The economics of gender equality; a review of the literature in three propositions and two questions

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The economics of gender equality; a review of the literature in three propositions and two questions.

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Abstract

So far, the economic case for gender equality and female empowerment has gained stronger attention in the case of developing countries where women have far less rights and opportunities compared to developed ones. Hence, the grounds supporting gender equality have been much stronger and much more researched in the former. In developed countries, although there are still large differences in labour force participation, income and power, there is at least a growing equality in opportunity, making it less easy to analyse the existing gender inequality in terms of restrictions which need to be lifted in order to reach a fair and efficient division of work.

This paper offers a review of the literature on the economics of gender equality by way of organising it along three propositions and two questions. This way it is possible to combine very different strands of literature, ranging from rather formal explorations within theoretical micro-economics, to more empirically oriented macro-economic research on economic growth, and rather heterodox contributions from feminist economics, illustrating the richness of the debate and the different positions that can be taken.

In many policy documents, gender equality is presented as a worthwhile goal for equity as well as efficiency reasons. For example, the OECD (2012: 13) states: "Gender equality is not just about economic empowerment. It is a moral imperative. It is about fairness and equity and includes many political, social and cultural dimensions. It is also a key factor in self-reported well-being and happiness across the world". The EU is equally determined. According to its website "equality between women and men is a fundamental right, a common value of the EU, and a necessary condition for the achievements of the EU objective of growth, employment and social cohesion".

Not with standing these statement, there appears to be little empirical evidence on the benefits of gender equality with regard to 'growth, employment and social cohesion'. So far, the economic case for gender equality and female empowerment has gained stronger attention in the case of developing countries where women enjoy much less rights and opportunities compared to developed ones. Hence, the grounds supporting gender equality have been much stronger and much more researched in the former (World Bank, 2012). In developed countries, starting from a breadwinner society with very specialized roles for men and women, major developments enhancing gender equality have been achieved. Over the last decades, women have gained equal rights and opportunities and by now even exceed men in educational achievements. Although there are still large differences in labor force participation, income and power, there is at least a growing equality in opportunity, making it less easy to analyse the existing gender inequality in terms of restrictions which need to be lifted in order to reach a fair and efficient division of work.

In addition, there is some debate about the implicit concept of gender equality. In most policy documents, the emphasis is not only on equality in opportunity, but rather on closing the gender gaps in participation and employment, wages and decision-making positions. Several authors have criticized this way of reasoning, because the efficiency argument for gender equality tends to focus only on paid work, thereby ignore the importance of unpaid work (Lewis 2001). Rather than interpreting the unequal division of paid and unpaid work as an unjust and inefficient allocation of labour, the emphasis is on revaluing this difference. There is, therefore, less emphasis on full equality in paid work and more on creating equal-valued positions within paid and unpaid work.

In this paper, we will review the literature on the economics of gender equality. For the sake of the argument we presume that the normative issue (the ethics and morality of gender equality) is generally accepted. The question that remains to be answered, however, refers to the efficiency of gender equality in terms of outcome. Can we indeed argue for a closing of the gender gaps in participation, income and decision-making positions, on the basis of both equity and efficiency considerations?

We will organize the available literature on the economics of gender equality along three propositions and two questions. This way it is possible to combine very different strands of literature, ranging from rather formal explorations within theoretical micro-economics, to more empirically oriented macro-economic research on economic growth, and rather

heterodox contributions from feminist economics. Trying to combine these different strands of literature implies almost by definition that the review is not complete. At the same time, the different perspectives illustrate the richness of the debate and the different positions that can be taken.

The economics of gender equality in three propositions

The standard neoclassical economic theory is often claimed to be rather narrow in its analysis of human behaviour. This is partly due to the fact that the language is rather detached and formal, with limited impact of social considerations. As Amsden (1980: 13) once wrote: "The human subject of neo-classical investigation is a timeless, classless, raceless and cultureless creature, although male, unless otherwise specified". The focus is also on the market place with little emphasis on households and the importance of unpaid work.

A major attempt to include households and the division of paid and unpaid work into economic theory has been made by the Nobel Prize Winner Gary Becker; the 'New Home Economics' is based on his pioneering work. Within the context of the New Home Economics, standard neo-classical theory is applied to topics previously not studied by this theory, like the division of work within the household, the demand for children, altruism in the family, marriage and divorce. Becker's work emphasizes the importance of specialization and although Becker himself is very cautious in presuming biological differences between men and women, his work can be used to illustrate the economic efficiency of a rather traditional division of gender roles.

