

From micro-level gender relations to the macro-economy and back again: Theory and policy

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Published in 2013, in D. Figart and T. Warnecke (eds), , *Handbook of Research on Gender and Economic Life*, Edward Elgar.

I Introduction

Until recently, micro-level economic relations tended to be analyzed separately from macroeconomic outcomes, with little consideration of their interaction. The “separate spheres” framework has come under challenge as a result of an expanding investigation into the effect of inequality on economic growth that gained momentum in the 1990s. The exploration of the two-way relationship between gender inequality and macroeconomic outcomes has contributed to the re-integration of microeconomics and macroeconomics.¹

The origins of the gender and macroeconomics research agenda can be traced to the development of three strands of inquiry in the emerging field of feminist macroeconomics. One strand emerged in the 1980s, exploring the impact of macroeconomic policies in the form of structural adjustment programs on women’s absolute and relative (to men) well-being. In this body of work, feminist scholars undertook a gender “mapping” of the impact of macro-level policies, which had previously been viewed as gender-neutral (Elson 1991; Benería and Feldman 1992; Sparr 1994; Cagatay, Elson, and Grown 1995).

A second thread of feminist research has shed light on the “black box” of intrahousehold resource allocation. Mainstream theory had previously assumed the household to be a unitary system, with resources equitably distributed among household members. A large literature has now emerged, however, demonstrating that although households are cooperative enterprises, they also exhibit conflict and competition for resources with outcomes influenced by the relative power of household adults. This implies that macro-level policies that differentially benefit men or women also change power

dynamics within the household, affecting the degree of gender equality in the performance of labor and in access to resources. Such studies find, too, that a determinant of children's well-being is the distribution of power between adults, with implications for long-run productivity growth.

A third line of inquiry that forms part of the gender and macroeconomics theoretical foundation explores the care economy, alternatively known as social reproduction. Caring labor, often unpaid, is required to reproduce human beings and thus forms one pillar of a society's material resources essential for improving living standards and the quality of life. That caring labor has largely been performed by women in recent history and has been long ignored in national income accounts rendered it invisible with the women who performed it labeled "unproductive."

Three research areas collectively led to a reconceptualization of the boundaries of economic activities: attention to the role of gender power differentials in influencing distribution, and a recognition of the effect of gender norms, stereotypes, and roles in mediating the impact of macro-level policies. Beginning in the early 1990s, feminist economists began to explore the reverse causality – that is, the impact of the degree of gender (in)equality on macroeconomic outcomes in the short and long run. This new subfield of macroeconomics is part of a broader research agenda that explores the relationship between intergroup inequality and the macroeconomy. This chapter explores theoretical contributions of feminist economics to macroeconomic theory, exploring the two-way causality and discussing the implications for macroeconomic policy.

II The impact of gender on the macroeconomy: Conceptual and theoretical roots

A Measures of gender (in)equality

The emphasis of gender and macroeconomic theorizing by feminist economists has been on women's *relative* well-being (as compared to simply their absolute well-being). Whether the focus is the gender wage gap, educational differences, or population ratios, we can think of these as measures of the extent of intergroup inequality. Broadly speaking, the gender distribution of well-being can be grouped into three domains: capabilities, livelihoods, and empowerment/agency. The impact of gender (in)equality on the macroeconomy varies with the specific measure of well-being.

The *capabilities* domain encompasses fundamental human abilities or functionings necessary to lead a good life. These include education and measures of health (which encompasses life, captured by the ratio of females to males in the population), and are pre-conditions for self-expression and self-realization.² The second domain, *livelihoods*, or access to and control over resources and opportunities, refers to the ability to use capabilities to generate a livelihood to support oneself and one's family. The relevant indicators of gender equality in this domain will differ by the structure of production in economies. For example, where there are well-developed labor markets, three representative measures are wage rates, employment, and annual income. Livelihood equality in agricultural economies, with widespread subsistence production, may be better reflected by measures of land ownership, access to credit, and time spent in unpaid labor.

The *empowerment/agency* domain measures gender differences in “voice” –the ability of a group to shape decision-making in the productive sphere (for instance, in the workplace) and in the political process.³ The concept of empowerment, while intuitively appealing, is still operationally underdeveloped. It can be understood, however, as the ability of both individuals and the groups to which they belong to shape their environment. Thus gender equality in this domain would imply that women are equally *agentive* as men.⁴ Women’s share of professional and managerial positions, and of leadership positions in cooperatives, businesses, and governing bodies can be used as indicators.

In addition to the type of gender equality in question, gender effects on the macroeconomy depend on several other factors: the country’s economy structure (agricultural, semi-industrialized, post-industrial), macro-level policies that influence relations with the rest of the world (rules governing trade and cross-border investment and finance), and the form and extent of gendered job segregation.

B Neoclassical and heterodox roots of feminist macroeconomic and growth theory

Two schools of thought have influenced the development of feminist macroeconomic growth theory and analysis. The first, neoclassical thought, draws inspiration from the Solow growth model, which assumes full employment and thus eschews the possibility of demand-side constraints that could lead to excess capacity and sustained unemployment. The supply-side focus of gendered neoclassical growth theory therefore tends to limit analysis to the negative productivity effects of gender educational and health inequality and job access (Hill and King 1995; Knowles, Lorgelly, and Owen 2002; Boschini 2003; Cavalcanti and Tavares 2007; Klasen and Lamanna 2009). Gender differences in each of these areas, it is argued, lower economy-wide productivity, thereby slowing the rate of growth relative to its potential.

A number of theoretical models explore the implications of gender inequality in bargaining power at the household level on fertility and intrahousehold resource allocation, which can reduce investments in children’s well-being and thus dampen long-run productivity growth (see Stotsky 2006 for a review).

