

# The Power of the Purse: Gender Equality and Middle-Class Spending



## Gender equality is improving

In the BRICs and N-11 countries, gender gaps in education, employment, health and political representation are narrowing. At the same time, laws and social norms that have discriminated against women are shifting in some countries. Together, these factors are giving women greater influence and decision-making power within households and markets.

## Women's spending priorities are different

Women's spending priorities differ from men's, with women notably more likely to buy goods and services that improve the family's welfare. Thus, as women gain decision-making power, household spending patterns are likely to shift. Household savings rates are also likely to rise. Sectors likely to benefit from women's expanding buying power include food, healthcare, education, childcare, apparel, consumer durables and financial services. Our equity research analysts identify a list of companies with exposure to these global opportunities.

## Identifying the "sweet spot": gender equality meets the global middle class

Improving gender equality coincides with the rapid growth of the "global middle class" (those with annual incomes between \$6,000 and \$30,000 in PPP terms). From about 1.7 billion people today, this middle class is expected to reach approximately 3.6 billion by 2030, of whom about 85% will live in the BRICs and N-11 countries.

Over the next five years, the combined impact of growing gender equality and the emerging middle class will be seen most clearly in China and Russia, and to a lesser extent in Vietnam, Mexico, Brazil and Indonesia. In the subsequent decade (2015-2025), these dynamics are likely to remain strong in Mexico and Russia, and to continue to strengthen in China, Indonesia, Vietnam, India and Philippines. India's middle class will see rapid growth off a very low base, but the shifts in spending that we outline are likely to remain constrained by women's relatively low status, at least for the next 10-15 years.

## Income and equality: a virtuous circle

Spending driven by women should support the development of human capital, which will fuel economic growth in the years ahead. At the same time, economic growth should continue to bolster gender equality.

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*Thanks to Dominic Wilson, Raluca Dragusanu, and Alex Kelston.*

## Introduction

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In our earlier work on women,<sup>1</sup> we described the Chinese proverb that “women hold up half the sky” as more aspiration than fact in much of the world. Yet, although gender inequality persists in developed and developing countries alike, women in the BRICs and N-11 countries<sup>2</sup> have made significant gains over the past two decades in education, health, employment and political representation.

Growing gender equality has important economic implications. In our previous work, we focused on the macroeconomic impact of women’s education, assessing its contribution to economic growth and demographic change. In this new paper, we look both more broadly, across a range of indicators of women’s status, and more narrowly, **focusing on the impact of gender equality and women’s increased bargaining power on household spending.**

We find that, as women gain more household bargaining power and influence over savings and spending decisions:

- Household spending patterns change, with purchases increasingly directed toward the health, education and welfare of the household. This spending bolsters the development of human capital, which fuels economic growth in the years ahead.
- Household savings rates generally rise, augmenting the savings available to finance future growth.

Growing gender equality and the shift in household spending power towards women coincide with a period of rising incomes and rapid growth of the global middle class – what Goldman Sachs economists have deemed “the expanding middle”. Putting these two developments together suggests that households are likely not only to **spend more**, but will also **spend differently.**

- Over the next five years, we expect to see the impact of rising incomes and improving gender equality play out most clearly in China and Russia, and to a lesser extent in Vietnam, Mexico, Brazil and Indonesia.
- In the subsequent decade (2015-2025), these dynamics should remain strong in Mexico and Russia, continue to strengthen in China, Indonesia and Vietnam, and develop in Philippines and India.
- Beyond 2025, India will be the most interesting country to watch; we anticipate that nearly 90% of India’s population will be “middle class” by 2040. During this time, the women’s spending dynamic will also remain strong in Indonesia and Vietnam, where the middle class share will peak above 80% around 2040.

**Middle-class women are likely to spend their household funds on goods and services that improve the welfare of the household, including food, education, healthcare, financial products and services, apparel, consumer durables and childcare.** Goldman Sachs equity research analysts have identified a number of companies with exposure to the simultaneous rise in gender equality and growth of the global middle class (listed in Exhibit 11 on page 15).

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<sup>1</sup> Sandra Lawson, “Women Hold Up Half the Sky”, *Global Economics Paper 164*, March 4, 2008.

<sup>2</sup> The BRICs are Brazil, Russia, India and China. The N-11 (“Next-11”) countries are Bangladesh, Egypt, Indonesia, Iran, (South) Korea, Mexico, Nigeria, Pakistan, Philippines, Turkey and Vietnam.

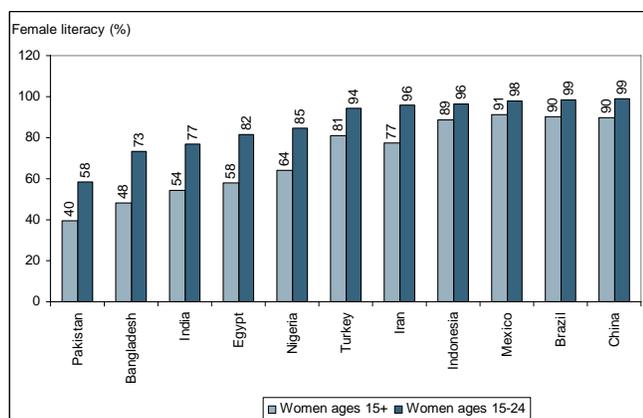
# Gender inequality persists, but women’s roles are changing

Improvements in gender equality can be measured along many lines, including education, employment, income, health, political participation and social norms. Gains in one field typically fuel gains in others, making gender equality a self-reinforcing phenomenon. This can be seen, for example, in the fact that countries that have made large gains in girls’ primary and secondary education are the same countries where women’s gains in the labor force have been most significant. Here, **we flag some of the most prominent gains that women have made over the past two decades.**

## Education

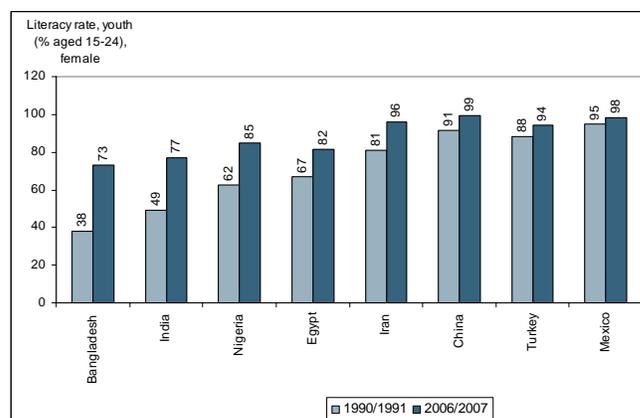
Among *adults*, **literacy rates** for women lag rates for men by as much as 15-30ppt. But young women (aged 15-24) are notably more literate than adult women, with continued improvement even over the past decade, as Exhibits 1 and 2 show. As a result, the literacy gap between *younger* women and men is almost universally in the single digits.

**Exhibit 1: Literacy among *young* women is notably higher than among *adult* women**



Source: World Bank.