Becker published his 'A treatise on the family' in 1981 and in his book already anticipated large changes in female labour force participation, partly because of smaller family sizes, growing divorce rates, increasing wages levels and increasing job opportunities in the growing service sector (Becker, 1992). By the end of the 20th century, the specialization model had lost its impact – and its efficiency. Rather the individualized 'adult work model' became the new point of reference, both for the individual man and woman, as well as for the policy departments at national and international levels. In this model it is assumed that each adult participates in the labour market according to his or her abilities (Lewis, 2001; Lewis and Giullari, 2005). The efficiency argument emphasizes the importance of socio-economic equality between men and women: a higher employment rate widens the human capital base, increases economic competitiveness, broadens the tax base, and promotes social inclusion.

The emphasis on a more equal economic role of men and women has had a major impact on the female educational level and employment rate. Yet, vertical segregation, indicating men's dominance in highest status jobs, proved to be difficult to change, as result of which also the wage differential between men and women appeared rather stubborn. Since the 1990's, and partly fuelled by the economic crisis of 2008, several authors have emphasized the importance of more women in higher positions. The argument is partly based on equity reasons, but quite often also an efficiency argument is used. A more equal division of top positions is assumed to be efficient, because it increases the quality of economic decision

making – not because men and women are equal, but rather because men and women are different.

The arguments so far can be summarized in three propositions:

- Men and women are different; it is efficient that they are doing different things
- Men and women are equal; it is efficient that they are doing equal things
- Men and women are different; it is efficient that this difference is used in an equal way

In the following, the available literature will be covered along these lines.

Proposition 1: Men and women are different; it is efficient that they are doing different things

In many instances, specialization enhances economic efficiency. Illustrated by the famous example of the pin factory, Adam Smith describes the advantages as follows: "The division of labour by reducing every man business to some one simple operation and by making this operation the sole employment of his life necessary increases very much the dexterity of the worker" (Adam Smith 1776). This line of thought also plays a major role in the theory of marriage, as elaborated by Gary Becker in his 'A treatise on the Family'.

Becker starts by assuming that "at the beginning everyone is identical; differences in efficiency are not determined by biological or other intrinsic differences" (Becker 1981: 16). In this case, division of work in the family will be profitable because of the gains from specialization in either market or household related activities and the corresponding investments. Of course, the efficiency of specialization does not explain why in most societies, women have specialized in household work, whereas men have been active at the labor market. According to Becker, this gender specific specialization is most likely "a combination of biological difference between men and women – especially differences in their innate capacities to bear and rear children – and discrimination against women in market activities, partly through cultural conditioning" (Becker, 1992: 47). If a couple has a child, the woman is biologically more productive in housework and she will increase her comparative advantage in household production the more time she spends in this activity, because of her investment in household related human capital. As a result, very small initial differences in comparative advantage lead to full specialization and large difference in behaviour (see also Blau and Ferber, 1986; Cigno, 1991).

The gains from specialization depend on several conditions. A first important precondition is the extent of the market. This is related to Adam Smith's (1776) famous argument that the division of labour is determined by the extent of the market. Considering that the fertility rate has dropped and that household chores have been made easier with the help of technology, specializing in housework may be rather inefficient. A second efficiency concern is related to the fact that the long term costs of full specialization may outweigh the short term benefits because of the trend of the 'fluid family'. In light of the increased rate of divorce in the past

decades especially in developed countries (OECD, 2014), the percentage of one person/parent households has increased substantially. In a scenario where most women partially or fully specialize in household work, their economic position substantially deteriorates after a divorce. Moreover, due to their lesser involvement in market work women are entitled to much lower old-age pensions or are not entitled to pensions at all. This has been confirmed by the OECD report "How's life?" (OECD, 2013) indicating that women are substantially overrepresented in the category of poor households led by single parents, and also the proportion of women constituting poor-single adult households over the age of 65 is much larger than that of men across most of the OECD countries.

Of course: the causalities in this case are not obvious and are likely to run both ways: investing in market-oriented human capital by women lowers the efficiency of specialized gender roles but may also be initiated by the lowered efficiency of specialized gender roles. Nevertheless, both theoretical arguments and empirical trends seem to suggest that there is an efficiency case for a more equal positioning of men and women. This leads us to the second proposition:

Proposition 2: Men and women are equal; it is efficient that they are doing equal things

Most of the latest literature on the economics of gender equality starts from the proposition that men and women are not fundamentally different and that women should become equal to men in all socio-economic spheres. The aim is to bridge the gender gaps in education, employment and pay, as well as equalizing the percentage of women and men on powerful positions on the market and in governmental institutions. The emphasis is thus not only on equality in starting positions, but rather on equality in terms of outcomes. The efficiency gains are mainly related to economic growth.

