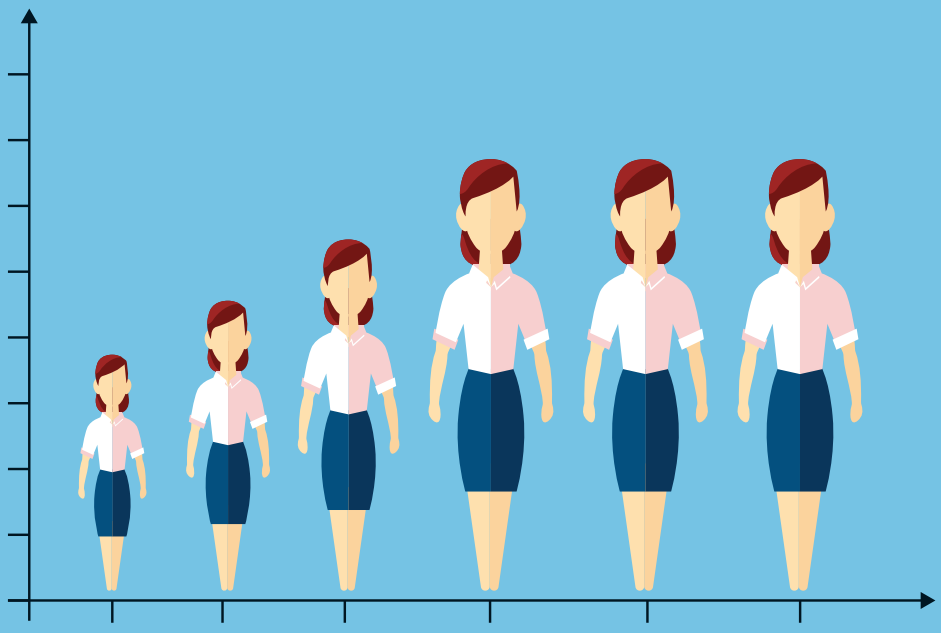

Bridging gender gaps?

The rise and deceleration of female labor force participation in Latin America

Leonardo Gasparini
& Mariana Marchionni
EDITORS

CEDLAS
Center for Distributive, Labor and Social Studies
Facultad de Ciencias Económicas | Universidad Nacional de La Plata

One of the most salient socioeconomic changes over the last half-century has been the strong rise in female labor force participation across the world. Latin America has not been an exception. However, since the early 2000s, there are signs of a widespread and significant deceleration in women's entry into labor markets in Latin America. The slowed increase of women in the workforce has delayed the closing of the gender gap in labor participation, and may also compromise poverty reduction targets.

This book, written at CEDLAS-Universidad Nacional de La Plata, documents the recent deceleration of female labor participation in Latin America, explores its causes, evaluates its implications, and discusses the limitations and challenges facing public policies that aim to empower women and foster gender equality.

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List of acronyms

ALMP	Active labor market policy
CCT	Conditional cash transfer
CEDLAS	Centro de Estudios Distributivos, Laborales y Sociales - Universidad Nacional de La Plata, Argentina
CIEDUR	Centro Interdisciplinario de Estudios sobre el Desarrollo, Uruguay
ECLAC	Economic Commission for Latin America and the Caribbean
GDP	Gross domestic product
IDRC	International Development Research Centre
ILO	International Labor Organization
LABLAC	Labor Database for Latin America and the Caribbean (CEDLAS and the World Bank)
LFP	Labor force participation
MDG	Millennium Development Goals
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing power parity
SEDLAC	Socio-Economic Database for Latin America and the Caribbean (CEDLAS and the World Bank)
TFR	Total fertility rate
WDI	World Development Indicators

"Among the many useful indicators of women's economic status, including women's educational attainment, health, role in politics and legal rights, labor force participation is arguably the most fundamental to the evolution of gender roles."
Olivetti, 2013

"Of the many advances in society and the economy in the last century, the converging roles of men and women are among the grandest."
Goldin, 2014

Chapter 5

Female participation and the economic cycle

Leonardo Gasparini and
Pablo Gluzmann

1. Introduction

As documented in previous chapters, after nearly half a century of sustained growth in female labor force participation (LFP), the evidence suggests a widespread and significant deceleration in the rate of female entry into the Latin American labor markets. In previous chapters, we characterized changes in female labor force participation and found that the deceleration took place in most, although not all, Latin American countries since the early 2000s, and that it occurred among all groups of women, but particularly among those who were married and in more vulnerable households. The deceleration occurred despite some forces that facilitated female LFP growth, such as the increase in education, and some demographic changes. The unweighted mean of the LFP rate for prime-age women (25-54) across Latin American economies rose 9 points in the 1990s (from 53 in 1992 to 62 in 2003), and then just 3 points the following decade (to 65 in 2012).

