

Gender, FDI and Women's Autonomy: A Research Note on Empirical Analysis

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I. Introduction

Foreign direct investment (FDI) is commonly seen by economists and policy makers as a premier agent, not only of globalization, but also of economic growth and development. In fact, in light of the Asian and South American financial crises, in which portfolio flows proved to be flighty and unreliable, FDI is now more than ever treated as the capital flow of choice. It has thus become one of the most sought-after commodities in the global economy. The rising significance of FDI in policy circles is paralleled by its effect on women's integration in the global economy. In semi-industrialized countries at least, FDI has been linked with women's employment (Braunstein 2000), a connection that mirrors the association between international trade and the feminization of market employment. As a result, the increasing popularity of FDI as an agent of development draws gender even more firmly into the field of pressing public policy issues, at a time when there is still very little empirical work about this relationship.

There are two, broad competing visions of globalization in general and the role of FDI in particular (Crotty, Epstein and Kelly 1998) that form a foundation for assessing the effects of FDI on women. One is the "neoliberal vision" which treats FDI as a way for spreading capital, technology and management skills internationally and, therefore, as a crucial agent for economic growth and development. According to this view, any country that wants to share in these benefits must implement a set of liberalizing policies and institutional innovations, including openness to investment, modest regulation, government transparency, modest tax rates, and investor guarantees.

The second vision is not as sanguine about the impact of globalization and FDI. Rather than envisioning a "race to the top" or a "convergence," as forecast by neoliberal adherents, this group fears a "race to the bottom." According to this view, global competition for FDI places an

enormous amount of bargaining power in the hands of multinational corporations (MNCs). This competition, in turn, forces countries to lower regulations, taxes, environmental protections, wages and working conditions in order to attract and retain capital. The result is a leveling down of wages, social protections and government control (Barnet and Cavanaugh 1994; Greider 1997). These two views – neoliberal versus race to the bottom – have become increasingly polarized, fought out in academic circles, policy fora and even in the streets during annual meetings of the International Monetary Fund, World Trade Organization and other global institutions.

As for policy, race to the bottom adherents argue for constraints on FDI in order to protect the living standards of workers in the developed economies, and to restrict the alleged exploitation of workers and communities in the developing world. By contrast, proponents of the neoliberal view, and many academics and policy makers from developing countries, insist that proposed constraints on foreign investment are self-serving – they only raise the living standards of workers in the developed world at the expense of workers in developing countries.

Crucial to this policy debate from a gender perspective are a number of empirical questions. Has FDI in fact expanded women's employment and increased women's wages in the developing world? Do these effects subside over time? What happens as these industries become more technologically advanced, or wages increase? To what extent has FDI affected women's autonomy and bargaining power in the household? Do liberalization and the extent of capital mobility mediate these effects? What about competition for FDI? And to what extent has subcontracting become a substitute for FDI, with what effects? What types of public policies would strengthen FDI's beneficial effects?

In this research note I lay the groundwork for answering these questions. Section II reviews the macroeconomic stylized facts of gender and FDI in East and Southeast Asia. Section III draws the focus away from labor markets and into the household to detail the determinants of female labor supply. A key goal is to show when and how working for a wage enhances women's autonomy and well-being, and the effects of various public policies on these measures. The concluding section brings together the macro and the micro, showing how such a combination is necessary for assessing the social impact of public policies aimed at either managing FDI flows or changing women's fortunes in the labor market.

II. Gender and Foreign Direct Investment in East and Southeast Asia

A. FDI in East, South and Southeast Asia

Multinational corporations have been increasing in importance in developing countries in recent decades, but are very concentrated in certain countries and developing regions, especially Asia, parts of Latin America, and the transition economies of Eastern Europe. Table 1 details the recent distribution of FDI among developing countries and in East, South and Southeast Asia. Beginning in 1986, Asia surpassed Latin America and the Caribbean as the largest host of FDI to developing countries. It has maintained that position ever since, currently claiming more than half of total FDI inflows to developing countries. The People's Republic of China (hereafter China) is a dominating factor in these flows: beginning in the early 1990s, FDI to China

constituted more than half of all FDI inflows to the Asian region. Since 1992, China has been the top FDI recipient among all developing countries, and among the top four FDI recipients in the world.

Why has the Asian region been so successful in attracting FDI? In general, economists emphasize factors like: a stable macroeconomic environment (low inflation and stable growth); high growth rates; export-oriented trade policies; good infrastructure to service MNCs; a highly productive, educated and low-cost workforce; low levels of corruption; and in general a liberalized economic system, at least for MNCs. In the Asian case, special note must be made of the early export-oriented dynamism of the first-tier of the newly-industrializing economies, or NIEs (Hong Kong, Korea, Taiwan and Singapore); what has become a second tier of NIE-like growth in ASEAN countries (Indonesia, Malaysia, Thailand, and to much lesser extent the Philippines); economic reform and opening to trade and investment in China; and the increasing incidence of intra-regional investment.

Table 2 presents measures of development and FDI for a cross-section of East, South and Southeast Asian countries during the period 1975-99. It indicates the impressive growth trajectories of the NIEs, as reflected by increases in GDP per capita. Table 2 also shows the relative importance of FDI for overall investment, as indicated by the measure of FDI inflows as a percent of gross fixed capital formation. With the exception of Hong Kong and Singapore, where FDI represented between 25 and 40 percent of investment over the past two and half decades, FDI has not been a terribly significant source of investment for most Asian countries despite their relative success in attracting it, though there has been an across-the-board increase in its significance over the past ten years. It is also instructive to compare the size of FDI flows to trade, as do the ratios of FDI and exports to gross domestic product (GDP). Even where FDI is an important source of investment, the sheer size of exports far outweighs the significance of FDI. Still, this comparison does not account for the fact that the vast majority of MNC activities in Asia are involved with the production of manufactures and services for international trade, so there are important linkages between FDI and trade that these numbers do not reflect.

The aggregate numbers also mask differences among countries in their strategies to attract and use FDI for development. Hong Kong took a *laissez-faire* approach to MNCs, and did not intervene to promote a particular type of industrial development with FDI. Thailand and Malaysia pursued active industrial policies in certain industries, but left an open door to others that were export-oriented. One result was that Malaysia successfully developed a high-tech export industry almost entirely driven by FDI, but its impact on local technological capabilities has remained weak. Singapore, the most dependent on FDI of any of these countries, actively pursued FDI in manufacturing, but intervened selectively to guide MNCs in the direction of industrial upgrading with much success. Korea and Taiwan put selective restrictions on FDI, seeking to import technologies via MNCs and enhance local capabilities through active industrial policy. FDI took on a bigger role as local industries matured. (UNCTAD 1994) China's policy was designed to encourage export-oriented FDI, looking externally to draw on both inputs and markets, and granting well-defined freedoms and incentives to the MNC sector that also sheltered particular domestic industries (Braunstein and Epstein 2002). Based on this array of strategies, some have concluded that countries which have depended least on FDI, namely Taiwan and Korea, have also developed the most diverse, complex and technologically dynamic

industrial sectors (UNCTAD 1994: 73). Still, these histories have not detracted from continuing neoliberal emphasis on the importance of attracting FDI for development.

