization often use trade openness to estimate a measure of globalization. Margit Bussmann (2009) analyzes whether women are the winners or losers from globalization, using trade openness to estimate the effect on women's welfare and work life. In relative terms, comparing women to men, the result does not support that welfare increase with

globalization. However, the results indicate that the effect of increased trade openness has different effect for countries depending on whether they are members of Organization for Economic Co-operation and Development, OECD, or not. In non-OECD countries female labor force participation increase while it decreased in OECD countries. In absolute terms female labor force participation in non-OECD countries increases in the agricultural and manufacturing sectors but decreases in the service sector. The results for OECD countries show increased female labor force participation in the service sector, while there is a visible decrease in the agricultural and manufacturing sectors, furthermore, the changes are slightly greater for women than for men.

Analyzing different measures of economic globalization Richards and Gelleny (2007) show that overall participation in global economic activity seems to have a positive affect on the status of women. However, they find that the relationship between economic globalization and the status of women varies for different types of globalization, status and time periods.

Moreover, discussing whether “good times are good for women” Dollar and Gatti (1999) finds that increased income per capita is positive for gender equality in education and health and that gender inequality in education is bad for economic growth. They also show that religious preference, regional factors and civil freedom have a big impact on gender inequality.

Gray, Kittilson and Sandholtz (2006) argues that globalization affect norms and ideas in a country as well as economic integration, using trade as a measure of globalization. They find that health, literacy, participation in government decisions and work force outcomes among women improve as countries become more open to international influences. Membership in international organizations like the UN and World Bank as well as investment activity and trade are repeatedly found to improve the situation of women.

Further considering the social effects of globalization Cho (2013) concludes that economic globalization has no effect when controlling for social globalization. The paper states that social globalization has a positive impact on women. Information flow, exchange of ideas and images are good for women’s social rights while personal contacts and communication with people in different countries is good for women’s economic empowerment.

Theory also states that the more international activity a country is engaged in, the more likely they are to be affected by norms and ideas of other countries (Gray-Kittilson and Sandholtz, 2006). Assuming that the norms and ideas of the international society is positive for women's rights, social globalization should have a positive effect on the welfare and work life of women. According to theory social globalization, including tourism and information flows could be expected to affect education levels positively. Increased possibility of working abroad could also increase the incentives for education with greater payoffs (Stark, 2004)

Spread of information, norms and ideas are also related to international organizations and political globalization. Norms and ideas that are dominant in the international society spread through international organizations and forums. Higher degree of participation and appreciation of these international mediums indicates that the norms and ideas of the international society are more likely to be integrated in the domestic policies (Gray, Kittilson and Sandholtz, 2006.). International conventions like the Convention on Elimination of all forms of Discrimination Against Women, CEDAW, as well as international conferences and declarations that highlight health, physical quality of life and employment with purpose to improve the living standard of women should therefore have a positive effect on the domestic norms and ideas regarding women's welfare and work life. In addition there are an increased number of Non-Governmental Organizations, NGOs, discussing women's rights. A country signing these conventions and declarations makes it possible for the NGOs to pressure the governments for improved living conditions, decreasing the gender gap in the country (Gray, Kittilson and Sandholtz, 2006).

Exploring differences between developing and developed countries the Stolper-Samuelson theorem predicts that countries abundant in low-skilled labor will focus on the production of low-skilled goods. Increased trade and increased economic globalization should therefore benefit low-skilled workers in low-skilled labor abundant countries. Reflecting upon history, the fact that men traditionally have received higher education while women often have been responsible for household duties it is reasonable to assume that women often work in low-skilled labor market segments and that globalization should lead to gains benefiting women. On the contrary, countries abundant in high-skilled workers specialize their production in producing high-skilled goods. Assuming that women, compared to men, more often work in low-skilled labor force segments therefore means that men will gain more than women from free trade in high-skilled

countries (Feenstra, 2003) Globalization in the sense of the Stolper-Samuelson argument is viewed as job creating indicating that more people get an opportunity to afford to pay for the cost of education and better healthcare themselves. Looking at prior studies authors like Zafiris Tzannatos (1999) looks at the level and changes in female and male labor force participation rates, employment segregation and female relative to male wages. The paper finds that differences in employment and wages are diminishing much faster in developing than developed countries. Furthermore Niklas Potrafke (2012) analyzes the effect of globalization for women in developing countries. Using the Social Institutions and Gender Index (SIGI) Potrafke considers different aspects of institutions that govern women's choices in daily life. He further uses the KOF index of globalization to separate the effect of social, political and economic globalization. The results indicate that globalization is good for women, strengthening institutions positively correlated with gender equality. The results also indicate that it is the social and economic aspects of globalization that affects institutions related to gender equality the most.

Ozler (2000) examines the relationship between increased export activity and share of female employment in developing countries using plant-level data from Turkey. The results show trade liberalization has led to larger employment gains for women relative to men in the manufacturing sector. However, looking at the employment distribution of different sectors it is visible that women still often work in low-paying jobs.

2.4 Hypothesis

Summing up we see that the result of previous studies differs, although most studies indicate that there are differences between countries and that the relationship between globalization and female relative to male health, education and work force participation is positive. The hypothesis of this study is, based on theory and previous studies, that all aspect of globalization has a positive impact on women's welfare and work life relative to men. The differences between countries imply that women in high-income countries benefit less from globalization measuring labor force participation in relative terms. Excluding all OECD countries therefore should lead to a larger positive coefficient measuring economic globalization and labor force participation.

3. Data and Method

3.1 Data

Analyzing the relationship between globalization and gender equality in welfare and work life I use panel data for the years 1970-2012, covering up to 171 countries. To limit the effect of missing observations mean values are calculated with five-year intervals, 1970-1974, 1975-1979, 1980-1984, 1985-1989, 1990-1994, 1995-1999, 2000-2004, 2005-2009 and 2010-2012. All data is collected from the World Bank indicators unless indicated otherwise, (World Bank, 2014.)