One possible explanation for this deceleration is that female LFP in Latin America is approaching a ceiling that is determined by cultural and policy factors. In this scenario the LFP will not continue increasing, or will continue to rise but at an extremely slow pace even as the region continues on a path of economic growth and demographic changes. An alternative interpretation is that the deceleration in female LFP is just temporary and responds to some transitory circumstances. In particular, the strong and rather unusual economic growth that the region experienced in the 2000s allowed for a surge in earnings and social protection benefits that may have retarded the entry of women into the labor market. Without a more pressing need to seek for a job, given the higher earnings of their spouses or the protection of new social programs, some women may have delayed their decision to participate in the labor market.

In this chapter we elaborate on these two arguments. Section 2 discusses the possibility of a ceiling to female labor force participation in Latin America, and compares the situation with other regions of the world. In section 3 we discuss the potential link between the economic expansion and the deceleration in female LFP, while section 4 explores the movements of female LFP along the business cycle. The chapter closes in section 5 with some final remarks.

In this chapter we put forward some arguments in favor of the hypothesis that the recent deceleration in female LFP could be related to the economic expansion of the 2000s, and present some evidence consistent with this story. However, the evidence is only suggestive and far from conclusive. Moreover, a single factor can hardly account for a complex phenomenon, like the dynamics of female labor force participation in a vast region. In this chapter we focus on the economic cycle, while in chapter 6 we take a closer look to several other potential determinants of female labor supply in Latin America.

2. Approaching a ceiling?

The labor force participation rate, like any share, has a ceiling. In fact, the rate for prime-age males seems to have reached a ceiling in Latin America, as in most regions of the world. The unweighted mean of the rate for males aged 25 to 54 across Latin American countries has been around 95.5% at least for the last two decades.[1]

Despite the large increase in the last half-century, women's labor force participation rates are still much lower than men's. The mean rate for prime-age women in Latin America is around 65%, still 30 points lower than that of their male counterparts. Yet, the evidence suggests that, unlike previous decades, this gap has been shrinking very slowly over the last few years. In fact, female LFP appears to be reaching a plateau in some economies of the region. One possible explanation for this deceleration is that female LFP is approaching a ceiling. This should be considered a "conditional" ceiling: female LFP will not trespass a certain level (or will grow only very slowly) if some cultural and policy factors remain stable. In that sense, the women's ceiling is "softer" than the men's, but it is still relevant as only cultural transformations or strong policy interventions may substantially alter its level. If the interpretation of the recent deceleration as approaching a ceiling is correct, and no major cultural or policy changes occur,

1 Of course, the only "hard" ceiling is 100%, but a host of reasons (frictions, cultural factors, individual preferences, economic factors) usually make it unattainable.

then we should expect female LFP in Latin America to reach a plateau, and the wide gap with men to persist.

A plateau in female participation has emerged in the United States since around the 1990s (Blau and Kahn, 2013; Goldin, 2014). Goldin (2006) reports that participation rates for women of almost all ages, education levels and marital statuses have leveled off in the US. The LFP rate for females aged 25 to 54 grew slowly from 74.6% to 75.9% between 1992 and 2002, and descended to 74.5% by 2012. This fact has led many to wonder whether the economy has reached some sort of natural rate of female labor force participation. That situation may also apply to Latin America, although the ceiling would be lower.

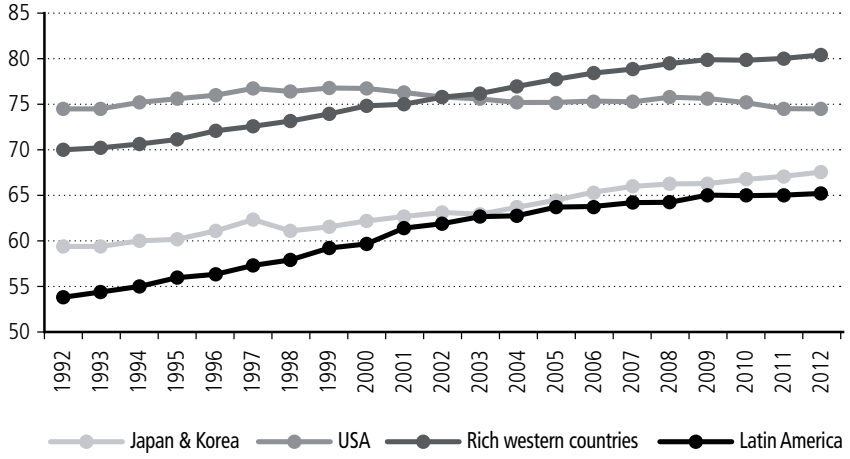
Interestingly, although a similar pattern has emerged in some Nordic economies (Denmark, Finland, Iceland), the stagnation in female labor force participation is not a widespread phenomenon among developed economies. The female LFP rate in the wealthiest 20 western economies grew at 0.6 points a year in the 1990s and at 0.5 points a year in the following decade (from 70% in 1992 to 75.9% in 2002, to 80.4% in 2012). Although there are some signs of deceleration, female labor force participation still continues to grow at healthy rates in most developed economies. The stagnation in the United States has been linked to weaker "family-friendly" policies, including parental leave and part-time work entitlements (Blau and Kahn, 2013).