In the past decade, as neoliberalism has taken a firmer hold on economic policy in the developing world, competition for FDI within the Asian region has grown. A substantial part of that competition is for intra-regional flows as real wage increases in the NIEs, the increasing dynamism of ASEAN countries, and the opening of China have induced investment outflows from Hong Kong, Korea and Taiwan and into their lower-cost neighbors to set up global production facilities. All three became net FDI exporters in the 1990s.

The Asian Financial Crisis also had important implications for FDI in Asia. In general, FDI recovered much faster than short-term capital flows, and after a short drop-off, FDI flows recovered quickly for the NIEs and Malaysia. Cross-border mergers and acquisitions (M&As) – the purchase of existing firms versus the establishment of new ones, called greenfield investment – have become a more important feature of FDI in Asia since the crisis, especially in Korea (which became a net FDI importer again in 1998) and Thailand. Still, M&As are relatively unimportant for the region as a whole: in 1998, cross-border M&As were 16 percent of regional FDI inflows, as compared to 46 percent for Latin America (UNCTAD 1999). One of the lasting effects of the crisis has been enhanced competition for FDI as countries seek to replace portfolio flows with longer-term sources of investment, a competition that has in general sped up the drive towards liberalization and the granting of special privileges to foreign investors. This course has also been intensified by China's recent accession to the WTO, a move that is widely believed to enhance China's already formidable competitiveness with regard to attracting FDI.

What this enhanced competition means for the role of FDI in Asia is still unclear. While the countries of East and Southeast Asia have largely maintained their competitiveness with regard to attracting FDI, it is doubtful that what has been an ability to direct FDI towards developmental goals will also survive the current course of liberalization.

B. Gender, FDI and the Labor Market

Research on gender and FDI in developing countries is extremely limited, confined for the most part to small-scale studies that take an anthropological approach to women's employment by MNCs (Braunstein 2000). Important exceptions include some recent surveys on maquiladora employment in Mexico (Fussell 2000) and Honduras (Ver Beek 2001), both of which focus on evaluating whether maquiladora employment is better than local alternatives. This research underscores a key divide among scholars assessing women's working conditions in multinational assembly employment, summarized in the following manner by Susan Tiano (1994):

At the heart of the debate is the question of whether assembly jobs improve women's lives both absolutely and relative to their options. Advocates ... tend to take a "better-than-nothing" approach to export-processing jobs and view them as superior to their options. [Critics] ... are unsatisfied with this relativist

approach and prefer to evaluate export-processing jobs in terms of absolute standards of human fulfillment and well-being.¹

Whatever side of this debate one chooses to emphasize, there are some very basic questions about the role of FDI in women's market employment that it makes sense to answer cross-sectionally in order to fill out the macroeconomic context. For instance, do MNCs increase the demand for female labor, all else equal? Has FDI in fact been a net employment creator in developing countries? Does its impact change as economies mature? Have women gained at the expense of men? What is its impact on wages? The rest of this section will assess what the current state of knowledge is on gender and MNCs in semi-industrialized countries, as grouping together countries with similar industrial structures is necessary for deducing stylized facts. My intent is to specify a set of empirical questions for future research.

Two ways that FDI most directly affects workers is via its impact on market employment and wages; I will take each topic in turn as a way to approach some of the questions posed above.

Looked at in the simplest way, the relationship between FDI and employment seems rather direct: FDI, by increasing domestic investment, would seem to have positive employment effects by simply raising labor demand. But these relationships are not that simple, as the impact of FDI on domestic investment is not always clear. FDI might encourage or crowd in domestic investment, as when there are strong backward or forward production linkages to locally-owned firms created by new foreign firms. Or, FDI could crowd out domestic investment, as when foreign firms compete with domestic firms and drive them out of business. Using panel data for the period 1970-96 in three developing regions, Asia, Africa and Latin America, Manuel Agosin and Ricardo Mayer (2000) did an econometric study of whether foreign investment crowds in domestic investment. Their results indicate that in Asia, and to a lesser extent in Africa, there has been strong crowding in of domestic investment by FDI. In Latin America, FDI has had a strong crowding out effect. Braunstein and Epstein (2002) did a similar exercise for China, using a provincial-level panel data set for 1986-99, and found strong evidence for crowding out. Overall, then, FDI may create or contract employment, and it seems that this crowding in/out effect varies regionally. Still, if there is some regional uniformity with regard to the relationship between FDI and women's employment, the variation could be completely absorbed by men's employment. To fully understand these dynamics, we must look more closely at the gendered effects of FDI on employment.

Although the relationship between women's employment and MNCs is not well documented, there is strong evidence that the share of female employees in the labor-intensive export-oriented assembly and multinational manufacturing sector is high (Joeke & Weston 1994; UNCTC/ILO 1985). One of the reasons that these relationships are difficult to gauge is because of the increasing prevalence of subcontracting and domestic outwork, jobs which are often directly connected to specific MNCs via local intermediaries, weakening the distinction between foreign and local ownership (Balakrishnan 2001; Benería 2001; Ward & Pyle 1995).

¹ Quoted in Ver Beek (2001: 1554).

As in other areas of production, these labor markets are segmented by gender. Women tend to be concentrated in electronics, textiles and garments, where low labor costs are a crucial part of international competitiveness (Starnberg Institute 1989; UNCTC/ILO 1988). Why do MNCs prefer to hire women? As Diane Elson and Ruth Pearson (1981) pointed out, one must consider how unit labor costs differ. First, women's wages are typically lower than men's, and employers perceive women as more "productive" in the types of jobs available in the export sector. Reasons that employers cite for the latter include: women's putative "nimble fingers;" their obedience and being less prone to worker unrest; their being suited to tedious work; and their reliability and trainability relative to men (Anker & Hein 1985; Elson & Pearson 1981; Fernández-Kelly 1983; Lin 1985). Similar reasoning can be applied to the "pink collar" aspects of the international production of services.

So, despite the varied regional relationship between FDI and domestic investment discussed above, other studies suggest that there could be a more consistent relationship between FDI and women's employment cross-regionally, with important implications for men's employment. As a first step in assessing this possibility, Figure 1 presents a scatter plot of changes in the feminization of the labor force versus average net FDI (inflows minus outflows) as a percent of gross fixed capital formation for a collection of twenty semi-industrialized countries, during the period 1975-99. There is a clear positive correlation between the two data series, as indicated by the trendline (the correlation coefficient is 0.39), suggesting that high net FDI flows are associated with relative employment gains for women.

To really explain this simple correlation, more detailed econometric analysis is necessary. It could be that the same factors driving feminization also drive FDI; one needs to explore causation to make any firm conclusions about this correlation. Perhaps this correlation changes over time, and as economies mature the association gets weaker. Other important questions include: Is the increasing prevalence of subcontracting and the informalization of international production changing this relationship, or has multinational employment been a sustainable lead-in to other forms of formal employment for women? Is MNC employment different in these respects from locally-owned export-oriented employment? Is MNC employment more volatile than other types of employment? There is also evidence of trends towards defeminization of MNC employment in some countries, based on the impact of technological change and the consequent "masculinization" of work (Elson 1996; Fussell 2000). Is this a consistent relationship cross-sectionally for more mature multinational sectors? How would controlling for liberalization policy (as opposed to levels of openness) affect our conclusions? Answering these questions will lay the macroeconomic groundwork for assessing the history and potential of FDI to affect women's employment.

