The Efficiency of Gender Equity in Economic Growth:
Neoclassical and Feminist Approaches

by Elissa Braunstein

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ABSTRACT

In this paper I critically discuss neoclassical and feminist challenges to standard neoclassical approaches to institutions by focusing on analyses of the role of gender equity in economic growth. Feminists argue that the exercise of power and collective action are central to the evolution of gender hierarchies. Neoclassical treatments largely focus on the inefficiency of gender inequity, and how market imperfections discourage institutional change. We begin with a review of gender in neoclassical growth theory, moving from traditional theories of factor accumulation to the new growth theory literature which contends that institutions like gender matter for growth. Then we turn to feminist/heterodox political economy, focusing primarily on the macroeconomic literature, and then conclude with some thoughts on the evolution of the sexual division of labor. The primary context of this discussion is development and the processes of industrialization in the late twentieth century, as that is the focus of much of the growth literature.

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I.   Introduction

The question of why hierarchies evolve and persist is an old one in economics. Classic treatments in what came to be known as the "new institutional economics" explain the evolution of hierarchy in the firm (Coase 1937) and the family (Becker 1991) in terms of their contributions to economic efficiency. Just as organizing production within a firm offers economic advantages over individual transactions in a spot market, so does the sexual division of labor contribute to increased efficiency in family production. Institutions like hierarchy are explained primarily as solutions to coordination problems.

In this paper I critically discuss neoclassical and feminist challenges to the efficient institutions paradigm by focusing on analyses of the role of gender equity in economic growth. Feminists argue that the exercise of power and collective action are central to the evolution of gender hierarchies; institutions reflect the "problem-solving and the power-seeking efforts of the past" (Folbre 1994b: 48). Neoclassical treatments largely focus on the inefficiency of gender inequity, and how market imperfections discourage institutional change.

We begin with a review of gender in neoclassical growth theory, moving from traditional theories of factor accumulation to the new growth theory literature which contends that institutions like gender matter for growth. Then we turn to feminist/heterodox political economy, focusing primarily on the macroeconomic literature, and then conclude with some thoughts on the evolution of the sexual division of labor. The

primary context of this discussion is development and the processes of industrialization in the late twentieth century, as that is the focus of much of the growth literature.

II.   The Neoclassicals

A.   *The Traditionalists*

Open up a textbook on economic growth and you are immediately ushered into the standard core of neoclassical growth models, Robert Solow's model of long-run growth (Solow 1956). As the basis of modern neoclassical growth models, Solow's is still a pretty good representation of how most economists think about economic growth, although human capital has since been added to Solow's original model, which only included physical capital and labor supply. Solow's model is illustrated by panel A of figure 1, a figure based on one of Dani Rodrik's that I think is an insightful illustration (Rodrik 2003: 5). Panel A represents the standard neoclassical model, where income levels and growth are outcomes of two factors: (1) factor endowments and their accumulation, including physical (K) and human (H) capital, and population growth or labor supply (L); and (2) productivity. Productivity is both the main driver of long-run growth rates and exogenous to the system, an issue that has attracted a lot of academic attention and to which we return below. Also note that this growth story is confined to the supply side of the economy; there is never deficient aggregate demand, involuntary unemployment or underemployment.

[Figure 1 about here.]

Women do have a unique place in these supply-side models, as women have long been acknowledged as a potential untapped labor supply for market growth, with little thought given to the implications of this transfer of labor for nonmarket production. This is illustrated by Arthur Lewis' treatment of the issue in his classic article on development with unlimited supplies of labor.

> The transfer of women's work from the household to commercial employment is one of the most notable features of economic development. It is not by any means all gain, but the gain is substantial because most of the things which women otherwise do in the household can in fact be done much better or more cheaply outside, thanks to the large scale economies of specialization, and also to the use of capital (grinding grain, fetching water from the river, making cloth, making clothes, cooking the midday meal, teaching children, nursing the sick, etc.). One of the surest ways of increasing the national income is therefore to create new sources of employment for women outside the home. (Lewis 1954: 143)

Lewis did acknowledge that the transfer of women's work from the household to the market would entail some costs, but this point would eventually lose its (albeit lesser) prominence in most other treatments of female labor supply as a source of factor accumulation.

A good example of this shift is represented by the oft-cited work of Alwyn Young (1995), whose contribution to an ongoing debate about the relative importance of factor accumulation versus total factor productivity growth in the East Asian miracle comes down squarely on the side of accumulation – and women are a significant source of it. Using a growth accounting framework to decompose the sources of growth, Young finds that for the period 1966-1990 rising participation rates contributed one percent per year to per capita growth in Hong Kong, 2.6 percent in Singapore, 1.2 percent in South Korea, and 1.3 percent in Taiwan (Young 1995: 644). Changing gender roles also factor into the East Asian accumulation story via the rapid postwar decline in fertility rates in the region, which in turn lowered dependency ratios and increased savings and investment. It is estimated that this "demographic gift" contributed between 1.4 and 1.9 percentage points to East Asian per capita GDP growth between 1965 and 1990, about one-third of growth over the period (Bloom and Williamson 1997). Like changes in productivity though, rising female labor force

participation and the demographic gift are largely treated as exogenous shocks, existing outside and independent of the processes of economic growth.[1]

B.   *The Neoclassical Institutionalists*

The bothersome logic of exogenous technical progress spurred what came to be known as "new growth theory", which modeled the innovation process as endogenous. Referring back to figure 1, new growth theorists see growth as a combination of panels A, B, and C, which illustrates their point that factor endowments and productivity are themselves products of socioeconomic and natural structures and processes. Institutions and global integration (or openness) garner most of the attention in these treatments, hence our term "neoclassical institutionalists".[2] The only truly exogenous factor is geography, which may directly affect growth via natural resource endowments such as land productivity or public health (as in the case of the prevalence of malaria). Geography also affects growth indirectly via its effects on global integration, as when a country is land-locked or endowed with significant shipping lanes, and via its effects on institutional development when the latter for instance bears the traces of colonial occupiers or the corruption often linked with an abundance of natural resources.

As indicated by the arrows in figure 1, global integration and institutions shape one another in addition to the proximate processes of factor accumulation and productivity. One can see how developmentalist states shaped global integration in the case of the East Asian miracle, a type of integration that in turn partly determined the pace and structure of technical progress and factor accumulation in these countries. Of course, the seemingly spare

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[1] In the case of declining fertility, which is so centrally linked to female education and employment, the causal mechanism is still presented as exogenous – a combination of declining infant mortality and the increased availability of family planning services, the results of imported health technologies and government policy (Bloom and Williamson 1997).

[2] This term is borrowed from Nancy Folbre (1994b) ????.

square that we term "institutions" is actually a large and complicated amalgam of factors. But for all intents and purposes most neoclassical institutionalists simplify this complexity by measuring institutional quality simply as the rule of law and property rights (Rodrik, Subramanian and Trebbi 2004).

Income inequality is a significant aspect of this research, as lower inequality is associated with institutional quality and consequent growth (Alesina and Rodrik 1994; Perotti 1996; Persson and Tabellini 1994).[3] The (mainstream) political economy explanation of the causal mechanisms from equity to growth is embedded in the neoclassical reasoning of markets and incentives. Perhaps the most familiar line of logic employs the median voter model to argue that higher levels of inequality result in the median voter being poor relative to a country's mean income, leading to political pressure for redistributive policies and consequent reductions in incentives to accumulate physical and human capital (Aghion, Caroli and García-Penalosa 1999; Alesina and Rodrik 1994; Tabellini 1994). Alternatively, imperfect capital and insurance markets inhibit the poor from making investments in physical and human capital. In such cases, redistribution from the rich to the poor can have positive net effects on output and growth (Bénabou 2000). In all of these cases, income inequality is inefficient because it lessens incentives to invest and innovate. Is the same also true of gender inequality?