The most frequently used efficiency argument in favour of greater gender equality is the one that represents women as an untapped market resource (Stotsky 2006; Morrison et al, 2007; OXFAM, 2014; World Bank, 2012). This is a supply side perspective, focusing on a more efficient use of human resources by providing women with the same education, employment, and career opportunities. By providing the same opportunities to both sexes and facilitating their path to success, a more efficient outcome will be reached since the best talent will be used from both sexes. Thus, a better allocation of resources is expected to have a beneficial effect on total output. With respect to the empirical research related to the immediate economic consequences of investing in gender equality, the literature is predominantly focused on the case of developing countries. Some of the broader macro research on the relation between gender inequality and economic growth in developing countries is contained in Morrison et al. (2007), Dollar and Gatti (1999), and Klasen and Lamanna (2009). Although these studies do find a positive correlation between different measures of gender equality (e.g. education, employment, wages, health, life expectancy, access to land and credit), they are inconclusive regarding the causality of the relation. More specifically, this type of macro research fails to discern whether increasing gender equality causes growth and development

or that the latter induces an improvement in gender equality. Also, causality channels running in both directions are not excluded.

Some recent literature also focuses on developed countries. Löfström (2009) and Gümbel (2004) for example, examine the relation between different measures of gender equality and the growth and the level of GDP per capita using a panel of industrialized/developed countries. Löfström (2009) estimates the effects of equalizing female employment, hours worked, and productivity (assuming that wages are a perfect representation of productivity) with the corresponding male levels across the EU 27 countries. The estimated effects on GDP range from 14% increase in Slovenia to increases above 40% in Malta, Greece and the Netherlands. The projected GDP increase on the EU level ranges from 14% to 45%. Similarly, Gümbel (2004) explores the relations between GNP levels and growth, and gender inequality in health, education, and employment in 22 industrialized countries. The strongest negative relation is between gender inequality in employment and GNP. The gender gap in secondary education also exhibits a negative effect although much smaller, whereas the inequality in health is rendered insignificant. According to the author the (in)significance of the results can be explained by the broad provision of universal healthcare in industrialized countries as well as the almost inexistent gender gap in secondary education as opposed to the evident employment differences between men and women. Another study in line with the previous two is the OXFAM (2014) report arguing that equalizing the employment rates of men and women in the US, the Eurozone and Japan would lead to increases in GDP by 9%, 13% and 16%, respectively.

With respect to the individual country cases, there are empirical studies available for New Zeeland, Japan, and the province of Quebec in Canada. Bryant et al. (2004) analyzes the effects on GDP of increasing female participation in New Zeeland to the average of the top 5 OECD countries. Although in the calculation the estimated productivity of the inactive female population is rather low, the projected effect on GDP is still positive. More specifically, an increase of the female participation level in New Zeeland to the average of the top 5 OECD countries would induce a 1% increase in GDP relative to the base year 2001. In similar fashion, Le Anh (2013) builds a model of the Japanese economy which estimates a GDP increase (using 2004 as a base year) of 4.1% to 7.5% due to an increase in the female participation rate induced by the removal of the secondary earner disincentives in the current fiscal system. Finally, Fortin et al. (2012) study the labour market implications of a universal low-fee childcare program implemented in 2008 in Quebec in Canada. The recorded effect of this policy is an increase of 3.7% in female employment which was reflected in a 1.7% increase in GDP.

Regardless of the strong theoretical underpinnings and the plausibility of the hypothetical situations in the studies, most of the calculations are still based on fairly strong assumptions, and neglect some important practical aspects. The correlations between the different measures of gender equality and economic growth in the cross-country studies, for example, are neither supported by strong argumentation nor by additional empirical analysis in favour of a causal relationship. A case for a reverse causality can easily be built as well as one in

favour of a simultaneously reinforcing relationship. Moreover, the studies take the absorption of the additional female labour supply on the market as almost automatic without paying too much attention to demand side restrictions (viz Peichl and Siegloch, 2012). Also, the productivity assumptions of the inactive population which are crucial in the calculations do not always have strong theoretical or empirical support. As a final point, most of the time only public expenditure for childcare is included in the calculations whereas the additional costs and consequences for the employers related to family friendly regulation are not factored in (see also below: question 1). Löström (2009: 25) therefore states that the "potential GDP increase must be viewed as a theoretical *ceiling* in terms of the impact of gender equality on the labour market". Considering the scarcity and drawbacks of the above-outlined studies, the use of economic argumentation in pursuing a gender equality agenda in developed countries needs to be explored further.