What about wages? Empirical studies of developing countries have indicated a positive correlation between wages (sometimes measured as per capita incomes) and various measures of FDI (Aitken, Harrison & Lipsey 1996; Braunstein & Epstein 2002; Lipsey 1999; Paus & Robinson 1998). While wages are often used as an independent variable to explain FDI, it is rare to find the causality running the other way in the empirical literature on FDI in developing countries. But there is a clear causal link. First, FDI may affect labor demand (depending on whether it is greenfield investment or cross-border M&As, and on what competitive impact it has on domestic investment), thereby affecting wages. Secondly, spillover effects from potentially

higher productivity (and paying) foreign enterprises could raise wages throughout the country. And lastly, because capital is internationally mobile and labor is not, FDI may enhance capital's bargaining power relative to labor, thereby lowering wages (Paus and Robinson 1998).

Turning to the issue of women's wages and FDI, in Figure 2 I use a similar set of semi-industrialized countries as in Figure 1 to scatter plot the gender wage gap in manufacturing (female earnings/male earnings) versus net FDI as a percent of gross fixed capital formation; both variables are annual averages for the period 1975-99. The trendline shows a clear positive relationship between the two variables (its correlation coefficient is also 0.39), suggesting that in countries with higher levels of net FDI, the gender wage gap is lower. Why might this be the case? Considering the effects of FDI on wages (where the causality runs from FDI to wages), MNCs that primarily employ women can raise wages by simply increasing demand for female labor. Since MNCs tend to pay higher wages than local firms in similar industries, it makes sense that a higher proportion of FDI would result in lower gender wage gaps, a result that is consistent with the overall effects of FDI on host country wages in the empirical studies discussed above.

This simple correlation indicates nothing about the real size or sustainability of this positive relationship. Fussell (2000), in a study of maquiladoras in Mexico, where the industry is 25 years old and provides some clues as to the future of multinational export-oriented employment in developing countries, finds that maquiladora employers do not offer better wages than other employers in the local market (although they do for women with only a primary education). What she does find is that maquiladora employment offers greater work stability, so it is considered desirable for women with greater household financial responsibilities. Given this finding, it is important to get at how the relationship between wages and FDI changes over time, and to what extent liberalization policies and the macroeconomic environment, as has certainly been the case in Mexico, affect the likelihood that FDI will raise women's wages.

So far we have only considered the causality from FDI to wages, but the causality could run the other way: from wages to FDI. Figure 2 does not control for education. It could be that once one does, FDI is correlated with higher gender wage gaps as MNCs seek the lowest cost labor given a particular level of human capital. Such an analysis is more in line with the work of Stephanie Seguino, who argues that gender inequality, measured as the gender wage gap, has been a stimulus to growth in Asia via its positive effects on exports and its impact on investment, where women are crowded into export sectors, lowering their wages and increasing profit for investors (Seguino 2000a). Seguino (2000b) also shows a positive correlation between total FDI (measured as FDI inflows plus outflows) and gender wage differentials in Korea and Taiwan, hypothesizing that total FDI is a good proxy for capital mobility and the ability of workers to bargain for better wages. Linking Seguino's findings with other empirical evidence that MNCs tend to raise wages, and unpacking the causality issue, are key to understanding the relationship among gender, FDI and wages.

Seguino's work also indicates that we need to know more about how bargaining power gets exercised in women's industries if the effect of FDI and capital mobility on women's labor market outcomes is to become more clear. Many labor market economists focus only on labor market structures, and the conflict between labor and capital, overlooking other sites of struggle

in the family and community that mediate women's experiences of and reactions to work. In the next section I will focus on these determinants of female labor supply.

III. Bargaining and Autonomy in the Household

A. Introduction

Macroeconomists and development economists have not paid enough attention to the unique factors affecting female labor. Most do not account for how workers' productive roles outside the factory door, and the institutional and social contexts in which they live, create fundamental differences between the labor supply behavior of women and men. Specifically, they ignore factors such as those affecting the productivity of nonmarket work, including fertility and urbanization; institutional factors such as educational access, the public provision of childcare and enforcement of child support responsibilities; and bargaining and inequality in the household.

These factors affect women's labor supply in complex ways. Fertility decline has been accompanied by an increase in women's labor force participation (Easterlin 1989); high incidences of male desertion and non-marital births probably lower women's reservation wages; increases in female education raise the reservation wage of young women who remain in school longer and change the composition of the female labor force. Women with little power in the family may be barred from entering the labor market by husbands who fear the loss of their own bargaining power as wives gain financial independence (Braunstein and Folbre 2001).

Drawing out these varied determinants of women's labor from a household bargaining perspective would lead to a better understanding of the relationship among gender, labor markets and development. In the past few decades, the practice of using gender as an explanatory variable has been incorporated into many aspects of development theory, largely as a result of the work of feminist economists (Benería and Sen 1981; Boserup 1970; Elson 1991; Kabeer 1994; Moser 1989; Tinker and Bo Bramsen 1976). Processes of globalization have shaped these new analyses in significant ways, partly because openness to international trade and finance has become so central to prescriptions for growth, and partly because trade has been associated with a feminization of employment (Cagatay and Ozler 1995; Joeke and Weston 1994; Wood 1991). The particular dynamics of women's labor supply are central. Theorists of the new international division of labor school have introduced gender into the Marxian theory of surplus labor, arguing that women in the developing world provide a low-cost, contingency labor force for first world capitalists (and consumers) (Standing 1989). Others have focused on the match between women's traditional roles and the types of skills required in the light manufacturing that dominates outward trade in developing countries (Elson and Pearson 1981).

In recent years, with a more explicit effort on the part of feminists to incorporate gender into macroeconomic theory, feminist analyses have treated women's dual role in the household and labor market as central to an accurate understanding of public policy (Cagatay, Elson and Grown 1995, 2000). But still missing in many of these macroeconomic analyses is an explicit consideration of the effects of bargaining and inequality in the household – a crucial component for assessing the links among FDI, economic development and women's empowerment.

In this section I introduce such a model of female labor supply, focusing on how this model enables us to link women's power in the household with their fortunes in the labor market.

B. Female Labor Supply and Family Structure

This section combines the rich qualitative literature about the effects of globalization on women's work in developing countries with an analysis of the relationship between family structure and female labor supply. It is organized along the same lines as those used by Nancy Folbre (1994), and includes three broad categories: preferences and norms, assets and rules. As with any taxonomy, these categories are intended only as a way to organize ideas.

Preferences and Norms

Women make decisions about whether or not to look for wage work, a process sometimes referred to as exercising agency or, in the more value-laden sphere of utilitarian economics, "desire fulfillment." But clearly self-perception, what individuals value, and what choices they perceive as possible are constituted by the social world (Agarwal 1997; Folbre 1994; Kabeer 1994, 2000; Sen 1990), and so the putative preferences that underlie the objective functions used in the theoretical model below must be understood in this light. Sen (1990) cautions against equating well-being achievement with the fulfillment of perceived interests, pointing out that the latter includes factors such as obligation and perceptions about legitimate behavior and deservingness, which may have little to do with outcomes such as health and education. These issues are particularly relevant with regard to gender. Theory and evidence aptly demonstrate a higher co-occurrence between a mother's income and the satisfaction of the family's basic needs than a father's income (Blumberg 1991; Dwyer and Bruce 1988; Thomas 1990), indicating how preferences can be gender specific, and are not so clearly self-regarding.