Dependent variables:

Estimating the effect on gender equality in welfare and work life are calculated using a ratio for all dependent variables, taking women divide by men. To approximate the effect on welfare and work life the variables are chosen to estimate relative health, education and economic participation.

Gender equality in welfare is tested using two dependent variables. *Life expectancy at birth*, measured in years, assumed to reflect health condition and physical quality of life in a country, and *school enrollment in primary, secondary and tertiary education*, measured as gross percentage. Women's work life is considered looking at *labor force participation rate and labor force participation rates in the service, agriculture and industry sectors*. Labor force participation rate is measured as a percentage of female divided by male population ages 15-64 (modeled ILO estimate) and labor force participation rate in sectors is measured as a percentage of female employees of female employment divided by male employees of male employment.

Independent variables:

The main independent variable used for this thesis is globalization, using the *KOF index of globalization* invented by Dehre (2006). This index includes 23 variables, combined in to three sub-dimensions, social, political and economic globalization. These three sub-dimensions are in turn composed to one index measuring globalization. *Social globalization* concerning norms and cultural values, include data on personal contact, information flows, as well as cultural proximity's like the numbers of McDonald's restaurants in each country. *Political globalization* considers integration on a political engagement level, measuring number of embassies, membership in international

organizations and participation in the UN Security Council missions. Finally, the index of *economic globalization* is composed of data covering trade of goods and service as well as capital flows (Dehre, 2006). Looking at scatter plots of the data I decided to use the logarithm of the KOF index. Moreover, suspecting that it may take some years before the effect of globalization is visible in the variables measuring gender equality in welfare and work life. The KOF index is lagged, implying that the observations for the years 1970-1974 correspond to the years 1975-1979.

Additional independent variables are added measuring *population in total numbers*, *GDP per capita PPP for constant 2005 international dollars* and *fertility rate measured by total birth per women*. Some of the dependent variables are also used as independent variables in some of the regressions. These variables are added to control for effects that otherwise might lead to misinterpretations of the effect globalization has on the dependent variables. To get a better fit of the model I use the logarithm of both population and GDP per capita.

Before concluding the final specification two more variables were tested, *the portion of seats held by women in national parliaments as a percentage* as well as the *Polity IV*, data measuring democracy (Monty G, Jagers and Gurr, 2002). Controlling for these factors had a big impact on some of the other variables, especially the effect of globalization which might be because both portion of seats held by women in national parliaments and degree of democracy in a country are closely related to globalization. This view is strengthened by articles like David Held (1997) and Barry Eichengreen as well as David Leblanc (2008). Suspecting that, both portion of seats held by women in national parliaments and the democracy measure, can be seen as part of the effect of globalization, both variables were excluded from the final regression.

3.2 Descriptive statistics

Table 1: Descriptive statistics

| | Obs | Mean | St.Dev. | Min | Max |
|---|-------|----------|----------|----------|----------|
| Ln KOF overall _{t-1} | 1376 | 3.728607 | .398259 | 2.625326 | 4.525861 |
| Ln KOF social _{t-1} | 1424 | 3.543833 | .5971013 | 1.813195 | 4.526729 |
| Ln KOF political _{t-1} | 1522 | 3.525046 | 1.014271 | 0 | 4.581878 |
| Ln KOF economic _{t-1} | 1116 | 3.814727 | .4405713 | 2.25918 | 4.584162 |
| Female/male life expectancy at birth | 11753 | 1.074441 | .0375349 | .9543503 | 1.328 |
| Female/male primary school enrollment | 1099 | 1.03038 | .5052011 | .0375542 | 5.76471 |
| Female/male secondary school enrollment | 1337 | .8922341 | .2527706 | .0836498 | 1.790718 |
| Female/male tertiary school enrollment | 1165 | .912246 | .6170583 | .030042 | 6.894963 |
| Female/male labor force participation | 875 | .6918734 | .213061 | .1295285 | 1.085396 |
| Female/male labor force agriculture | 693 | .7170631 | .5024997 | 0 | 2.933985 |
| Female/male labor force industry | 695 | .5579992 | .3649538 | .05 | 4.096296 |
| Female/male labor force Service | 695 | 1.341685 | .3863941 | .083004 | 3.272727 |
| Ln GDP | 1178 | 8.553303 | 1.261791 | 5.244886 | 11.59016 |
| Fertility rate | 1747 | 3.825814 | 1.965313 | .872 | 9.1464 |
| Ln population | 1846 | 14.99369 | 2.289469 | 9.232943 | 21.01905 |
| Non-OECD | 1854 | .8398058 | .366885 | 0 | 1 |

Analyzing descriptive statistics it is visible that the mean values for life expectancy at birth, primary school enrollment and labor force participation in the service sector are larger for women than men. On the contrary, mean values for secondary and tertiary school enrollment as well as labor force participation, overall, agriculture and industry, are smaller than one, meaning that they are smaller for women than for men.

3.3 Method

Four main empirical models were specified for this thesis, measuring life expectancy, school enrollment, labor force participation and labor force distribution in the service, agricultural and industry sector. As explained in section 3.1 all of the dependent variables are calculated in relative terms, women divided by men.