Figure 5.1 illustrates LFP rates for women aged 25 to 54 for groups of developed OECD countries. The plateau is only visible for the US, at a level 10 points higher than in Latin America. The comparison with Japan and Korea is interesting: the gap in female LFP with Latin America vanished in the 1990s, but grew again in the 2000s, due to the deceleration in Latin America and the stable rates in the East Asian countries.

Data from the World Development Indicators reveal signs of stagnating (or even decreasing) female labor force participation in some East and South Asian countries, but not in Africa, Middle East, Eastern Europe and Central Asia, where rates remained similar or even rose in the 2000s, as compared to previous decades. A similar assessment emerges from the EAPEP Database (ILO, 2011). This database allows for a comparison of different regions of the world with a focus on our age group of interest: women between 25 and 54 years of age.

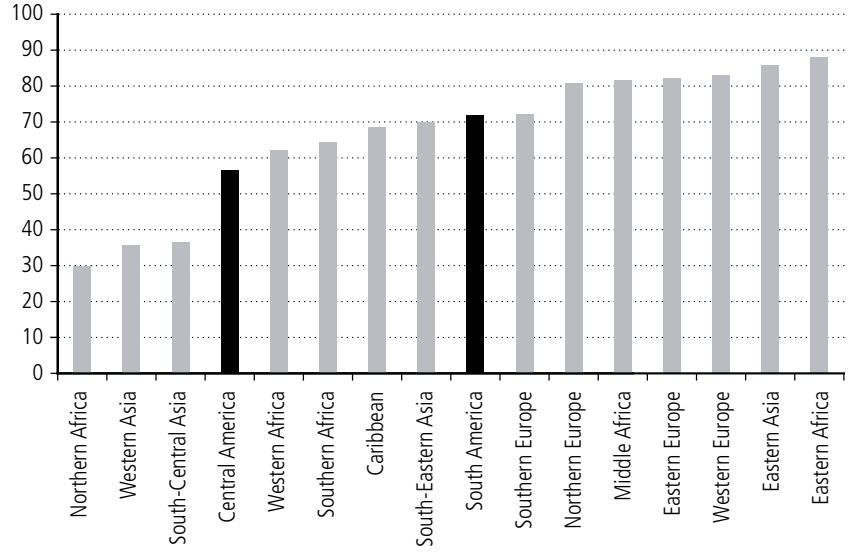
The mean rates of female LFP in Central America are among the lowest in the world (Figure 5.2); in fact, they only exceed the rates in the Islamic countries of Northern Africa and the Middle East, for which the inclusion of women in the labor market is limited, due mostly to cultural factors. On average, the

Figure 5.1: Female labor force participation Regions of the world, 1992-2012. Women aged 25-54.



Source: OECD Online Employment Database and own calculations for Latin America http://www.oecd.org/els/emp/onlineoecdemploymentdatabase.htm#unr.
Note: Latin America and rich western countries: unweighted means.

Figure 5.2: Female labor force participation rate Regions of the world, 2012. Women aged 25-54.



Source: own calculations based on EAPEP Database (ILO, 2011).
Note: unweighted means.

participation of South American women is higher than in some areas of Africa and South Asia, but lower than in Europe, Eastern Asia, and most of the non-Muslim Africa.

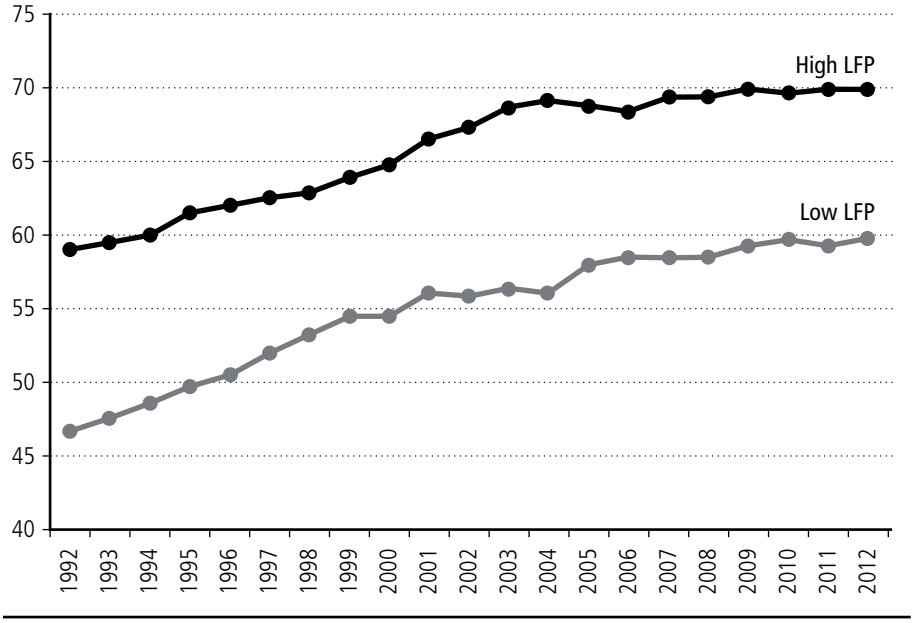
So, are we reaching a ceiling? Unfortunately, it is impossible to tell whether the recent deceleration in female LFP in Latin America is a natural pattern of convergence to a nearby ceiling. However, although we could not rule out this possibility, we consider it unlikely. With a few exceptions, even the most developed countries have not reached a female LFP ceiling, as rates continue to grow. Developed countries and several developing countries have female LFP rates well above those in Latin America and are still increasing, so it is difficult to believe that the natural rate in our region will rest at levels substantially lower than in most of the world. If Latin America were indeed reaching a ceiling, the permanent gap with more developed countries, and even with other developing countries, would be large, growing, and difficult to explain. For instance, the rates of Spain (81.1%) and Portugal (85.5%), the European countries that are culturally the closest to Latin America, are much higher than those for our region.