C.   *The Neoclassical Institutionalist Approach to Gender Equity and Growth*

Based on the neoclassical institutionalist literature, the simplest answer to this question is yes. Gender inequity and discrimination are inefficient because they do not

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[3] This argument stands in stark contrast to earlier treatments of the relationship between inequality and growth. Kuznets (1955) long ago argued that inequality will initially increase with growth as labor shifts from low productivity to high productivity sectors. Kaldor (1978) argued that the marginal propensity to save is higher among the rich than the poor, and that you need high savings for economic growth. Hence, growth requires that income be concentrated among the rich.

maximize productive capacity. Inefficiencies exist either because institutions are 'sticky' in the sense of failing to change in response to changing economic incentives, or because of market failures (Folbre 1994b). The inefficiency of gender inequity in these models is not about power or coercion, or the collective efforts of one group to maintain control over another. Even when gender norms are resistant to change in the face of changing prices or incomes, their persistence is never really theorized. As such, we are pretty much left with only the language of market imperfections to explain and argue against gender inequity.

Still, this is a rich and interesting literature, an important component of the argument that institutions matter for growth. We organize our survey of the primarily econometric literature by first covering studies of the direct impact that gender inequality has on growth, and then turning to the literature on externalities.

Direct Effects

Macroeconomic Studies Neoclassical macro analyses of the direct effects of gender inequality on growth focus on education equity and the misallocation of labor. In terms of the former, the logic is that if male and female students have equal aptitudes, then educating more boys than girls will lower the overall quality of educated individuals via selection distortion effects (Klasen 1999). Alternatively, with decreasing marginal returns to education, educating more girls (who start out with lower education than boys due to gender inequities) will give higher marginal returns than educating more boys (Knowles, Lorgelly and Owen 2002; Schultz 2001; World Bank 2001). Early cross-country growth studies in the neoclassical vein showed that women's schooling was negatively correlated with growth (Barro and Lee 1994; Barro and Sala-i-Martin 1995). But other studies correctly pointed out that this was largely a result of the multicollinearity between male and female education, as

well as the influence of Latin American countries, which tended to have greater gender equity in education and low growth (Abu-Ghaida and Klasen 2004; World Bank 2001).

Since then, a number of economists using more sophisticated econometric techniques have shown strong positive correlations between women's education and growth, still in the context of neoclassical growth models. In an analysis of GNP levels, Hill and King (1995) find that for countries whose ratio of female-to-male enrollments in primary or secondary schooling is less than 0.75, GNP is 25 percent lower than in countries who are otherwise similar except for the gender gap in education. Turning to studies of growth, for the period 1960 to 1992 Klasen finds that between 0.4 and 0.9 percent of annual per capita growth differences between East Asia, Sub-Saharan Africa, South Asia and the Middle East can be accounted for by gender gaps in education (Klasen 1999, 2002). In a model of long-run growth that incorporates the time-averaged stocks of female and male education for about 70 countries, Knowles, Lorgelly and Owen (2002) find GDP per worker elasticity with respect to the stock of female education to be between 0.2 and 0.45, while male education-productivity elasticities are either not statistically significant or slightly negative. Gender gaps in education also tend to have negative effects on growth in their study. In another oft-cited study that includes 127 countries at various stages of development and four five-year periods between 1975 and 1990, Dollar and Gatti (1999) find that gender inequality in secondary education negatively impacts growth, but only for countries at lower middle income status and above. They suggest that this is because at very low levels development – largely agricultural societies – gender inequality in education is not as significant in terms of worker productivity. In countries where education does matter, they find that a one percentage point increase in the share of adult women with secondary school education is associated with 0.3 percentage point increase in per capita income growth.

Similar selection-distortion effects apply to labor markets. When women are segregated from certain occupations or industries based solely on sex, the best worker will not be matched with the most appropriate job (Esteve-Volart 2000, 2004; Tzannatos 1999). Alternatively, when women are kept out of the paid labor force completely, average labor force quality will be lower than otherwise, as more productive female workers are kept from working in favor of less productive male workers (Klasen 2005). Panel growth regressions for the period 1960 to 1992 find that gender inequality in employment (measured alternatively as the growth of female formal sector employment as a share of the total female population of working age, or as the change in the share of the total labor force that is female) negatively impacts growth. South Asia and Sub-Saharan Africa suffered losses of 0.3 percent per year compared to East Asia during this period (Klasen 1999). Employing a what-if scenario based on Barbara Bergmann's work on racial segregation, Tzannatos (1999) looks at a number of Latin American countries in the 1980s and estimates that eliminating occupational segregation would have increased GDP between two percent (in Guatemala and Venezuela) and nine percent (in Brazil and Ecuador). Besley, Burgess and Esteve-Volart (2004) provide an Indian case study that considers the cross-regional effects of gender gaps in access to managerial positions and general employment on per capita income between 1961 and 1991. They find that a 10 percent increase in the female to male ratio of managers raises nonagricultural output by two percent; a 10 percent increase in the female share of the labor force raises overall output by eight percent.

Microeconomic studies Microeconomic studies coming from the neoclassical institutionalist perspective emphasize the inefficiencies of gender inequities as well, but the underlying theoretical models also admit the exercise of power via intra-household bargaining. These models reject the Beckerian notion that the family behaves as if it were an

altruistic unit.[4] Instead, bargaining models portray individuals as living in households where one's input into production and consumption decisions depends on one's alternatives to joint production – either divorce or noncooperation in marriage. Individual prices and incomes, as well as what McElroy (1990) terms "extra household environmental parameters" (institutions such as property rights and family law) determine this "fallback position", so there are obvious implications of gender inequities in markets and institutional rules for a woman's influence over family decisions. These models can be "cooperative" in the sense that family members have the information and wherewithal to make enforceable contracts, or "noncooperative" in the sense that women, for instance, must make choices given what their partners are likely to do.

Despite the admission of hierarchy and bargaining at the household level, the structure of neoclassical analysis finally limits the ability of these models to adequately illustrate gender. The models presume that bargaining between men and women is symmetrical; that is both have the same ability to translate a particular fallback position into bargaining power (Katz 1997). Objective functions that differ systematically by sex are taken as exogenous rather than focused on as a dynamic product of social and economic interactions. The same applies to the gendered nature of institutional structures – how things like property rights and divorce law are also themselves the result of social and economic processes. To the extent that there are inefficiencies that result from gender inequality, when they are theorized (and not just taken as a given) they are the result of market imperfections, not the result of the exercise power itself.

Let us consider this literature to see what we mean. Limiting ourselves to work that is germane to the question of gender equity and growth, we get a variety of microeconomic

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[4] "Beckerian" refers to the work of Gary Becker and his new home economics (Becker 1991).

approaches to the implications of imperfect property rights and capital, credit and insurance markets. Weak or nonexistent property rights for women, especially in Africa, are identified as creating production inefficiencies (Duflo 2006). For instance, in Burkino-Faso, more fertilizer is typically used on a husband's plots than on his wife's because he has more money and can afford more fertilizer. Concentrating fertilizer on the husband's plot occurs despite decreasing marginal returns to fertilizer use. Even though a more equal distribution of fertilizer between the husband's and wife's plots would raise household production, this never happens because each worker prefers a "bigger slice of a smaller pie" – the bargaining problem (Ibid.). Duflo argues that weak property rights prevent women from renting land to their husbands (in which case he would use more fertilizer on it and maximize production), because if the husband works the land long enough, the wife may lose her property rights. The emphasis in this story is not on (sometimes collective) self-interest or the possibilities for coercion, but about property rights and their role in the persistence of inefficiencies.