(1) Life expectancy

$$\text{Lif.exp} = \beta_0 + \beta_1 * \ln(\text{KOF})_{it-1} + \beta_2 * \ln(\text{GDP})_{it} + \beta_3 * \text{Lab.for}_{it} + \beta_4 * \text{Fert}_{it} + \beta_5 * \ln(\text{Pop})_{it} + \beta_6 * \text{Sch.sec}_{it} + u_{it}$$

(2) Primary, secondary and tertiary school enrollment.

$$\text{Sch.enr} = \beta_0 + \beta_1 * \ln(\text{KOF})_{it-1} + \beta_2 * \ln(\text{GDP})_{it} + \beta_3 * \text{Fert}_{it} + \beta_4 * \ln(\text{Pop})_{it} + u_{it}$$

(3) Labor force participation

$$\text{Lab.for} = \beta_0 + \beta_1 * \ln(\text{KOF})_{it-1} + \beta_2 * \ln(\text{GDP})_{it} + \beta_3 * \text{Fert}_{it} + \beta_4 * \ln(\text{Pop})_{it} + \beta_5 * \text{Sch.sec}_{it} + u_{it}$$

(4) Labor force distributions in the agriculture, service and industry sector

$$\text{Lab.dis} = \beta_0 + \beta_1 * \ln(\text{KOF})_{it-1} + \beta_2 * \ln(\text{GDP})_{it} + \beta_3 * \text{Fert}_{it} + \beta_4 * \ln(\text{Pop})_{it} + \beta_5 * \text{Sch.sec}_{it} + u_{it}$$

With $i = 1 \dots N$; $t = 1 \dots T$

In section 4.1 and 4.4, globalization is measured using overall globalization, KOF_{ove} , while the regressions in section 4.2 and 4.3 use social, political and economic globalization separated, KOF_{soc} , KOF_{pol} and KOF_{eco} .

Testing the sensitivity of the model section 4.3 analyzes whether the effect is robust excluding OECD countries. Further a Hausman specification test indicated that running the regressions with a fixed effects model specification best matches the data. All of the regressions in section 4.1, 4.2 and 4.3 are therefore performed using fixed effects. However, a random effects model is performed as a sensitivity test in section 4.4. All regressions are performed controlling for robust standard errors.

4. Empirical results and analysis

Testing the effect of globalization on gender equality in welfare and work life all of the regressions use the dependent variables measured as a ratio of female relative to male. The results can therefore not tell if the absolute effect for women and men is negative or positive. However, combined with descriptive statistics the results indicate whether globalization significantly affects gender equality and, if it does, the results may also indicate whether globalization increases or decreases gender equality.

The tables in section 4.1 are presented including control variables. To show how the regressions are built and to estimate the sensitivity of the results control variables are added in steps, expressed in different columns. Control variables used in section 4.1 are also used in section 4.2, 4.3 and 4.4, however, they are excluded from the tables to save space.

4.1 Overall globalization

Table 2: Overall globalization and female/male life expectancy

| | (1) Life expectancy | (2) Life expectancy |
|----------------------|------------------------|------------------------|
| Ln KOF Overall $t-1$ | 0.0112 (0.0159) | 0.00536 (0.0171) |
| Ln GDP | -0.000162 (0.00248) | 0.00272 (0.00388) |
| Labor force | 0.00477 (0.0816) | 0.00131 (0.0822) |
| Fertility | | 0.00293 (0.00243) |
| Ln population | | -0.000879 (0.00124) |
| Secondary education | | 0.0195 (0.0350) |
| Constant | 1.033*** (0.0787) | 1.018*** (0.0856) |
| Observations | 367 | 367 |
| R-squared | 0.002 | 0.012 |
| Number of Countries | 136 | 136 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

Looking at table 2, although not significant, the results indicate that globalization has a positive effect on women's life expectancy compared to men.

Table 3: Overall globalization and female/male schooling

| | (1) Primary | (2) Primary | (3) Secondary | (4) Secondary | (5) Tertiary | (6) Tertiary |
|---------------------------|-----------------------|------------------------|----------------------|------------------------|-----------------------|-----------------------|
| Ln KOF (Overall) t_{-1} | -0.0700 (0.114) | -0.0758 (0.115) | 0.216*** (0.0368) | 0.220*** (0.0372) | 0.753*** (0.0908) | 0.755*** (0.0915) |
| Ln GDP | -0.00233 (0.00910) | 0.00565 (0.0110) | 0.00634 (0.00384) | -0.000732 (0.00579) | -1.44e-05 (0.0109) | -0.00696 (0.0133) |
| Fertility | | 0.00748 (0.0124) | | -0.00657 (0.00407) | | -0.00652 (0.00696) |
| Ln population | | -0.000479 (0.00508) | | -0.000912 (0.00216) | | -0.00357 (0.00684) |
| Constant | 1.294*** (0.447) | 1.229*** (0.413) | 0.0470 (0.142) | 0.131 (0.135) | -1.841*** (0.339) | -1.713*** (0.363) |
| Observations | 593 | 593 | 642 | 642 | 551 | 551 |
| R-squared | 0.003 | 0.004 | 0.163 | 0.169 | 0.178 | 0.179 |
| Number of Countries | 156 | 156 | 171 | 171 | 158 | 158 |

Robust standard errors in parentheses

* Significant at 10%. ** Significant at 5%.

*** Significant at 1%.

Examining the effect of globalization in primary, secondary and tertiary schooling, table 3, the results show that globalization benefit women's secondary and tertiary schooling more than that of men's, significant at 1% level. Conversely, the relative effect in primary school enrollment show negative, but not significant, tendencies. Comparing the regressions including economic variables, column 1,3 and 5, with the regressions including all variables, column 2, 4 and 6, there are no noticeable differences, neither in the size nor the signs of the coefficients.

Table 4: Overall globalization and female/male labor force participation

| | (1) Labor force participation | (2) Labor force participation |
|------------------------------|----------------------------------|----------------------------------|
| KOF (Overall) _{t-1} | 0.138*** (0.0212) | 0.138*** (0.0213) |
| Ln (GDP) | 0.00203 (0.00172) | 0.000967 (0.00247) |
| Fertility | | -0.00110 (0.00198) |
| Secondary education | | 0.0329 (0.0458) |
| Ln (population) | | -0.00126 (0.000928) |
| Constant | 0.135 (0.0835) | 0.138 (0.0884) |
| Observations | 382 | 382 |
| R-squared | 0.299 | 0.307 |
| Number of Countries | 136 | 136 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

Tables 4 show the relationship between overall globalization and female relative to male labor force participation. Both column 1 and 2 show a positive coefficient of 0.138 significant at 1% level. Looking at the control variables fertility has a negative, although insignificant coefficient.

