Apparel and Women's Wages after the Multi-Fibre Agreement: Evidence from El Salvador

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MOTIVATION

- Latin American and Caribbean labor markets in the global economy

- Globalization for many countries, especially in Central America and Mexico, is characterized by maquila exports

- Apparel is a key maquila sector and is labor intensive

- Women usually make up more than 50% of apparel employment

- Velasco: job market opportunities for women are especially important

LITERATURE

- Trade and wages
- Globalization and working conditions in developing countries
- Globalization and gender
- Gender and Poverty

WAGES

- Recent book analyzes wages and working conditions in Cambodia, El Salvador, Honduras, Indonesia, and Madagascar

- Each study mixes qualitative and quantitative analysis of working conditions and wages in each country

- Foreign Direct Investment and Exports are concentrated in apparel (garments) in all five countries studied

- Apparel premiums significant in all countries – especially relative to agriculture
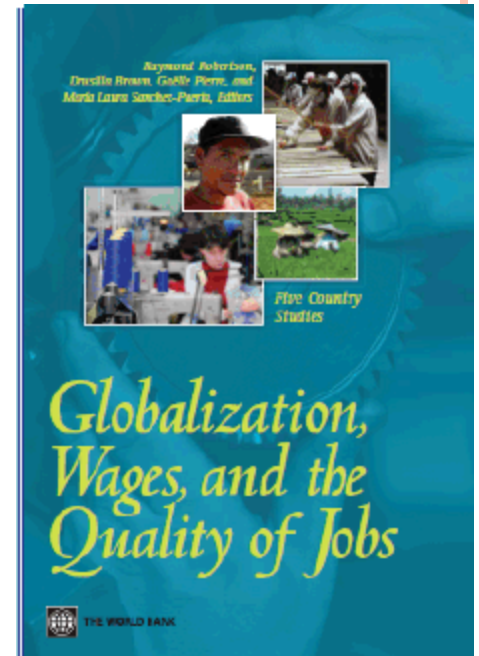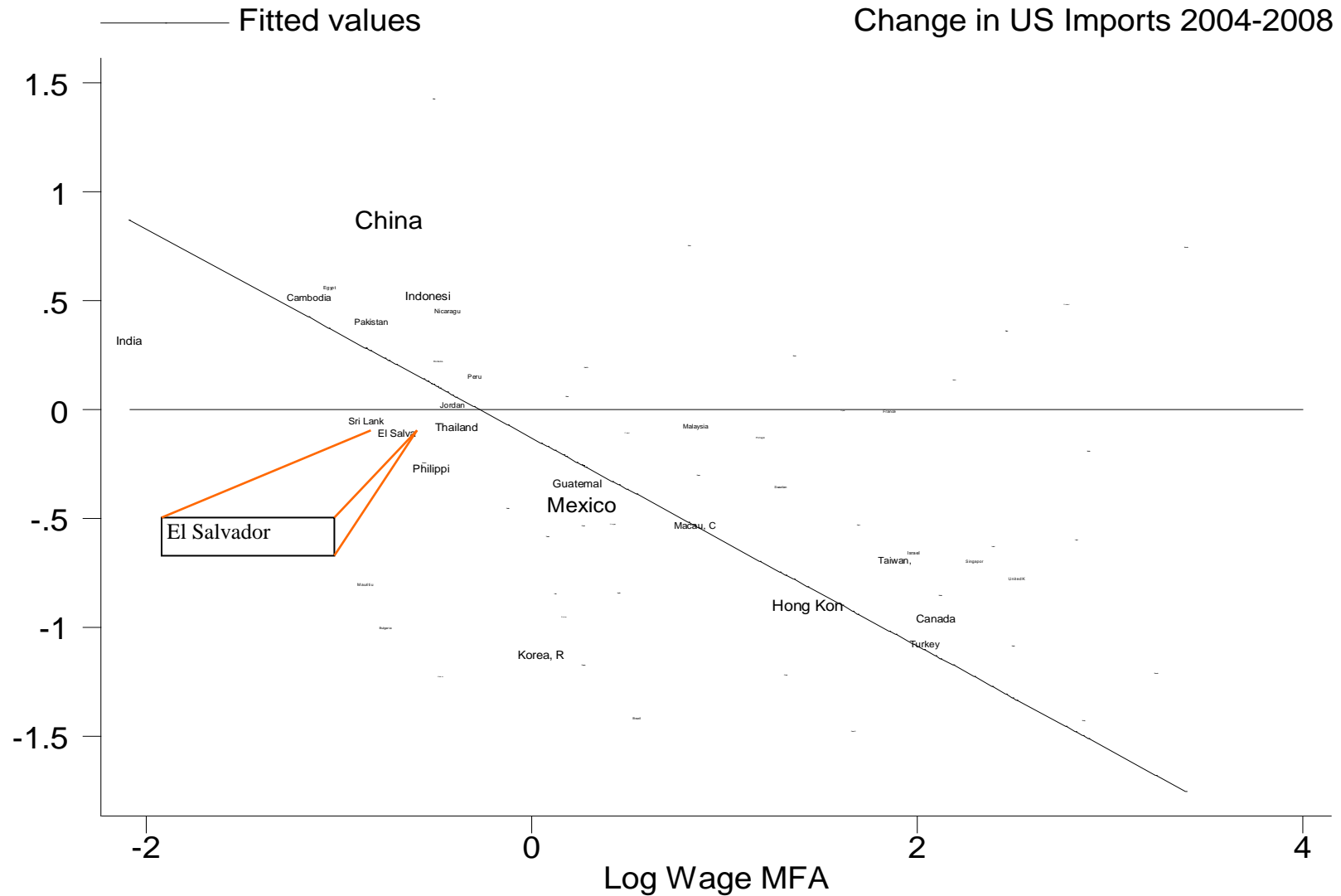