Similar issues crop up in markets for capital, credit and insurance in the microeconometrics literature. Women have systematically weaker access to credit markets than men, partly because they command fewer resources to begin with and hence have little to offer in the way of collateral, and partly because there is direct discrimination against women in credit markets. Particularly in agrarian or petty trader contexts, these types of credit market imperfections bar women from making production- or profit-maximizing choices. Many of the studies that deal with these issues, particularly in Sub-Saharan Africa, look at the resulting deficiencies in women's access to inputs and conclude that there are significant sacrifices in productivity that occur as a result of asymmetrical access to factors of production.

Consistent with the notion of decreasing marginal returns to production factors, there is ample evidence among microeconometric analyses of household surveys that gender inequity in access to productive assets such as land, fertilizer, seeds, credit or know-how lower the productivity of female producers by more than it increases the productivity of male producers (Blackden and Bhanu 1999; Klasen 2005; Quisumbing 2003; World Bank 2001). Using household survey data from Burkino Faso, Udry (1996) finds a six percent output loss because of inefficient factor allocation – plots controlled by women are farmed less intensively than plots controlled by men. In another study in the same country, doing away with these types of allocative inefficiencies were linked with a production increase of between 10 and 15 percent (Udry, Hoddinott, Alderman and Haddad 1995). Reducing inequities in human and physical capital between male and female farmers in Sub-Saharan Africa is estimated to have the potential to increase agricultural productivity by 10 to 20 percent (Quisumbing 2003). In Kenya, increasing women's agricultural inputs and education to the same level as men's could increase women's yields 22 percent (Saito, Mekonnen and Spurling 1994).

All of these studies soundly reject the notion that households are harmonious and unitary sites of production. The result is that gender inequity is a significant and direct factor in the determination of productivity and output. But it is the market that is most centrally featured as both the source of inequity's persistence (imperfect/incomplete markets), and its preferred solution (realigning market incentives), a point that is central to literature on externalities as well.

Indirect Effects and Externalities

Fertility The most salient aspect of the externalities literature, one that dates back to early theories of population growth and income, is the linkage between fertility decline and

higher growth. Even with constant income lower rates of population growth will lead to higher per capita incomes. But the observed mechanism is much more complex, as we briefly explained in the discussion of the putative demographic gift and factor accumulation above. Improvements in infant and child mortality turn into a young adult glut, spurring a savings boom and an increase in investment demand (Bloom and Williamson 1997). Fertility declines as parents turn from child quantity to quality, creating higher capital-to-labor ratios and consequent growth (Galor and Weil 1996). The corollary to this is that fertility is positively correlated with educational inequality by sex (Akituv, Avner and Moav 2003; Klasen 1999; Lagerlöf 2003; World Bank 2001). Educating women is also documented as an important way of lowering child mortality and undernutrition, and increasing children's education, aspects of increased child quality and contributors to long-term growth (Klasen 1999; Lundberg, Pollak and Wales 1997; Thomas 1997; World Bank 2001).

The estimated growth effects are substantial. Using the literature's average finding that one more year of schooling reduces fertility by 0.3 to 0.5 children per woman, and Klasen's (1999) figure that increasing the ratio of female to male educational attainment by 10 percentage points reduces under-five mortality by 14.2 per 1,000 children, Abu-Ghaida and Klasen (2004) project the costs of missing the United Nation's Millennium Development Goals (MDG) in gender equity on growth for 25 countries. They find that more unequal countries would average 0.4 percent per year higher growth during 2005-2015 if they achieved the MDG gender equity goals in 2005.

Lower fertility is also correlated with higher female labor force participation and gender wage equity (Galor and Weil 1996; World Bank 2001).[5] The familiar logic is that as the opportunity costs of women's time increases, parents opt for more child quality over

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[5] Fertility and female labor force participation are also likely to have mutual causation.

quantity. With women doing most of the childcare, it is essential that the opportunity costs of women's time increase relative to men's, as increases in male incomes will simply raise the demand for children.

Good mothers This point about child quality and the association between women's education and incomes and child well-being is an important aspect of the intra-household bargaining literature as well. Sometimes referred to as the "good mother hypothesis," the argument is that income under women's control is more likely to be spent on child well-being than income under men's control, a sound rejection of unitary models of household behavior. Female influence over household consumption is of course directly linked to women's bargaining power, proxied by various measures such as education, assets at marriage, spheres of decisionmaking, divorce law, and relative status within the household and society (Quisumbing 2003). A number of studies show positive correlations between women's bargaining power and children's education and health (Murthi et.al 1995; Quisumbing 2003; Quisumbing and Maluccio 2003; Schultz 2001; Thomas 1997; World Bank 2001). That women invest a greater proportion of their resources in the household is perhaps not surprising, as women's spheres of influence do not often extend beyond the household (World Bank 2005). This brings up the possibility that mothers are not always altruistic, but a little self-interested like everyone else. This perspective is reflected in Duflo's critiques of the good mother literature (Duflo 2006), though hers are largely econometric criticisms and do not challenge underlying theories of gendered preferences.

Corruption The prospect of altruistic mothers and selfish fathers touches on the positive externalities of social norms – if girls are conditioned to act benevolently towards their future children, fulfilling the role of good mother will raise investments in children and long-term growth. The positive externalities of gender norms also come up in studies of

corruption and growth. Behavioral studies show that women tend to be more trustworthy and public-spirited than men, with one of the proffered results being that higher proportions of women in government or the labor force are negatively correlated with corruption (Dollar, Fisman and Gatti 2001; Swamy, Knack, Lee and Azfar 2003). Here the logic is more about how prevailing social norms may be efficient in some ways, a process that is almost certainly at work in creating the positive externalities of good mothers as well.

D.   *Rent-seeking and Exogenous Institutions*

In the spirit of Rodrik's example, figure 2 illustrates the structure of the neoclassical institutionalist literature with respect to gender equity and growth. Market imperfections and 'sticky' institutions lead to gender inequality, which in turn may have direct effects on growth via selection distortion-type effects in education and labor markets, and create growth-inhibiting incentives in investments in human and physical capital. The indirect effects happen via the growth externalities of fertility, investments in children, and corruption. Note that in this paper we focus on the solid arrows, but there is also an extensive neoclassical literature that argues that growth is good for women – the dashed arrows (Dollar and Gatti 1999; Forsythe, Korzeniewicz and Durrant 2000; Tzannotos 1999; World Bank 2001, 2005).

[Figure 2 here.]

What is curious about the gender and growth literature reviewed above is that market imperfections and institutions are taken as exogenous. This despite the fact that many neoclassical economists are now studying rent-seeking behavior, or efforts to claim unearned revenues, including investments designed to influence electoral and political outcomes (Braunstein and Folbre 2001).[6] Often, rent-seeking is conceptualized as an activity that distorts market outcomes and lowers efficiency. But rent-seeking can also influence the

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[6] Examples include Anne Krueger (1974) and Mancur Olsen (1975, 1982).

organization of nonmarket institutions, as when property rights systematically exclude women or structure male advantage in capital markets, or when women are socialized to take on a greater share of the costs of social reproduction. The feminist/heterodox literature incorporates this possibility, and comes up with some important results for understanding the dynamics of gender and growth.