The results, testing the effect of overall globalization and labor force participation in the service, agriculture and industry sectors are displayed in table 5. The sign of the coefficients estimating the effect in the service sector is positive while the effect in the agriculture sector seems to be negative. Both coefficients measuring the effect in the industry sector are substantially negative and significant at 1% level.

Table 5: Overall globalization and female/male sector distribution

| | (1) Service | (2) Service | (3) Agriculture | (4) Agriculture | (5) Industry | (6) Industry |
|------------------------------|-----------------------|------------------------|---------------------|-----------------------|----------------------|-----------------------|
| KOF (Overall) _{t-1} | 0.0840 (0.0695) | 0.0783 (0.0763) | -0.0933 (0.166) | -0.0870 (0.162) | -0.564*** (0.135) | -0.540*** (0.135) |
| Ln (GDP) | -0.00227 (0.00731) | -0.000959 (0.00938) | -0.0106 (0.0102) | -0.0212* (0.0126) | 0.00948 (0.00646) | 0.0101 (0.0103) |
| Fertility | | 0.00137 (0.00654) | | -0.0122 (0.00887) | | 0.000962 (0.00677) |
| Secondary education | | 0.0379 (0.220) | | 0.0221 (0.174) | | -0.173* (0.0990) |
| Ln (population) | | 0.00218 (0.00392) | | -0.00816 (0.00551) | | 0.00329 (0.00356) |
| Constant | 1.047*** (0.278) | 0.984*** (0.303) | 1.149* (0.654) | 1.362** (0.626) | 2.699*** (0.508) | 2.709*** (0.453) |
| Observations | 320 | 320 | 320 | 320 | 320 | 320 |
| R-squared | 0.015 | 0.018 | 0.015 | 0.032 | 0.343 | 0.353 |
| Number of Countries | 123 | 123 | 123 | 123 | 123 | 123 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

4.2 Social, political and economic globalization

In this section the regressions are tested looking at the effect of social, political and economic globalization. As mentioned before using the KOF index of globalization makes it possible to investigate whether there are any aspects of globalization that affects gender equality more or less.

Table 6: Social, political and economic globalization and female/male life expectancy

| | (1) Life expectancy | (2) Life expectancy | (3) Life expectancy | (4) Life expectancy |
|-----------------------------|------------------------|------------------------|------------------------|------------------------|
| Ln KOF (Social) t_{-1} | 0.00170 (0.0171) | | | -0.00672 (0.0250) |
| Ln KOF (Political) t_{-1} | | 0.0128 (0.0100) | | 0.0178 (0.0138) |
| Ln KOF (Economic) t_{-1} | | | 0.00169 (0.0159) | -0.00671 (0.0205) |
| Observations | 292 | 292 | 292 | 292 |
| R-squared | 0.031 | 0.036 | 0.031 | 0.037 |
| Number of countries | 107 | 107 | 107 | 107 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

Testing the relationship between social, political, economic globalization and life expectancy all coefficient are positive, tested separately. Controlling for the other aspects of globalization the sign of the coefficient indicate that social and economic globalization has a negative effect on female relative to male life expectancy. None of the results are significant at 10% level.

As seen in table 7 social globalization is negative for female relative to male primary education, furthermore the effect is significant at 5% level controlling for political and economic globalization. The effect in secondary and tertiary school enrollment is positive and significant in all columns except when estimating the effect in secondary school enrollment while controlling for political and economic globalization, column 8. Political globalization show positive tendencies for primary school enrolment as well as significant and positive effects for secondary and tertiary school enrollment. Economic globalization is positive for all levels of school enrollment. Estimating the effect on secondary school enrollment both coefficients are significant. Considering tertiary school enrolment the effect is significant when not controlling for social and political globalization, column 3. Looking at the size of the coefficients it is notable that social globalization has the largest effect on primary school enrolment.

Table 7: Social, political and economic globalization and female/male schooling

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|-----------------------------------|--------------------|--------------------|--------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Primary | Primary | Primary | Primary | Secondary | Secondary | Secondary | Secondary | Tertiary | Tertiary | Tertiary | Tertiary |
| Ln KOF (Social) _{t-1} | -0.103 (0.0902) | | | -0.331** (0.152) | 0.150*** (0.0364) | | | -0.0224 (0.0435) | 0.520*** (0.0730) | | | 0.248** (0.104) |
| Ln KOF (Political) _{t-1} | | 0.0223 (0.0793) | | 0.0555 (0.0944) | | 0.142*** (0.0339) | | 0.0829** (0.0391) | | 0.490*** (0.0483) | | 0.367*** (0.0653) |
| Ln KOF (Economic) _{t-1} | | | 0.0374 (0.0886) | 0.246 (0.196) | | | 0.195*** (0.0369) | 0.142** (0.0546) | | | 0.466*** (0.0723) | 0.0182 (0.108) |
| Observations | 480 | 480 | 480 | 480 | 517 | 517 | 517 | 517 | 452 | 452 | 452 | 452 |
| R-squared | 0.012 | 0.003 | 0.004 | 0.044 | 0.111 | 0.159 | 0.172 | 0.200 | 0.130 | 0.175 | 0.114 | 0.197 |
| Number of Countries | 124 | 124 | 124 | 124 | 135 | 135 | 135 | 135 | 127 | 127 | 127 | 127 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

Table 8: Social, political and economic globalization and female/male labor force participation

| | (1) Labor force | (2) Labor force | (3) Labor force | (4) Labor force |
|--------------------------|----------------------|-----------------------|-----------------------|-----------------------|
| KOF (Social) t_{-1} | 0.115*** (0.0154) | | | 0.0837*** (0.0312) |
| KOF (Political) t_{-1} | | 0.0714*** (0.0200) | | 0.0263 (0.0208) |
| KOF <(Economic) t_{-1} | | | 0.0987*** (0.0241) | 0.0133 (0.0370) |
| Observations | 305 | 305 | 305 | 305 |
| R-squared | 0.283 | 0.209 | 0.218 | 0.300 |
| Number of countries | 107 | 107 | 107 | 107 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

In accordance with table 4, data presented in table 8 confirms a positive relationship between social globalization and female relative to male labor force participation. Tested separately, all aspects of globalization are significant at 1% level. However, no significance was found in political and economical globalization when controlling for the other aspects of globalization.