- Globalization, Wages, and the Quality of Jobs (2009) Robertson, Raymond; Brown, Drusilla; Pierre, Gaëlle; Sanchez-Puerta, Laura (eds.) World Bank

WAGE DIFFERENTIALS: FOUR COUNTRY STUDIES
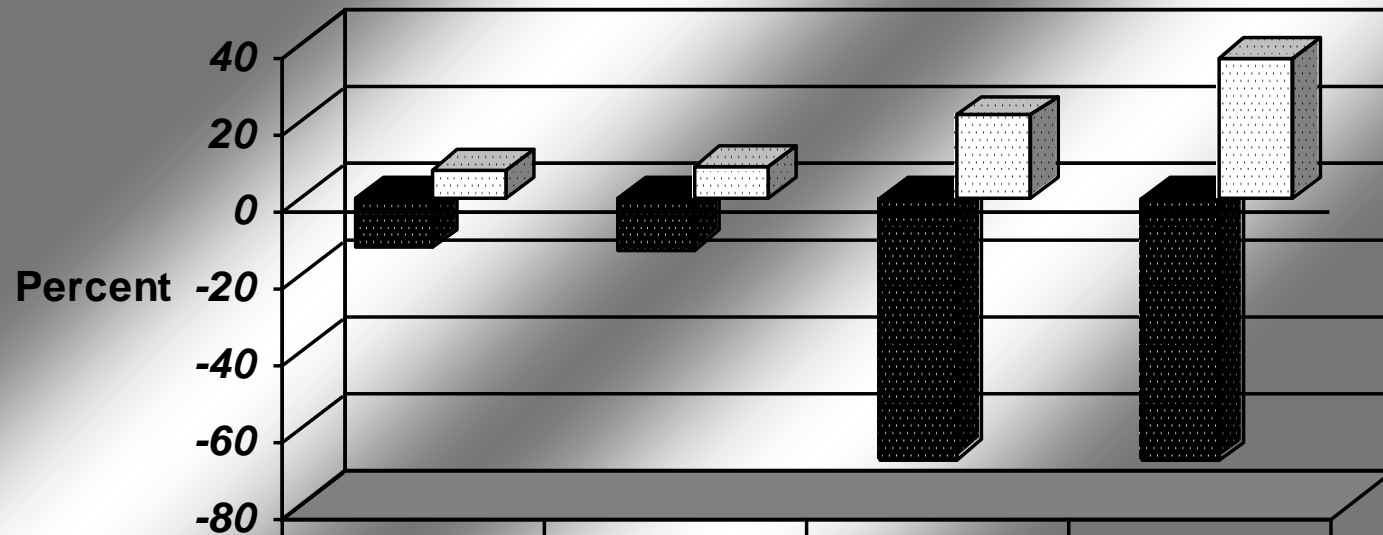
	El Salvador	Indonesia	Honduras	Cambodia
■ Agriculture	-13.1	-13.5	-68	-68.7
▫ Apparel	7	8.3	21.5	36.3