As an alternative, the dependent variable could change from economic growth in terms of GDP to well-being. If, indeed, higher gender equality improves well-being, then it could be argued that it is a worthwhile investment even if it does not have a positive effect on growth. Although there is some empirical evidence supporting the view that gender equality improves female well-being, most of the studies focusing on developed countries do not report significant differences in subjective well-being between men and women. With respect to the former, Tesch-Römer (2008) reports an interesting finding that improving gender equality decreases differences in well-being between men and women only if gender equality is a desired social value. Conversely, there are no significant well-being effects of further advancing gender equality in societies where it is not highly regarded. Since in most developed countries gender equality is a highly ranked societal goal, it is safe to assume that it will have positive effects on well-being.

Interestingly, most studies (e.g. Kahneman and Krueger, 2006; Di Tella et al., 2003; Easterlin, 2003), do not find a significant difference in subjective well-being or happiness between men and women. Similarly, the most recent OECD life-satisfaction index (OECD, 2013) confirms the lack of significant differences in subjective well-being, but also in job satisfaction regardless of the presence of occupational segregation and its consequences (e.g. lower wages, lower working hours, decision-making positions). This, in turn, indicates that although there are (more or less) socio-economic and political inequalities between the sexes in developed countries, they do not seem to affect their well-being. This - perhaps surprising - phenomenon is frequently explained by the adaptation hypothesis according to which women adapt to their inferior position in society and are happy with it believing that there are no better options available (Sen, 1999). Also, the existence of more traditional norms and values encouraging the breadwinner model in which the main responsibility of women is the household, may contribute to the positive personal assessment of well-being among women.

Until now, the efficiency claim has been made on the basis of the presumed equality between men and women. Yet, there is also a line of research within mainstream economics, to a large extent based on laboratory and experimental research, which provides fairly convincing evidence that men and women differ in their preferences. These differences are likely to translate into gender-specific outcomes in the labour market behaviour. This implies a rather

dramatic change of argument, as the point of departure is no longer the presumed equality, but rather the conviction that we should make better use of the difference between men and women. This brings us to the third proposition:

Proposition 3: Men and women are different; it is efficient that this difference is used in an equal way

The most well-known article on gender differences is by Croson and Gneezy, published in 2009. In this article, the evidence on gender differences in preferences is summarized along three lines: differences in risk preferences, social (other- regarding) preferences and competitive preferences.

The literature review seems to indicate that men and women differ in risk taking: women are more risk averse than men both in laboratory settings and in investment decisions in the field. This may be related to the fact that women experience emotions more strongly; this makes them more risk averse when facing a risky situation. Apart from differences in emotions, women also seem to be less confident than men, e.g. in investment decisions. Finally, there may be a difference in the interpretation of risks. Referring to the work of Elizabeth Arch (1993), Croson and Gneezy (2009: 453) state that: "Males are more likely to see a risky situation as a challenge that calls for participation, while females interpret risky situations as threats that encourage avoidance". There appear also to be differences in social (other-regarding) preferences. Within the economic literature, social preferences are modeled in the form of altruism, envy, inequality aversion or reciprocity. Based on a thorough analysis of a large number of game theoretical studies, Croson and Gneezy conclude that the often contradictory results can be brought in line by the presumption that women are more sensitive to cues in the experimental context than are men. "Research from psychology suggest that women are more sensitive to social cues in determining appropriate behavior (...) Small differences in experimental design and implementation will have larger impacts on female participants than on male participants" (Croson and Gneezy, 2009: 463). Finally, there appears to be rather consistent evidence that men and women differ in their attitudes towards competition. Women appear to be less eager than men to engage in competitive interaction, like tournaments, bargaining and auctions. In addition, men's relative performance seems to be improved under competition, as a result of which in a competitive setting the performance of men increases relative to that of women.