Furthermore, table 9 shows the results testing the relationship between the different aspects of globalization and labor force participation in the service, agriculture and industry sectors. Starting with social globalization the sign of the coefficients are positive measuring the effect in the service sector, conversely, the effect in the industry and agriculture is negative. The same is true for political globalization. Economic globalization changes sign depending on whether or not control variables for all aspects of globalization are included, both measuring the effect in the service and agricultural sectors. However, the effect in the industry sector is negative in both column 11 and 12. Analyzing the effect in the industry sector and not controlling for the other aspects of globalization, all aspects are negative and significant at 1% level. Controlling for the other aspects of globalization the effect is still negative, though not significant.

The effect in the industry sector

Table 9: Social, political, economic globalization and labor force distribution in sectors

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|-----------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|---------------------|-----------------------|----------------------|----------------------|---------------------|
| | Service | Service | Service | Service | Agriculture | Agriculture | Agriculture | Agriculture | Industry | Industry | Industry | Industry |
| KOF (Social) $t-1$ | 0.0573 (0.0587) | | | 0.0512 (0.0739) | -0.106 (0.118) | | | -0.214 (0.156) | -0.366*** (0.0758) | | | -0.0768 (0.121) |
| KOF (Political) $t-1$ | | 0.0772 (0.0575) | | 0.0814 (0.0751) | | -0.0497 (0.105) | | -0.0197 (0.0985) | | -0.365*** (0.107) | | -0.0965 (0.0650) |
| KOF (Economic) $t-1$ | | | 0.0534 (0.0750) | -0.0615 (0.114) | | | -0.0451 (0.160) | 0.180 (0.223) | | | -0.506*** (0.147) | -0.354 (0.244) |
| Observations | 284 | 284 | 284 | 284 | 284 | 284 | 284 | 284 | 284 | 284 | 284 | 284 |
| R-squared | 0.028 | 0.034 | 0.023 | 0.037 | 0.047 | 0.035 | 0.034 | 0.057 | 0.304 | 0.273 | 0.373 | 0.385 |
| Number of Countries | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 |

Robust standard errors in parentheses

* Significant at 10%. ** Significant at 5%.

*** Significant at 1%.

4.3 Non-OECD countries

Theory and related research indicate that the effect of globalization on women's welfare and work life might differ between countries. Economic trade theory implies that countries will specialize their production, dependent on abundant factors. Assuming that low-income countries often are labor abundant while high-income countries are capital abundant theory suggest that low- and high-income countries will specialize their production differently. Furthermore, based on history, assuming that women often work in low-skilled sectors the effect of globalization in relative terms should differ between countries. Lacking data to control for the effect of social, political and economic globalization separately, all OECD countries are excluded to see whether or not the results seem to be driven by the rich countries.

Table 10: Social, political economic globalization and female/male life expectancy. Non-OECD

| | (1) Life expectancy | (2) Life expectancy | (3) Life expectancy | (4) Life expectancy |
|-----------------------|---------------------------|---------------------------|---------------------------|------------------------|
| KOF (Social) $t-1$ | -0.0225 (0.0127) | | | -0.0225 (0.0259) |
| KOF (Political) $t-1$ | | 0.0186* (0.0101) | | 0.0281** (0.0141) |
| KOF (Economic) $t-1$ | | | 0.00277 (0.0168) | -0.00218 (0.0225) |
| Observations | 225 | 225 | 225 | 225 |
| R-squared | 0.013 | 0.024 | 0.013 | 0.031 |
| Number of Countries | 84 | 84 | 84 | 84 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

Table 10 shows that estimating the relationship between life expectancy and social, political and economic globalization in non-OECD countries, political globalization is positive for female relative to male life expectancy, in addition the effect is significant at 10% respective 5% level, depending on whether or not social and economic globalization is added to the regression as control variables.

Table 11: Social, political economic globalization and female/male schooling. Non-OECD

| | (1) Primary | (2) Primary | (3) Primary | (4) Primary | (5) Secondary | (6) Secondary | (7) Secondary | (8) Secondary | (9) Tertiary | (10) Tertiary | (11) Tertiary | (12) Tertiary |
|-----------------------|-------------------|--------------------|-------------------|---------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| KOF (Social) $t-1$ | -0.143 (0.107) | | | -0.413** (0.182) | 0.164*** (0.0398) | | | 0.0176 (0.0433) | 0.504*** (0.0775) | | | 0.162 (0.104) |
| KOF (Political) $t-1$ | | 0.0204 (0.0832) | | 0.0746 (0.0975) | | 0.125*** (0.0329) | | 0.0575 (0.0364) | | 0.480*** (0.0489) | | 0.384*** (0.0572) |
| KOF (Economic) $t-1$ | | | 0.0211 (0.101) | 0.268 (0.226) | | | 0.190*** (0.0402) | 0.126** (0.0588) | | | 0.457*** (0.0683) | 0.0478 (0.0849) |
| Observations | 374 | 374 | 374 | 374 | 386 | 386 | 386 | 386 | 343 | 343 | 343 | 343 |
| R-squared | 0.017 | 0.002 | 0.001 | 0.054 | 0.134 | 0.148 | 0.179 | 0.199 | 0.204 | 0.322 | 0.194 | 0.342 |
| Number of Countries | 98 | 98 | 98 | 98 | 104 | 104 | 104 | 104 | 100 | 100 | 100 | 100 |

Robust standard errors in parentheses

* Significant at 10%. ** Significant at 5%.