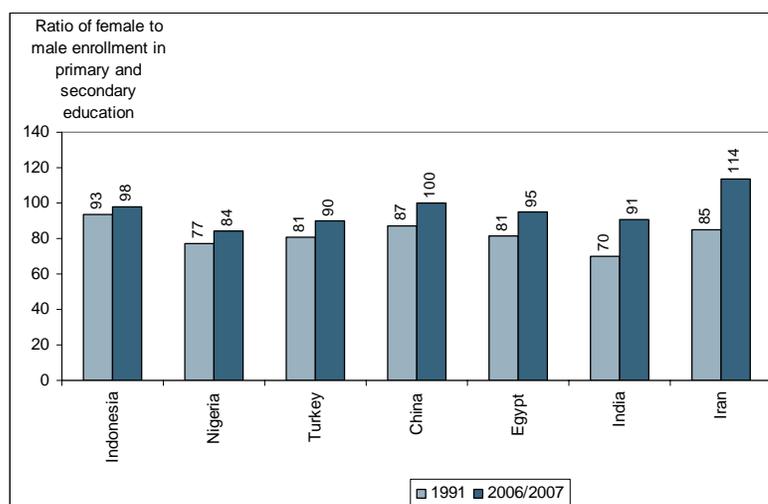
**Exhibit 2: Continued gains in literacy among young women, even since early 1990s**



Countries are arranged in order of percent improvement. Data for Egypt are 1996 vs. 2006.

Source: World Bank.

Across many of the BRICs and N-11 countries, girls now fare nearly as well as boys in **primary and secondary school enrollment**, with large gains over the past decade, particularly in Iran, India, Egypt and China. See Exhibit 3. Generally speaking, the remaining gender gap is smaller in primary and secondary education than at the **university level**. Here too, however, women have made dramatic gains since the early 1990s, particularly in China (from roughly twice as many men as women to near parity today) and Iran (from more than twice as many men to more women than men today). There has also been substantial narrowing of the gender gap in tertiary education in Bangladesh, India, Pakistan and Turkey.

**Exhibit 3: Gender parity is improving in primary and secondary education**

Countries are arranged in order of percent improvement since 1991, from lowest to highest. Most recent available year for Egypt is 2004.

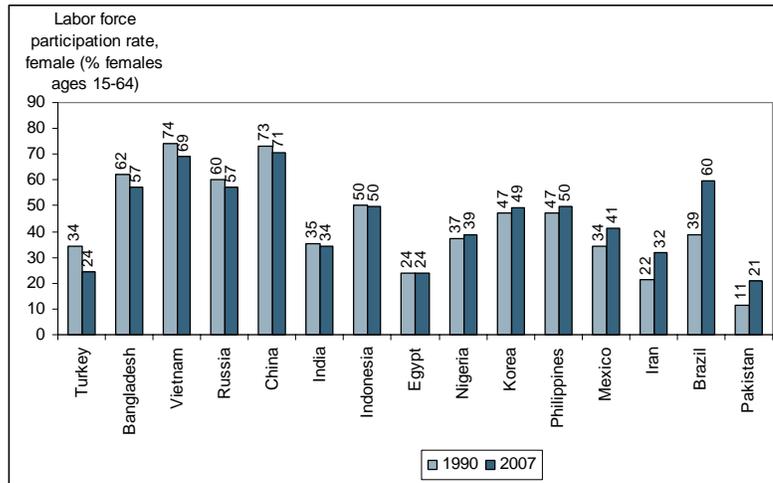
Source: World Bank.

## Employment

**More women are in the labor force in some countries today, though there has been slippage elsewhere.** At one end of the spectrum, labor-force participation rates for women in China and Vietnam are roughly 70%. At the other end, fewer than 40% of women work in Iran, India and Nigeria; fewer than 25% of women work in Pakistan, Egypt and Turkey. Since the early 1990s, change has come in both directions. Participation rates have risen sharply in Pakistan (from a low of 11% in 1990), Brazil and Iran, and have also climbed in Mexico, Philippines, Korea and Nigeria, while in other countries (namely Turkey and Bangladesh), women's participation has declined substantially. Interestingly, men's labor-force participation rates have declined almost across the board since 1990, even in countries where women's participation has also fallen. See Exhibit 4.

Women's employment tends to be clustered in lower-paying and less productive sectors, including subsistence-level agriculture and unpaid family work. Agriculture remains the primary source of livelihood for many women. Yet there are signs of change here too: agriculture accounted for three-quarters of women's employment in Turkey in 1990 but just half in 2005, and fell from 85% to under 60% in Bangladesh over roughly the same period.

**Exhibit 4: Women’s labor-force participation varies widely**

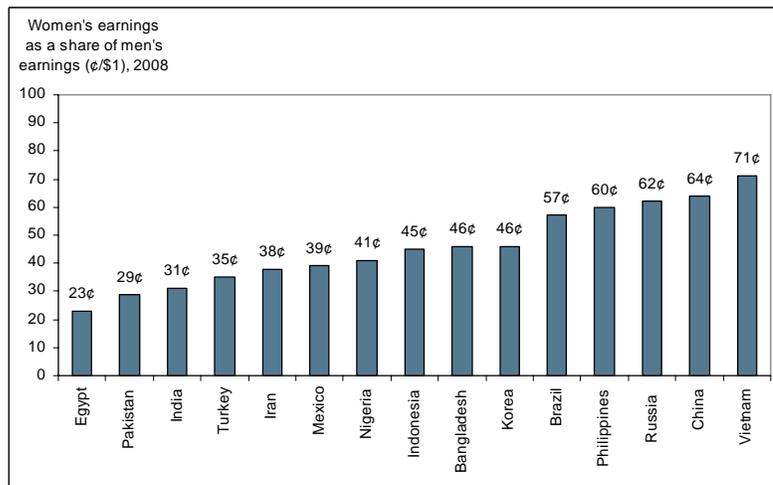


Countries are arranged in order of percent improvement since 1990, from lowest to highest.

Source: World Bank.

**Gender wage gaps.** As a whole, women in the BRICs and N-11 earn roughly half of what men earn (48 cents on the dollar). As in developed countries, the wage gap varies significantly: women earn 71% of what men earn in Vietnam, but just 23% in Egypt. See Exhibit 5.

**Exhibit 5: Men out-earn women everywhere, by as much as four-to-one**

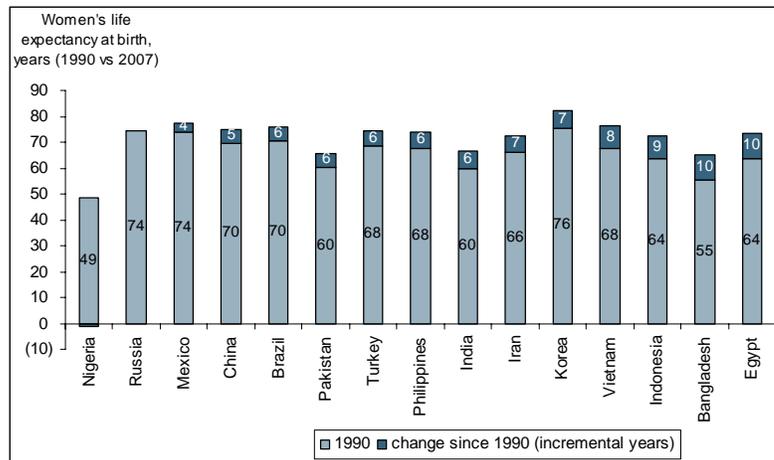


Source: OECD.