The objectives that drive women into the labor market can be different from those governing men, with implications for the price of labor as well as household consumption. Women who expect to leave the labor force for full-time motherhood may prefer the structure of easy-access, high-turnover jobs that give them a chance to live away from home and exercise freedoms they would not otherwise be able to enjoy, sentiments documented in early studies of young women working in Asian export factories (Lim 1990). Strong patriarchies may induce docility among women and low expectations from and commitments to work, blocking activities such as unionizing that may serve to raise female wages in the longer term.

Norms are the traditional structures of gender and kinship that constitute the meaning and social expectations of women and men in the household. Drawn from the larger culture, norms are extremely important determinants of women's labor supply at the household level.

Perhaps the most salient factor here - one that underlies many of the other household-level constraints I discuss - is the sexual division of labor. Women are primarily associated with the care and reproduction of the family, and much of their work time is spent outside of the market, whereas men's work is typically viewed as more directly productive and more fully incorporated into the market sphere. The sexual division of labor in the household is mirrored by a sexual division of financial responsibility and control. Norms about gender roles in provisioning indicate the extent to which families pool their income and shape women's

incentives to seek paid work. These divisions not only have implications for whether women look for market work at all, but what types of jobs are considered suitable and to what extent market work affects women's position in the household and larger society.

These issues are closely related to the association between own income and bargaining power because household-level struggles around income and norms of provisioning can affect women's labor supply and alter the terms of exchange between husbands and wives or parents and children. In their study of domestic outworkers in Mexico City, Benería and Roldán (1987) document a number of income pooling arrangements that reflect husbands' strategies of allocation and control. From withholding information about their earnings to distributing money in small amounts, husbands' incomplete pooling served as a way to control their wives' household budget management. As women gained access to independent incomes, it afforded them a way to renegotiate these "marriage contracts" (Roldán 1988).

Norms about divorce and remarriage are also crucial elements of how household-level structures shape women's labor. In addition to partly determining the possibility and terms of exit from a conjugal union, and hence women's bargaining power in marriage, these issues can affect daughters' attitudes about market work. In East Asia, where divorce rates are extremely low, wage work for married women is less important as insurance against the economic stress of divorce. Conversely, in parts of Southeast Asia divorce and remarriage rates are high (Lim 1990: 106). Women's high labor force participation rates and active household management in this region provides a way of insuring against the costs of divorce (Papanek and Schwede 1988: 79).

Assets

Household assets structure women's labor supply in two distinctive ways: (1) the combined assets of all household members determine how much wage employment the household requires to meet its consumption needs; and (2) a woman's own assets help determine the extent to which she controls her own labor supply.

In a bargaining framework a woman's own wealth can have different effects on her labor supply than wealth controlled by others in the household. Own income is distinctive because it enhances a woman's bargaining power vis-à-vis other household members. Case study evidence for this association between women's own income, whether it be via their own earnings or nonwage income, and their sense of power in household decisionmaking abound (Benería and Roldán 1987; Kabeer 2000; Kusago 1996; Roldán 1988; Tiano 1994). In perhaps a less instrumental way, own income can also give women an increased sense of their own individuality and well-being, the chance to form and benefit from peer relationships, and a general "widening of horizons" (Agarwal 1997; Baden and Joekes 1993; Lim 1990; Salaff 1981s; Sen 1990), all of which are certainly linked to power in the household. In a household decisionmaking context approximated by bargaining between household members, a woman's own income means household decisions, including the allocation of her time and the fruits of her labor, more closely reflect her preferences.

Rules

Property rights and family law are crucial determinants of the relationship between women's labor market decisions and their empowerment because male authority in the household can be buttressed by law. Patriarchal property rights, where eldest men have the right to claim and apportion the fruits of all household members' labor time, can create incentives for high fertility (Braunstein and Folbre 2001). Agarwal (1994), in a comprehensive exploration of women's land rights in South Asia, links the evolution of inheritance rules with gender asymmetries in contemporary property law, and argues that achieving independent land rights is a basic requirement for women's empowerment.

The legal division of responsibilities and the costs of caring for children are important determinants of women's bargaining power and labor supply as well because they affect women's options outside of marriage (Folbre 1997). As discussed in the section on norms above, not having a legal claim on a spouse's income in the event of separation means that a paying job can be an insurance policy against loss of that support.

C. Modeling Gender Regime and Female Labor Supply

In this section I develop a stylized household model to illustrate how different family systems determine female labor supply as represented by their reservation wage, and the extent to which working for income may in turn affect women's position in the household. A central factor in this analysis is family structure, or the extent to which women and men share the costs of social reproduction (that is, the time and money that goes into maintaining a family). This delineation of responsibility is paralleled by autonomy in decisionmaking. The organizing principle behind the model itself is that individuals live in households where one's input into resource allocation and distribution decisions depends both on one's alternatives to remaining in the household (exit) and one's right or ability to try and influence household decisions (voice or autonomy).² I conceptualize autonomy by developing three gender regimes that mark a continuum of women's input into household decisionmaking processes.

At one extreme is "complete dominance," where women are members of male-headed families and have little or no influence over decisionmaking but typically enjoy some male support; at the other is "defection" or families maintained by women alone, where women are decisionmakers but seldom receive financial assistance from men. In between lie a diversity of intra-household bargaining structures termed "contested dominance," where a woman's input into decisions over resource allocation and distribution is largely determined by her fate (fallback position) should her husband or parents dislike her actions enough to withdraw their cooperation.

The notion of complete dominance parallels what the anthropological literature identifies as systems of household organization centered around paternal power and the conjugal bond, embedded in cultural rules that prescribe male authority over as well as responsibility for the protection and provisioning of women and children, and including traditions of patrilineal descent and inheritance (Kabeer 1994: 115). Its clearest instances are found in geographical

² This system of voice and exit reflects points made in Katz (1997), based in turn on the work of Albert O. Hirshman.

areas that include North Africa, the Muslim Middle East, and South and East Asia (Kandiyoti 1991: 107-108).

Defection, where families are maintained by women alone, can be thought of as the mirror image of those exhibiting complete dominance, with the added and important caveat that these households typically face more dire economic circumstances. Reliable data on households maintained by women alone is hard to come by because much is based on census data, which varies in definition and quality country by country (Chant 1997; Folbre 1991). In the developing world, the majority of households maintained by women alone are the result of the prevalence 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). In Northern Mexico, the flow of male migrants to the U.S. has contributed to increases in female-headed households (Chant 1997: 91).

Contested dominance or bargaining describes situations where household members interact in a spirit of cooperation AND conflict. There are gains to cooperation in household production, but choosing among a multitude of bargains, all of which are better for some than others, entails conflict (Sen 1990).³ 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 (Kabeer 1994: 116). 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.