While aspects of the neoclassical framework have been useful, the substantive architecture of feminist macroeconomics draws from heterodox macroeconomic theory. Post-Keynesians in the tradition of Michal Kalecki have developed a body of work that investigates how the functional distribution of income (between workers and capitalists) affects output, employment, and growth in demand-constrained economies. Feminists have adapted this framework to account for gender differences in income, thereby simultaneously exploring the effects of both *interclass* and *intra*class distribution. In addition, feminist economists have drawn from structuralist macroeconomics, an approach that incorporates the stylized structural features of economies (market structure, the structure of production and trade and resulting price elasticities, and balance of payments constraints to growth) into macro models. This approach, which originated in Latin America, is primarily associated with Raul Prebisch and Celso Furtado.

Based on these foundations, feminist macroeconomic theory identifies linkages

between the gender distribution of income and other measures of well-being, on the one hand, and short- and long-run growth on the other. The incorporation of the effects of household dynamics and caring labor also distinguishes gendered macro models from mainstream and heterodox approaches, enlarging the space in which we understand macroeconomies to operate. This work has been built on a strong foundation of empirical work that has helped to estimate the relative sizes of parameters in the macroeconomic models.

III Feminist theory on the role of gender in the macroeconomy

Feminist macroeconomists have contributed to the theoretical integration of gender into macro models, not as an add-on or special case but as an integral feature of economic systems that plays an important role in influencing the level of economic activity. In contrast to previous research, these models establish a conceptual distinction between sex, which is seen as biological or anatomical, and gender, which is socially constructed, and reflects social valuation of masculinity and femininity that contribute to power differences and therefore inequality between women and men.

Macroeconomic models of this genre make clear there is no one-size-fits-all effect of gender equality on the economy. The effect will depend on a variety of factors, as noted above, including the time frame, the economic structure of production, other key social relationships (such as intergroup inequality along ethnic lines), balance of payments constraints, the nature of gendered job segregation, and macro-level policies. Table 1 provides an illustrative matrix of factors that interact to shape the relationship between micro-level gender relations and macroeconomic outcomes.

[Table 1 about here].

Despite the complexities and variations in modeling the role of gender, several key linkages form the basic architecture of gendered models. We describe these here, first considering short-run models and then long-run models.

A The Short Run

One of the key differences in neoclassical and heterodox efforts to engender macroeconomic theory is that the neoclassical approach ignores the short run. Emphasizing the long run, neoclassical theorists focus on those forms of gender equality that have delayed effects on the macroeconomy – such as educational equality and health improvements. Keynesians and other heterodox economists would argue that the macroeconomy, however, is itself made up of a series of short runs. Disequilibria that result from demand-side shocks can produce long-lasting effects (Dutt and Ros 2007). This is especially true of countries that face balance of payments constraints, particularly developing countries. Any shock that worsens the terms of trade or balance of payments can trigger IMF-type austerity programs with long-term negative effects on the productive capacity of the economy as has been well-documented by feminist economists.

What differentiates the short run in terms of analyzing the effects of gender is that the gender variables of interest are fast-acting. Two variables in this category are wages (and, depending on the circumstances, access to credit and other inputs) and government spending. The latter could be targeted, for example, to sectors that reduce women’s care burden or to fund investments in women’s access to on-the-job training.

In the short run, output is demand-determined. In common parlance, “there are no sellers if there are no buyers.” Therefore, if we want to understand what determines the level of economic activity, we must look at the effect of gender equality via wages and government spending on components of aggregate demand – consumption (and thus saving), investment, exports, and imports. In its simplest version, we can identify the effect of more or less gender equality on macroeconomic output and employment in the short run, based on the net effect of a redistribution on the macroeconomic and trade equilibrium conditions:

$$S + T + M = I + G + X \quad (1)$$

$$NX = X - M \quad (2)$$

where S is aggregate saving, T is tax revenues, M is the domestic currency value of imports, I is business investment, G is government spending, X is exports, and NX is net exports. An assessment of the effects of greater gender equality is arrived at by summing the effects on each of the individual components of aggregate demand and net exports.⁵

In the short run, gender equality could improve directly via a change in relative female/male wages, or indirectly through government spending that differentially benefits females (such as investments in education, or public investment that reduces women's care burden). An increase in gender equality that results in injections exceeding leakages ($S + T + M < I + G + X$) is expansionary. That is, a redistribution stimulates aggregate demand, leading to an increase in output and employment in the short run. A redistribution with this effect would be “gender cooperative” – a redistribution to women maintains and even potentially increases men’s absolute income, depending on the sectors that expand as a result of the redistribution. Conversely, of course, a contractionary increase in gender wage equality may harm both women and men both through job losses, and thus would be considered “gender conflictive.”

I elide here the interesting insights that can be obtained by analyzing the impact of a fiscal stimulus ($G > T$) targeted to expenditures that promote gender equality. Suffice it to say that the macroeconomic evidence suggests that appropriately targeted expenditures can “crowd in” private investment, exerting an unambiguously positive effect on output, employment, and growth. The critical question is whether such expenditures are fiscally sustainable. For more on that issue, I refer the interested reader to Seguino (2012).

A more complex case is the effect of greater gender wage equality on each of the variables in the macroeconomic and net export equilibrium conditions. Here, I focus on the impact of a narrowing of the wage gap by raising women’s wages (holding the average male wage constant). This approach is heterodox. Unlike neoclassical theory, which assumes that

wages reflect marginal productivities, heterodox theorists see wages determined as a result of social bargaining between employers and workers, where implicitly, power matters.⁶

Increased gender wage equality might be achieved by raising the minimum wage or extending the right to organize to export-processing zones that employ primarily female labor. The net aggregate demand effect of higher relative female wages will depend on gender differences in saving propensities, the composition of consumption of expenditures of women and men (do women tend to consume domestically produced goods, affecting the level of import demand and thus balance of payments?), the degree of firm mobility that affects the impact of higher female wages on investment, and the gender composition of the workforce in the export sector.