A recent illustration (not covered in the study of Croson and Gneezy) is the study of Hogarth, Karelaia and Trujillo (2012), who analyzed a game show broadcasted by Colombian TV in 2007 to find out whether equally skillful women and men quit competitive environments at the same rate. Results show that women were more prone to voluntarily withdraw from the game; on average, the probability of withdrawal was 6.5% larger for women than for men. Women were more prone to prematurely withdraw from the game when the proportion of women in the group was smaller. However, men were not affected by the gender composition of the game. Bönte (2015) analyzed whether the claim that women are, on average, less competitive than men does hold for the general population across countries. He analyzed a representative cross-sectional data set of individuals from 36 countries and found that,

indeed, women have, on average, lower preferences for competitive situations than men do. In the total sample, only 47% of women state that they like competitive situations, whereas 65% of men agree to be fond of competition. At the same time, although the gender difference is relatively substantial in most countries, the magnitude of difference varies considerably between countries.

The evidence on gender differences in preferences is used to make the argument that women, precisely because they are different, should have a more equal position in the boardroom to counterbalance the riskier and daring male decision making. One of the most well-known studies supporting the business case argument for women in top management is that of Catalyst (2004). This study ranked the Fortune 500 companies in terms of highest representation of women on their top management teams and compared the financial performance (in terms of return on equity and total return to shareholders) of companies in the top quartile to companies in the lowest quartile. The results showed that the companies in the top quartile achieved significantly better financial results than those in the lowest quartile. Since then, interest in the business case for recruiting, developing and advancing women has been growing (e.g.; Smith et al, 2006; MacKinsey 2007; Campbell and Mínguez-Vera, 2008; Terjesen et al., 2009; Srinidhi, 2011). At the same time, the academic literature is still rather thin, with only a few studies providing a more sophisticated analysis of the relationship between board diversity and financial performance of firms (Carter et al., 2010). The main concern with the Catalyst study is the direction of causality: more female board directors may contribute to higher firm performance, but it might also be the case that better-performing firms tend to appoint more women on their boards. In addition, research on European countries tends to indicate less evidently positive results (Smith et al., 2006; Terjesen et al., 2009), which raises the question on the driving mechanisms behind this relationship. A meta-analysis of Boerner et al. (2012) points out that these results may not be completely convincing due to the methodology used, the problems in comparing the studies, and the omission of unobserved factors that could impact the outcome.

So far, the literature focused on the impact of increasing the female representation within the private sector. The same argument can of course be made when it comes to female representatives in high governance positions. The empirical results seem to be mixed, however, which slightly undermines the economic case for pushing gender equality on this level. Beginning with Abrams and Settle (1999) and Lott and Kenny (1999), a part of the economic literature on gender equality argued that women have different preferences in governance. As a result, a higher female presence in governance structures would alter the composition of public spending. Krogstrup and Wälti (2007) take the analysis a step forward and explore the relationship between female enfranchisement and budget deficits in Swiss cantons. The results of the empirical analysis show that higher female enfranchisement reduces budget deficits per capita. On the other hand, Campa (2011) finds no significant effect on the composition and the size of government expenditures resulting from the female quota in Spanish municipal elections. Also, Ferreira and Gyourko (2014) find no effects on public spending, employment, or crime by using data from US mayoral elections.

The bottom line of this research line seems to be that, although research may find differences in female preferences, the economic case for making better use of this difference does not seem to be very strong.

The economics of gender equality in two questions

Until now, we have argued that a full specialization of men and women does no longer seem to be efficient; instead, men and women should fulfil more equal positions in the current economy – either because men and women are equal with respect to relevant economic characteristics, or because they are not. At the same time, this particular way of reasoning has not remained without criticism. Several authors have pointed to the fact that the association of gender equality with the equality of results does not seems to be without difficulty. Especially within feminist literature there has been a strong debate about the one-sidedness of the 'efficiency- of-equality approach' if this implies women becoming equal to men. For example, it is by no means obvious that women's positions are strengthened by having to work as many hours in paid employment as men. In addition, the efficiency argument, based on the untapped potential, may not be entirely valid in the sense that the inactive population may in fact be very active in terms of unpaid and care work.

The economic crisis has also raised some doubts about the notion of full time employment and the emphasis on increasing the labour supply of both men and women. If the future economy is based on a different organisation of paid and unpaid work, with less emphasis on long working hours, the efficiency argument for increasing the labour supply becomes less clear. By implication, we not only have to redefine the concept of gender equality, but also the concept of full employment and the concept of efficiency.

These considerations can be summarized in two questions:

- Men and women may be equal, but how about the importance of unpaid work?
- Men and women may be equal, but how about the future of paid work?