In order to integrate a consideration of these three regimes into a model of household labor supply, I begin with a standard in bargaining models, taking as a framework the Nash cooperative bargaining solution, and derive a specification for the female reservation wage. I then introduce an autonomy parameter to specify gender regime, and go on to discuss how family structure, bargaining and inequality mediate the effects of development on women.

Table 3 summarizes the equations and variables of the model. It is based on a two person household, which can represent either a husband and wife or a parent and child, but the bargaining dyad will be referred to as "male" and "female" throughout the discussion. Labor markets are segmented by gender: men work only in the market sector producing goods that are not traded internationally (y); women work either in the internationally traded goods sector (x) or in the home sector producing nonmarket goods (h), including children.⁴

³ This separation between complete dominance and bargaining does not imply that intra-household bargaining never occurs in patriarchal systems. "Complete dominance" represents the extreme of a class of systems where norms surrounding gender and age prohibit the meaningful participation of particular groups in household decisionmaking, regardless of what their fallbacks are. In a more technical parlance, complete dominance represents an extreme case of asymmetric bargaining.

⁴ The female market sector is limited to traded goods only for ease of exposition and the discussion in section III. The only difference between women and men's market work that need be assumed in this model is a gender gap in pay.

Each household member has their own objective or utility function, as described in equation (1.1) below, which depends positively both on market and nonmarket goods.⁵ Equations (1.2) through (1.5) specify constraints on the household's decisionmaking problem. The first constraint indicates that women's total labor time available is divided between market and nonmarket labor.⁶ Men, on the other hand, who only work in the market sector, are assumed to take as much market labor as they can get, so their actual market labor time depends on total available labor time and the male unemployment rate, as indicated in equation (1.3).⁷ Equation (1.4) is the household's money income constraint, and indicates that the family pools its income;⁸ I represents unearned income, and could be things like inherited wealth or social welfare payments from the government. Equation (1.5) is the nonmarket production function, and is the simple multiplicative result of a technological parameter β and women's nonmarket labor time.

$$(1.1) \quad U^i(y, h) \quad i = f, m$$

$$(1.2) \quad \ell^h + \ell^x \leq L^f$$

$$(1.3) \quad \ell^y \leq (1 - UER^m)L^f$$

$$(1.4) \quad w_f \ell^x + w_m \ell^y + I^f + I^m \leq py$$

$$(1.5) \quad h = \beta \ell^h$$

Given this set of preferences and constraints, to derive a set of demands for the household we must first specify exit and autonomy. Exit options, as represented by the threatpoint or fallback ($V^i, i = m, f$), depend on an individual's market wage times the probability of employment ($\rho_i, i = m, f$), prices, unearned income, and a vector of determinants represented by α , what Folbre (1997) calls gender-specific environmental parameters (GEPs). These describe how one's gender determines options outside of cooperation, independent of stocks of human and nonhuman capital, the rates of return on them, prices and nonwage income. Examples of GEPs include social norms and laws surrounding the distribution of responsibilities and costs of caring for children, the extent of public transfers (as they are determined by gender), or the probability of enjoying a share of another person's income through remarriage. The precise manner in which fallbacks enter the household's objective function is by specifying male and female gains to cooperation ($U - V$).

⁵ I assume positive but diminishing marginal utility for both market and nonmarket goods.

⁶ Considering leisure as well adds the substantial complexity of another choice variable without much additional analytical insight in terms of how the model works. Total labor time available can be thought of as twenty-four hours less time required for sleep and other necessary personal maintenance; pressures on women's leisure time can be incorporated as changes in this exogenous variable.

⁷ The implication here is that only men face unemployment – when women cannot find paid labor (if they want to work in the market), they replace that job with laboring more in the home.

⁸ Whether one assumes the pooling of income is important when working confers property rights over income earned (Katz 1992). In this set of models degrees of pooling are represented by family structure, but only incompletely. An extension of these models could usefully focus on the implications of different degrees of income pooling.

Female autonomy, or the socially-determined capability women have to transmit a given fallback position into bargaining power in the family, is represented by the parameter θ in equation (1.6) below and weights these gains to cooperation. Autonomy ranges between zero and one, with a value of zero indicating that women cannot influence household decisions at all (complete dominance by the male head) and a value of one indicating complete female autonomy (defection by the male head).

$$(1.6) \quad \left[U^m(y, h) - V^m(w_m \rho_m, p, I^m, \alpha_m) \right]^{(1-\theta)} \left[U^f(y, h) - V^f(w_f \rho_f, p, I^f, \alpha_f) \right]^\theta$$

The resulting household objective function as written in equation (1.6) represents the bargaining pair as maximizing the product of their utility gains to cooperation, $(U^m - V^m)$ or $(U^f - V^f)$, a standard form in Nash cooperative bargaining models, weighted by autonomy (θ for female, $(1 - \theta)$ for male).

The solution to the constrained maximization problem represented by equations (1.2) through (1.6), where the household chooses its consumption of market and nonmarket goods, as well as the allocation of women's market and nonmarket labor time, indicate that the female reservation wage can be represented by equation (1.7) below. The nominal female reservation wage, w_f^* , indicates the minimum market wage at which a woman will engage in market labor; any level below w_f^* indicates that the household is better off (in the sense of fulfilling its objective function) allocating all of women's labor time to the household. (The same equations for complete dominance ($\theta = 0$) and defection ($\theta = 1$) are represented by equations (1.8) and (1.9) respectively in Table 3.)

$$(1.7) \quad \frac{w_f^*}{p} = \beta \left[\frac{U_h^m(1-\theta)(U^f - V^f) + U_h^f(\theta)(U^m - V^m)}{U_y^m(1-\theta)(U^f - V^f) + U_y^f(\theta)(U^m - V^m)} \right]$$

What equation (1.7) says is that the household's marginal rate of substitution between the nonmarket and market good (the fraction inside the brackets) is a ratio of weighted sums: in the numerator is the sum of the marginal benefit of the nonmarket good to the male and the marginal benefit of the nonmarket good to the female, each multiplied by the other's utility gains from cooperation, and their autonomy. A lower fallback position indicates a higher potential utility gain from cooperation, as well as a heavier "weight" put on the other's preferences. Autonomy has a similar effect except that a higher level of independence weights one's preferences more heavily *ceteris paribus*; $\theta = 1/2$ indicates symmetry or equal power in the household. The denominator is the weighted sum of the marginal utility of market goods. Hence, the allocation between productive and reproductive labor for women depends on the marginal rate of substitution between market and nonmarket goods, with the preferences of the male and female (or parent and child) weighted by their effective bargaining power in the household.

D. Household Bargaining, Work and Gender Equality

The bargaining model developed above specifies the parameters that need to be considered in order to answer the question of when working for a wage may contribute to gender equality and women's empowerment at the household level. In the short term, the malleable

elements of women's power in the household are given by the parameters of exit: women's wages, the probability of their market employment, market prices for the goods they need to purchase, unearned income, and gender-specific environmental parameters (GEPs) such as child support laws. Changes in any of these parameters will yield immediate and tangible household bargaining effects. An increase in the female unemployment rate, an exchange rate devaluation that makes the price of consumer imports higher, the expansion or contraction of state supports for reproductive labor – all of these factors, by changing the terms of exit from household membership, will shift the balance of power. Likewise, a deterioration in the male terms of exit will also tip the balance towards women.