Percent axis: 40, 20, 0, -20, -40, -60, -80

GLOBALIZATION IN EL SALVADOR

Fitted values — Change in US Imports 2004-2008

PRICES AND QUANTITIES
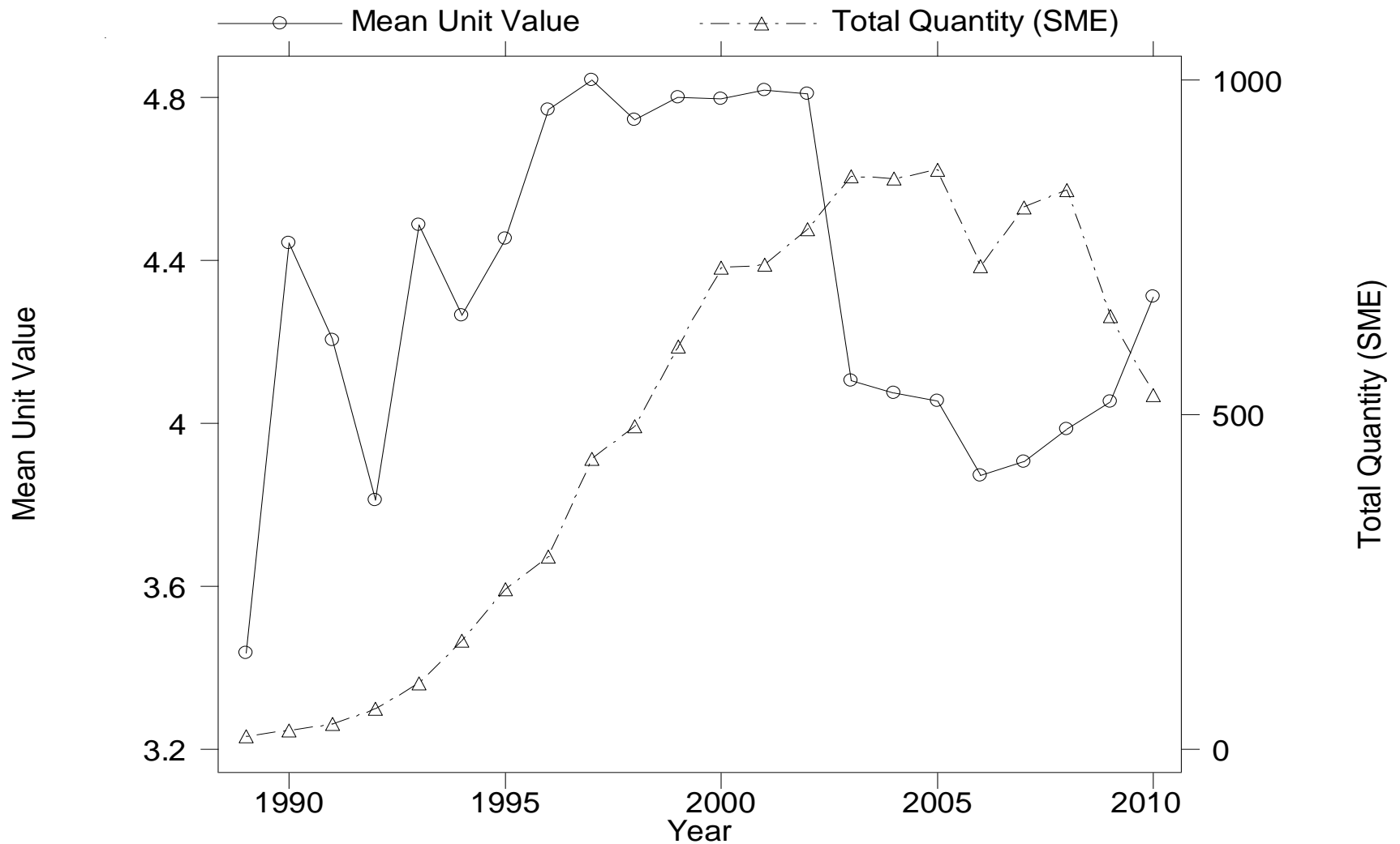
THEORETIC FRAMEWORK