## Health

Women’s **life expectancy**, the best single indicator of their overall health, has improved dramatically over the past 20 years. In Bangladesh, Egypt and Indonesia, women born today can expect to live about 10 years longer than women born in the same country in 1990. See Exhibit 6. Increasingly, women are receiving prenatal care and relying on skilled medical care during childbirth, as well as benefitting from **higher public expenditures on health** and higher numbers of physicians in many countries.

**Exhibit 6: Women’s life expectancy has risen in most of the BRICs and N-11 since 1990**

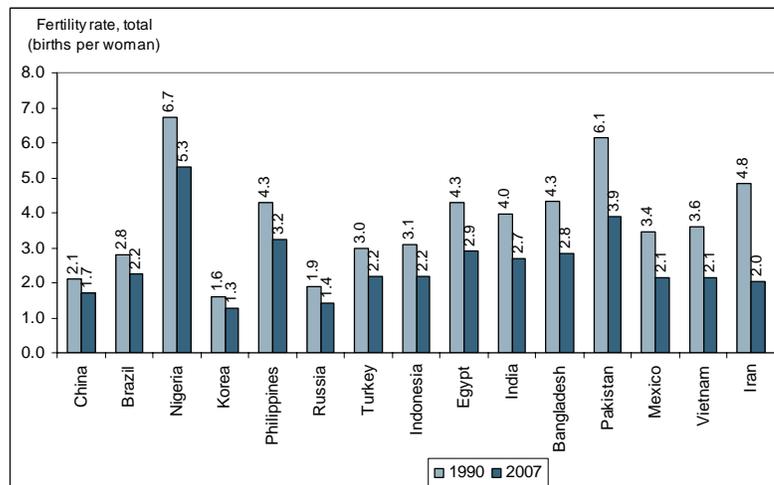


Countries are arranged in order of improvement since 1990 (in years), from lowest to highest.

Source: World Bank.

In line with growing life expectancy and higher levels of female education, **fertility rates** have tumbled, as Exhibit 7 shows. The average number of children born per woman has declined by nearly 60% since 1990 in the most dramatic case of Iran, and by 30% or more in many other countries.

**Exhibit 7: Fertility rates tumble as the BRICs and N-11 move through the demographic transition**



Countries are arranged in order of percent decline since 1990, from lowest to highest.

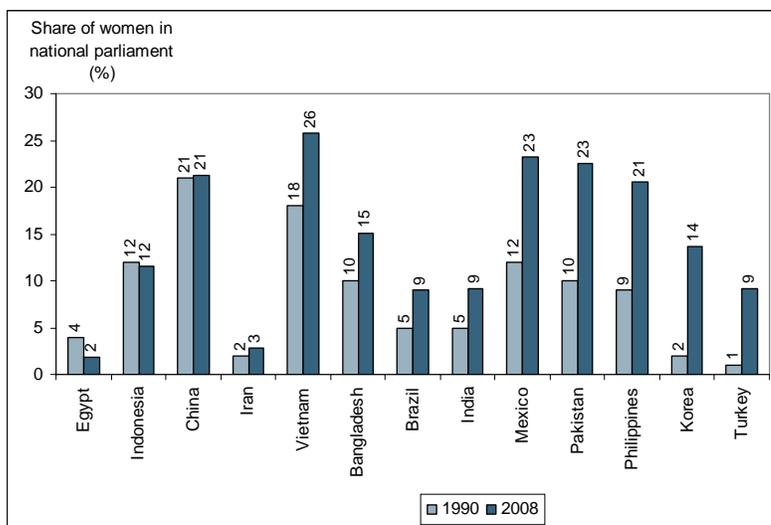
Source: World Bank.

Across a range of indicators, the principal laggards in women’s health are Bangladesh, Pakistan and Nigeria (where women’s life expectancy has actually fallen since 1990), as well as Russia, where health has worsened dramatically for both women and (especially) men since the breakup of the Soviet Union.

### Politics

Women are sharply underrepresented in **national politics** in most countries, not only in the BRICs and N-11 but also around the world. Yet there has been some significant progress since the early 1990s. At the high end, 20% or more of parliamentary seats are now held by women in Vietnam, Mexico, Pakistan, China and Philippines – more than in the United States and considerably more than in Japan. See Exhibit 8. Women tend to be better represented at the **state or provincial and local levels**, where they benefit, in some cases, from national policies requiring a certain share of local positions to be held by women. And a handful of countries, including countries that score relatively low on other indicators of gender equality (among them Bangladesh, India and Pakistan), have elected female prime ministers or presidents.

**Exhibit 8: Women remain under-represented in national parliaments –** despite improvements in the past two decades



Countries are arranged in order of percent improvement since 1990, from lowest to highest. Most recent data for Bangladesh are 2007.

Source: World Bank.

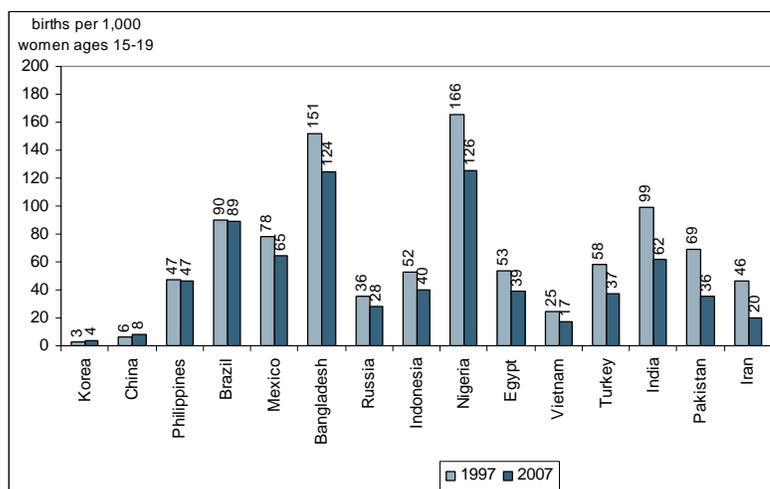
### Law and customs

Gender equality cannot be measured by a string of statistics alone. Social norms, laws and institutions can, separately or together, reinforce inequality by limiting women’s options. Legal obstacles include inheritance laws that favor sons, property rights that fail to protect women’s ownership, divorce laws that assign assets and/or child custody to the husband, and formal restrictions on women’s access to credit. Women may also be constrained by social preferences such as early marriage, dowries and the stigma of divorce, as well as by informal restrictions on political participation or access to credit.

Yet there are a number of encouraging trends on this front:

- **Legal obstacles** are eroding, as women’s standing improves in areas such as property and inheritance laws, divorce rights and access to capital. A number of countries have introduced national legislation to promote gender equality and to prevent domestic and sexual violence against women. These have included changes to divorce and inheritance laws and higher minimum ages for marriage.
- **Age at first marriage** is rising, particularly among more educated women. In India, the median age at first marriage among young women today is 18, compared to 16 among women two decades older; in Turkey the median age is 21, against 19 for older women. Women who delay marriage are more likely to continue their education and, later, to have more control over the number and spacing of children.
- **Adolescent fertility** is declining, reflecting the impact of girls’ education as well as changing social norms. Since 1997, the number of children born to women aged 15-19 has declined by roughly half in Iran and Pakistan and by 30% or more in India, Turkey and Vietnam. See Exhibit 9.