The mapping of one's fallback position into autonomy is mediated, though, by social norms and voice, which are fixed in the short-term. Achieving gender equity in property rights will do little in the short-run to alter the terms of exchange between women and men when social norms prevent women from negotiating. In the longer-term, norms can change, and voice in the household is probably subject to the same sorts of parameters as fallback positions.

To see how the model creates a better understanding of the relationship between work and women's autonomy, consider what the model indicates about the importance of working for a wage. First, there is the issue of voice. In extremely patriarchal societies where $\theta = 0$, working for a wage contributes only to family income and purchases as controlled by the male household head. As one moves through varying degrees of contested dominance ($0 < \theta < 1$), women's ability to translate working for a wage into having a say in household decisions is enhanced until one arrives at the defection model, where $\theta = 1$, women are not partnered in household management and provision themselves and their families on their own.

In the longer-term, working for a wage may enhance voice; it depends on the extent to which work challenges traditional sources of patriarchal power. In economies where social norms inhibit women from exercising their exit options, gender inequalities will persist in the household and society at large despite high levels of female labor force participation. For instance, forms of employment that do little to challenge traditional gender relations in the household, such as industrial homework, may draw women into market labor while conferring few of the benefits in terms of autonomy. Naila Kabeer, speaking of female Bangladeshi homeworkers in London's garment industry notes:

The meagreness of the earnings, the mediated nature of their entitlement to them and the social isolation of their working conditions all served to curtail the extent to which women's participation in homeworking brought about any major shift in intra-household power inequalities. However, perhaps the more important point to come of the analysis is that while homeworking did little to improve women's bargaining power within the household, it was their lack of bargaining power in the first place, the social weakness of their fall-back positions, which explained their presence in a form of employment with such limited transformatory potential, regardless of what their preferred option might have been. (Kabeer 2000: 310)

Working for pay can also induce a renegotiation of the marital contract. If women increase their labor force participation, they enhance their fallback positions, which may lead to

two contradictory outcomes. The first possibility is that their increased fallback allows women to claim a greater share of household income, further increasing their reservation wages and implying a virtuous cycle to economic development that draws women into the labor force. But a second possibility is that men could respond to their loss of marital power by defecting from the household bargain with more frequency because they have less to gain, leading to a decline in female reservation (and market) wages that is accompanied by a higher degree of autonomy from men. So even in economies where θ is close to one for most households (economies characterized by high degree of female-headed households), if women have no way to make claims on male or state support to help pay for the costs of raising children, working for pay is unlikely to result in enhanced gender equality. In all of these cases, economies can get locked into a gender inequality trap.

But there are ways to fortify a virtuous cycle to development that guards against a gender inequality trap. For instance, maintaining strong public provisions for the enforcement of child support responsibilities takes a significant proportion of intra-household transfers out of the household bargain. By doing so, it not only shores up women's intra-household bargaining power, it protects children from the economic risk of single-parent families and leads to higher female reservation wages. Any public policy that enhances women's fallback position in the household – a GEP with positive externalities – in a way that preserves male support for the financial well-being of their families will have the same effect. Taxation policies and extensive systems of social insurance also have this effect.

Another force to note that seems outside the household bargaining framework but is crucial to the issue of gender equality is collective action. Consider the links between economic development, fertility decline and improvements in women's rights as they transpired in the West. As the net value of children's production declined (whether because of increased educational requirements, greater bargaining power enabling them to establish independent households at an earlier age, or some other reason), so did the value of women's reproductive or nonmarket labor. Social and technological changes that increased output per hour of women's market labor relative to their household labor contributed to a reallocation of women's labor time. However, this reallocation probably took place more rapidly in egalitarian than in patriarchal households, where men's concerns about increases in women's bargaining power motivated them to resist change, or in contexts where collective action around women's rights changed social structures and enabled women to translate their earnings into real power in the household. (Braunstein and Folbre 2001)

In the next section, I will bring together the macroeconomic patterns discussed in section II about FDI with the observations made here concerning women's autonomy in the household.

IV. Conclusion: Putting Together the Micro and the Macro

In the second section of this paper, I reviewed, from a macroeconomic perspective, the stylized facts of gender and FDI in East and Southeast Asia, focusing on making some simple observations about the relationship between FDI and women's employment and wages. The previous section identified parameters for assessing how working for a wage is linked with women's autonomy in the household. To get at the social impact of public policies aimed at either managing FDI flows or changing women's fortunes in the labor market (when those

fortunes are linked with FDI), the two strands of analysis must be brought together in a macroeconomic framework. In this closing section I will explore the results of three such public policies – an expansion in government spending, an increase in women’s wages, and an enhancement of women-centered social welfare programs – to emphasize how macroeconomic structure shapes the potential of policy to improve women’s positions in the labor market and the household, and to draw these explorations into specific empirical questions.

Before proceeding, it would be good to pause over what I mean by macroeconomic structure. As in sections II. and III., I am primarily concerned with semi-industrialized countries where FDI is strongly linked with trade. I am also interested in differentiating between openness (an economy’s degree of international integration, measured by trade, FDI, or other forms of investment), and liberalization (the degree to which free markets and prices determine economic allocation and production). Openness can be measured by economic values, such as the proportion of trade to gross domestic product. Conversely, liberalization is an economic policy, and may be reflected by economic measures, but those measures themselves do not convey meaning. Take the case of trade and the East Asian development model. It is certainly true that the NIEs all enjoyed high degrees of openness in the sense that their economies were very closely linked to the global economy via trade, but this integration coexisted with extensive government controls over prices and markets. Turning towards FDI, high reliance on FDI may not necessarily reflect liberal policies with regard to FDI. In all of these discussions, we must therefore be able to empirically differentiate between the effects of openness (the extent to which FDI determines outcomes) and liberalization (the extent to which capital mobility affects capital’s response to changes in the labor market). (Such a distinction leads to the question of whether liberalization has indeed been a key factor in attracting FDI, as compared to other factors such as macroeconomic stability.)

Beginning with an increase in government spending⁹ that directly contributes to employment creation for women (as would an expansion of public sector services, which tends to employ greater proportions of women), the first effect for women would be an increase in the probability of employment, enhancing women’s fallback positions. Wages may or may not increase, depending on how many women seek work. If wages increase as a result of the increase in demand for women’s labor, this could dampen the employment effect by making labor more expensive for foreign investors. It depends on the degree of capital mobility and the ease with which foreign investors (and local capital) can respond to wage hikes by moving production abroad. To consider these issues empirically, one needs a good measure of capital mobility.

Next, consider an increase in women’s wages, spurred perhaps by a global living wage policy that is applied to the multinational export industry. The results depend on the degree of capital mobility. In a high capital mobility regime, FDI (and domestic investment) could decline as investors seek to maintain profits by looking for cheaper wages elsewhere, or turning towards subcontracting and informalization to lower labor costs, with the result that the probability of formal employment declines (as women’s unemployment increases). The effect on women’s autonomy depends on the relative magnitudes of these changes: the increase in wages versus the decline in the probability of employment, and the extent to which informal employment replaces formal employment. Whether this has indeed been the case is really an empirical question: has

⁹ Assume it is a revenue-neutral change so there is no change in the tax structure.

liberalization, or enhanced capital mobility, constrained wage growth or contributed to the gender wage gap? Is it associated with higher levels of subcontracting?