- Do et al. (2011) follow Mussa (1974)
  - Replace capital and labor with males and females
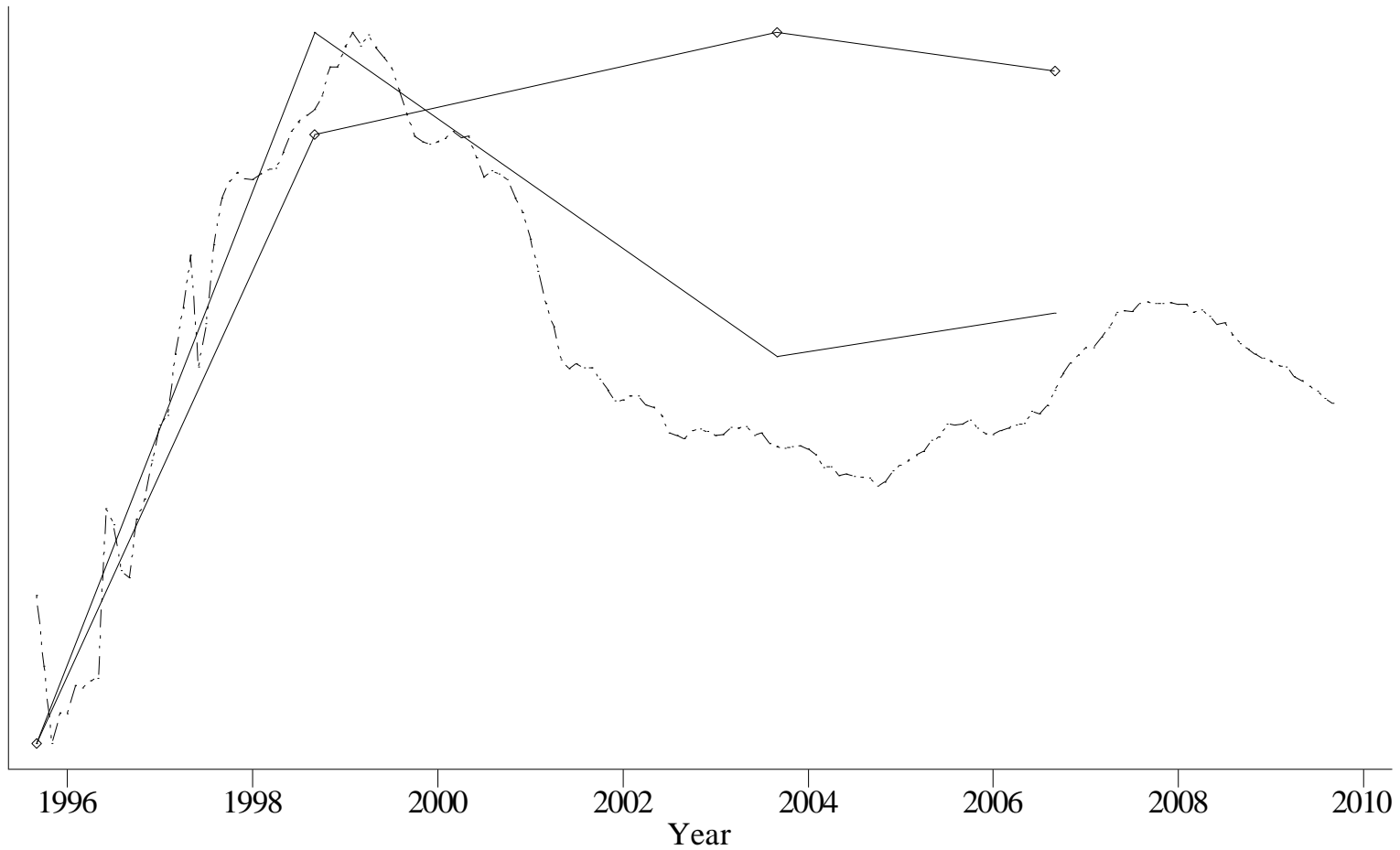 - "Brain" and "Brawn" sectors
- Modify this approach with alternate interpretation of Mussa (1974)
- Generates short-run and long-run predictions
- Motivates decomposing wages into industry specific and general equilibrium effects