**Exhibit 9: Adolescent fertility rates are falling**



Countries are arranged in order of percent decline since 1997, from lowest to highest.

Source: World Bank.

- **Female-headed households** are becoming more prevalent. Globally, 20% of all households are headed by women (these are defined as households where either no adult male is present, or no adult men contribute to household income). Country studies suggest that the share is 25% in Vietnam and 15% in Philippines. Female-headed households are increasingly common in urban settings, including in Nigeria and Turkey. Urbanization is likely to support this trend, particularly in countries like Bangladesh, India and Vietnam, where 70% of the population still lives in the countryside.
- **Attitudes** are changing. A fascinating study of the impact of cable TV in rural India suggests that exposure to a world where women hold higher status can change traditional assumptions quite rapidly.<sup>3</sup> Within six to seven months of the introduction of cable TV in rural villages, researchers found that men and women alike had become

<sup>3</sup> Robert Jensen and Emily Oster, “The Power of TV: Cable Television and Women’s Status in India”, *NBER Working Paper* 13305, July 2007.

significantly more open to women's autonomy and more accepting of female participation in household decision-making about large purchases. Related research indicates that exposure to female political leaders weakens gender stereotypes among men, undermines biases against women as leaders, and boosts women's political participation.

## Women are gaining bargaining power

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In "Women Hold Up Half the Sky", we analyzed the channels through which female education affects economic growth. The list is long and wide-ranging, including:

- Higher wages and better jobs, along with an increased propensity to work outside the household;
- Lower fertility rates; lower maternal, infant and child mortality rates; and better health for women and their families;
- More productive agriculture, evidently because educated women are more open to the spread of new technologies and techniques;
- Higher economy-wide productivity, because educating girls raises the overall quality of the aggregate workforce;
- Higher returns to investment, typically found in countries with higher levels of human capital; and
- The "demographic transition", a period in which the working-age share of the population grows more quickly than the overall population, supporting higher savings and per capita income.

While many of these channels operate over the long term, the economic impact of women's education is increasingly evident today. **In fact, the effects of women's growing power can be seen in household decisions on spending, savings, education, health and time allocation.**

### Bargaining power

As women gain education, enter the workforce in greater numbers and earn more income, their options increase and their positions within the household and local community improve. Women's options outside of marriage – their "fallback positions" – also improve. Changes in laws and social norms help to consolidate the impact of narrowing gender gaps.

Previous research has tended to treat "the household" as a single unit with a single set of preferences and a uniform budget constraint. More recent empirical work has shown that **preferences and resources can and do differ between spouses, and that the bargaining power of each spouse does affect household decision-making.**

Critical variables of bargaining power include wages and other income, along with the assets that husbands and wives each bring to the marriage. This is visible in several ways:<sup>4</sup>

- Studies of developed economies find that decision-making power depends significantly on relative household earnings, with relative average *lifetime* earnings being more important than current earnings. Being self-employed also strengthens decision-making power.
- Households spend a larger share of their budget on food and on private goods for women in years when the production of crops cultivated by *women* is higher; conversely, households spend a larger share of the budget on alcohol, tobacco and goods consumed by men in years when the production of crops cultivated by *men* is higher.
- A number of studies show that when women, rather than men, are the direct beneficiaries of credit, the impact of credit on various measures of household welfare (such as children's health and education) is greater.
- Non-financial variables affect women's status as well. For instance, research finds that having children (especially children under the age of 18) reduces a husband's reported bargaining power considerably. And wives seem to gain more influence as they, as well as their husbands, age.

**This is not to say that traditional norms of household decision-making have disappeared.** Social restrictions on women's roles and power within the household certainly do persist, and decision-making power remains concentrated among men in many countries. For instance, the share of women who say their husbands alone make major household decisions is considerably higher in Africa than in East Asia, in line with data on the relative status of women. **Nonetheless, these norms can be – and are being – eroded by factors including women's education, urbanization, greater mobility and the spread of technology.**

## **As a result of women's increased bargaining power:**

### **Patterns of household spending shift**

#### **Women and men have notably different preferences in household purchases.**

Numerous studies show that men spend more of their income on items for their own consumption, including alcohol, cigarettes, high-status consumer goods and even "female companionship". **Women are more likely to purchase goods for their household and specifically for their children, including food, healthcare, education, clothing and personal-care products.**

This is true in developed and developing countries alike. In the United Kingdom, for example, women are responsible for more than three-quarters of household expenditures on childcare, food and education, but less than half of spending on tobacco and about one-quarter on alcohol. Similar dynamics exist across the OECD (see Exhibit 10).

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<sup>4</sup> The conclusions about household decision-making and the impact of women's improved bargaining power draw on a wide range of academic research, including country studies and cross-country analyses. We have listed some of the most important sources in a bibliography at the end of the paper.

**Exhibit 10: Women control much of the household spending in the United Kingdom**

	Percentage of total household spending controlled by women
Women's clothes	90
Children's clothes	85
Food	80
Child care / school expenses	78
Medical / dental expenses	59
Household goods	51
Tobacco	43
Recreation	42
Men's clothes	40
Holidays	36
Gambling	35
Meals out	34
Repairs to house	33
Motor vehicles	31
Alcohol	27

Source: UK Office for National Statistics, Family Expenditure Survey.

Household surveys in a range of countries show that an increase in the share of assets held by women in urban households increases the share of the budget spent on food. Among both rural and urban women, the share of assets held by women has a positive effect on spending on education and a negative effect on expenditures on alcohol, tobacco and recreation.

In one study, which introduced formal savings accounts for women in rural Kenya, the private daily expenditures of women with these accounts were roughly 40% higher than other women's, and their average daily food expenditures were 15%-30% higher. This suggests not only that higher investment leads to higher income, but also that women are likely to spend their income on products that benefit their children.

**Human capital improves**

As women's bargaining power increases alongside their earnings power, women become more able to influence household decisions that benefit children, improving human capital and promoting economic growth. Both health and education can be seen as investments in the family's future earnings power. **Though an increase in either women's or men's income helps children, the benefits are greater when women are the source of the increase.**

This is visible through multiple channels, as many studies have demonstrated:

- As women's share of unearned income rises, **children enter school earlier**, their weight-for-height and weight-for-age ratios improve, and they live longer. The shares of the household budget devoted to education, especially for girls, and healthcare also rise in many countries.
- **Nutrition improves.** Pensions received by women translate into better nutrition for girls, while pensions received by men have no such effect for either girls or boys. Child nutrition is better in households run by women compared to those run by men, even when the women's families are poorer. Income managed by women has a five-fold impact on food expenditures (compared to when income is managed by men), and women tend to invest in food associated with better health.
- **Mothers spend more on healthcare**, including primary care and vaccinations, than do fathers. The probability of child survival is 20 times more sensitive to an increase in women's unearned income than to an increase in men's unearned income. Overall health improves in households where women earn more than half of family income and have greater control over the family's resources.

### **Priorities for physical investment may change**

The impact of women's decision-making power is also increasingly evident outside of the household. **As women gain political influence (and office), there is likely to be a shift in local government spending to support issues of particular concern to women.**

This is not to say that women and men have starkly different political priorities. But **women's priorities tend to reflect their distinct roles and responsibilities within the household.** As an example, drinking water is likely to be of greater concern to women, who are often responsible for obtaining it, than to men. Women are also likely to be more concerned with healthcare, since that too is principally their responsibility.