III. Feminist/Heterodox Political Economy

Heterodox feminists argue that power, coercion, conflict, and cooperation based on structures of gender, age, race and class operate at all levels of the economy – the family, the community, the market, the firm, and the state (Folbre 1994b). Institutions are not just about coordinating individuals and groups, but they also reflect the exercise of collective self-interest. In terms of efficiency and maximizing production, individuals and groups are interested in both total output and their share of output. So market structures and institutions may be inefficient from the perspective of maximizing total production, but efficient from the perspective of maximizing a certain share of production. Seeing the linkages between the economy and institutions in this way admits the possibility that the evolution and persistence of gender inequity is about the interplay between market incentives and social structures of power and cooperation.

Referring back to figure 2, this means that there is an explicit causality going from gender inequality to markets and other institutions, and the latter two become endogenous. Now gender inequity is both cause and result; we are no longer limited to the language of imperfect markets or exogenous institutions. This means seeing institutions as gendered power relations, rather than just focusing on women and men as different groups or individuals (Elson 1998). In this way, gender becomes instrumental to the functioning of

markets and the formation of other institutions, with important implications for growth and distribution.

A.   *Feminist Macroeconomics*

To get into the feminist macroeconomics of growth, one really has to begin with structuralist macro. Although traditional structuralist models of economic growth are completely gender-blind, there are some important insights from this literature that feminist economists have used in their own work. Contrary to the neoclassical growth story, structuralist models incorporate the demand side of the economy into determinations of output and growth.[7] Imperfect competition raises the specter of unemployment, underemployment and deficient aggregate demand. The distribution of income between workers and capitalists is a key determinant of investment and consumption, and hence aggregate demand and growth. Economies might be wage-led, as when a redistribution of income away from profits and towards wages raises consumption (driven by worker income) by more than it lowers investment demand (driven by capitalist income), increasing aggregate demand and growth. Alternatively, economies may be profit-led, so redistributing income towards wages lowers investment demand by more than it raises consumption, and so lowers aggregate demand and growth. Openness to the global economy tends to make economies more likely to be profit-led, as declines in export competitiveness and increases in imports dampen the expansionary impact of wage increases, and global capital mobility increases the sensitivity of capitalists to increases in the costs of investment.

Feminist macro engenders traditionalist structuralist ideas about the macroeconomics of distribution. Structures of gender inequality, rooted in the sexual division of labor and women's primary responsibility for the reproductive sector, shape

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[7] For examples of structuralist models, see Blecker (1989), Bowles and Boyer (1995), Marglin and Bhaduri (1990), and Taylor (1991).

economic outcomes. Gender becomes an important analytical variable in and of itself. So instead of focusing solely on workers and capitalists, the distribution of income between women and men has macroeconomic effects on aggregate demand, savings, investment and growth. It is essential to note that this is not about adding a neoclassical microfoundation of sex-specific preferences and endowments to a structuralist macromodel. Women and men have different interests and opportunities because of their different *institutional* positions in sites like the family and the labor market (Walters 1995).

Savings

For instance, work in feminist macro finds that the gender distribution of income matters for aggregate savings. Using panel data for a set of semi-industrialized countries between 1975 and 1995, Seguino and Floro (2003) test whether macroeconomic measures of female bargaining power – women's share of the wage bill and the gap between male and female educational attainment – have an effect on aggregate savings. The hypothesis is that women differ from men in their propensities to save because of their differing institutional positions: in the labor market, in the household, in the community, and in their access to state-provided social insurance. They find that an increase in women's share of the wage bill is positively correlated with aggregate savings, though the gender education gap variable does not perform as consistently.

That women's bargaining power (in terms of employment measures) is positively correlated with aggregate savings reflects both relations of equity and inequity, similar to the microeconomic findings on good mothers discussed above. But here the contradiction is explicitly acknowledged and incorporated into the model. To give an example of how this dynamic works, consider gender norms that assign greater responsibility for child well-being to women and labor market disadvantages that create higher rates of female vulnerability to

economic crisis. These may induce higher marginal propensities to save among women than among men as women have a higher need for self-insurance. Enhanced female bargaining power enables women to save more of family budgets, raising aggregate savings. There is still a lot of work to be done here, as the macroeconomic results are consistent with a number of different microeconomic processes, but it does provide important evidence that gender has macroeconomic effects.

Gender-Based Wage Inequality and Growth

The most extensive empirical link developed along these lines relates gender-based wage gaps to the success of export-led growth. Women globally are segregated into particular occupations and industries (Anker 1998). The consequent increased supply of female labor in certain classes of jobs or sectors raises unemployment and lowers wages for women (Bergmann 1974). These "feminized" jobs also tend to be associated with low skills, few benefits, little job security and high turnover (Standing 1989, 1999). In the context of export-oriented industrialization, one of the results of these patterns is high and persistent wage gaps. This theoretical link is supported by empirical work that export-oriented trade has not systematically narrowed the gender wage gap in developing countries, a direct counter to neoclassical theory that discrimination will be competed away because it is inefficient (Berik, Rodgers and Zveglich 2003; Seguino 2000b).

Counter to the neoclassical institutionalist argument that gender inequity dampens growth, the argument here is that these gender-based wage gaps have actually contributed to economic growth among semi-industrialized countries. Stephanie Seguino's varied theoretical and empirical work defines this area of research (Blecker and Seguino 2002; Seguino 2000a, 2000b, 2000c, 2006). She combines a feminist structuralist approach with the insights of new growth theory (making productivity growth an endogenous process) to

model and empirically demonstrate that gender inequity can indeed be consistent with growth.

In the short-run, economies are demand-constrained and face balance of payments constraints on development. Where women are segregated into export sectors, as is common among semi-industrialized countries with labor-intensive export-oriented manufacturing sectors, lower female wages enhance competitiveness and profitability, raising investment and growth. In addition, there is a "feminization of exchange earnings" effect, where lower export sector wages and consequent competitiveness increase a country's foreign exchange earnings. This affords greater access to global markets in capital and technology, which also enhances growth. And lastly, Seguino hypothesizes that suppression in female labor markets signals to potential investors that there is a higher likelihood of worker docility and ease of labor control, lowering uncertainties for would-be investors.

The boost to growth is significant. Seguino (2000c) uses a growth accounting method to decompose the sources of growth for a set of export-oriented semi-industrialized countries between 1975 and 1995. Regressing GDP growth on the growth of the capital stock, a measure of the skill level of the labor force, and the gender wage gap, she finds that a 0.10 increase in the gender wage gap level leads to a 0.15 percentage point increase in GDP growth. This means, for instance, that the difference in growth rates attributable to gender wage differentials for Korea (8.0 per cent) and Chile (5.3 per cent) is 1.2 percentage points per year during the period studied. A second gender wage-gap measure that corrects for gender differences in education lowers the impact only slightly: a 0.10 increase in the gender wage-gap level now leads to a 0.10 percentage point increase in GDP growth.

In a later refinement of the short-run theoretical model, Seguino (2006) differentiates between gender wage inequity effects in semi-industrialized economies (SIEs) and low-

income agriculturally dependent economies (LIAEs). Because growth in SIEs is modeled as partly dependent on a female-intensive export sector, raising female wages is likely to lower growth (and put a strain on the balance of payments) due to a consequent loss in global competitiveness in terms of exports and global investment flows. In structuralist terms, relative to female wages growth in SIEs is profit-led. Conversely, in LIAEs, men specialize in cash crops and nontradables, while women are the main producers of food for domestic consumption or petty traders. Redistributing income towards women will stimulate aggregate demand and output in the short-run because women can increase their purchases of productivity-enhancing inputs and, via increased bargaining power, spend more time on domestically-oriented production and consumption. Because women's employment does not drive trade and globally mobile investment in these economies, relative to female wages growth in LIAEs is wage-led.