In the next pages we will cover the relevant literature under these headings

Question 1. Men and women may be equal, but how about the importance of unpaid work?

Among economists the importance of unpaid work is generally recognized; several studies have tried to estimate the amount of unpaid work in terms of GDP (e.g. pioneering work of Goldschmidt-Clermont (1982) and for a recent update: Francavilla et al., (2013)). Yet there is less economic research on the interaction between paid and unpaid work and/or the efficiency of different ways of organizing paid and unpaid work. Two strands of literature seem to take into account the interactions between paid and unpaid work: the first strand deals with fiscal efficiency; the second with fertility.

A rather urgent problem of the developed countries nowadays is the long-term fiscal sustainability in light of the current demographic structure. Considering the higher public expenditures for healthcare and pensions due to the aging population, additional taxation

sources could alleviate the future difficulties. Hence, one of the untapped taxation sources is increasing the female labour participation rate. However, given that most of the unpaid domestic work is done by women, in order to increase the female employment rate, family supporting reconciliation policies would have to be implemented (e.g. childcare facilities, leave legislations, flexible working arrangements). Thus increasing the inflow of taxes by increasing female participation also involves incurring costs to facilitate this transition. Considering the relevance and the empirical nature of the problem at hand, there are several country studies devoted to this issue.

To begin with, a Deutsch Bundesbank German study (DIW 2002, cited by Maier and Carl, 2003) estimates a positive fiscal effect resulting from the increased female employment induced by additional public childcare provision. Similarly, Euwals et al. (2011) argue that further increasing the female labour force participation in the Netherlands will alleviate the pending fiscal sustainability gap. More precisely, the calibrations of the model predict that the female participation rate could increase by 7 to 10% points which in turn will alleviate the structural fiscal deficit caused by the aging of the population by 1 to 1.5% points of GDP. For the case of Japan, Le Anh (2013) estimates that the removal of the fiscal disincentives for secondary earners and a greater provision of public childcare services could improve the tax revenues through higher female participation up to the point that an 8% reduction in the labour income tax would be possible. Finally, the previously-mentioned study regarding the province of Quebec (Fortin et al., 2012) estimates that the provision of the universal low-fee childcare which caused a surge in female participation in turn increased the tax revenues of the local and federal government by an amount that more than exceeded the initial costs. That is, the initial cost of the program was estimated at $1.6 billion and the long-term return (including the dynamic implications) was estimated at $2.4 billion which more than covers the former.

Taking into account the results obtained in the studies above, the case for increasing female participation/employment as a means towards improving fiscal sustainability - even if this implies investing in reconciliation policies - seems to gain solid support. Is has to be taken into account though, that the outcomes are based on rather strong assumptions on the causal effects of childcare and the fiscal regime on labour force participation while at the same time presuming the full absorption of the increased labour supply in the labour market.

A different way of studying the interaction between paid and unpaid work refers to the impact of increasing female labour force participation on the fertility rate in developed countries. Most of the developed world nowadays is facing total fertility rates below replacement level. The negative consequences from these developments range from the obvious decline in inputs of production to unbalanced pension systems, increased public expenditures aimed at old-age dependents, and a shortage of skills on the labour market (Grant et al., 2004; Vos, 2009). The literature on the relationship between gender equality and fertility recently has reported a somewhat unusual observation. Namely, at first the economic reasoning mainly supported the view that higher gender equality (in terms of higher female labour market participation) reduces fertility, however, this standpoint was challenged by several studies (e.g. Bettio and Villa, 1998; Ahn and Mira, 2002). The reasoning behind the

reversal consists of a few steps. First, with the increase of the education levels among women the opportunity cost of rearing children increased which in turn was reflected by a negative relation between female participation/employment and fertility. However, as equal male and female participation became more accepted in society, the countries that provided a better formal institutional infrastructure for working parents (e.g. Nordic countries) were the ones where fertility did not suffer a major drop or even increased. If this theory holds in practice, then building a family friendly infrastructure could be considered as an economic investment towards long-term growth in developed nations channeling its effects through increased fertility. The dependent variable in this case is thus not gender equality in the sense of equal positions in the labour market, but rather the fertility rate, given the already high rate of gender equality at the labour market. Based on the line of reasoning outlined above, there are several empirical studies examining its validity.