EVIDENCE FROM CAMBODIA

Legend: — - — - Apparel Unit Value   ——◇—— Gender Wage Differential
———— Apparel Wage Differential

Year

Empirical Approach

- Data: repeated cross-sections
- El Salvador conducts the *Encuesta de Hogares de Propósitos Múltiples* approximately annually.
- Estimate Mincerian wage equations
  - First stage maximum likelihood selection equation
  - Second stage estimate apparel coefficient
    - Survey weights
    - Haisken-DeNew and Schmidt correction to normalize industry coefficients as difference from grand mean
    - Compare apparel coefficient with apparel price.
  - Estimate gender coefficient
  - Do not correct for possible ability bias (yet)

TABLE 2: SAMPLE CHARACTERISTICS FOR EMPLOYED WORKERS

Year	Sample size	Mean age (years)	Female Share	Mean education (years)
1998	10,877	33.22	36.3	7.68
1999	14,861	33.45	36.9	7.85
2000	13,833	33.70	37.0	7.71
2001	10,443	33.86	36.4	8.21
2002	13,531	34.07	38.0	8.58
2003	14,451	33.43	37.6	8.38
2004	14,290	33.90	35.6	8.31
2005	13,894	34.33	37.2	8.54
2006	14,119	34.28	38.2	8.52
2007	14,708	34.78	37.4	8.69
2008	14,580	34.64	37.3	8.66
2009	16,644	34.93	38.0	8.70

Table 3: Labor Force Participation (Percent)

Year	Total			Remittances		Women		Men	
	MEN	WOMEN	ALL	NO REMI	REMITT	NO REMI	REMITT	NO REMI	REMITT
1997	68.5	35.3	50.9						
1998	69.6	39.3	53.5	55.3	45.9	40.7	33.9	71.4	61.6
1999	68.1	39.1	52.6	54.9	43.6	40.9	32.5	70.4	58.2
2000	67.7	38.7	52.2	54.6	42.9	40.9	30.8	69.7	58.7
2001	69.2	39.5	53.3	55.7	44.4	41.6	32.0	71.4	60.5
2002	65.8	38.6	51.2	54.0	41.4	41.1	30.5	68.5	55.7
2003	68.3	40.4	53.4	56.3	42.9	43.2	31.4	70.6	58.6

Table 4: Industry Employment Shares
All Workers

Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agriculture, food	14.3	13.5	11.4	11.9	14.9	14.2	14.4	11.8	13.2	14.8
Agriculture other and	0.3	0.4	0.3	0.4	0.3	0.2	0.2	0.4	0.3	0.7
Mining	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Manufacturing other	12.4	12.0	12.5	11.2	10.9	11.0	10.5	10.9	12.2	11.3
Apparel	7.6	7.0	7.6	8.6	7.3	5.9	5.9	5.9	6.0	5.0
Textiles	1.0	1.0	1.0	0.6	0.6	0.7	0.7	0.9	1.1	0.4
Utilities	0.6	0.8	0.8	0.4	0.7	0.5	0.7	0.7	0.9	0.5
Construction	7.3	8.1	8.6	9.3	8.9	8.4	9.3	8.6	8.1	7.1
Sales	16.0	16.0	16.8	17.5	18.0	17.8	18.8	19.4	19.3	19.7
Transport and communications	5.9	6.1	5.4	5.4	6.1	5.9	5.5	5.6	5.0	4.9
Financial Intermediation	2.1	2.4	2.2	1.8	1.3	1.9	1.7	2.1	2.1	1.9
Services	5.7	6.5	6.6	7.0	6.4	7.7	7.0	7.5	6.9	7.7
Government and Defense	9.6	7.2	7.7	7.2	6.6	7.0	6.7	7.1	7.2	7.4
Education	5.3	6.4	7.1	5.8	5.8	6.8	5.9	6.4	5.5	5.8
Social services	4.4	4.5	4.3	4.8	4.2	4.2	4.4	4.7	4.4	4.4