Another argument against the existence of a ceiling is that the deceleration occurred in most countries, regardless of the initial level of female LFP. We would expect that only countries with already relatively high levels of LFP experience a reduction in the rate of growth starting a pattern of convergence to a long-run level. However, as Figure 5.3 documents, the deceleration also took place in countries with a relatively low rate of female LFP, and hence, in principle, with a longer way to go toward the equilibrium long-run level.

If despite these arguments Latin America is indeed converging to a plateau, then the issue of female labor force participation will become even more relevant to the policy agenda. It would be necessary to further investigate the gender-based constraints, institutions, rules, customs, beliefs and values that prevent female labor force participation in Latin America to reach the levels of other regions.

In fact, the potential problem may be limited to certain groups and countries. As discussed in previous chapters, the rates of female labor force participation for skilled urban women in middle-high income Latin American countries are not far from those in the developed economies, and they have not experienced a strong deceleration in the last decade. Instead, participation among more vulnerable women remains very low, and has suffered a more intense deceleration over the last few years. Efforts should be directed at this target group, especially if the evidence confirms the existence of a plateau.

Figure 5.3: Female labor force participation rate Latin American countries, 1992-2012. Women aged 25-54.



Source: own calculations based microdata from national household surveys.
Note: High: countries with female LFP above the median (average 1992-1995). Low: countries with female LFP below the median (average 1992-1995). Unweighted means.

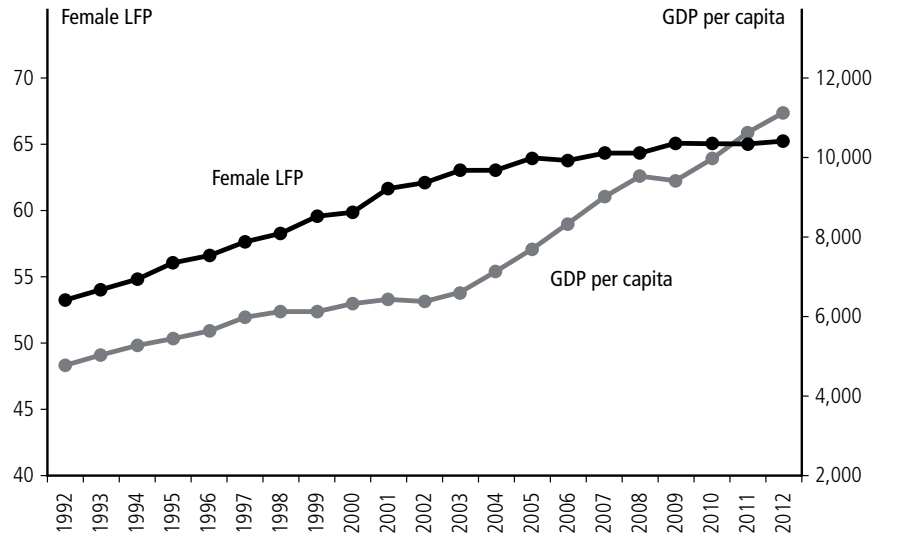
An alternative explanation to a ceiling is that the deceleration is the consequence of some transient phenomena, or the result of the short run response to some shocks, such as unusual economic growth and more ambitious social policies. We turn to this issue in the next section.

3. Participation and economic growth

We have extensively documented the contrast between the last two decades in terms of female labor force participation. The contrast also applies to many other economic variables, a fact that hinders the search for causal relationships. In this section we focus on economic growth. Female labor participation is particularly sensitive to the macroeconomic environment. Changes in economic conditions affect female LFP directly, but also indirectly through a strong interdependence with the employment status of other household members, particularly husbands.

The (unweighted) mean value of per capita GDP in Latin America grew at annual 2.8% in the 1990s and almost duplicated that rate in the 2000s (5.7%). In particular, the economies in the region grew at the very fast rate of 8% between 2003 and 2008. The 2000s were not only a decade of higher growth but also more macroeconomic stability with more stable growth rates, low inflation and absence of big crises, which were endemic to Latin America in the previous decades.[2]

Figure 5.4: Female LFP and per capita GDP Latin America, 1992-2012.



Source: own calculations based on microdata from national household surveys. GDP per capita (in PPP adjusted US$) from WDI.
Note: Women aged 25-54. Unweighted means.