The long-run version of this model looks more like a standard neoclassical supply-side model in that the only drivers of long-run growth are labor supply and productivity growth. For both SIEs and LIAEs, labor supply growth is positively correlated with increases in female incomes as gender equity is correlated with increased female labor force participation.[8] Innovation or productivity growth depends on the growth rate of the capital stock and increases in the efficiency of human capital, as in endogenous growth theory. While increases in female wages are argued to have a positive effect on human capital in both types of economies, the effect on the growth rate of the capital stock differs by economic structure. In SIEs, investment is more sensitive to income redistribution towards women workers, and so declines in the rate of growth of the capital stock have the potential

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[8] As discussed above, gender equity is also correlated with fertility decline, which Seguino points out would lower labor supply. Still, she concludes, the effect of increasing female labor force participation will dominate the effect of declining fertility.

to dominate increases in labor supply and human capital efficiency. The opposite is true for LIAEs, where increases in female wages have smaller negative effects on the growth rate of the capital stock. So in the long-run as in the short-run, gender wage inequity is likely to be positively correlated with growth in SIEs, and negatively correlated with growth in LIAEs.

Seguino's findings seem to directly contradict the neoclassical literature's take on gender equity and growth. But the observant reader has probably noticed that the two approaches use different measures of gender inequity. What is key to note is that Seguino's work indicates that the *type* of inequity is what matters for growth. When gender discrimination is manifested in ways that do not compromise the overall quality of the labor force but merely lower the cost of labor for employers, systematically discriminating against women can have positive effects on growth. But gender differences in education *will* lower growth because it lowers the productivity of labor. East Asian governments in newly industrializing economies helped ensure wide access to basic education and health during the export-led boom years, as well as implemented and maintained policies to ensure high levels of household income equality (Birdsall, Ross and Sabot 1995). These are the key factors linking equity and growth within the neoclassical intuitionalist paradigm. However, patriarchal hierarchies were also maintained via the incorporation of women into the paid labor market in ways that did not unduly challenge traditional gender norms, as reflected in high and persistent gender wage gaps.

In the case of Taiwan, strong patriarchal traditions and inter-generational obligations created high degrees of intra-family stratification based on gender and age, with unmarried daughters the lowest class in the family hierarchy. The early years of Taiwan's export-led boom were fueled by the entry of these women into export factories. Rather than threaten traditional family structures, paid work actually increased sexual stratification because it

enabled parents to extract more from filial daughters (Greenhalgh 1985). In the 1970s when Taiwan faced labor shortages, the state-sponsored satellite factory system made industrial work more consistent with traditional female roles, enabling increases in the labor supply of wives and mothers (Hsiung 1996). Similarly, South Korea was able to maintain a competitive labor-intensive sector along with a highly paid male labor aristocracy by keeping wages in female-dominated export industries low.

> Korea's outstanding real wage increases and unrivaled gender wage disparities are related to one another insofar as an unlimited supply of women workers has allowed Korea's bifurcated wage structure to achieve dual ends. One end is the maintenance of international competitiveness in labor-intensive industries, which employ primarily females. The other is the entry into more skill-intensive pursuits on the basis of a relatively well-paid, highly motivated, male labor aristocracy. (Amsden 1989: 204)

Clearly, aspects of the East Asian export-led model of growth are structured by gender relations. The co-existence of household equity and gender inequity made "shared" growth based on low-wage labor viable.

The Household in the Macroeconomy

That low female wages could co-exist with rising household incomes and inter-household income equity may at first seem contradictory. If industries are made profitable by hyper-exploiting female labor, will not that show up in household income? That depends on household structure, and the extent to which women workers had access to the earnings of the male labor aristocracy. With divorce rates extremely low during the early decades of the East Asian export boom, and households most likely to practice nearly complete income pooling (even in the case of daughters who migrated away from home to export-processing zones), low-paid women were likely to pool income with higher paid men (Gallin 1984). Hence low female wages could coexist with equitable and rising household incomes. These household budget structures probably complemented the state's efforts to promote the

growth-enhancing factors of equity in human capital and income, as the wage gap effects on child well-being and education were attenuated by social norms of family structure.

The impact of household structure on output is the subject of a feminist structuralist model by Braunstein (2000), which considers how distribution of the costs of social reproduction at the household level is a central determinant of female reservation wages, or the wage at which women enter the labor market. The model takes as its main context a semi-industrialized export-oriented economy, and household-determined reservation wages interact with the degree of global capital mobility to determine output and employment.

To get at differences in female labor supply and the reservation wage, household structure is modeled on a continuum. At one extreme is the family form "patriarchal presence." It parallels what in the anthropological literature has been identified as systems of household organization centered around the conjugal bond, and embedded in cultural rules that prescribe male authority over as well as responsibility for protection and provisioning of women and children. Men's economic responsibility for the family is paralleled by their decisionmaking power within the family. Its clearest instances are found in geographic areas that include North Africa, the Muslim Middle East, and South and East Asia. These factors would lead one to expect a high reservation wage for mothers. Conversely, elder daughters whose economic value to the male household head may be relatively low are easily sent out to work in the market, as was the case in the early years of East Asia's export development in the 1960s and 1970s, when daughters provided a deep pool of low-cost labor for expanding export sectors.

At the other extreme is "defection," where families are maintained by women alone. In the developing world, the majority of households maintained by women alone are the result of widowhood, desertion and migration. In Latin America and the Caribbean,

unmarried parenthood is a significant factor. In the Caribbean, for example, two-thirds of all births take place outside of official marriage (Chant 1997: 85).

Contested dominance, as in intra-household bargaining, describes situations where household members interact in a spirit of cooperation and conflict. These household systems are characterized by weaker conjugal ties than in the case of complete dominance, and women and men may assume specific responsibilities for household provisioning and exercise access to separate resources to enable them to discharge their obligations. The weaker conjugal ties found in the Caribbean, parts of Latin America and Sub-Saharan Africa provide examples of such terms, as do some parts of Southeast Asia. Most households probably fall in this category. Even the process of development itself, and the accompanying increased visibility of women's productive roles and access to own income, may serve to transform regions that were at one time closer to complete dominance.

Looking at the case of high capital mobility when investment is footloose in the sense of being able to easily move production from one country to another, increases in women's bargaining power relative to capital tend to result in declines in output because higher wages in tradable sectors drive capital elsewhere (economic growth is profit-led with regard to female wages). Conversely, increases in women's bargaining power relative to men in the household may be good for output to the extent that it raises women's financial responsibilities and lowers the female reservation wage.[9] So in an open economy setting, economies stand to gain in terms of national income by challenging male power in the household, but bargaining with capital may prove a more hazardous path.

Like the neoclassical institutionalist literature, intra-household dynamics have effects on the macroeconomy. But the point is not limited to perverse incentives or incomplete

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[9] Indeed, development and increases in female labor force participation are frequently accompanied by higher rates of male desertion (CITE).

markets. Gendered norms actually structure the conditions of profitability, investment and growth.

The Reproductive Sector

Neoclassical models take the production of labor as given, assuming that the reproductive sector seamlessly follows the lead of the productive sector (Elson 1995). Feminist political economy does not make this presumption. Rather, it treats the reproductive sector as intertwined with but also independent of the productive sector. These connections have important implications for measuring growth. The shift of women's labor from nonmarket production in the household to market production that comes with development is counted as economic growth. But it is also partly a transfer of production from an unmeasured sector to measured one. Once again, the East Asian case is an interesting one since rising rates of female labor force participation were an important source of factor accumulation. Presumably, the resultant decline in women's nonmarket labor participation affected overall production (market plus nonmarket), though by how much is unclear due to the "double day" effect and the rise in the productivity of nonmarket labor that comes with development (via capital improvements like electricity, running water, refrigeration and washing machines).