APPAREL PREMIUM AND PRICE
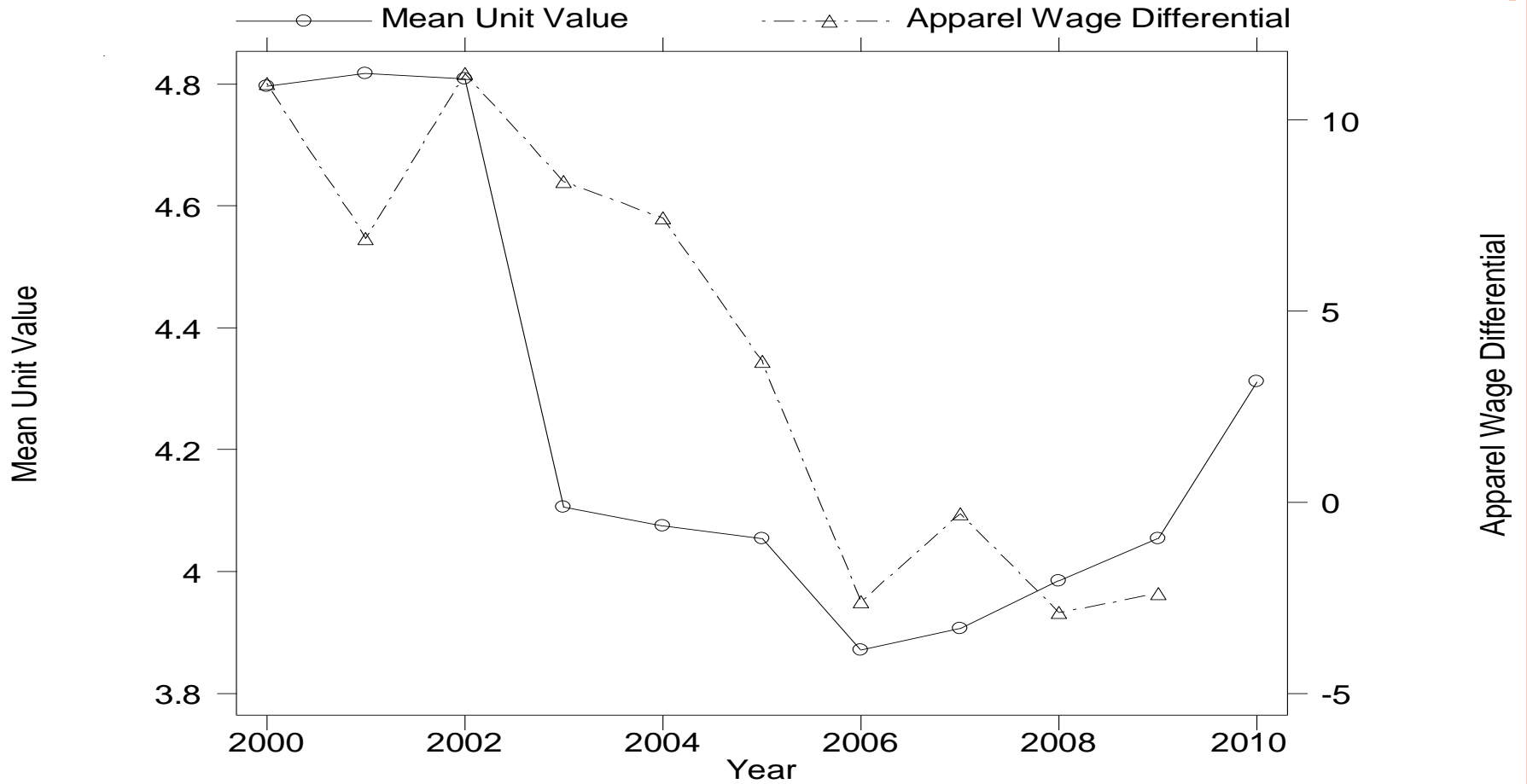
CHANGE IN FEMALE WAGE GAP
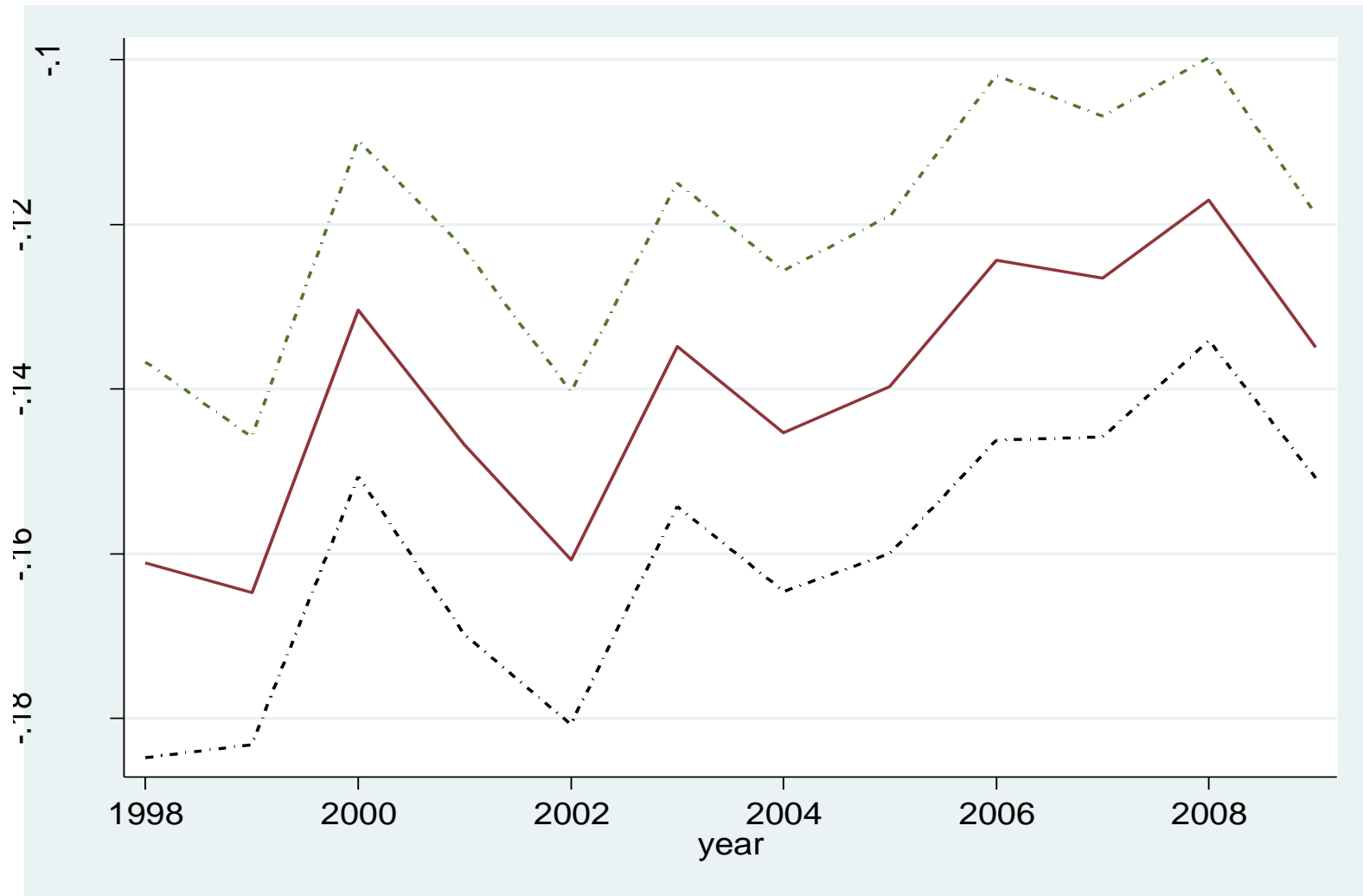
IMPLICATIONS

- Apparel prices drop after MFA/ACT (possibly earlier, after China's boom)
- Drop in prices seems to have been passed through to wages in the form of falling apparel premiums
- No evidence of general equilibrium effects
- Apparel contracts as services expands, which may have growth effects