Thus we would expect to see greater public investment in areas like drinking water, sanitation and healthcare. Roads are also a major priority for women (and for men as well), because they expand access to markets and to education.

### **Household savings rates rise**

Women tend to save more than men do, with this reliance on precautionary savings attributable, in part, to their higher economic vulnerability. Information from 20 semi-industrialized countries suggests that for every one percentage point increase in the share of household *income* generated by women, aggregate domestic savings increase by roughly 15 bp. And a one percentage point increase in women's share of household *wages* boosts aggregate savings by 25 bp.

There is also evidence to suggest that women would save more money in formal savings vehicles than they do currently, if they had the opportunity. Formal savings are attractive because they lower the risk that funds will be diverted or stolen, and because they increase women's control over their own (and household) funds. The Kenyan study cited above shows that access to savings accounts (even non-interest-bearing accounts carrying high transaction costs) has a strongly positive impact on business investment among women (though not among men), raising it by 40% on average in just four to six months.

Women's growing decision-making power may also result in more conservative savings and investment decisions. Studies across a range of countries indicate that women are more risk-averse than men, particularly in the context of savings and household investment.

Savings at the household level is important for, among many things, funding education and obtaining access to medical care. Women's greater proclivity to save complements their focus on household welfare and their inclination to focus the use of resources on their children. It is also worth noting that offering women more access to savings products has the potential to steer assets into the formal financial system and thus to support investment.

## What will women buy?

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What will increasingly empowered women buy? How will they spend and invest their earnings and household income? Research already indicates that, globally, women drive three-quarters of all spending in consumer markets.<sup>5</sup> **Among the BRICs and N-11 countries, women's growing spending autonomy is likely to drive incremental growth on top of the increased demand that is attributable to rising income alone.** Critical sectors that are likely to benefit include:

- **Food**, especially higher-quality and protein-intensive food. Higher incomes are already raising the demand for meat and poultry. For instance, over the past decade, Brazil's per capita poultry consumption has risen by two-thirds, while China's pork consumption has risen by nearly one-quarter and its milk consumption nearly four-fold.
- **Healthcare**, including pharmaceuticals, preventive vaccinations for children, elective vaccinations for adults, diagnostic technology and therapy equipment, along with hospital care and general health services. The market for private health insurance should also see significant growth among the emerging middle class in countries with weak public health systems.
- **Financial products**. As we discussed above, there appears to be significant unmet demand among women for savings and investment vehicles held outside of the household and thus more directly (and safely) under women's control. In countries with limited banking systems, like India, roughly half of all household assets are held as physical assets like land, equipment and jewelry. Simple financial savings products are thus likely to be attractive, as should life insurance. Demand for credit is likely to rise, fueling the nascent credit card market in the wealthier countries among the BRICs and N-11.
- **Education**, especially for children but also for women themselves. This could include "prep" classes for high school and college entrance exams, private English-language instruction, and vocational and business training. In most cases, this is likely to be provided by for-profit companies. Publishers of textbooks and other educational aids should benefit as well.
- **Childcare**. Two separate, though related, phenomena are likely to drive demand for paid childcare. First, demand is likely to grow most rapidly in the richer countries where female labor-force participation rates are increasing. Second, demand is also likely to grow in countries undergoing rapid urbanization, which tends to weaken traditional patterns of intergenerational childcare. Paid childcare enables more women to work outside the household; it is also an investment in the family's older children, especially girls, who might otherwise miss educational and training opportunities in order to care for younger siblings.
- **Consumer durables**, such as dishwashers and washing machines, and **apparel**. While these are goods that the emerging middle class buys in any case, they may move higher on the list of priorities as women exercise more control over household earnings and spending.

**As household priorities shift, other categories of goods and services will be more negatively affected.** Rising incomes will continue to drive demand for alcohol and tobacco (particularly brand-label goods in both categories), as well as other "male-oriented" goods

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<sup>5</sup> Euromonitor, *Who Buys What: Identifying International Spending Patterns*, February 2007. This study analyzed expenditure by gender, age, wealth and education in 35 countries and more than 70 market sectors.

and services. In countries where women's spending power is strongest, however, gains in these sectors may lag growth in more household-friendly goods and services.

**A number of companies have exposure to the simultaneous rise in gender equality and growth of the global middle class.** Our Equity Research analysts have identified an illustrative list of such companies, shown in Exhibit 11.

### Exhibit 11: Companies with exposure to the convergence of rising incomes and growing gender equality

Financial services		Household durable goods / Personal care / Food		Healthcare	
Alliance Data Systems (ADS)	USA	Belle International Holdings Limited	HK	Abbott Laboratories	USA
Banco Santander	ESP	Cadbury plc	UK	Allergan, Inc.	USA
Erste Group Bank AG	AUT	Casas Bahia	Private	Baxter International Inc.	USA
HDFC Bank Limited	IND	CBD Companhia Brasileira de Distribuição	BRA	Becton, Dickinson & Co.	USA
HSBC	UK, HK	China Mengniu Dairy Company Limited	HK	Bristol Myers Squibb Co.	USA
Mahindra & Mahindra Financial Services Ltd.	IND	China Yurun Food Group Limited	HK	Coloplast A/S	DNK
Mapfre SA	ESP	CJ O Shopping Co., Ltd.	KOR	GlaxoSmithKline plc	USA
MasterCard Inc.	USA	Diageo plc	UK	Haemonetics Corporation	USA
Prudential plc	USA, UK	Drogasil SA	BRA	Hologic, Inc.	USA
Raiffeisen International	AUT	GS Home Shopping Inc.	KOR	iKang	Private
Standard Chartered PLC	UK, HK	Hypermarcas SA	BRA	Johnson & Johnson	USA
Vienna Insurance Group	AUT	Inditex SA	ESP	Joincare Pharmaceutical Group Industry Co., Ltd.	CHN
Visa Inc.	USA	Kingfisher plc	UK	Medial Saúde SA	BRA
		Lojas Renner SA	BRA	Merck & Co. Inc.	USA
		Magazine Luiza	Private	Mylan Inc.	USA
		Natura Cosméticos SA	BRA	Novartis AG	CHE, USA
		Nestle SA	CHE	Odontoprev SA	BRA
		Sadia - Perdigão (pending merger, to become Brasil Foods)	BRA	Pfizer Incorporated	USA
		Tesco plc	UK	Qiagen NV	USA, GER
		Unilever	UK, Euronext	Sanofi-Aventis SA	NYSE Euronext
		Wal-Mart	USA	Shandong Dong-E E-Jiao Co., Ltd.	CHN
				Shanghai Jiaoda Onlly Co., Ltd.	CHN
				Sonova Holding AG	CHE
				Teva Pharmaceutical Industries Ltd.	USA, ISR
				Watson Pharmaceuticals, Inc.	USA
				William Demant Holding A/S	DNK
				Zydus Cadila Healthcare Limited	IND
Real estate				Education	
AFI Development plc	UK			Kroton Educacional SA	BRA
Agile Property Holdings Limited	HK			Megastudy Co., Ltd.	KOR
BR Malls Participacoes SA	BRA			New Oriental Education & Tech. Group Inc.	USA
Multiplan Empreendimentos Imobiliarios SA	BRA			Sistema Educacional Brasileiro S.A. (SEB)	BRA
Shimao Property Holdings Limited	HK			Unip	Private

Source: Companies identified by Goldman Sachs Equity Research analysts as having exposure to the convergence of rising incomes and growing gender equality.

