

XXVII QUARTERLY MEETING



**MEXICO: TWO CRISES  
&  
AN ECONOMIC FORECASTING  
2010-2012**



Center of Modeling & Economic Forecasting  
School of Economics  
UNAM

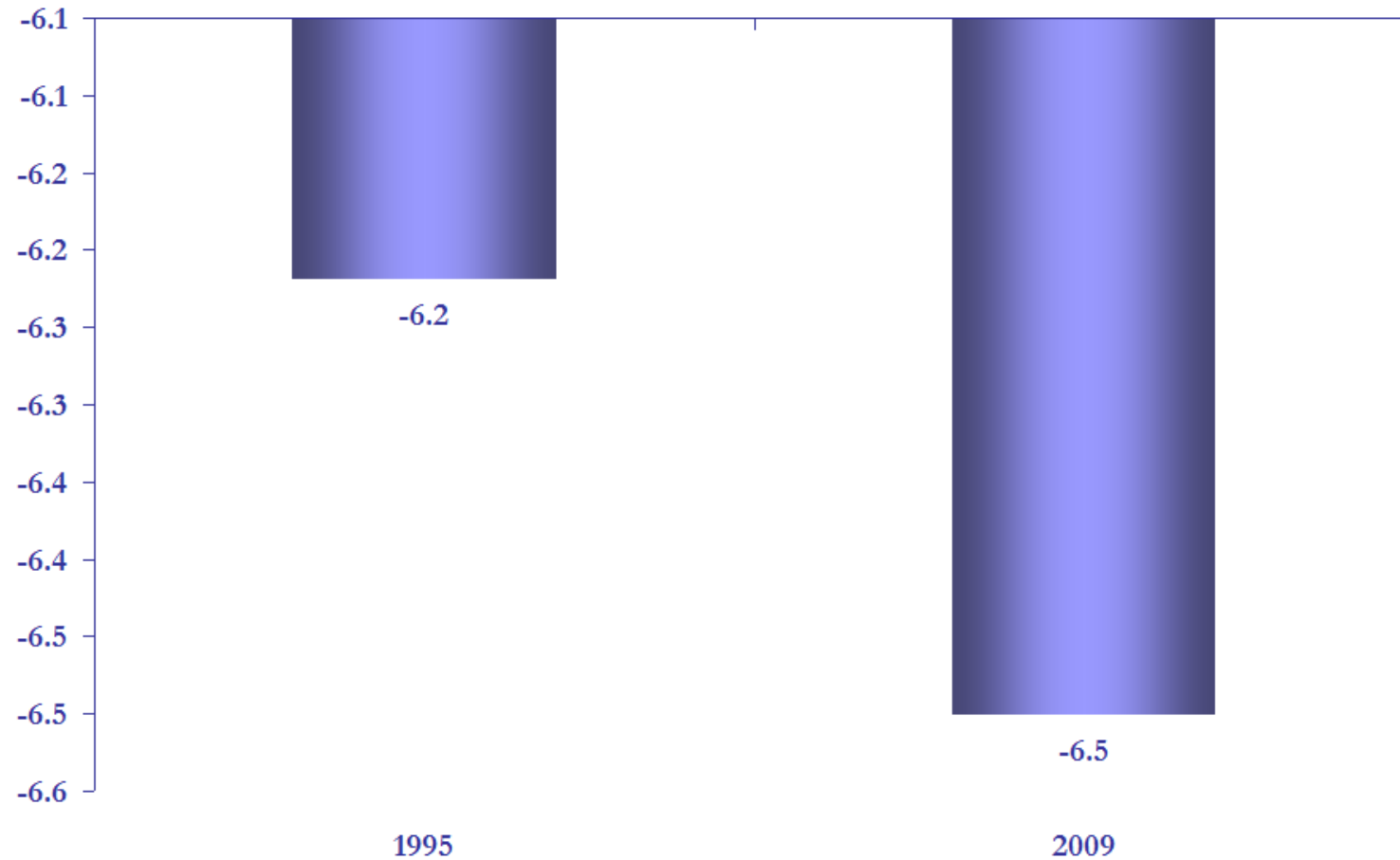
Eduardo Loría

Assistants:  
Ariadna Díaz, Jorge Ramírez, Catalina Libreros,  
Daniela Tirado, Marco Romero, J. Carlos Márquez  
y Emmanuel Salas