Figure 5.4 illustrates the fact that the deceleration in female LFP occurred in coincidence with a strong rise in GDP growth rates.[3] Besides this temporal correlation, there are arguments that link the two patterns. The strong economic growth that the region experienced in the 2000s allowed for a surge in incomes that may have retarded the entry of women into the labor market. Without a more pressing need to look for a job, and given the higher earnings of their

2 The coefficient of variation (across countries and years) was 25% lower in the 2000s than in the high-growth episode of the 1990s (1992-1998).

3 The linear correlation coefficient between changes in female LFP and per capita GDP is -0.50 (statistically significant).

spouses or the cash transfers of new social programs, some women may have delayed their decision to participate in the labor market.

This argument could be viewed as a variant of the added-worker effect.[4] This effect is typically invoked to account for the increase in female LFP during recessions. As the main breadwinner becomes unemployed or faces a wage cut, secondary workers (typically female spouses) enter the workforce to compensate for the reduced household income, implying a counter-cyclical pattern of female LFP, *i.e.* a movement in a direction opposite to the business cycle.[5 & 6]

Conversely, during a period of strong expansion, as the male breadwinner improves his job conditions and household real income increases, female spouses may be less willing to join the workforce. In many cases, the adjustment in female behavior does not imply the extreme change of leaving a job, but rather it could imply retardation in the decision to enter into the labor market. In a more favorable economic environment in their households, women may not be compelled to accept any type of job, and instead they may wait longer for better job matches, or may delay their labor market participation a few years in order to spend more time with their children or older adults that require care.

The argument views the family as a decision making unit and assumes that some women are secondary workers with a less permanent attachment to the labor market than their partners, a situation that is more frequent among less skilled women in the region. Under this framework, a married woman may choose to retard her entry into the labor market by taking advantage of the income gain of her husband. Since individual incomes in a family are pooled, an increase in one individual's income may result in other family members gaining time to spend on other activities (*i.e.* taking care of the children) by working less in the labor market. Of course, for a counter-cyclical pattern to emerge, this income effect must outweigh the substitution effect: in a better economic scenario, workers – both men and women – face better opportunities and as the earning power increases they may be more attracted to the labor market.

---

4 See Katz (1961), Mincer (1962), Lundberg (1985), Maloney (1991) and Mattingly and Smith (2010).

5 In practice, the added-worker effect may be outweighed by the discouraged-worker effect. Given the difficulties in finding jobs during a recession, workers may give up searching, causing a fall in labor force participation (*i.e.* a pro-cyclical pattern).

6 Paz (2009) finds for Argentina a sizeable impact of the labor status of husbands (employed or unemployed) on the probability of their spouses to enter the workforce (mostly as informal workers). Fernandes and Felício (2005) and Parker and Skoufias (2004) find similar results for Brazil and Mexico, respectively.

The robust economic growth of the 2000s brought about a stronger fiscal situation that allowed for a substantial expansion in social spending. In particular, cash transfer programs dramatically increased their coverage in the region. Conditional cash transfer programs and non-contributory pensions were introduced or expanded in all countries, contributing to the reduction in poverty and inequality (Cruces and Gasparini, 2012). These transfers were another significant source of increased income for vulnerable households, and hence they add another channel to the added-worker argument, discussed above.

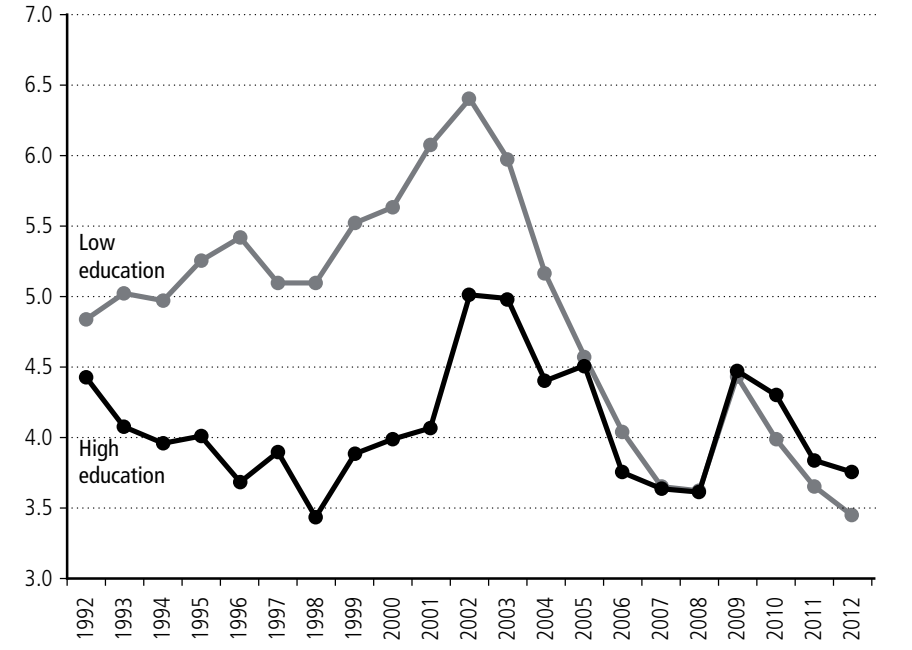
It is important to notice that both channels are likely more relevant for women in vulnerable households. Unskilled poor women with children are more likely to act as secondary workers, having more sporadic and loose links with the labor market and hence, their labor behavior is more sensitive to the economic conditions. In addition, these are the women whose households benefited most from the improved economic scenario of the 2000s by way of three channels: a reduction in unemployment, a shrinkage of the wage gaps, and an increase in non-labor incomes.