*** Significant at 1%.

Comparing table 7 to table 11, excluding all OECD countries the effect of social globalization in tertiary school enrollment is no longer significant when controlling for political and economic globalization. Neither is the effect of political globalization in secondary education, controlling for social and economic globalization. However, analyzing the effect separately, all aspects of globalization are significant, both considering secondary and tertiary schooling.

Table 12: Social, political economic globalization and female/male labor force participation. Non-OECD

| | (1) Labor force | (2) Labor force | (3) Labor force | (4) Labor force |
|--------------------------|-----------------------|-----------------------|-----------------------|----------------------|
| KOF (Social) t_{-1} | 0.0986*** (0.0148) | | | 0.0769** (0.0328) |
| KOF (Political) t_{-1} | | 0.0639*** (0.0193) | | 0.0313 (0.0218) |
| KOF (Economic) t_{-1} | | | 0.0775*** (0.0227) | -0.00633 (0.0358) |
| Observations | 235 | 235 | 235 | 235 |
| R-squared | 0.288 | 0.241 | 0.208 | 0.310 |
| Number of Countries | 84 | 84 | 84 | 84 |

Robust standard errors in parentheses
* Significant at 10%. ** Significant at 5%.
*** Significant at 1%.

Excluding OECD countries from the regression measuring the effect of social, political and economic globalization in labor force participation do not indicate any large changes in the significant coefficients. Analyzing the effect separately, not including social, political and economic globalization in the control variables, all aspects of globalization are significant at 1% level.

Table 13: Social, political and economic globalization and female/male sector distribution. Non-OECD

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|-----------------------|---------------------|--------------------|------------------|--------------------|-------------------|-------------------|------------------|---------------------|----------------------|----------|---------------------|--------------------|
| | Service | Service | Service | Service | Agriculture | Agriculture | Agriculture | Agriculture | Industry | Industry | Industry | Industry |
| KOF (Social) $t-1$ | 0.168** (0.0807) | | | 0.149 (0.0908) | 0.0925 (0.159) | | | -0.00956 (0.211) | -0.365*** (0.122) | | | 0.0334 (0.189) |
| KOF (Political) $t-1$ | | 0.123* (0.0695) | | 0.0513 (0.0924) | | 0.0183 (0.132) | | -0.159 (0.125) | -0.370*** (0.132) | | | -0.138 (0.0901) |
| KOF (Economic) $t-1$ | | | 0.151 (0.104) | -0.0258 (0.165) | | | 0.148 (0.198) | 0.300 (0.296) | | | -0.509** (0.205) | -0.413 (0.345) |
| Observations | 172 | 172 | 172 | 172 | 172 | 172 | 172 | 172 | 160 | 160 | 160 | 172 |
| R-squared | 0.103 | 0.080 | 0.080 | 0.106 | 0.037 | 0.029 | 0.046 | 0.060 | 0.168 | 0.154 | 0.150 | 0.375 |
| Number of Countries | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 88 | 88 | 88 | 73 |

Robust standard errors in parentheses

* Significant at 10%. ** Significant at 5%.

*** Significant at 1%.

Finally, in accordance with table 9, analyzing the results in table 13 show negative and significant results in the industry relative labor force participation, estimating the effect of all aspects of globalization, not controlling for each other. However, the effect of social globalization, not controlling for political and economic globalization, is positive and significant at 5% level in the service sector.

4.4 Pooled OLS model

To further test the sensitivity of the results the effect on life expectancy, school enrollment and labor force participation are tested using a pooled OLS regression model.

Table 14: Overall globalization and female/male life expectancy

| | (1) Life expectancy |
|---|------------------------|
| Ln KOF Overall t_{-1} | 0.00456 (0.00571) |
| Observations | 367 |
| R-squared | 0.007 |
| Robust standard errors in parentheses | |
| * Significant at 10%. ** Significant at 5%. | |
| *** Significant at 1%. | |

Testing the effect of overall globalization on life expectancy, using a pooled OLS regression model, the results in table 14 indicate a positive relationship. Comparing the results to table 2, testing the regression with fixed effects model, there are no noticeable changes.

Table 15: Overall globalization and female/male schooling

| | (1) Primary | (2) Secondary | (3) Tertiary |
|---|-----------------------|----------------------|----------------------|
| Ln KOF Overall t_{-1} | -0.169*** (0.0523) | 0.0516** (0.0244) | 0.227*** (0.0677) |
| Observations | 593 | 642 | 551 |
| R-squared | 0.037 | 0.012 | 0.018 |
| Robust standard errors in parentheses | | | |
| * Significant at 10%. ** Significant at 5%. | | | |
| *** Significant at 1%. | | | |

Looking at table 15, the sign of the coefficients estimating the effect in secondary and tertiary school enrollment are positive and significant, confirming the results of table 3. Furthermore, in accordance with table 3 the effect of primary school enrollment is negative, in addition it is also significant at 1% level. Some changes are visible in the size of the coefficients.

Table 16: Overall globalization and female/male labor force participation

| | (1) |
|---|---------------------------|
| | Labor force participation |
| Ln KOF Overall $t-1$ | -0.105*** (0.0297) |
| Observations | 382 |
| R-squared | 0.044 |
| Robust standard errors in parentheses | |
| * Significant at 10%. ** Significant at 5%. | |
| *** Significant at 1%. | |

As seen in table 16 the effect of overall globalization measured in labor force participation is significantly negative estimating the effect with a pooled OLS regression. In contrast, table 4, estimating the regression with fixed effects model, show a significant and positive effect.

Table 17: Overall globalization and female/male sector distribution

| | (1) | (2) | (3) |
|---|----------------------|-----------------------|-----------------------|
| | Service | Agriculture | Industry |
| Ln KOF Overall $t-1$ | 0.304*** (0.0721) | -0.488*** (0.0941) | -0.349*** (0.0807) |
| Observations | 320 | 320 | 320 |
| R-squared | 0.100 | 0.109 | 0.165 |
| Robust standard errors in parentheses | | | |
| * Significant at 10%. ** Significant at 5%. | | | |
| *** Significant at 1%. | | | |

Finally, estimating the effect in labor force participation for the service, agriculture and industry sectors, using a pooled OLS model, the effect of overall globalization in the service sector is positive while the effects in the agriculture and industry sectors are negative, all coefficients are statistically significant at 1% level. Comparing the results to table 5, there are some changes visible in the size of the coefficients. Furthermore, the results in table 5 do not show statistically significant coefficients, neither in the service nor the agriculture sector.