Datta-Gupta et al. (2008) examine the effects of family reconciliation policies in the Nordic countries and observe that the further advancement of gender equality in society has a positive effect on fertility by alleviating the pressure between market and domestic work that women face. Furthermore, Mortvik and Spant (2005) find a positive correlation between attitudes supporting gender equality in the work environment and fertility. Although this is not a proof of causality, it does give an indication that higher fertility could go hand in hand with enhancing gender equality. In line with this study, Adsera (2004) also uses data from developed countries (23 OECD members) and finds that lower penalties resulting from childbearing labour market breaks (e.g. paid leave, stable work) induce higher fertility rates.

Conversely, Mishra and Smyth (2010) find a negative relation between fertility rates and female participation using panel data from OECD countries. They argue that the data are in line with the role-incompatibility hypothesis based on which women are under pressure to reconcile paid work and childbearing. Compared to the studies that do find a positive correlation between fertility and gender equality indicators, Mishra and Smyth (2010) use a more extensive database and more sophisticated econometric techniques. However, they do not take into account the possible interaction between the fertility rate and the institutional infrastructure and general attitude towards gender equality on a country level. Hence, they do not take into consideration the arguments outlined in, for instance, Ahn and Mira (2002), Datta-Gupta (2008), and Mortvik and Spant (2005). Similarly, Hilgeman and Butts (2009) find an inverse relation between fertility and female participation using a dataset of 20 developed countries. However, they do take into account the effects of the available family reconciliation infrastructure (childcare enrollment and family leave) in the countries and conclude that childcare enrollment weakens the estimated negative relation. As a final point, Myrskylä et al. (2011) directly tackle the interaction issue missed in Mishra and Smyth (2010) by showing that in developed countries fertility is conditional on the development of institutional frameworks supporting working families.

Given the theory and the empirical evidence related to the alleged reversal of the relationship between fertility and gender equality advancement, the available research indicates that there indeed is a role for reconciliation policies in facilitating higher fertility rates. Still, it is not obvious whether improving the formal supportive infrastructure is the most efficient option

toward increasing the fertility rate. Also, it is still a pending question whether a better reconciliation infrastructure merely alleviates the negative relation between female employment and fertility or actually increases fertility relative to the status quo. At this point, nevertheless, the empirical merits imply that a building an supportive infrastructure for working parents could be seen as a long-term economic investment. Interestingly, with this kind of reasoning, the closing of the gender gap in terms of participation, income and power, is more or less taken for granted. What needs to be supported, however, is the fertility rate.

Question 2. Men and women may be equal, but how about the future of paid work?

Until now, paid work is an important element of the gender equality strategy, presuming that the availability of paid work is not a problem. From a theoretical point of view it is simply presumed that there are no (long term) labour demand restrictions. In more empirical terms, it is presumed that due to demographic change we will be facing large labour market shortages. This logic of scarce labour supply is behind the second proposition, namely, that higher female labor force participation will translate into lower wages and as such will contribute to economic growth. But what if the future labour market, despite the demographic change, will be characterized by a shortage of paid jobs, due to globalization and robotization? Is there also in these circumstances an efficiency argument for closing the gender gap?

Although the literature becomes a bit speculative here, several authors seem to suggest that the future labour market will become more flexible, more freelance, more fluid. A British report on the future of work, Job and skills in 2030 (UKCES, 2014), describes four different scenarios: Forced Flexibility (business as usual), The Great Divide, Skills Activism, and Innovation Adaption. In the first scenario, greater business flexibility and incremental innovation leads to a modest growth in the economy, but the flexibility often results in less opportunities and weakened job security for the low skilled. For highly skilled employees this scenario implies a progressive work environment, with a high level of autonomy and a better balancing of work and family life. The middle jobs tend to be disappearing with the low skilled workers competing ferociously for positions across all sectors. It also implies that young people are trapped in low level entry positions as older people stay in employment longer. In the second scenario (the Great Divide), a two-tier divided society has emerged, despite robust growth driven by strong high tech industries. Flexibility, transparency, and employee engagement are widely adapted by business, but the application is effectively limited to the highly skilled: among the medium and low skilled there is intense competition for poorly paid temporary positions, with limited career prospects. In the third scenario (Skills Activism), the technological innovation leads to an automation of professional work, leading to large scale job losses and political pressure of an extensive government-led skills programme. Employees face long periods of unemployment; work is mainly project-based, with a high turnover of jobs. Finally, in the fourth scenario (Innovation Adaption), the economy is stagnant, while productivity has improved through systematic implementation of ICT solutions. Employees face relative insecurity of employment with many being forced to develop ongoing portfolios on project based assignments.