## The global middle class: countries to watch

### The “expanding middle”

Women’s social and economic gains coincide with an ongoing and unprecedented explosion in what we can call a “global middle class.” As Goldman Sachs economists Dominic Wilson and Raluca Dragusanu have discussed in detail,<sup>6</sup> **some 1.7 billion people today can be considered middle class – with incomes between \$6,000 and \$30,000 in PPP terms – and this figure is likely to reach 3.6 billion by 2030.** Close to 85% of the global middle class will live in the BRICs and N-11 countries by then. See Exhibit 12.

#### Exhibit 12: Tracking the rise of the middle class across the BRICs and N-11

Share of population with incomes between \$6,000 and \$30,000 (PPP terms)

%	Brazil	Russia	India	China	Korea	Bangladesh	Egypt	Indonesia	Iran	Mexico	Nigeria	Pakistan	Philippines	Turkey	Vietnam
<b>2009</b>	46	71	6	37	67	0	39	16	70	61	6	9	15	79	7
<b>2015</b>	52	71	16	59	46	1	57	29	77	65	9	13	23	81	20
<b>2025</b>	59	56	46	75	23	5	84	57	73	65	18	22	40	70	51
<b>2040</b>	57	29	89	53	7	38	82	87	41	49	42	49	69	35	84

Source: Goldman Sachs projections. In countries where the middle-class share declines over time (Russia, Korea, Iran, Mexico and Turkey), this reflects a shift into the higher-income category.

### The next five years

Over the next five years, **to 2015**, the middle class story is set to play out most vividly in a handful of countries (see Exhibit 13):

- In **China**, rapid income growth means that nearly 60% of the population will be considered middle class by 2015, up from 37% today. In relative (as well as absolute) terms, China’s middle class could be larger than **Brazil’s** before 2015 (when Brazil’s share reaches 52%). In **Russia**, nearly three-quarters of the population is already “middle class,” and by 2015 more than 20% will have incomes *above* \$30,000.<sup>7</sup>
- Among the N-11, the highest middle-class shares today are to be found in **Turkey** (79%), **Iran** (70%) and **Mexico** (61%). These shares will remain relatively constant over the next five years.
- Growth rates of the middle-class share will be highest in **India** and **Vietnam**, averaging nearly 20% per year, and in **Indonesia**, averaging about 10%. In these three countries, rapid growth would be from an extremely low starting point: less than 10% of the population in both India and Vietnam, and less than 20% in Indonesia, is considered “middle class” today.

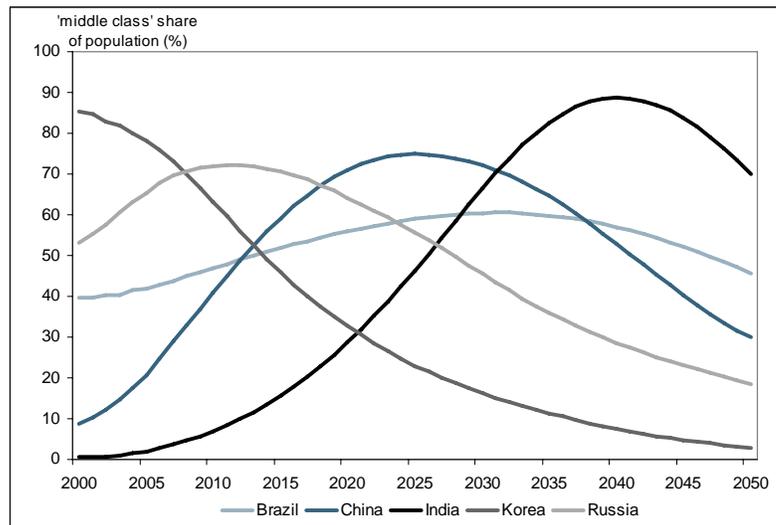
<sup>6</sup> These income-distribution projections are based on our long-term growth projections for the BRICs and N-11. See Dominic Wilson and Raluca Dragusanu, “The Expanding Middle: The Exploding World Middle Class and Falling Global Inequality”, *Global Economics Paper* 170, July 7, 2008.

<sup>7</sup> The middle-class story has largely played out in Korea, where more than one-third of the population is already in the higher income bracket (above \$30,000); we expect that this share will rise to more than half by 2015 and more than three-quarters by 2025.

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**Exhibit 13: Middle class peak: yesterday in Korea, today in Russia, far in the future in India**

Share of population with incomes between \$6,000 and \$30,000 (PPP terms)



Source: Goldman Sachs projections.

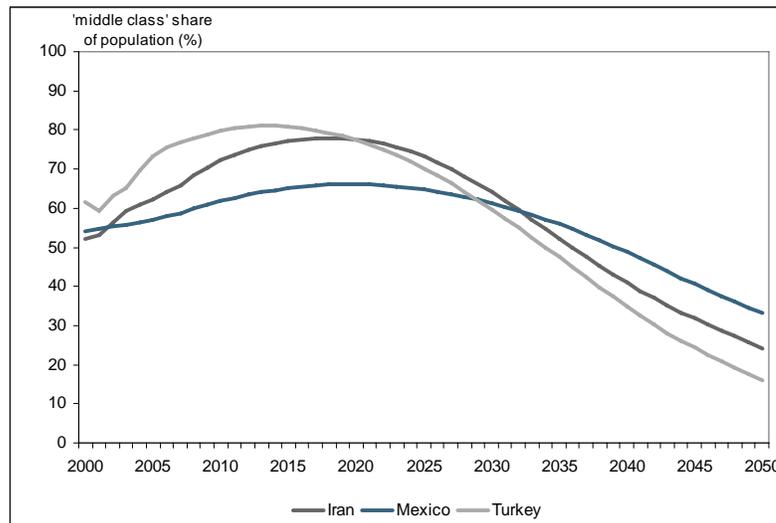
**2015-2025:**

In the subsequent decade (2015-2025), we anticipate several major developments (see Exhibits 14-15):

- Three-quarters of **China's** population should achieve middle class income levels, as should nearly half of **India's** population. Among the N-11, the middle class shares would stay flat in **Mexico** and decline slightly in **Iran** and **Turkey**, as growth in the "higher income" bracket offsets the falling "low income" share.
- Only two countries will see the middle class share grow by more than 10% per year: **India** and **Vietnam**. Over that decade, the middle class share in both countries could rise by more than 30ppt (to 46% in India and 51% in Vietnam).
- Elsewhere in the N-11, large share gains could also be seen in **Egypt** and **Indonesia** (each of nearly 30ppt), while growth rates will average above 5% per year in **Indonesia, Nigeria, Pakistan** and **Philippines**.