5. Discussion

Looking at descriptive statistics the mean value for female relative to male life expectancy is 1.074441 indicating that women in average live longer than men. Moreover, analyzing the relationship between globalization and female relative to male life expectancy the results indicate a positive effect looking at overall globalization, both using a fixed effects and pooled OLS regression model specification. Analyzing the effect of social, political and economic globalization separately the coefficient indicates a positive effect for all forms of globalization. However, according to these results globalization tends to lead to an increase in the life expectancy gap between women and men. Though, most of the results are statistically insignificant.

Further, looking at descriptive statistics, the mean value of primary school enrollment indicates that more women than men are enrolled in primary school. Considering secondary and tertiary schooling the pattern is reversed. Testing the relationship between globalization and school enrollment in secondary and tertiary schooling the overall effect is positive and significant, both using a fixed effect and a pooled OLS regression model. Taking a closer look at the different levels of globalization the effect is positive and significant for almost aspects of globalization, with some exceptions using the other aspects of globalization as control variables. Excluding OECD countries from the regression, the effect is the same as in previous tests, not including any aspects of globalization as control variables. Summing up, in accordance with the hypothesis, globalization mainly seems to have a positive effect in secondary and tertiary school enrollment. In contrast, the regressions testing the relationship between globalization and relative primary school enrollment mainly indicate insignificant but negative effects. The results imply that globalization has a positive effect on gender equality. In accordance with the hypothesis, globalization increases female relative to male school enrollment in secondary and tertiary schooling, significantly reducing the gap between women and men. Moreover, though not significant, the results indicate that globalization increases gender equality in primary school enrollment.

Analyzing the effect of globalization on gender equality within work life, the results testing globalization and female relative to male labor force participation indicates both

positive and significant effects for women relative to men, looking at overall as well as analyzing the effect of social, political and economic globalization separately.

The results indicate that the effect of globalization mainly seems to benefit women, increasing gender equality. However, testing the effect of overall globalization using a pooled OLS regression model the results show a negative significant effect.

Indicating that the results might be sensitive to changes in the model specification.

Finally, analyzing the effect in different sectors overall globalization in the industry sector is significantly negative. Looking at social political and economic globalization, without controlling for each other, the same is true for all aspects of globalization. Both excluding OECD countries from the regressions as well as testing the effect using a pooled OLS regression model, the result is robust. Indicating that globalization, in contrast to the hypothesis, is negative for gender equality within labor force participation in the industry sector. Looking at descriptive statistics it is visible that this is a male dominated sector and the results indicate that globalization further increase the portion of men working in this sector.

The results confirm that globalization is a complex phenomenon. Testing the relationship for different aspects of globalization there are no clear pattern indicating that one aspect of globalization affects gender equality more or less than the others. Furthermore, testing different regression models and changing the control variables as well as the number of countries included in the regression, it is reasonable to believe that the results might be a bit sensitive for changes in the model specification. However, the results studying school enrollment and labor force participation in the industry sector are fairly robust for all of the regressions.

6. Conclusion

This thesis analyzes the relationship between social, political, economic globalization and gender equality in welfare and work life. Concluding the results globalization seems to have a positive effect on female relative to male secondary and tertiary school enrollment, both testing overall as well as social, political and economic globalization.

The effect on labor force participation seems to be positive both testing overall as well as social, political and economic globalization. In addition, the effect tends to be most robust testing the effect of social globalization. However, using a pooled OLS model specification the coefficients are significantly negative.

Considering labor force participation in different sectors the results indicate that globalization has a negative effect on female relative to male labor force participation in the industry sector, significant both testing overall as well as social, political and economic globalization and excluding OECD countries.

Answering the research question of this paper, whether globalization affects gender equality within welfare and work life, and furthermore, if there are any differences visible in the effect of social, political and economic globalization, the results are mainly positive. According to these results, globalization overall has a significant positive effect both on gender equality in secondary and tertiary schooling as well as labor force participation. However, the effect in the industry sector is negative, decreasing gender equality. Furthermore, as seen by the results from related research, the effect of globalization may differ between countries. Further research is therefore needed to define a more robust relationship between the different aspects of globalization and gender equality in welfare and work life. It could for example be interesting to further analyze differences between low- and high-income countries and social, political and economic globalization.

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8. Appendix

Table 18: 2013 KOF Index of Globalization

| Indices and Variables | Weights |
|---|---------|
| A. Economic Globalization | [36%] |
| i) Actual Flows | (50%) |
| Trade (percent of GDP) | (21%) |
| Foreign Direct Investment, stocks (percent of GDP) | (28%) |
| Portfolio Investment (percent of GDP) | (24%) |
| Income Payments to Foreign Nationals (percent of GDP) | (27%) |
| ii) Restrictions | (50%) |
| Hidden Import Barriers | (24%) |
| Mean Tariff Rate | (27%) |
| Taxes on International Trade (percent of current revenue) | (26%) |
| Capital Account Restrictions | (23%) |
| B. Social Globalization | [37%] |
| i) Data on Personal Contact | (34%) |
| Telephone Traffic | (25%) |
| Transfers (percent of GDP) | (3%) |
| International Tourism | (26%) |
| Foreign Population (percent of total population) | (21%) |
| International letters (per capita) | (24%) |
| ii) Data on Information Flows | (35%) |
| Internet Users (per 1000 people) | (33%) |
| Television (per 1000 people) | (36%) |
| Trade in Newspapers (percent of GDP) | (31%) |
| iii) Data on Cultural Proximity | (31%) |
| Number of McDonald's Restaurants (per capita) | (45%) |
| Number of Ikea (per capita) | (45%) |
| Trade in books (percent of GDP) | (10%) |

| | |
|---|-------|
| C. Political Globalization | [26%] |
| Embassies in Country | (25%) |
| Membership in International Organizations | (28%) |
| Participation in U.N. Security Council Missions | (22%) |
| International Treaties | (26%) |

Source:

Dreher, Axel, 2006, Does Globalization Affect Growth?
Empirical Evidence from a new Index, *Applied Economics* 38, 10: 1091-1110.