SIEs and LIAEs

The size and sign of net effects will differ across countries depending on the various factors identified in Table 1, but we can make some generalizations based on modeling exercises and empirical studies. In semi-industrialized export-oriented economies (SIEs), women workers are concentrated in the export sector that produces labor-intensive manufactured goods, business services (call centers), and non-traditional agricultural exports. Because firms are mobile, or because these goods can be globally sourced by large buyers in developed countries along global commodity chains (Wal-Mart and Tesco are two examples), higher female wages dampen both investment and exports, producing an economic contraction and worsening the balance of payments. In these countries, even if women's marginal propensity to save is less than men's (with higher female wages thus stimulating consumption), the expansionary effect of higher female wages is unlikely to be sufficiently large to offset the negative investment and export effects.⁷ This is because the labor-intensive firms that employ women tend to be mobile and because exports are price elastic.

In contrast, in low-income agricultural economies (LIAEs) where men are concentrated in natural resource or cash crop export production and women in the subsistence agricultural sector, greater gender wage equality can be a stimulus to output and employment. This is because women's wages from off-farm work may be reinvested in subsistence agriculture, raising productivity, expanding food production, and thus reducing macroeconomic leakages for food imports. Moreover, women's greater access to resources improves their bargaining power vis-à-vis husbands and male relatives, permitting them to reduce (or receive a better price for) the labor they provide on male crops – again with positive effects for domestic food production (Darity 1995).

Other measures of gender equality that have short run effects may be more salient in LIAEs, however. These include female property rights, access to credit, inputs, technology, and extension services. There is some theoretical and empirical evidence that greater gender equality in access to inputs can stimulate agricultural production, with a potentially positive effect on food production, and thus the balance of payments, due to a reduction in food imports. In Burkina Faso, for example, fertilizer is more heavily applied to male plots, resulting in their greater productivity relative to female plots, controlling for weather conditions and types and characteristics of plots (Udry 1996). The implication is that equalization of inputs could raise yields on women's plots with household production

potentially increasing by 6% (Blackden, Canagarajah, Klasen, and Lawson 2006). Given that women's food production is largely for domestic consumption, the demand for food imports could fall as a result, though on this latter point, there is as yet no solid empirical evidence.

Women's lack of secure property rights in LIAEs, neoclassical scholars argue, inhibits access to agricultural credit and therefore productivity. The policy prescription proffered is to promote individualized land titling. While it is clear that women's productive activities are credit-constrained in ways that inhibit agricultural productivity, individualized control over land may not be sufficient or even necessary to promote gender equality. Some feminist scholars indeed are critical of the individualist and private property emphasis of the neoclassical literature that links gender equality in inputs and property rights with greater agricultural productivity (Whitehead and Kabeer 2001; O'Laughlin 2007; Razavi 2009). Noting that households are not only the site of conflict but also cooperation, O'Laughlin points out:

The feminist mandate is not trading oppression for isolation, providing women with resources so they can make it on their own, but redressing inequality within cooperative gender relations through reconstruction of the division of labour. This can only be a disruptive and broad political process that cuts across households and communities (O'Laughlin 2007: 41).

Feminist scholars note that in the face of uncertain harvests and the market volatility induced by integration into the global economy, collective arrangements and community institutions offer an important alternative to enhance food security and sustainable use of resources – and promote gender equality (Agarwal 2000; Whitehead and Kabeer 2001).

Developed Economies

Feminist scholars have devoted less attention to constructing macro models that explore how gender equality affects short-run macroeconomic outcomes in countries with structures resembling those of developed economies. Some models which can incorporate countries at different stages of development are, however, applicable to developed economies. Erturk and Darity (2000) highlight the dual effects of increased female labor force participation. On the one hand, due to rigid gender roles, women's entry into paid labor reduces time spent on unpaid caring labor with negative impacts on the production of labor power. On the other, women's lower wages have a positive effect on profits and thus output. In developing economies with limited public services, the negative effect on the production of labor power is likely to dominate, but in developed economies with broader social spending, the second effect is likely to be more important.

Addressing the absence of attention to the care sector in macro models, in recent innovative work, Braunstein, van Staveren, and Tavani (2011) develop a macro model with caring labor. They show that higher female wages, in addition to directly affecting production, could induce more investment at the household level in "human capacities" that can raise labor productivity and reduce unit labor costs.⁸ In that case, the net effect of higher female wages on profits and thus investment may be positive or negative, depending on

structural conditions. This promising work awaits empirical verification on the rapidity with which labor productivity responds to wage hikes.

B The Long Run

The long run is characterized by the flexibility of all gender well-being variables. Thus, in addition to opportunities variables such as wages or access to credit, measures of capabilities and empowerment/agency are allowed to vary. The pathways by which these are hypothesized to affect the rate of economic growth depend on the theoretical framework.

Neoclassical growth theory and gender

Neoclassical growth theory, based on the workhorse Solow model, emphasizes the positive effect of increases in factor inputs (physical and human capital and labor supply) on economic growth, assuming exogenously determined productivity growth. In recent years, endogenous growth theory has attempted to give substance to the determinants of productivity growth, typically emphasizing the role of institutions, such as the rule of law and property rights. Assuming Say's Law (that is, that economies do not face demand-side constraints and thus problems of unemployment or underemployment), the supply side determines the rate of economic growth.