Almost all of the feminist macroeconomics in this area comes from analyses of the gendered impacts of structural adjustment programs (SAPs) (Cagatay, Elson and Grown 1995). Looking at output and growth in particular, Diane Elson (1995) has done some careful thinking about the gendered aspects of the growth models used by the World Bank and others to assess the impact of SAPs. A key insight is that these models assume unlimited supplies of reproductive labor. Consider efforts to increase market efficiency by shortening hospital stays or cutting back on the public provision of clean water. From a market

perspective this looks like an increase in efficiency (same output divided by fewer inputs). But patients are not actually recovering faster and families do not have less need for clean water. Nonmarket labor, most often supplied by women and girls, is presumed to fill the gap by providing home health care or walking longer distances to fetch water. Once again, we face the economic importance of the assumption of female selflessness.

B.   *The Costs of the Sexual Division of Labor*[10]

Gender motivations and efficiency are at the heart of understanding the evolution of the sexual division of labor, and how group-based self-interest and action are factors in the persistence of 'inefficient' institutions. The definitive work here is that of Nancy Folbre's, and a good place to start is with her argument that children should be considered public goods (Folbre 1994a). Many benefit from parental investments in children – future employers, neighbors, spouses, children, and old age security recipients in pay-as-you-go systems. These investments also contribute to long-term economic growth via raising the productivity of human capital, as in the neoclassical literature on the economic importance of good mothers.

From a bargaining perspective, women's specialization in child-rearing is a liability because women cannot capture the benefits of well-raised children (Folbre 1994b). Wives who devote themselves to family care develop family-specific skills that are less portable and more likely to depreciate over time than labor market experience (England and Farkas 1986). Gary Becker acknowledges that the sexual division of labor is more costly for women than for men, noting that "the housework responsibilities" of married women are a key factor in gender earnings differentials (Becker 1985: 535). The use of the word "responsibility" rather than choice is revealing: Becker seems to leave open the possibility that this responsibility

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[10] This section draws heavily from Braunstein and Folbre (2001).

was imposed from without. But the implicit role of social institutions in his model is simply to reinforce the gains to specialization and make nonconformity more costly (Braunstein and Folbre 2001).

Conventional approaches to changes in the sexual division of labor focus on shifts in relative prices, as when the rising opportunity cost of women's time that comes with development induces a shift of women's work from the household to the market. Feminist approaches to the gender division of labor do not contest the claim that a degree of specialization in reproductive labor is efficient. However, they argue that men have some incentives to force women to overspecialize in reproductive labor (Folbre 1994b, 1997). A division of labor that is initially efficient may reduce the bargaining power of some workers in ways that facilitate the emergence of hierarchies that subsequently may impede efficient reallocation. In other words, the static efficiency of comparative advantage given by a particular division of labor can lead to dynamic inefficiencies via the emergence of hierarchy.

This point gets back to the feminist emphasis on individuals and groups being interested not just in maximizing the size of the pie, but in maximizing their share as well. Especially if we think of the bargaining framework as applying not just to the household, but also to the market, the community, and the state, the persistence of gender inequities despite what at times may seem like inefficiencies makes more sense (Agarwal 1997). And efforts to maintain sources of male power become analogous to rent-seeking, unproductive activities and expenditures that lower growth and deplete human capabilities (Elson 1998).

IV. Concluding Remarks

Following this line of analysis – that activities to perpetuate male power are akin to rent-seeking – would be an interesting way for feminists to challenge neoclassical growth models within the confines of the neoclassical paradigm. It is important from a theoretical as

well as a social justice standpoint that dominant growth paradigms incorporate the point that inequities evolve and persist partly because they advantage some over others. Treating institutions as endogenous results of social struggle as well as economic exigencies strengthens the case for public policies that target changing social norms, as well as points to the importance and effectiveness of collective action in challenging inequities.

Still, if equity is the goal, why couch the argument in terms of growth at all? Feminists and others have long argued that growth is a poor proxy for well-being and development. In its human development index the United Nations incorporates Amartya Sen's notion of capabilities to evaluate development, while the World Bank's most recent *World Development Report* uses John Roemer's theories of equality of opportunity (Roemer 2006). Roemer (2006) takes the *World Development Report* on equity and development (World Bank 2005) to task for arguing that equity is good for development, noting that such an approach implicitly assumes that development is equivalent to per capita GDP. Instead, he argues, the Bank should be focusing on maximizing equity, what he defines as "social efficiency." Feminists could provide much insight into these issues, as much of their work is motivated by a commitment to equity. Providing a gender aware alternative to neoclassical growth models is clearly an important line of research.

References

Abu-Ghaida and Stephan Klasen. 2004. "The Costs of Missing the Millennium Development Goal on Gender Equity." *World Development* 32(7): 1075-1107.

Agarwal, Bina. 1997. "'Bargaining' and Gender Relations: Within and Beyond the Household." *Feminist Economics* 3(1): 1-51.

Aghion, Philippe, Eve Caroli and Cecilia García-Penalosa. 1999. "Inequality and Economic Growth: The Perspective of the New Growth Theories.*" Journal of Economic Literature* 37(4): 1615-1660.

Ahituv, Avner and Omer Moav. 2003. "Fertility Clubs and Economic Growth," in Theo S. Eicher and Stephen J. Turnovsky (eds.) *Inequality and Growth. Theory and Policy Implications.* Cambridge, MA: The MIT Press.

Amsden, Alice H. 1989. *Asia's Next Giant: South Korea and Late Industrialization.* New York and Oxford: Oxford University Press.

Anker, Richard. 1998. *Gender and Jobs: Sex Segregation of Occupations in the World.* Geneva: International Labour Office.

Banerjee, Abhijit V. and Esther Duflo. 2003. "Inequality and Growth: What Can the Data Say?" *Journal of Economic Growth* 8(?): 267-299.

Bardhan, Kalpana and Stephen Klasen. 1998. "Women in Emerging Asia: Welfare, Employment, and Human Development." *Asian Development Review* 16(1): 72-125.

Barro, Robert J. and Jong-Wha Lee. 1994. "Sources of Economic Growth." *Carnegie-Rochester Conference Series on Public Policy* 40: 1-46.

Barro, Robert J. and Xavier Sala-i-Martin. 1995. *Economic Growth.* New York: McGraw-Hill.

Bénabou, Roland. 2000. Unequal Societies: Income Distribution and the Social Contract. *American Economic Review* 90(1): 96-129.

Becker, Gary. 1985. "Human Capital, Effort, and the Sexual Division of Labor." *Journal of Labor Economics* 3(1): 533-558.

Becker, Gary. 1991. *A Treatise on the Family.* Enlarged Edition. Cambridge, MA: Harvard University Press.

Bergmann, Barbara. 1974. "Occupational Segregation, Wages and Profits When Employers Discriminate by Race or Sex." *Eastern Economic Journal* 1(2): 103-110.

Berik, Gunseli, Yana vander Meulen Rodgers, and Joseph E. Zveglich, Jr. 2003. "International Trade and Wage Discrimination: Evidence from East Asia". World Bank Policy Research Working Paper 3111.

Besley, Burgess and Esteve-Volart. 2004. (Indian case study cited in Klasen 2005)

Birdsall, Nancy, David Ross, and Richard Sabot. 1995. "Inequality and Growth Reconsidered: Lessons from East Asia." *The World Bank Economic Review* 9(3): 477-508.

Blackden, C. Mark and Chitra Bhanu. 1999. *Gender, Growth, and Poverty Reduction. Special Program of Assistance for Africa, 1998 Status Report on Poverty in Sub-Saharan Africa.* World Bank Technical Paper No. 428.