Updated in:

Dreher, Axel; Noel Gaston and Pim Martens, 2008, *Measuring Globalization*
- *Gauging its Consequence*, New York: Springer.

Table 19: List of countries

Non-OECD:

Afghanistan, Albania, Algeria, American Samoa, Andorra, Angola, Antigua and Barbuda, Argentina, Aruba, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Cayman Islands, Central African Republic, Chad, Channel Islands, China, Colombia, Comoros, Congo, Dem. Rep., Congo, Rep., Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, Arab Rep., El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Faeroe Islands, Fij, French Polynesia, Gabon, Gambia, The, Georgia, Ghana, Greece, Greenland, Grenada, Guam, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran, Islamic Rep., Iraq, Isle of Man, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Korea, Dem. Rep., Kuwait, Kyrgyz Republic, Lao PDR, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Macao SAR, China, Macedonia, FYR, Madagascar, Malawi, Malaysia, Maldives ,Mali, Malta, Marshall Islands, Mauritania, Mauritius, Micronesia, Fed. Sts., Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, New Caledonia, Nicaragua, Niger, Nigeria, Northern Mariana Islands, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Puerto Rico, Qatar, Romania, Russian Federation, Rwanda, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Solomon Islands, Somalia, South Africa, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines ,Sudan, Suriname, Swaziland, Syrian Arab Republic, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, Uganda, Ukraine, United Arab Emirates, Uruguay, Uzbekistan, Vanuatu, Venezuela (RB), Vietnam, Virgin Islands (U.S.), West Bank and Gaza, Yemen., Rep., Zambia, Zimbabwe

OECD:

Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Rep., Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

Table 20: Correlation matrix

| | KOF. ove | KOF. soc | KOF. pol | KOF. eco | Life. exp | Prim. | Sec. | Ter. | Labor force | Agri. | Ind. | Serv. | Fert. | GDP | Pop. | Demo. | Parl. |
|-------------|----------|----------|----------|----------|-----------|---------|---------|---------|-------------|---------|---------|---------|---------|---------|--------|---------|--------|
| KOFove | 1.0000 | | | | | | | | | | | | | | | | |
| KOFsoc | 0.9098 | 1.0000 | | | | | | | | | | | | | | | |
| KOFpol | 0.5740 | 0.2825 | 1.0000 | | | | | | | | | | | | | | |
| KOFeco | 0.8893 | 0.7968 | 0.2629 | 1.0000 | | | | | | | | | | | | | |
| Life.exp | -0.0903 | -0.1055 | -0.0639 | -0.0436 | 1.0000 | | | | | | | | | | | | |
| Prim. | 0.0005 | 0.1015 | -0.1098 | -0.0310 | 0.0154 | 1.0000 | | | | | | | | | | | |
| Sec. | 0.1318 | 0.1409 | -0.0912 | 0.2239 | -0.0012 | 0.3023 | 1.0000 | | | | | | | | | | |
| Ter. | 0.2015 | 0.1989 | 0.0332 | 0.2259 | -0.1356 | 0.2509 | 0.7486 | 1.0000 | | | | | | | | | |
| Labor force | -0.0722 | 0.0591 | -0.2168 | -0.0718 | -0.0302 | 0.2432 | 0.0851 | 0.0971 | 1.0000 | | | | | | | | |
| Agri. | -0.3127 | -0.3855 | 0.1361 | -0.4084 | 0.0631 | 0.0046 | -0.0293 | -0.0788 | 0.0469 | 1.0000 | | | | | | | |
| Ind. | -0.4422 | -0.4829 | -0.1344 | 0.3933 | -0.0337 | 0.0394 | -0.1341 | -0.0279 | 0.1667 | 0.0882 | 1.0000 | | | | | | |
| Serv. | 0.2863 | 0.3166 | -0.0129 | 0.3285 | -0.0672 | -0.1153 | 0.0409 | 0.0575 | -0.0194 | -0.6458 | -0.0667 | 1.0000 | | | | | |
| Fert. | -0.1141 | -0.0947 | 0.0553 | -0.2071 | 0.0390 | 0.0390 | -0.1910 | -0.1490 | 0.0312 | -0.0602 | 0.0935 | -0.0235 | 1.0000 | | | | |
| GDP | 0.0805 | 0.0582 | -0.0148 | 0.1371 | 0.0640 | -0.0883 | 0.1396 | 0.0974 | 0.0411 | 0.0470 | -0.0394 | -0.0028 | -0.6960 | 1.0000 | | | |
| Pop. | 0.1185 | 0.1186 | 0.0662 | 0.0944 | -0.1530 | 0.0894 | -0.0333 | 0.0571 | -0.0210 | 0.0205 | -0.0682 | -0.0158 | -0.0762 | 0.0468 | 1.0000 | | |
| Demo. | 0.2832 | 0.3105 | 0.2457 | 0.1375 | 0.0505 | -0.2435 | 0.0163 | -0.0562 | -0.0272 | 0.2541 | -0.2656 | -0.0243 | -0.0430 | 0.2362 | 0.2362 | 1.0000 | |
| Parl. | 0.5855 | 0.5250 | 0.3162 | 0.5590 | -0.1684 | 0.3058 | 0.1705 | 0.3601 | -0.0335 | -0.3612 | -0.4170 | 0.3196 | 0.2161 | -0.0423 | 0.0168 | -0.0908 | 1.0000 |