Gendered neoclassical accounts emphasize the positive effects of gender equality in capabilities (in particular, women's health and education). There are several pathways by which capabilities equality can raise economy-wide productivity. If innate abilities are similarly distributed across the genders, unequal educational investments in favor of boys lead to inefficiencies due to a selection distortion problem – overinvestment in less qualified males and under-investment in more qualified females. This can lower economy-wide efficiency, conversely implying that gender equality in educational investments can stimulate economic growth. Several studies provide empirical support for this hypothesis (Hill and King 1995; Klasen and Lamanna 2009). Klasen and Lamanna (2009) provide estimates of the cost of education gaps in terms of foregone GDP in the Middle East and North Africa, South Asia, and Sub-Saharan Africa, respectively. Costs amount to 1.74, 1.96, and 3.48 percentage points annually, respectively, relative to East Asia over the period 1960-2000. The effects are both direct (on economy-wide productivity) and indirect (lower female relative productivity dampens business investment).⁹

The benefits of greater educational equality for development and growth are also argued to operate through the impact on children's well-being. Whether due to greater bargaining power within the household or the enhanced ability to provide better care for children, women's increased educational attainment (relative to men's or absolutely) has been found to produce a positive effect on children's survival, health, and education (Blumberg 1988; Morrison, Raju, and Sinha 2007). One (indirect) pathway by which children's well-being may be enhanced is through the effect on fertility; as the opportunity cost of having children rises with more education, women's fertility declines, reducing the dependency ratio which permits larger investments in children.

Greater gender equality in terms of the unpaid labor burden is also argued to promote growth. Holding constant men's performance of unpaid labor, the reduction in

time required for such tasks frees time up for women to spend in remunerative activities that can increase their bargaining power within the household, reduce child labor, and in some cases, directly impact girls' education if they are differentially relied on to assist in unpaid labor. Such improvements can be induced via public investments in infrastructure that reduces the time women must allocate to unpaid caring and other forms of reproductive labor (Agénor, Canuto, and da Silva 2010). To the extent that women's relative capabilities, incomes, and assets improve, their bargaining power within the household gives them greater control over their fertility.

Increases in female empowerment (for example, advances in women's political representation) can affect long-run growth via the effect on the composition and level of public expenditures. Although there is no guarantee having more women in political decision-making will leverage gender-equitable policies, their experiences and interests are likely to be given greater visibility and attention. Chattopadhyay and Duflo (2004) find, for example, that a policy implemented in West Bengal that reserved one third of village council seats for women resulted in public investments more responsive to women's priorities such as water and road.

Even without accession to positions of political power, women's increased labor force participation can influence voting patterns that reflect their greater interest in redistributive public spending to fund social safety nets (Iversen and Rosenbluth 2006; Cavalcanti and Tavares 2011). Although this does not imply a direct causal link to growth, if such public spending reduces care burdens and improves women's capacity to generate income, the effect on economic growth could be positive.

Another form of empowerment – women's share of managerial, supervisory, and professional jobs that influence decision-making in the workplace – can have a demonstration effect that changes gender norms and stereotypes with a reduction in employers' propensity to discriminate based on gender. Reduced discrimination that leads to a narrower gender wage gap can then produce a positive effect on growth via the impact, as described above, on economy-wide labor productivity.

Neoclassical economists who explore gender effects on growth are wont to emphasize the benefits of greater equality – primarily transmitted through effects on labor productivity – but fail to identify or give serious consideration to the potential costs. This striking vacuum in a discipline that emphasizes opportunity costs of decisions is perhaps influenced by the desire of mainstream economists in international institutions such as the World Bank to make the efficiency argument (or as some would call it, the “business case”) for gender equality (World Bank 2012). The resulting lacuna is unfortunate since plotting a path toward a macroeconomic environment that is compatible with gender equality is hampered by failure to accurately assess the roadblocks along the way. As such, it is important to acknowledge that power and hierarchy can lead to inefficient but profitable production methods, making gender inequality a viable contributor to economic growth.

Heterodox feminist growth theory

A heterodox approach differs in three key ways from neoclassical growth theory. First, it underscores that the growth of potential output (supply) must be matched by the growth of

demand, itself influenced by the distribution of income. Second, the balance of payments constraint must be relaxed in order for growth to occur. And third, in addition to labor productivity, it is emphasized that potential output is stimulated by cost reductions that enhance profits and thus stimulate investment in physical capital.

The ability to hire women at low wages due to their weaker bargaining position vis-à-vis capitalists (relative to their productivity) can thus be a stimulus to investment and technological advance. Moreover, in developing economies that rely on imported intermediate and capital goods to industrialize, low wages of women workers segregated in export industries can generate much-needed foreign exchange.

As a result, greater educational equality due to rising female educational attainment coupled with women's lack of bargaining power to translate productivity into higher wages can be a winning combination for employers. This is because unit labor costs are reduced, raising profits, stimulating export demand, and generating access to imported technologies. A stylized price equation demonstrates this relationship. Equation 3 gives a mark-up price equation with only one input – labor. This may seem unrealistic but think of the case of a call center worker, ignoring for simplicity the capital equipment required for this type of work:

$$P_x = (1 + \tau) w_F b \quad (3)$$

where P_x is the price of the exported good or service in a sector employing primarily female workers, τ is the mark-up rate over prime unit costs, w_F is the nominal female wage rate, and b is the labor coefficient – the amount of time required to produce one unit of a good or service. Greater educational equality, it is argued will improve productivity, causing the size of the labor coefficient b to decrease.

Neoclassical theory posits that, at least in the longer run, women's wages would rise to reflect their increased productivity. Thus, the effect of greater educational equality on prices and profits (via the mark-up) is zero, with women capturing the full benefit of their improved productivity in higher wages (in equation 3, the decline in b is accompanied by a proportionate increase in w_F , such that P_x and τ are constant). However, heterodox feminist economists argue that women's weak bargaining power inhibits their ability to raise their wages. This creates the possibility that instead, P_x falls with women's increased educational attainment, stimulating export demand, and/or τ rises, stimulating profitability and thus business investment. This implies that under some conditions, gender equality in education combined with gender wage *inequality* can be a stimulus to long-run growth.