Blecker, Robert. 1989. "International competition, income distribution and economic growth." *Cambridge Journal of Economics* 13(3): 395-412.

Bloom, David E. and Jeffrey G. Williamson. 1997. "Demographic Transitions and Economic Miracles in Emerging Asia." NBER Working Paper No. 6268.

Bowles, Samuel and Robert Boyer. 1995. "Wages, aggregate demand, and employment in an open economy: An empirical investigation," in Gerald Epstein and Herbert Gintis (eds.) *Macroeconomic policy after the conservative era: Studies in investment, saving and finance.* Cambridge: Cambridge University Press.

Braunstein, Elissa. 2000. "Engendering Foreign Direct Investment: Family Structure, Labor Markets and International Capital Mobility." *World Development* 28(7): 1157-1172.

Braunstein, Elissa and Nancy Folbre. 2001. "To Honor and Obey: Efficiency, Inequality and Patriarchal Property Rights." *Feminist Economics* 7(1): 25-44.

Cagatay, Nilufer, Diane Elson and Caren Grown. 1995. *World Development Special Issue on Gender, Adjustment and Macroeconomics* 23(11).

Chant, Sylvia. 1997. *Women-Headed Households. Diversity and Dynamics in the Developing World.* New York: St. Martin's Press.

Dollar, David and Roberta Gatti. 1999. "Gender Inequality, Income and Growth: Are Good Times Good for Women?" World Bank Policy Research Report on Gender and Development Working Paper Series, No. 1.

Dollar, David, Raymond Fisman and Roberta Gatti. 2001. "Are women really the "fairer" sex? Corruption and women in government.*" Journal of Economic Behavior and Organization* 46: 423-429.

Duflo, Ester. "Gender Equality in Development"

Ellis, Amanda, Claire Manuel, and C. Mark Blackden. 2006. *Gender and Economic Growth in Uganda. Unleashing the Power of Women.* Washington, D.C.: The World Bank.
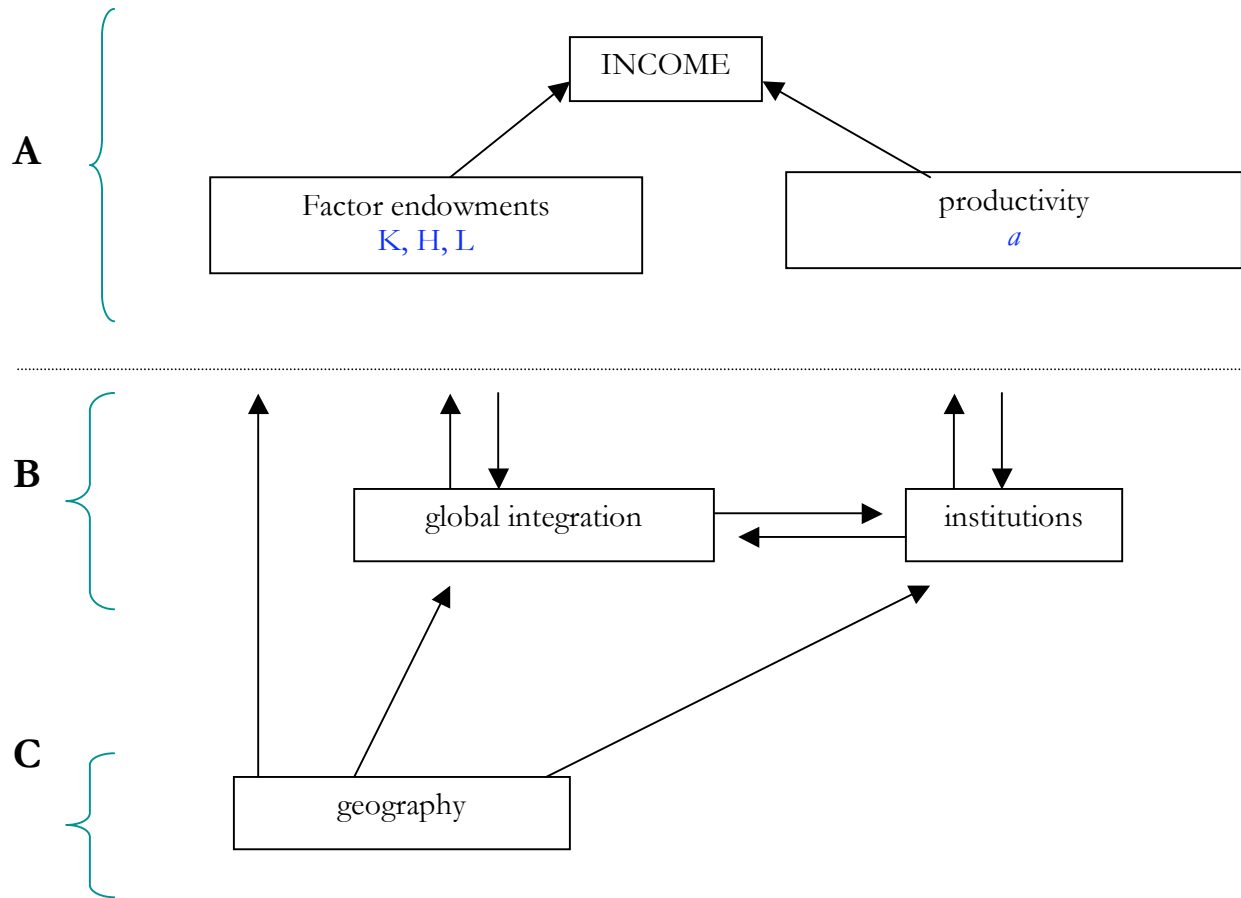
Elson, Diane. 1998. "Talking to the Boys: Gender and Economic Growth Models." In Cecile Jackson and Ruth Pearson (eds.) *Feminist Visions of Development: Gender, Analysis and Policy*. London & New York: Routledge.

_____. 1995. "Gender Awareness in Modeling Structural Adjustment." *World Development* 23(11): 1851-1868.

England, Paula and George Farkas. 1986. *Households, Employment and Gender. A Social, Economic, and Demographic View*. New York: Aldine Publishers.

Esteve-Volart, Berta. 2000. "Sex Discrimination and Growth." International Monetary Fund Working Paper.

_____. 2004. "Gender Discrimination and Growth: Theory and Evidence from India." London School of Economics and Political Science.

Folbre, Nancy. 1994a. "Children as Public Goods." *American Economic Association Papers and Proceedings* 84(2): 86-90.

_____. 1994b. *Who Pays for the Kids? Gender and the Structures of Constraint.* London and New York: Routledge.

_____. 1997. "Gender Coalitions: Extrafamily Influences on Intrafamily Equality," in Lawrence Haddad, John Hoddinott, and Harold Alderman (eds.) *Intrahousehold Resource Allocation in Developing Countries: Methods, Models and Policy*. Baltimore, MD: Johns Hopkins University Press.

Forsythe, Nancy, Roberto Patricio Korzeniewicz and Valerie Durrant. 2000. "Gender Inequalities and Economic Growth: A Longitudinal Evaluation." *Economic Development and Cultural Change* 48(3): 573-617.

Gallin, Rita. 1984. "Women, Family and the Political Economy of Taiwan." *Journal of Peasant Studies* 12(1): 76-92.

Galor, Oded and David N. Weil. 1996. "The Gender Gap, Fertility and Growth." *The American Economic Review* 86(3): 374-387.

Greenhalgh, Susan. 1985. "Sexual Stratification: The Other Side of 'Growth with Equity' in East Asia." *Population and Development Review* 11(2): 265-314.