**Exhibit 14: In the richer N-11 countries, the middle class share will peak in 5-15 years, then decline as the higher-income segment grows**

Share of population with incomes between \$6,000 and \$30,000 (PPP terms)



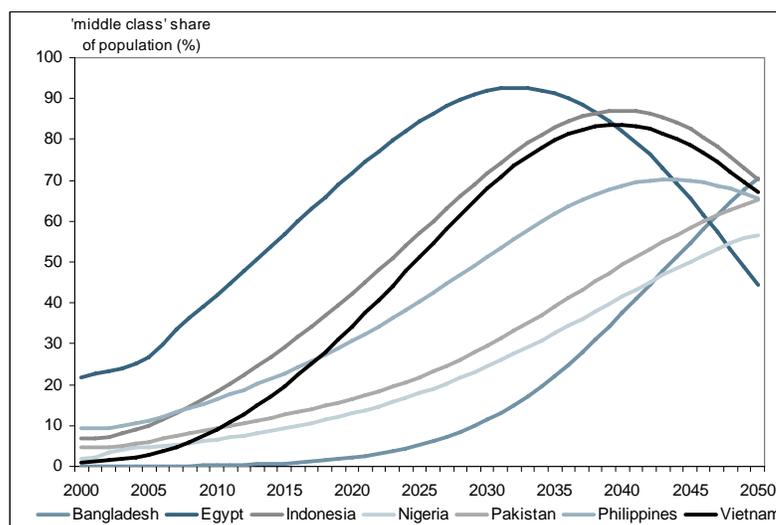
Source: Goldman Sachs projections.

**Beyond 2025:**

After 2025, the growth of the higher-income category (\$30,000 and above) will be the principal story for three of the four BRICs (except India) and several of the N-11 countries (namely Turkey, Mexico, Iran and Korea). But the middle class story will continue to play out elsewhere (see Exhibit 15).

- By 2040, the middle class share should peak at 80%-90% of the population in **India, Indonesia, Vietnam** and **Egypt** and at 70% in **Philippines**.
- But about half the population in **Pakistan, Nigeria** and **Bangladesh** is likely to remain "lower income" (with incomes below \$6,000) in 2040. Accordingly, the middle-class growth story in those countries will still be playing out several decades into the future.

**Exhibit 15: Elsewhere in the N-11, the middle class share will peak after 2030**  
Share of population with incomes between \$6,000 and \$30,000 (PPP terms)



Source: Goldman Sachs projections.

## Gender and income: the “sweet spot” for shifts in spending

**We are most interested in identifying countries where the middle class is growing *at the same time* that gender equality is improving. Taken together, more income – and more income in the hands of women – will significantly affect consumer demand.**

In addition to the research on gender equality that we discussed above, there are several formal measures of gender equality that can help us to identify the “sweet spot” of changing consumer demand. Chief among these are:

- The UN’s Gender-Related Development Index (GDI), which measures human development while adjusting for gender inequality. It is an unweighted measure of gender differences in life expectancy at birth, school enrollment and literacy, and earned income.
- The UN’s Gender Empowerment Measure (GEM), which assesses women’s position in society, including political and economic participation and decision-making power; and
- The OECD’s Gender, Institutions and Development Index (GID), which evaluates discrimination in social institutions, looking in particular at laws, customs and family traditions.

Measures for each of these indicators are listed in Exhibit 16. These indicators show the mutually reinforcing relationship between gender equality and growth. They also echo the conclusions from the data presented in the first part of this paper, which are summarized in Exhibit 17.

**Exhibit 16: Formal indicators echo the link between gender equality and income**

	GDP per capita, 2008, US\$	Gender-related Development Index (GDI)		Gender Empowerment Measure (GEM)		Gender, Institutions and Development Index (GID)		Women's earnings as a share of men's earnings (c/\$) 2008
		Value	Rank	Value	Rank	Value		
Korea	21,214	0.910	26	0.510	64	0.021		46
Mexico	8,823	0.820	51	0.589	46	0.025		39
Russia	9,791	0.801	58	0.489	71	0.078		62
Brazil	7,129	0.798	59	0.490	70	0.059		57
China	2,768	0.776	72	0.534	57	0.184		64
Philippines	1,719	0.768	76	0.590	45	0.043		60
Turkey	9,352	0.763	78	0.298	90	0.108		35
Iran	4,463	0.750	83	0.347	87	0.440		38
Vietnam	882	0.732	90	0.561	52	0.253		71
Indonesia	1,972	0.721	93	..		0.170		45
India	1,010	0.600	112	..		0.499		31
Bangladesh	484	0.539	120	0.379	81	0.495		46
Pakistan	912	0.525	124	0.377	82	0.733		29
Nigeria	1,178	0.456	138	..		0.567		41
Egypt	1,770	..	..	0.263	91	0.456		23

For the GDI and GEM (both UN measures), a value of 1.0 denotes high *equality*.

For the GID (from the OECD), a value of 1.0 denotes high *inequality*.

Source: OECD, United Nations, Goldman Sachs Research.

**Exhibit 17: Snapshot of standing and progress in selected gender equality indicators, BRICs and N-11**

Female life expectancy at birth (years)				Ratio of female to male enrollment in primary and secondary education			Labor force participation rate (% of female pop. ages 15-64)			Women's earnings as a share of men's earnings (c/\$)		Female share, seats in parliament (%)					
Country	1990	2007	change (years)	Country	1991	2006-07	change (ppt)	Country	1990	2007	change (ppt)	Country	2008	Country	1990	2008	change (ppt)
Egypt	63.6	73.6	10.0	Iran	84.7	113.6	28.9	Brazil	38.7	59.5	20.8	Vietnam	71	Pakistan	10.0	22.5	12.5
Bangladesh	55.1	65.0	9.9	India	70.3	90.6	20.3	Iran	21.5	31.8	10.3	China	64	Korea	2.0	13.7	11.7
Indonesia	63.5	72.7	9.1	Egypt	81.4	94.7	13.3	Pakistan	11.2	20.8	9.6	Russia	62	Philippines	9.0	20.5	11.5
Vietnam	67.7	76.2	8.5	China	86.9	99.9	13.0	Mexico	34.4	41.2	6.8	Philippines	60	Mexico	12.0	23.2	11.2
Korea	75.5	82.4	6.9	<b>BRICs/N11 avg</b>	<b>83.3</b>	<b>95.8</b>	<b>12.5</b>	Philippines	47.4	49.8	2.4	Brazil	57	Turkey	1.0	9.1	8.1
Iran	65.9	72.6	6.7	Turkey	80.8	90.1	9.3	Korea	47	49.3	2.3	<b>BRICs/N11 avg</b>	<b>48</b>	Vietnam	18.0	25.8	7.8
India	60.0	66.4	6.4	Nigeria	77.2	84.0	6.8	Nigeria	37.3	38.7	1.4	Korea	46	Bangladesh	10.0	15.1	5.1
Philippines	67.8	73.9	6.2	Indonesia	93.3	97.9	4.5	Egypt	23.8	23.8	0.0	Bangladesh	46	India	5.0	9.1	4.1
Turkey	68.3	74.2	5.9	Philippines	100.4	102.5	2.1	Indonesia	50.3	49.6	(0.7)	Indonesia	45	Brazil	5.0	9.0	4.0
Pakistan	60.1	65.8	5.7	Mexico	97.0	98.9	1.9	India	35.1	34.2	(0.9)	Nigeria	41	<b>BRICs/N11 avg</b>	<b>12.3</b>	<b>14.9</b>	<b>2.6</b>
Brazil	70.4	76.1	5.6	Korea	98.9	95.5	(3.4)	<b>BRICs/N11 avg</b>	<b>51.8</b>	<b>50.6</b>	<b>(1.2)</b>	Mexico	39	Iran	2.0	2.8	0.8
<b>BRICs/N11 avg</b>	<b>65.5</b>	<b>70.7</b>	<b>5.2</b>	Russia	103.8	98.7	(5.2)	China	73.2	70.6	(2.6)	Iran	38	China	21.0	21.3	0.3
China	69.7	74.8	5.1	Bangladesh	..	103.5	..	Russia	60.2	57.1	(3.1)	Turkey	35	Indonesia	12.0	11.6	(0.4)
Mexico	73.8	77.4	3.5	Brazil	..	102.9	..	Vietnam	74	69.3	(4.7)	India	31	Egypt	4.0	1.8	(2.2)
Russia	74.3	74.0	(0.3)	Pakistan	..	77.9	..	Bangladesh	62	57.2	(4.8)	Pakistan	29	Nigeria	..	7.0	..
Nigeria	48.6	47.3	(1.2)	Vietnam	..	..	..	Turkey	34.4	24.4	(10.0)	Egypt	23	Russia	..	14.0	..