The factors that shape that relationship depend on an economy's economic structure and other macro-level policies.¹⁰ The conditions just described are those present in SIEs. In LIAEs, the long-run growth effect of gender wage equality may differ substantially. Balance of payments effects are not likely to be as negative. In fact, as noted, improvements in women's control over income may enhance agricultural investments with benefits for on-farm productivity with a positive net effect on long-run growth. This implies that in LIAEs, both in the short and long run, gender equality may be a stimulus to growth.

This brief summary demonstrates advances in our knowledge of the effect of micro-level gender relations on macro-level outcomes, and in particular, the pathways by which equality may stimulate economic growth and potentially development, defined as broadly shared improvements in well-being. That said, this research agenda is far from complete and its boundaries have not been definitively drawn.

Further theoretical work is needed. For example, there has been little theorizing about the interactional effects of race and gender inequality in economies of any structure. Thus, while we have a better sense of the linkages and constraints to improving gender equality (more pronounced in SIEs than LIAEs), country-specific case studies would greatly benefit our understanding of these relationships.

Further, there has been little consideration of the societal effects of gender equality on norms of masculinity and, indeed, hyper-masculinity. Equality achieved at the expense of men's access to employment, given male breadwinner norms, can trigger socially dysfunctional backlash. Reddock (2009) notes that in the Caribbean, men distance themselves from and reduce their contributions to children's upbringing as their male breadwinner role deteriorates. Moreover, loss of income to the family can result from men's reduced ability to control family surplus income (Braunstein and Folbre 2001). In other words, gender equality can contribute to gender conflict as men's position or perceived position deteriorates. An exclusive focus on improvements in women's well-being misses this important and potentially corrosive dynamic.

III How do macroeconomic policies affect the degree of gender equality?

A question of great interest in feminist economics is whether economic growth can improve gender equality. Arguably, if growth is gender-equalizing, then simply adopting growth-inducing policies might allow us to avoid the difficulties of developing potentially conflictive gender-specific policies.

Why might growth contribute to gender equality? Signaling rising per capita incomes, growth can generate more revenue for households to invest in female family members, closing the gender gap in well-being. Further, economic growth may generate increased state-level resources that can be differentially allocated to females, thus improving their relative well-being during the process of growth. Further, economic growth that expands livelihood opportunities raises the opportunity cost of unpaid labor, spurring women's integration into the paid economy, raising their access to income and bargaining power.

Several studies find positive effects of growth on gender equality as measured by life expectancy, educational attainment, and access to employment (Dollar and Gatti 1999; Forsythe, Korzeniewicz, and Durrant 2000). A weakness of these earlier approaches is that they fail to account for the differential effect of various macroeconomic policies. In other words, some macro-level policies and growth may be gender-equalizing while others worsen gender inequality.¹¹ This is because, whether by design or not, macroeconomic policies almost inevitably have distributional effects. Understanding the impact of the macroeconomy on gender equality therefore requires us first to identify the specific policies in question and the measures of gender inequality we want to consider. With that in mind, I explore here several categories of macro-level policies and their impacts on gendered

equality.

Monetary and fiscal policy

Two major tools at the disposal of the government to manage the macroeconomy are *monetary policy* (central bank interventions to influence the money supply, rate of interest, availability of credit, and exchange rate) and *fiscal policy* (government taxation and spending to control the level of expenditures in the economy and influence structural change).

Monetary policy, by affecting interest rates and credit availability, influences the level of unemployment. Measures to expand credit can expand the number of jobs, benefitting women directly with increased access to jobs so long as gender norms do not stand in the way. In recent years, however countries have been more likely to adopt contractionary monetary policy. The reason is that central banks have been pressured to become more “independent,” such that they autonomously set policy goals independently of those the government may be pursuing. Central banks, for a variety of reasons and pressures, have as a result, discarded the policy goal of employment generation, adopting instead an almost exclusive focus on inflation targeting, that is, keeping inflation rates low and close to zero.

Conservative economists hold that inflation is harmful to growth, because it creates conditions of uncertainty that dampen investment. In contrast to this view, evidence from a number of studies finds that inflation rates below 20% are not harmful for growth (Pollin and Zhu 2006). Central banks’ emphasis on low inflation has distributional consequences. Low inflation raises the real rate of return on investments, boosting the income of wealth holders. The cost, however, is measured in jobs. That is because tightening the money supply, which restricts credit availability, raises interest rates. Higher borrowing costs dampen business investment, and as a result employment growth.

Workers lose out with inflation targeting, as do small farmers whose access to credit is squeezed. Though the evidence is as yet sparse, research suggests that women suffer disproportionately from job loss when the money supply is tightened to fight inflation. This appears to occur in both developing countries and in some, though not all, developed countries (Braunstein and Heintz 2008; Takhtamanova and Sierminska 2009; Seguino and Heintz 2012).

Fiscal policy can also affect employment opportunities. The rigidity of gender norms about the division of labor will affect who gets newly created jobs and thus gender differences in income. For example, public works projects that are adopted to boost employment opportunities typically generate “male” jobs (for example, in construction and road work), thus disproportionately benefiting men. This is not universally so, as the case of India demonstrates. There, women hold a large share of public works jobs, suggesting that fiscal policies that promote such spending are gender equalizing.

Despite the potential for public spending to promote job access, especially for women, developing countries have been under great pressure to cut their public sector budgets. In part, this is the direct result of trade liberalization that has reduced revenues available to the state. It also is a result of financial liberalization and the veto power of financial markets (a tendency that has been dubbed “bond market vigilantism”) whose

investors flee economies with public budget deficits. Their flight reflects a fear that such deficits might result in inflation, cutting into financial returns. The result has been that governments, especially in poor countries but now even in richer countries, have felt pressure to cut their budgets. The impact of these trends is evidenced by the decline in global public investment as a share of GDP, which fell from 2.1% in 1980 to 0.81% in 2000 (Rathin, Heuty, and Letouzé 2009: 70).