Hill, M. Anne and Elizabeth M. King. 1995. "Women's Education and Economic Well-Being." *Feminist Economics* 1(2): 21-46.

Kaldor, Nicholas. 1978. *Further Essays on Economic Theory*. New York: Holmes and Meier Publishers, Inc.

Klasen, Stephen. 1999. "Does Gender Inequality Reduce Growth and Development? Evidence from Cross-Country Regressions." World Bank Policy Research Report on Gender and Development, Working Paper Series, No. 7.

_____. 2002. "Low Schooling for Girls, Slower Growth for All? Cross-Country Evidence on the Effect of Gender Inequality in Education on Economic Development." *The World Bank Economic Review* 16(3): 345-373.

_____. 2005. "Pro Poor Growth and Gender: What can we learn from the literature and the OPPG case studies?" Discussion Paper to the Operationalizing Pro-Poor Growth (OPPG) Working Group of AFD, DFID, BMZ and the World Bank.

Knowles, Stephen, Paula K. Lorgelly, and P. Dorian Owen. 2002. "Are educational gender gaps a brake on economic development? Some cross-country empirical evidence." *Oxford Economic Papers* 54: 118-149.

Krueger, Anne O. 1974. "The Political Economy of the Rent-Seeking Society." *American Economic Review* 64(3): 291-303.

Kuznets, Simon. 1955. "Economic Growth and Income Inequality." *American Economic Review* 45(1): 1-28.

Lagerlöf, Nils-Peter. 2003. "Gender Equality and Long-run Growth." *Journal of Economic Growth* 8(4): 403-426.

Marglin, Stephen A. and Amit Bhaduri. 1990. "Profit squeeze and Keynesian theory," in Stephen Marglin and Juliet Schor (eds.) *The golden age of capitalism: Reinterpreting the postwar experience*. New York: Oxford University Press.

McElroy, Margorie B. 1990. "The Empirical Content of Nash-Bargained Household Behavior." *Journal of Human Resources* 25(4): 559-583.

Murthi, Mamta, Anne-Catherine Guio and Jean Dreze. 1995. "Mortality, Fertility, and Gender Bias in India: A District-Level Analysis." *Population and Development Review* 21(4): 745-782.

Olson, Mancur. 1975. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.

_____. 1982. *The Rise and Decline of Nations. Economic Growth, Stagflation, and Social Rigidities*. New Haven, CT: Yale University Press.

Quisumbing, Agnes R. 2003. "What Have We Learned from Research on Intrahousehold Allocation?" In Agnes R. Quisumbing (ed.) *Household Decisions, Gender and Development: A Synthesis of Recent Research*. Washington, D.C.: International Food Policy Research Institute.

Quisumbing, Agnes, Lawrence Haddad and Christine Pena. 2001. "Are women overrepresented among the poor? An analysis of poverty in 10 developing countries." *Journal of Development Economics* 66: 225-269.

Quisumbing, Agnes R. and John A. Maluccio. 2003. "Resources at Marriage and Intrahousehold Allocation: Evidence from Bangladesh, Ethiopia, Indonesia, and South Africa. *Oxford Bulletin of Economics and Statistics* 65(3): 283-327.

Rodrik, Dani. 2003. "Introduction: What Do We Learn from Country Narratives?" in Dani Rodrik (ed.) *In Search of Prosperity: Analytic Narratives on Economic Growth.* Princeton and Oxford: Princeton University Press.

Rodrik, Dani, Arvind Subramanian and Francesco Trebbi. 2004. "Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development." *Journal of Economic Growth* 9: 131-2004.

Roemer, John E. 2006. "Review essay, 'The 2006 world development report: Equity and development." *Journal of Economic Inequality* 4: 233-244.

Saito, Katrine, Hailu Mekonnen, and Daphne Spurling. 1994. "Raising the productivity of women farmers in Sub-Saharan Africa." World Bank Discussion Papers, Africa Technical Department Series No. 230.

Schultz, T. Paul. 2001. "Why Governments Should Investment More to Educate Girls." Yale University, manuscript.

Seguino, Stephanie. 2000a. "Accounting for Gender in Asian Economic Growth." *Feminist Economics* 6(3): 27-58.

_____. 2000b. "The effects of structural change and economic liberalization on gender wage differentials in South Korea and Taiwan." *Cambridge Journal of Economics* 24(4): 437–459.

_____. 2000c. "Gender Inequality and Economic Growth: A Cross-Country Analysis." *World Development* 28(7): 1211-1230.

_____. 2002. "Gender, quality of life, and growth in Asia 1970-1990." *The Pacific Review* 15(2): 245-277.

_____. 2003. "Is Economic Growth Good for Well-being? Evidence on Gender Effects in Latin America and the Caribbean, 1970-2000."

_____. 2006. "Gender, Distribution, and Balance of Payments Constrained Growth in Developing Countries." University of Vermont.

Seguino, Stephanie and Maria Sagrario Floro. 2003. "Does Gender have any Effect on Aggregate Saving? An empirical analysis." *International Review of Applied Economics* 17(2): 147-166.

Standing, Guy. 1989. "Global Feminization through Flexible Labor." *World Development* 17(7): 1077-1095.

_____. 1999. "Global Feminization Through Flexible Labor: A Theme Revisited." *World Development* 27(3): 583-602.

Swamy, Anand, Stephen Knack, Young Lee, and Omar Azfar. 2003. "Gender and Corruption," in Stephen Knack (ed.) *Democracy, Governance and Growth*. Ann Arbor, MI: University of Michigan Press.

Taylor, Lance. 1991. *Inflation, stabilization and growth*. Cambridge: MIT Press.

Temple, Jonathan. 1999. "The New Growth Evidence." *Journal of Economic Literature* 37(1): 112-156.

Tibaijuka, Anna. 1994. "The Cost of Differentiated Gender Roles in African Agriculture: a Case Study of Smallholder Banana-Coffee Farms in the Kagera Region, Tanzania." *Journal of Agricultural Economics* 45(1): 69-81.

Tzannatos, Zafiris. 1999. "Women and Labor Market Changes in the Global Economy: Growth Helps, Inequalities Hurt and Public Policy Matters." *World Development* 27(3): 551-569.

Udry, Christopher. 1996. "Gender, Agricultural Production and the Theory of the Household." *The Journal of Political Economy* 104(5): 1010-1016.

Udry, Christopher, John Hoddinott, Harold Alderman, and Lawrence Haddad. 1995. "Gender differentials in farm productivity: Implications for household efficiency and agricultural policy." *Food Policy* 20(5): 407-423.

Walters, Bernard. 1995. "Engendering Macroeconomics: A Reconsideration of Growth Theory." *World Development* 23(11): 1869-1880.

World Bank. 2001. *Engender Development Through Gender Equality in Rights, Resources and Voice*. Washington, D.C. and New York: World Bank and Oxford University Press.

_____. 2005. *World Development Report 2006: Equity and Development*. Washington, D.C. and New York: World Bank and Oxford University Press.

Young, Alwyn. 1995. "The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience." *The Quarterly Journal of Economics* 110 (3, August): 641-680.

Zveglich, Josepth E., Yana Van Der Muelen Rodgers and William M Rodgers III. 1997. "The Persistence of Gender Earnings Inequality in Taiwan, 1978-92." *Industrial and Labor Relations Review* 50(4): 594-609.

Figure 1: How Economists Look at Growth

A

INCOME

Factor endowments
K, H, L

productivity
a

B

global integration

institutions

C

geography

Note: This figure is based on figure 1.3 from Rodrik (2003: 5).

Figure 2: Neoclassical Institutions, Gender Equity and Growth

exogenous   **endogenous**

Markets

Institutions

Gender Equity

Income

Gendered
Externalities