In a low capital mobility regime, there is less likely to be a trade-off between employment and wages in women's industries because capital cannot move as easily. Indeed, raising women's wages could enhance incentives for employers to increase worker productivity as they try to maintain profits, as the option of simply moving production elsewhere is more expensive than in a high capital mobility regime. As such, a global living wage policy is more likely to enhance women's immediate economic situations as well as their say in household decisions in a low capital mobility regime. But if capital is unable to maintain profits through measures such as enhancing worker productivity, higher wages could ultimately result in lower economic growth as investment (out of profits) declines. It depends on the relative balance of increases in aggregate demand (as a result of wage increases) versus declines in profit – whether an economy is profit-led or wage-led in the sense of economic growth.

This point touches on the importance of how one measures investment. Typically investment refers only to the purchase of plants, machinery, and equipment, the improvement of land, or new construction. But there is also investment in human capital, investments that directly contribute to future growth potential by enhancing labor force productivity and the functioning of civil society. To the extent that women's earnings or assets have a greater impact on investments in children, raising women's wages might compensate for losses in traditional investment by enhancing investments in human capital. In societies where θ is close to one (where women's capability to translate an improvement in their fallback positions, such as a wage increase, is high), one would expect the human investment effect to be higher. One way of exploring this hypothesis would be to test whether economies that have higher proportions of female-headed households also have stronger associations between women's earnings and long-term growth. Another angle to consider here is the effect of different household contracts on women's wages and investments in human capital. Where divorce rates are low, and social norms dictate that mothers can depend on fathers for financial support for childrearing, extreme wage differentials between women and men can be maintained without sacrificing much in terms of investments in human capital. This description could perhaps be applied to the East Asian case, where stubborn and severe gender wage gaps have coexisted with unified families and high investments in human capital.

What about an increase in social welfare spending, such as a childcare subsidy distributed directly to mothers? As explained in section III. above, any policy that enhances women's fallback positions in a way that preserves male support for the financial well-being of their families, can enhance women's autonomy while guarding against increased male defection from the household bargain in response, exposing families to greater economic risk. The ultimate effect of such a policy on FDI and growth largely depends on how such measures are paid for, and the extent to which capital can avoid these policies by moving elsewhere. Where firms must pay the cost for increased social protection, labor costs increase, and investment may decline absent the kind of compensatory productivity changes discussed above. It would be instructive to evaluate whether FDI is indeed negatively correlated with social protections for labor, and the role that liberalization has played in this sensitivity. If government pays, labor could still become more expensive as women's reservation wages increase (since they now have less need for cash income). But if the provision of social protection is paid by government and linked with

paid work, employing women becomes cheaper, and ultimately contributes to women's bargaining power in the household directly (by increasing women's unearned income or improving a GEP), and indirectly (by increasing women's wages times the probability of employment).

A consistent conclusion of these policy explorations is that women's fortunes in the labor market and their autonomy in the household are strongly linked with openness and liberalization. While conducting the studies discussed above in section II. on the stylized facts of FDI and women's employment in semi-industrialized countries would go far in terms of unpacking the relationship between gender and FDI, it is also crucial to differentiate the specific effects of liberalization policy. It could very well be that while FDI inflows are beneficial to women in the labor market, the typically neoliberal policy context that is linked with such investment may block the transformative potential of this type of employment for women.

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Table 1
Annual Average FDI Inflows
(Billions of current \$US)

Developing Countries	1981-95	1986-90	1991-95	1996-99
Value of FDI	\$19.60	\$26.20	\$70.22	\$177.73
Share of world FDI total	34.10%	16.50%	31.75%	29.66%
East, South and Southeast Asia				
Value of FDI	\$4.90	\$13.80	\$43.42	\$91.23
Share of world FDI total	5.80%	8.70%	19.63%	15.22%
Share of developing country total	24.90%	52.50%	61.83%	51.33%

Source: Author's calculations based on data from *World Investment Report*, various years.

Table 2. Development and FDI in Asia, Annual Averages, 1975-99

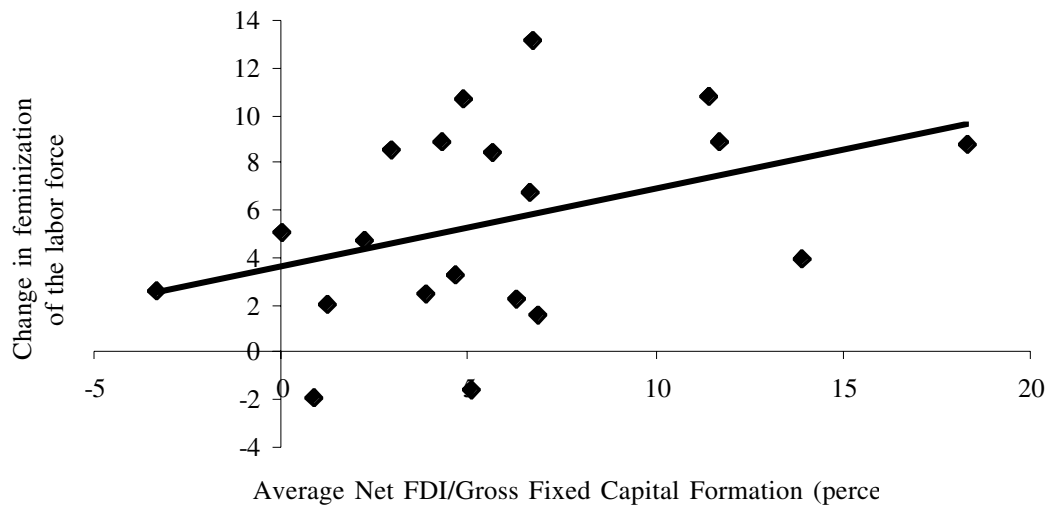
Country	Year	GDP per capita (1995 \$US)	GDP growth per capita (percent)	FDI inflows/gross fixed capital formation (percent)	FDI inflows/GDP (percent)	Exports/GDP (percent)	Female labor force activity rate (percent)
China	1975-89	\$214	6.46	2.16	0.63	8.51	50.25
	1990-99	\$554	8.14	12.22	4.09	21.09	55.46
Hong Kong	1975-89	\$12,659	6.44	101.34	35.57
	1990-99	\$21,610	1.95	27.09	7.91	138.24	39.28
India	1975-89	\$250	2.58	0.20	0.04	6.19	29.61
	1990-99	\$374	3.64	1.68	0.39	10.22	28.34
Indonesia	1975-89	\$543	4.54	1.70	0.68	25.47	29.00
	1990-99	\$961	2.80	3.48	1.06	29.83	36.31
Korea	1975-89	\$4,678	6.67	0.91	0.24	32.99	32.31
	1990-99	\$10,250	4.96	2.19	0.67	32.54	39.33
Malaysia	1975-89	\$2,376	3.85	12.75	3.14	54.35	26.29
	1990-99	\$4,043	4.34	15.65	5.53	91.23	29.63
Philippines	1975-89	\$1,076	0.79	3.00	0.58	23.40	27.81
	1990-99	\$1,093	0.45	7.73	1.71	38.03	30.69
Singapore	1975-89	\$11,939	5.48	24.41	8.41	183.40	33.49
	1990-99	\$22,721	4.48	39.28	9.33	183.25	39.73
Sri Lanka	1975-89	\$471	2.75	2.04	0.60	28.82	22.18
	1990-99	\$693	3.90	4.74	1.22	33.69	29.42
Taiwan	1975-89	\$4,503	9.65	2.76	0.60	46.24	41.53
	1990-99	\$11,674	3.55	2.64	0.61	40.82	45.24
Thailand	1975-89	\$1,242	5.40	2.57	0.76	23.97	50.36
	1990-99	\$2,570	3.93	9.55	2.58	42.85	54.69