Public sector budget cuts have received detailed scrutiny from a gender perspective, beginning in the 1980s, with the wide implementation of structural adjustment programs (SAPs) in developing countries. These cuts affect women and men differently. When the public sector downsizes, women are often the first to lose their jobs for two reasons. Cuts may be in social sector jobs such as education and health, which employ a larger share of women than other sectors. Second, gender norms about who is most deserving of employment when jobs are scarce can lead women to be the first to be laid off.

Even when it is men's jobs that are eliminated, there are negative consequences for women. Many women are under pressure to engage in "distress" sales of their labor to make up for lost family income as men are laid off. Women may, for example, take on make-shift jobs in the informal sector, such as street vendors. At least some of these jobs are best described as disguised unemployment; they increase women's labor burden but for very little pay, reflecting the distress conditions under which they sell their labor. In addition to the increase in time women must spend in paid work, there is evidence their unpaid labor burden intensifies during times of economic austerity. Because the family is forced to reduce expenditures, it must rely more on home-produced goods, such as meals. While this care work could in principle be shared, the reality is that gender norms are very strong. Men see this work as women's responsibility and may find it emasculating. Therefore, women's unpaid labor burden increases.

Public sector budget cuts exacerbate the disproportionate sharing of care work. A reduction in infrastructure expenditures exacerbates women's work burden in countries where they have a responsibility for providing water and fuel and transporting goods to market. More generally, public sector cuts have made it difficult for states to provide an economic cushion even as globalization has made incomes more volatile. The burden for smoothing family income often rests on women's shoulders. The result is their unpaid labor burden increases as they try to shield their families from economic austerity measures. Together, the fiscal and monetary policies of the neoliberal era, dating from 1980 onward, create a deflationary bias that disproportionately harms low-income households, particularly women (Elson and Cagatay 2000).

Trade and Investment Rules

Economists and policy makers have only recently begun to recognize that national and international rules on trade, investment, and finance have gendered implications. This has been nowhere more evident than in the area of trade. Many countries have liberalized trade, reducing tariffs on imports and eliminating export subsidies and taxes. The World Bank and other free trade proponents have argued that this policy shift should lead to more employment opportunities for women. This is because women's significantly lower wages makes them a key source of labor in a liberalized investment and trade environment where

cost competition makes low-wage labor attractive. Proponents of free trade hold that over time, the sustained demand for women's labor will drive up their wages relative to men's, leading to a narrowing of the gender wage gap.

There is evidence that trade and investment liberalization have led to women's increased employment opportunities although the effects are uneven (van Staveren, Elson, Grown, and Cagatay 2007). The female share of employment rises in the light manufacturing stage of export-led growth in SIEs, but their share of manufacturing jobs declines with industrial upgrading to the production of more capital-intensive goods (Tejani and Milberg 2010). This occurs despite the substantial narrowing of gender educational gaps. The gender equalizing employment effects of trade liberalization are further weakened due to the fact that the increase in one country's exports stimulated by hiring low-wage women may come at the cost of a decline in other countries' exports. As a result, job gains for women in some countries may be counteracted by women's job losses in others (Fussell 2000; Bussolo and de Hoyos 2009).¹²

Evidence of the impact of trade and investment liberalization for gender wage equality is also mixed. Some studies show that gender wage differentials have declined, in large part due to narrowing educational gaps. For several developing countries, including China and Vietnam, however, the discriminatory portion of gender wage gaps has increased (Maurer-Fazio, Rawski, and Zhang 1999; Liu 2004; Berik, Rodgers, and Zveglic 2004; Weichselbaumer and Winter-Ebmer 2005; Menon and Rodgers 2009).

What might explain the failure of wage gaps to narrow, particularly in rapidly growing export-led economies that disproportionately employ women? With trade and investment liberalization, labor-intensive firms that employ primarily women have become increasingly "mobile" or "footloose." With weakened regulations on foreign direct investment and reduced communications and transport costs, firms find it less costly to relocate if local cost conditions do not meet their profit goals. There is evidence that the mobility of firms reduces the bargaining power of workers, and thus, holds down their wages (Choi 2006; Seguin 2007b). The rise of global commodity chains with lead firms outsourcing to subcontractors across the globe increases the bargaining power of employers, also holding down wage growth. (Though used in a different context, the term "traumatized worker" effect so dubbed by Alan Greenspan, captures this phenomenon). Insofar as women are concentrated into more "mobile" industries, the possibility for trade and investment liberalization to improve gender equality is limited.

In addition to the problem of firm mobility that holds down wages, trade and investment liberalization has pushed firms to use flexible and informal work arrangements that are temporary, seasonal, casual, and based on unregulated labor contracts with women slotted for those jobs (Carr, Chen, and Tate 2000; Balakrishnan 2002; Benería 2007). In some countries, the process of labor "informalization" has not only affected women but also men, leading to a downward harmonization of labor conditions. Thus, we see some evidence of greater gender equality because men's condition has worsened rather than women's improving (Kongar 2007).

This illustrative review of gender effects of macro-level policy suggests that the soundness of macroeconomic policies should be evaluated not only for their impact on

macroeconomic aggregates—employment, inflation, the trade balance, and GDP growth—but also for their gendered effects. Policies should also be assessed on the basis of their effectiveness at achieving social objectives, including the extent of broadly shared well-being. More generally, policy formulation requires awareness of the distributional effects by gender in order to avoid unintended negative effects.