Figure 5.5 illustrates the first factor by showing unemployment rates for prime-age men, *i.e.*, those who are likely the husbands of prime-age women. While unemployment rates did not change much for skilled men, they plunged for unskilled men. On average, the unemployment rate descended from 6.5% in 2002 to 3.5% in 2012. If the female labor participation decision is sensitive to the unemployment situation of the male spouse, Figure 5.5 suggests a potentially relevant added-worker effect, particularly among unskilled women (who are typically married to unskilled men).

The economic expansion of the 2000s implied a generalized increase in real earnings. Interestingly, this increase was more intense among the unskilled. Figure 5.6 shows that the hourly wage gap between skilled and unskilled male prime-age workers substantially decreased in the 2000s. This fact not only suggests that household incomes increased for women in more vulnerable households, but also that the increase was higher than for the non-poor, a fact that again suggests a stronger added-worker effect for vulnerable women.

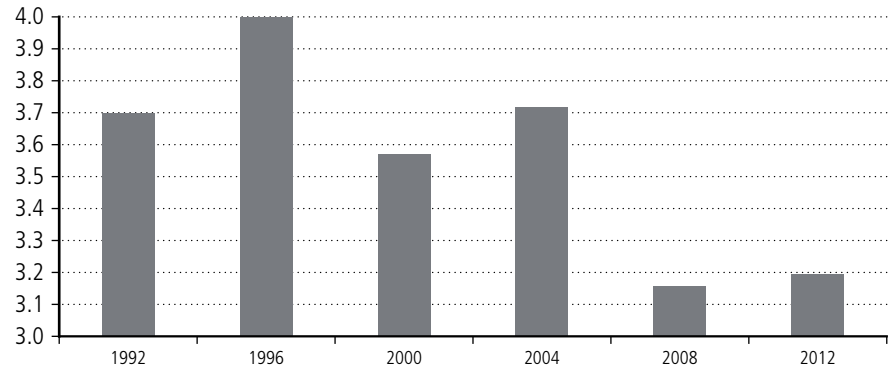
Due to several reasons, poverty-alleviation programs have greatly expanded in the region. In particular, since the implementation of Bolsa Escola in Brazil and PROGRESA in Mexico in the mid-1990s, conditional cash transfers programs (CCTs) have continued to expand in the region, both in terms of coverage and spending. CCTs are programs that consist of cash transfers to poor households with children, conditional on households making certain investments on their children's human capital – education, health and nutrition.

Figure 5.5: Unemployment rates for men Latin America, 1992-2012. Men aged 25-54.



Source: own calculations based on microdata from national household surveys.
Note: low=less than secondary complete, high=tertiary complete. Unweighted means.

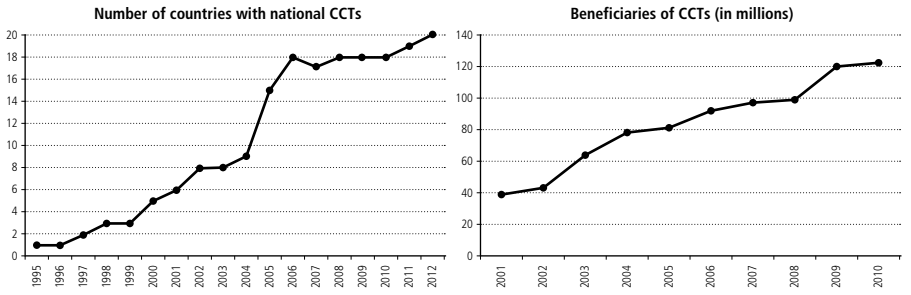
Figure 5.6: Hourly wage gap between men with high and low education Latin America, 1992-2012. Men aged 25-54.



Source: own calculations based on microdata from national household surveys.
Note: low=less than secondary complete, high=tertiary complete. Unweighted means.

Figure 5.7 shows the increase in the number of countries with national CCTs in the region over the last two decades. Today, virtually all countries in Latin America have a program of this type. The benefits of these programs are largely targeting the poor. Cruces and Gasparini (2012) estimate that on average 78% of the transfers of these programs accrue at the bottom two quintiles of the income distribution. CCTs have been identified as a relevant factor driving the increase in household real income in more vulnerable households, and hence are a significant determinant of the observed fall in income poverty and inequality in the region. Although they are typically the main pillar of the social protection system for the poor, CCTs are not the only policy instrument directed towards the most disadvantaged. Non-contributory pensions, for instance, have increasingly expanded in the region during the 2000s, adding another source of income for vulnerable households.