Notes and Sources: Author's calculations using data from *World Development Indicators 2001* with the exception of Taiwan, taken from the *Statistical Yearbook of the Republic of China*. Figures in 1995 \$US. FDI inflows include all net inflows of investment to acquire a lasting management interest (10% or more voting stock) in an enterprise operating in an economy other than that of the investor, including equity capital, reinvestment of earnings, and other long- and short-term capital as indicated in the balance of payments. Gross fixed capital formation is equivalent to domestic investment less net changes in inventories. The female market labor force activity rate includes all women that meet the ILO definition of the "economically active" (the employed and unemployed, the armed forces, and first-time job seekers) as a percent of the working-age population.

Table 3. Bargaining and Autonomy

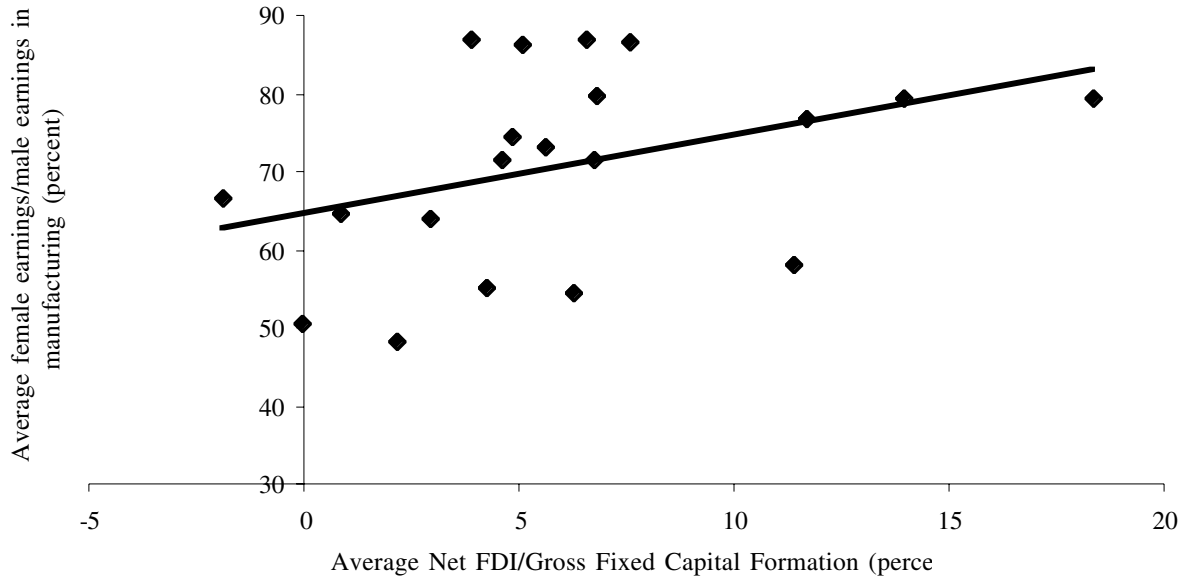
Individual objective function	$U^i(y, h) \quad i = f, m$	(1.1)
Constraints		
Female labor time	$\ell^h + \ell^x \leq L^f$	(1.2)
Male labor time	$\ell^y \leq (1 - UER^m)L^m$	(1.3)
Household money income constraint	$w_f \ell^x + w_m \ell^y + I^f + I^m \leq py$	(1.4)
Nonmarket production function	$h = \beta \ell^h$	(1.5)
Household objective function		
	$N = [U^m(x_m, x_f, z) - V^m(w_m \rho_m, p_m, I^m, \alpha_m)][U^f(x_m, x_f, z) - V^f(w_f \rho_f, p_f, I^f, \alpha_f)]$	(1.6)
Female reservation wage		
Contested Dominance	$\frac{w_f^*}{p} = \beta \left[\frac{U_h^m(1 - \theta)(U^f - V^f) + U_h^f(\theta)(U^m - V^m)}{U_y^m(1 - \theta)(U^f - V^f) + U_y^f(\theta)(U^m - V^m)} \right]$	(1.7)
Complete Dominance	$\frac{w_f^*}{p} = \beta \frac{U_h^m}{U_y^m}$	(1.8)
Defection	$\frac{w_f^*}{p} = \beta \frac{U_h^f}{U_y^f}$	(1.9)
where	y	= domestic market good
	x	= MNC sector good
	h	= nonmarket good
	ℓ^h	= nonmarket labor time
	ℓ^x	= female market time
	ℓ^y	= male market time
	$L^i, \quad i = f, m$	= available labor time
	$V^i, \quad i = f, m$	= fallback position
	$\rho_i, \quad i = f, m$	= probability of employment
	$\alpha_i, \quad i = f, m$	= GEP
	θ	= female voice, $0 \leq \theta \leq 1$
	UER^m	= male unemployment
	$w_i, \quad i = f, m$	= market wage
	$I^i, \quad i = f, m$	= nonwage income
	p	= market price
	β	= household technology

Figure 1
FDI and Feminization, 1975-99



Notes and Sources. Figures based on author's calculations using data from World Development Indicators 2001. Change in feminization of the labor force equals female labor force/total labor force in 1999 minus the same figure in 1975. Average net FDI/gross fixed capital formation equals annual average FDI inflows minus outflows as a percent of gross fixed capital formation (see Table 2 for more information on the latter variable). All values taken in 1995 \$US. Countries used include: Brazil, Chile, China, Columbia, Costa Rica, El Salvador, Greece, Hong Kong, India, Indonesia, Korea, Malaysia, Mexico, Paraguay, the Philippines, Portugal, Singapore, Sri Lanka, Thailand and Turkey.

Figure 2
FDI and Women's Relative Wages, 1975-99



Notes and Sources. Figures based on author's calculations using FDI data from World Development Indicators 2001 and earnings data from a data set graciously given by Stephanie Seguino. Figures for average net FDI taken in 1995 \$US; for more information on the FDI measure, see Figure 1. Where the full span of earnings data was unavailable (1975 and 1999), the same span for the FDI variable was used. Countries used include: Brazil, Chile, China, Columbia, Costa Rica, Cyprus, El Salvador, Greece, India, Indonesia, Korea, Malaysia, Mexico, Paraguay, the Philippines, Portugal, Singapore, Sri Lanka, Taiwan and Thailand.