IV A gender-equitable inclusive macroeconomic framework

Under the right conditions, a more equitable gender distribution of income and opportunities can be a stimulus to growth, funding further investments in human development. Developing the policies to create those conditions is the central challenge for any gender aware macroeconomic program. I briefly discuss here what a gender equity-led macroeconomic policy framework would look like, with suggestions for proposals to not only produce greater equality but also reduce economic instability, while stimulating rising living standards.

The specifics of inclusive macroeconomic policy of necessity will be determined according to the structure of an economy. That said, we could outline the broad goals any inclusive macroeconomic framework might want to achieve. I would identify three components as key: 1) Full employment, 2) gender, class, and ethnic equality, and 3) economic stability and security.

The state, far from being superfluous, has a key role to play in facilitating a development strategy that is characterized by greater equality and economic stability. Our challenge lies in carefully re-defining that role and in rethinking the relationship between the state and the market. A redefined role for state requires an assessment of how we can use fiscal policy to achieve the three goals I have outlined. Fiscal policies broadly fall into two categories: 1) countercyclical policy and 2) public investment. While the former is important, I would like to emphasize some new ways to think about the latter that are gender-responsive. An understanding of gender relations should be integral to defining that public investment strategy. Both *physical* and *social* infrastructure public investment can improve gender equality and stimulate long-run growth by raising economy-wide productivity. In this sense, such investments are also anti-inflationary if targeted to address bottlenecks in the economy that drive up prices.

Research identifies a strong link between physical infrastructure expenditures and women's unpaid care burden. Targeted investments can reduce the time women spend in unpaid labor, freeing up time to spend in paid labor, with benefits for children's well-being and economy-wide long-run productivity growth. Improvements in mothers' health have been found to affect children's health *in utero* with evidence of long-term positive effects on children's cognitive skills. These linkages imply that public investments that reduce women's care burden and improve their health, in addition to promoting gender income equality, have long-term benefits to the economy in the form of a healthier, more educated and productive workforce.

Depending on the type of economy, public investments in both physical and social infrastructure can close gender gaps in job access and raise incomes. In agricultural economies, for example, targeted expenditures to women farmers can raise agricultural

productivity. Women are credit-constrained due to lack of land rights but even this constraint can be overcome with appropriate monetary policy, a point I take up in more detail below.

Social infrastructure investment, a relatively new and underdeveloped concept, has important gender dimensions. These investments have a public goods quality with positive spillover effects for the rest of the economy, and can include, for example, investments in education and training of health care workers. The evidence that closing the education gap between boys and girls can raise per capita GDP growth rates suggests that expenditures of this type should not be classified as social welfare, but rather as investments that produce a stream of financial and human development returns into the future, thus generating the resources to pay down the debt incurred by the initial investment. Investments in social infrastructure tend to be especially beneficial for gender equality since women disproportionately work in the sector providing these goods and services and thus benefit from the job creation it implies.

Public investments in *physical infrastructure* (for example, roads, transportation, and irrigation) also stimulate job growth and expand the economy's productive capacity. These tend to create “male” jobs, however. Countries can make such investments more gender responsive by ensuring women’s equitable access to employment created by public infrastructure projects. On-site care facilities and ensuring access to work close to home would facilitate this.

What about *fiscal space*? Many countries might be construed as lacking sufficient fiscal space to undertake public investment, even if economically desirable. The degree of space is circumscribed by limits placed on a country’s debt to GDP ratio. Debt ceilings that do not factor in the growth-expanding potential of public investments unduly constrain such investments, which by their very nature are longer term. Properly understood as a means to raise productivity, public investment can yield a flow of financial returns in the future, which can be used to pay down the debt incurred by the investment. The timeframe for this type of borrowing is about 10 years. Within that time, appropriate public investments will have begun to expand the productive base of the economy, generating (taxable) incomes with which to pay down the debt. Such investments then are both fiscally sound and sustainable. Key here is that gender-responsive investment itself *creates* fiscal space by adding to the productive base of the economy.

A new role for *central banks* is also required. Inflation targeting, which attempts to solve the problem of inflation by reducing aggregate demand, in many cases contributes to slower growth and higher unemployment. For many countries, however, inflationary pressures are related to low productivity due to widespread health problems such as HIV/AIDs, poor transportation networks, and constrained food supplies. This suggests that inflation might be more efficiently addressed with public investment rather than monetary policy.

In an alternative framework that emphasizes inclusive monetary policy, the central bank would identify a “real” target –one that focuses on key social and economic problems to be addressed by policy. An obvious one is employment, with the central bank’s policy goal shifting to employment targeting in place of inflation targeting. If a country has a

particular problem with generating good jobs for women or marginalized ethnic groups, the real targeting approach can accommodate such needs.

An example of a policy to reach employment targets would be for the central bank to identify priority sectors or groups, and provide loan guarantees to banks that extend loans in these areas. In agricultural economies where women are subsistence farmers, small-scale agriculture is an obvious choice. Priority might also be given to small- and medium-sized businesses that are labor-intensive and disproportionately employ women. In this framework, the private sector would still provide the bulk of credit, but it would be characterized by low interest rates leveraged with government loan guarantees.

Much more intellectual work is needed to flesh out a viable gender-equitable macroeconomic framework. Policies to manage trade, investment, and financial flows will also be required in order to promote gender-equitable macroeconomic well-being. The basic challenge here is to rebalance the bargaining power of firms relative to workers, citizens, and governments in ways that contribute to greater wage equality and more equitable tax burdens. As yet, there have been few gender specific proposals in these areas.

Areas in which feminist economics could fruitfully develop specific policy prescriptions include controls on capital (such as a currency financial transaction tax with proposals on how to use those revenues), and industrial and agricultural development strategies that move countries out of the trap of low-wage low-productivity labor intensive production. New thinking (and institutional reform at the WTO) is also needed on how to manage incentives of the private sector to induce innovation-enhancing investments that yield long-run benefits. This would act as an antidote to the current incentive framework which leads to a race to the bottom, based on weak wage compensation and a reduction in capital's share of the tax burden.