Although the overall perspective on the labour market is not very positive, it is presumed that women's roles and ranks in the labour market will increase, mainly because of the widening skill gap in favour of women. This may be in line with other research, as several authors have suggested that our future economy is more female friendly as the work will be based more on social intelligence, communication, and soft skills. Also in this case the argument turns. The argument for gender equality is no longer based on the proposition that in economic terms men and women are the same, but rather that men and women are different – and that this difference should be made use of in a more effective way in our future economies.

Perhaps these future economies also favours equal sharing of market and domestic work between men and women. This so-called 'dual earner-career model' involves an increase in paid work for women while in the same time decreasing paid work for men and substantially increasing their role in household work (e.g. Crompton, 1999; Gornick and Meyers, 2001). In line with Crompton's continuum of family arrangements, the earner-carer model is at the end of the spectrum which shows the options from the most traditional (breadwinner) model to the least traditional gender division of labour (dual earner-career). The resulting outcome could be represented for example by a 1.5 workers per household where both parents have long part-time jobs with 30h per week while sharing the household chores. Developments in this direction can be observed in the Western European countries and the Nordics where not only women, but also men engage in voluntary part-time work (Eurostat, 2014), albeit to a much lesser extent. Moreover, male parents are also encouraged to take more family responsibilities by, for instance, assigning non-transferable parental leave rights. Yet, the changing process is fairly slow judging by the low uptake (e.g. literature in Marshall, 2008) of parental leave among men.

Besides the presence of the dual earner-career model as an option for dividing market and household work in the economic and sociological literature, there are virtually no empirical studies examining the economic implications of the implementation of this model. Yet, if the economy can continue functioning in a way that it offers jobs with acceptable earnings and career prospects, shorter working times may be a potential future option – creating an opportunity for gender equality within a world in which paid and unpaid work have reached a more equal position.

Conclusions

In this paper the economic literature on the economics of gender equality is summarized in three propositions and two questions. Both theoretical arguments and empirical trends seem to suggest that there is an efficiency case for a more equal positioning of men and women. Yet, an important conclusion from our review of the literature is that the economic case for gender equality does not seem to be extremely solid. It is difficult to establish a causal relationship between closing the gender gaps and increased economic growth, quite part from issues related to methodology and comparability. The difficulties may in part be related to the fact that the efficiency-of-equality approach tends to focus on paid work, thereby ignoring the importance of unpaid work.

Regarding the fiscal sustainability and the fertility research the evidence is more convincing than in the former case, although the 'framing' seems to change. The focus is less on closing the gender gaps in the economy but rather on lifting the fertility rate, taking the more equal position of men and women at the labour market as a given. Also the time frame changes: investing in a supportive infrastructure for working parents is no longer defended by the short term goal of increasing the labour supply of women, but rather by the long-turn goal of economic prosperity through the increase in the fertility rate.

The efficiency argument for gender equality might also change if we no longer presume an economy with large labour market shortages. The future labor market is presumed to be more flexible, more freelance, more fluid; this is not easily compatible with a concept of gender equality based on the importance and availability of paid work. On the other hand, it might also be possible that the shortage of jobs – in an overall wealthy society – creates the precondition for a different organization of paid an unpaid work, based on a more equal position of men and women.

In short the efficiency argument for gender equality needs further elaboration. An efficient and resilient economy may be a gender-smart economy, using the full potential of both men and women in a differentiated way, by investing in a supportive infrastructure. In the long run, however, the policy emphasis may not be at closing the gender gaps at the level of paid work but rather at facilitating the working population to participate in unpaid work.

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Project Information

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A European research consortium is working on the analytical foundations for a socio-ecological transition

Abstract

Europe needs change. The financial crisis has exposed long-neglected deficiencies in the present growth path, most visibly in the areas of unemployment and public debt. At the same time, Europe has to cope with new challenges, ranging from globalisation and demographic shifts to new technologies and ecological challenges. Under the title of Welfare, Wealth and Work for Europe – WWWforEurope – a European research consortium is laying the analytical foundation for a new development strategy that will enable a socio-ecological transition to high levels of employment, social inclusion, gender equity and environmental sustainability. The four-year research project within the 7th Framework Programme funded by the European Commission was launched in April 2012. The consortium brings together researchers from 34 scientific institutions in 12 European countries and is coordinated by the Austrian Institute of Economic Research (WIFO). The project coordinator is Karl Aiginger, director of WIFO.

For details on WWWforEurope see: www.foreurope.eu

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