Countries are arranged in order of change since 1990 (in years, or ppt, as indicated), from highest to lowest.

For earnings ratios, countries are arranged from most to least equal (2008).

For enrollment data, the most recent available year for Egypt and Bangladesh is 2004, and for Brazil is 2005.

For parliamentary representation, the most recent available year for Bangladesh is 2007.

Source: All data are World Bank, except for earnings data (OECD).

Drawing on all of these measures, we can flag the most promising countries for the growth in women's spending power.

- **Until 2015, the gender-income story should play out most vividly in China**, where women's status is already high and where the middle class share could rise at an average rate of 9% per year. Women are also likely to drive much of the household spending in **Korea, Russia and Brazil**, although the middle-class income gains will be smaller, particularly in already-wealthy Korea and Russia.
- **We also anticipate that women will increasingly drive purchasing decisions in Vietnam, Mexico and Indonesia over the next few years.** Despite a large middle class in Egypt, Iran and Turkey, women's relatively weaker status in those countries is likely to slow the bargaining-power gains that we expect elsewhere. And although the middle class will grow rapidly in India, women are unlikely to gain significantly more power within the household over this short timeframe.
- **From 2015-2025, the women's spending story will continue to strengthen in countries where the middle class share grows significantly, namely China, Indonesia and Vietnam. The story will also remain strong in Mexico and Russia, and develop in Philippines and India.** Growth of the middle class will be especially strong in India, where we may see women assume important household decision-making power, especially in urban areas and especially as younger, more educated women move into their prime spending years.

## The virtuous circle: gender equality and economic growth

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Economic growth and gender equality form a virtuous cycle, in which gender equality supports economic growth and growth reinforces gender equality gains.

**Gender equality fuels growth**, by bringing women into the labor force and by raising the overall level of human capital, productivity and wages. It also fuels growth by paving the way to a "demographic transition" that is more conducive to long-term gains in GDP per capita.

**Growth bolsters gender equality** by raising the returns to women's work outside the household; this in turn underscores the importance of girls' education and health, and strengthens the case for women to play a meaningful role in local and national politics.

As gender equality improves, it often does so across a range of measures in education, labor markets, health and political representation. The mutually reinforcing link between gender equality and growth will not play out uniformly or neatly in all countries. For example, the role of women in the labor force and politics is curtailed even in relatively wealthy and well-educated countries like Iran. But on the whole, we anticipate that women's equality will continue to support the growth of the middle class, which itself is a key driver of economic growth. See Exhibit 18.

**Exhibit 18: Gender and per capita GDP across the BRICs and N-11**

Country	Per capita GDP of \$6,000 (2007 US\$) realized in the year ...	GDI Value (2007)
Korea	1988	0.910
Mexico	1993	0.820
Turkey	2005	0.763
Russia	2006	0.801
Brazil	2007	0.798
Iran	2013	0.750
China	2016	0.776
Indonesia	2029	0.721
Philippines	2030	0.768
Egypt	2032	..
Vietnam	2033	0.732
India	2034	0.600
Nigeria	2038	0.456
Pakistan	2048	0.525
Bangladesh	2050	0.539

Source: OECD, Goldman Sachs Research.

## Selected bibliography

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- Anna Aizer, "Wages, Violence and Health in the Household", NBER Working Paper 13494, October 2007.
- Lori Beaman, et al., "Powerful Women: Does Exposure Reduce Bias?" NBER Working Paper 14198, July 2008.
- Alison Booth and Patrick Nolen, "Gender Differences in Risk Behaviour: Does Nurture Matter?", Discussion Paper Series No. 7198, Centre for Economic Policy Research, March 2009.
- Niels-Hugo Blunch and Maitreyi Bordia Das, "Changing Norms about Gender Inequality in Education: Evidence from Bangladesh", Policy Research Working Paper 4404, World Bank, November 2007.
- Lex Borghans, Bart H.H. Golsteyn, James J. Heckman and Huub Meijers, "Gender Differences in Risk Aversion and Ambiguity Aversion", NBER Working Paper 14713, February 2009.
- Raghavendra Chattopadhyay and Esther Duflo, "Women as Policymakers: Evidence from a India-wide Randomized Policy Experiment", NBER Working Paper 8615, December 2001.
- David Dollar and Roberta Gatti, "Gender Inequality, Income, and Growth: Are Good Times Food for Women", Policy Research Report on Gender and Development, Working Paper Series No. 1, World Bank May 1999.
- Esther Duflo, "Gender Equality in Development", MIT, December 2005.
- Pascaline Dupas and Jonathan Robinson, "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya", NBER Working Paper 14693, January 2009.
- Maria Sagrario Floro and Stephanie Seguino, "Gender Effects on Aggregate Saving: A Theoretical and Empirical Analysis", Working Paper Series No. 23, World Bank, 2002.
- Leora Friedberg and Anthony Webb, "Determinants and Consequences of Bargaining Power in Households", NBER Working Paper 12367, July 2006.
- Kirrin Gill, Rohini Pande, and Anju Malhotra, "Women Deliver for Development", ICRW, October 2007.
- International Labour Organization, "Global Employment Trends for Women", March 2009.
- Robert Jensen and Emily Oster, "The Power of TV: Cable Television and Women's Status in India", NBER Working Paper 13305, July 2007.
- Kathleen M. Kurz and Charlotte Johnson-Welch, "Enhancing Nutrition Results: The Case for a Women's Resources Approach", International Center for Research on Women (ICRW), March 2000.
- Andrew Morrison, Dhushyanth Raju and Nistha Sinha, "Gender Equality, Poverty and Economic Growth", Policy Research Working Paper 4349, World Bank, September 2007.
- OECD, "Gender and Sustainable Development: Maximising the Economic, Social and Environmental Role of Women", OECD, 2008.
- Lisa Smith, *et al.*, "The Importance of Women's Status for Child Nutrition in Developing Countries", Research Report 131, International Food Policy Research Institute, 2003.
- Mercy Tembon and Lucia Fort (eds.), "Girls' Education in the 21<sup>st</sup> Century: Gender Equality, Empowerment and Economic Growth", World Bank, 2008.

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