Figure 5.7: Coverage of CCTs in Latin America



Source: Stampini and Tornarolli (2013).

In sum, through several channels the strong economic expansion that Latin America experienced in the 2000s had a more intense positive impact on the incomes of vulnerable households, which in addition are those in which women are most prone to alter their labor force participation decisions based on the economic prospects of the household. It follows from this argument that we should observe a stronger deceleration in LFP for married, unskilled, more vulnerable women, a fact that is consistent with the evidence discussed in Chapter 3 at length. While in the 1990s, LFP rose 8 points for the low-education prime-age women and 2.4 for the high-education women, the increase plunged to around 1.5 for both groups in the 2000s.

Of course, this is far from a conclusive piece of evidence supporting the added-worker effect. However, it suggests that this factor may have played a relevant role in the recent deceleration of female LFP. The next section further elaborates

on this issue by exploring labor force participation along the economic cycle in a regression framework.

4. Participation and the economic cycle

In this section we explore the movements of labor force participation over the business cycle within a simple econometric framework. In particular, we build a panel of countries from 1992 to 2012 and run fixed-effect regressions of female LFP and other labor variables. As right-hand-side variables we include the log of real per capita GDP (adjusted for PPP) taken from WDI and, alternatively, a decomposition into two terms: a cyclical and a trend component. To divide GDP into components we use the Hodrick–Prescott filter.[7]

The results for LFP suggest that female labor supply is affected by the economic changes, and that the impact is much more intense than for males (Table 5.1). In particular, there is a highly significant effect of both the trend and the cyclical component, although with different signs. The trend component of growth is associated with an increase in female LFP; instead, the short-term movements are countercyclical: a short-run strong expansion in GDP is associated with a *fall* in female labor supply. This piece of evidence seems to support the hypothesis that the recent deceleration was driven by the exceptional growth rates of the 2000s.[8]

As a consequence of the above results, the male-female gender gap in labor force participation has a negative relationship with the trend in GDP, but a positive relationship with the cyclical component. Along the development process, female labor force participation increases, cutting down the male-female gender gap. However, short-term expansions are associated with a reduction in the entry of women into the workforce, and hence a widening of the gender gap, possibly due to the reasons discussed in the previous section.

In Table 5.2 (see Appendix) we divide the analysis by education into three groups: (1) women without a secondary degree, (2) those with a high school degree but without a college degree, and (2) those with a degree from a tertiary institution. Interestingly, the negative cyclical component is large and highly significant for those women with fewer years of formal education (less than complete secondary school), and smaller for the rest. This difference is consistent with the story discussed in the last section, in which less-skilled, more vulnerable

7 See Hodrick and Prescott (1997).

8 Beccaria et al. (2015) analyze the case of Argentina, and find more mixed results.

women are more prone to react to economic fluctuations. In particular, in the case of Latin America, the sudden and strong expansion of the economy in the 2000s may have been associated with a larger deceleration in the labor supply for this group of women.

Table 5.1: Models of labor force participation
Latin American countries, panel 1992-2012. Adults aged 25-54.

	Female		Male		Relative (male/female)	
	(1)	(2)	(3)	(4)	(5)	(6)
Log per capita GDP	20.80		-1.30		-0.66	
	(12.93)***		(2.07)**		(10.80)***	
Cyclical component		-23.90		1.60		0.75
		(4.04)***		(1.07)		(4.32)***
Trend component		24.50		-1.50		-0.78
		(16.23)***		(2.29)**		(12.79)***
Constant	-127.80	-161.40	107.00	109.10	7.63	8.69
	(8.73)***	(11.76)***	(18.98)***	(18.03)***	(13.64)***	(15.66)***
Observations	235	235	235	235	235	235
R-squared	0.89	0.91	0.72	0.73	0.83	0.86

Notes: Fixed effects (by country) estimations. Unbalanced panel of 17 countries. Labor force participation as percentage of adults (female or male) aged 25-54. Robust *t* statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Employment is also related to GDP growth, for both men and women (Table 5.3). The trend component is particularly strong for women; instead, the cyclical component is not significant. Unemployment increases when GDP falls; both the trend and the cyclical components are significant for both genders.

In the final table we explore the gender wage gap across the economic cycle (Table 5.4). We find that the relative hourly wage (male/female) increases with the cyclical component and falls with the trend, although the latter effect is not statistically significant. Over the development process, women have increased their participation in the labor market and reduced the wage gap with men. Short-run expansions, instead, seem to be associated with a retraction in female labor supply and smaller wage gains for women.

Table 5.3: Models of employment and unemployment Latin American countries, panel 1992-2012. Adults aged 25-54.