V Conclusion: The challenge and benefits of a feminist macroeconomics

Feminist economists have taken up the challenge of engendering macroeconomics and trade theory with laudable results. There is more work to do to fully elucidate the ways in which micro-level gender relations affect macroeconomic outcomes. Research on developing economies is more advanced than that on developed economies. Models have yet to fully integrate the implications of race and ethnicity or care work, with some noteworthy exceptions. Nevertheless, what is clear from the work that has already been done is that the role of gender in influencing macroeconomic performance is critical and its role differs according to country's structural conditions and the policy regime.

One concern about the uses of the work that has been produced to date, however, is the tendency among feminist economists and international institutions to emphasize only the positive effects of gender equality on macroeconomic outcomes and growth. This can be a dangerous and slippery slope. By emphasizing only the instrumental value of gender equality, we fail to acknowledge those cases where gender inequality is a stimulus to growth. Perhaps this is fuelled by a concern that noting the growth-inducing effects of gender equality will induce policymakers to weaken commitment to gender equality, or even worse, promote gender inequality as a way to stimulate growth.

The evidence on East Asia has shown, however, that rapid growth in that region was in part fuelled by gender wage and job discrimination. This evidence contradicts the arguments that East Asian success is alternatively due to market deregulation, the role of the state in identifying strategic industries, or the equitable distribution of the benefits of growth. In contrast to the much-heralded success of East Asia and now China, the gender research highlights that the Asian model does not necessarily provide a roadmap for other countries, fueled as it is by gender inequality. Growth based on exploitation of a group may or may not be harmful to long-run growth. But it does fail in its goal of development, defined as broadly shared well-being.

A lesson to draw from the Asian case is that explicit policies must be adopted to make equity compatible with growth. Given that, a challenge for feminists is to define not only microeconomic but also more detailed macroeconomic policy proposals that promote gender, race/ethnic, and class equity in ways that also promote broadly shared improvements in living standards. This path can ensure that greater equity is self-sustaining.

Table 1. Key Factors in Modeling the Effect of Gender on the Macroeconomy

Time Frame	Economic and Social Structure	Gender Job Distribution	Balance of Payments Constraints	Macro-level policies
Short Run	Agricultural	Distribution and organization of caring (reproductive) labor	Export dependence and elasticities	Trade rules
Long run	Semi-industrialized	Distribution of production labor across economic sectors	Import rigidities and elasticities	Regulations on foreign direct investment
	Knowledge-intensive		Exchange rate policy	Financial market liberalization (capital controls)
	Wage bargaining institutions		Terms of trade	Gender and social protection
	Other forms of intergroup inequality (race/ethnicity, caste, religion)			Industrial and agricultural policies
				Monetary policy regime

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Endnotes

¹ This approach contrasts with another trend that rests macroeconomic theory on microeconomic foundations of optimizing agents.

² The UN Millennium Task Force (2005) identified *security* as a separate domain, with the argument that bodily integrity and freedom from violence are prerequisites for women and men to use their accumulated capabilities. While there may be some value in placing security in a separate domain, it is conceptually linked to *capabilities* and therefore I fold it into the first domain.

³ For an extensive evaluation of indicators to evaluate gender equality in each of these domains, see Grown (xxx chapter in this book).

⁴ The term *agentiv* comes from social cognition theory and implies that individuals and groups are both producers and well as products of their social systems—that agents both react to social norms but can in turn shape norms, and the gender system.

⁵ We can think of this as a modified IS curve with the gender wage ratio (taking the place of the interest rate) plotted against output. A fully developed short run model would also include a producer equilibrium curve that integrates the effect of the gender wage ratio on profits and prices. See Braunstein (2000) and Blecker and Seguino (2002) for models along these lines).

⁶ Feminists also identify underlying gender norms and stereotypes that contribute to wage gaps. For example, the tendency for job segregation with women in labor-intensive sectors with a short job ladder, and their greater tendency to be slotted into part-time contingent or informal sector work are due at least in part to perceptions of appropriate gender roles, especially that of women as secondary wage earners whose primary role is that of caretaker.

⁷ To date, there is only sparse empirical evidence on gender consumption propensities and patterns, so it is difficult to hypothesize about the effect of gender wage equality on consumption, saving, and imports. We can surmise, for developing countries, however, that women are more likely to consume domestic goods, with men's expenditures including a larger share of luxury goods that tend to be imported (for example, cell phones, automobiles, and televisions).

⁸ In an earlier paper, Braunstein (2000) analyzes how household structure affects women's reservation wages and therefore, output. In patriarchal households, women's reservation wages are higher than in single mother families (given single parents' greater need to generate family income). In economies where firms are footloose, short-run growth will be enhanced by women challenging patriarchal norms to create single parent families. This is because the resulting lower reservation wages stimulate firm investment. In contrast, greater gender equality achieved through higher female wages may be hazardous, insofar as firms are likely to flee to lower wage sites. These results suggest the contradictory effects for women of pursuing gender equality within the household versus within labor markets.

⁹ Some studies explore effects on components of macroeconomic aggregates. For example, Busse and Nunnenkamp (2009) find that gender equality in education attracts foreign direct investment.

¹⁰ For a more detailed discussion of these issues, see Seguino (2010).

¹¹ Numerous studies find, for example, negative effects of neoliberal macroeconomic policies on gender equality, using single or composite measures of gender equality in well-being (Berik, Rodgers, and Zammit 2008; Seguino 2002, 2007a).

¹² This may explain why, despite educational equality in the Caribbean, we observe that women's unemployment rates continue to be double those of men (Seguino 2003).