	Employment				Unemployment			
	Female		Male		Female		Male	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log per capita GDP	24.20		3.00		-7.30		-4.50	
	(21.15)***		(3.27)***		(4.16)***		(5.73)***	
Cyclical component		-2.20		21.50		-30.30		-20.70
		(0.42)		(7.97)***		(7.40)***		(8.91)***
Trend component		26.40		1.50		-5.40		-3.10
		(23.82)***		(1.78)*		(2.89)***		(4.38)***
Constant	-162.90	-182.80	63.60	77.50	72.50	55.20	45.10	32.90
	(15.66)***	(18.15)***	(7.53)***	(10.04)***	(4.54)***	(3.26)***	(6.30)***	(5.03)***
Observations	235	235	235	235	235	235	235	235
R-squared	0.91	0.92	0.68	0.74	0.61	0.65	0.69	0.74

Notes: Fixed effects (by country) estimations. Unbalanced panel of 17 countries. Employment as percentage of adults (female or male) aged 25-54. Unemployment as percentage of labor force (female or male) aged 25-54. Robust *t* statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 5.4: Models of hourly wages Latin American countries, panel 1992-2012. Adults aged 25-54.

	Relative (male/female)	
	(1)	(2)
Log per capita GDP	-0.03	
	(0.49)	
Cyclical component		0.78
		(2.14)**
Trend component		-0.10
		(1.55)
Constant	1.39	2.00
	(2.20)**	(3.32)***
Observations	232	232
R-squared	0.15	0.16

Notes: Fixed effects (by country) estimations. Unbalanced panel of 17 countries. Robust *t* statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

5. Final remarks

Latin America has experienced a significant deceleration in female labor force participation during the last decade. Unfortunately, it is still too early and the evidence is still too fragmentary to conclude whether this deceleration is a transitory phenomenon, or if it is a sign of convergence to some long-run levels.

We have argued in this chapter that the latter possibility is more unlikely, although certainly not implausible. In fact, some advanced countries have already approached LFP ceilings that have proven difficult to trespass. The deceleration in female LFP could be instead just a transient phenomenon. The strong economic growth that the region experienced in the 2000s may have allowed a surge in earnings and social protection benefits that slowed women's entry into the labor market. In fact, the evidence suggests that, on average, women who did decide to participate found more decent jobs than in the past. In this light, the deceleration in LFP may not be interpreted as a setback, since it would be the optimal response to a positive economic scenario. If the Latin American economies continue to grow, the availability of decent jobs continues to rise, and women's education keeps expanding, female labor force participation is likely to resume its pace of growth in the near future.

An alternative view is more worrisome. The short-term impact of an improved economic situation and more generous social programs on female labor supply may have long-term consequences. Women who prefer to stay out of the labor market given the new economic situation may be less prone to participate in the future, even in a scenario with an improved supply of decent jobs. Being out of the labor market for some time may imply loss of productivity, and may reinforce gender roles in the household, which may couple to reduce the probability of female labor force participation.

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Appendix

Table 5.2: Models of labor force participation by education group Latin American countries, panel 1992-2012. Adults aged 25-54.

A. Less than secondary school

	Female		Male		Relative (male/female)	
	(1)	(2)	(3)	(4)	(5)	(6)
Log per capita GDP	17.70		-2.10		-1.04	
	(10.38)***		(3.18)***		(10.13)***	
Cyclical component		-25.60		2.30		1.01
		(3.91)***		(1.37)		(3.56)***
Trend component		21.20		-2.40		-1.21
		(13.33)***		(3.51)***		(11.89)***
Constant	-106.30	-138.90	114.00	117.30	11.36	12.90
	(6.86)***	(9.59)***	(19.21)***	(18.58)***	(12.20)***	(13.97)***
Observations	235	235	235	235	235	235
R-squared	0.91	0.93	0.76	0.77	0.85	0.88

B. Complete secondary school or incomplete college

	Female		Male		Relative (male/female)	
	(1)	(2)	(3)	(4)	(5)	(6)
Log per capita GDP	8.90		-0.60		-0.25	
	(4.80)***		(0.86)		(1.74)*	
Cyclical component		-13.90		-0.50		0.03
		(2.17)**		(0.25)		(0.05)
Trend component		10.80		-0.70		-0.27
		(5.56)***		(0.80)		(1.71)*
Constant	-11.50	-28.60	100.80	100.90	3.25	3.46
	(0.69)	(1.63)	(14.73)***	(13.40)***	(2.46)**	(2.35)**
Observations	235	235	235	235	235	235
R-squared	0.82	0.83	0.69	0.69	0.81	0.81

C. Complete college

	Female		Male		Relative (male/female)	
	(1)	(2)	(3)	(4)	(5)	(6)
Log per capita GDP	7.10		0.20		-0.35	
	(4.45)***		(0.28)		(6.83)***	
Cyclical component		-9.00		2.00		0.42
		(2.48)**		(1.05)		(3.17)***
Trend component		8.40		0.10		-0.42
		(4.68)***		(0.09)		(7.78)***
Constant	22.10	10.10	95.00	96.40	4.73	5.31
	(1.53)	(0.62)	(13.04)***	(12.11)***	(10.00)***	(10.84)***
Observations	235	235	235	235	235	235
R-squared	0.74	0.75	0.46	0.46	0.82	0.84

Notes: Fixed effects (by country) estimations. Unbalanced panel of 17 countries. Labor force participation as percentage of adults (female or male) aged 25-54. Robust *t* statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.