March 23<sup>th</sup> 2010

# ***THE BIG DEAL***

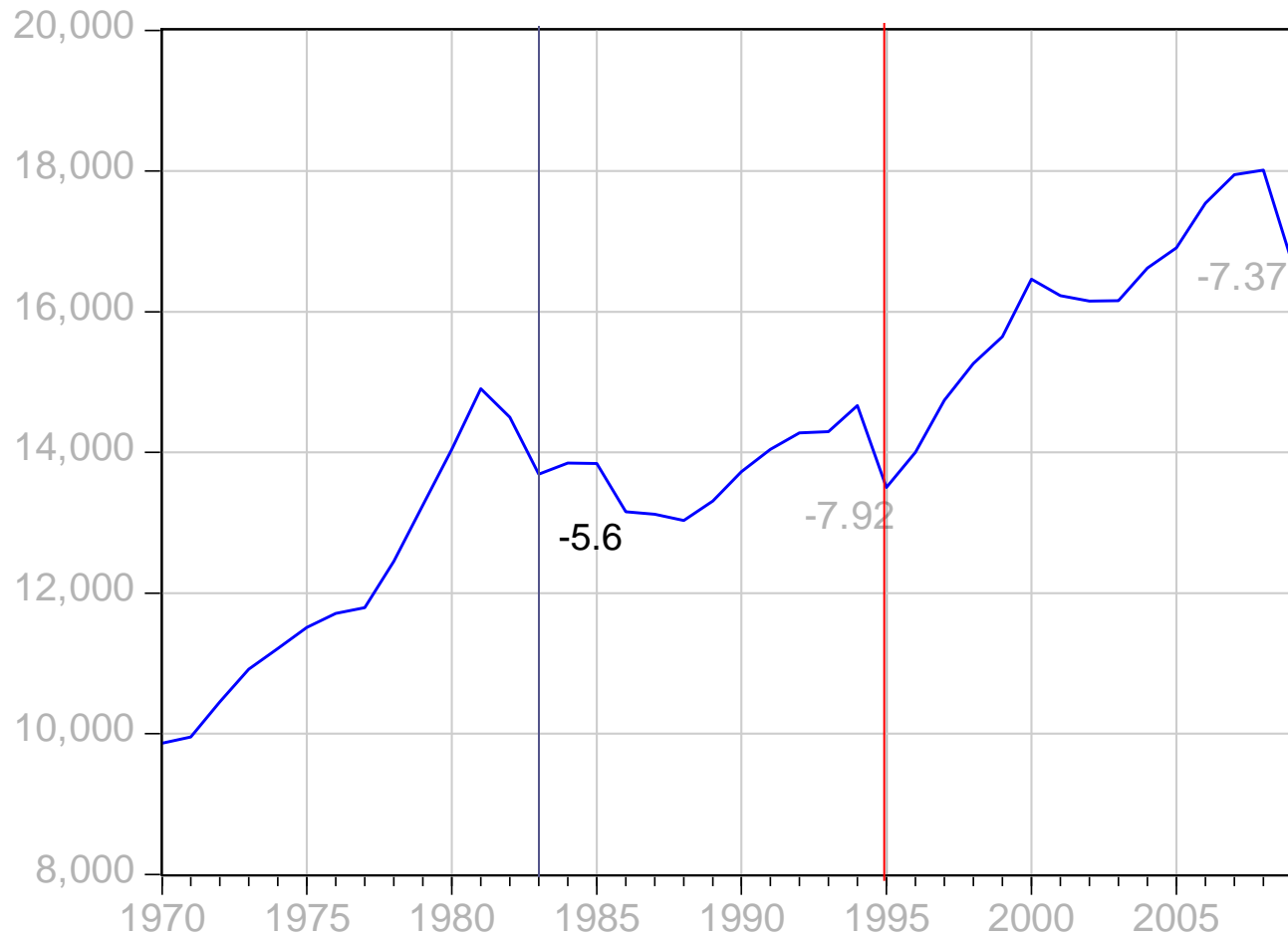
# Gross Domestic Product Growth Rate (%)



***NOT EVERYTHING IS WHAT IT SEEMS  
NOR WHAT YOU HAVE HEARD***

# **I. MACROECONOMIC INDICATORS**

## PER CAPITA GDP, 1970-2009

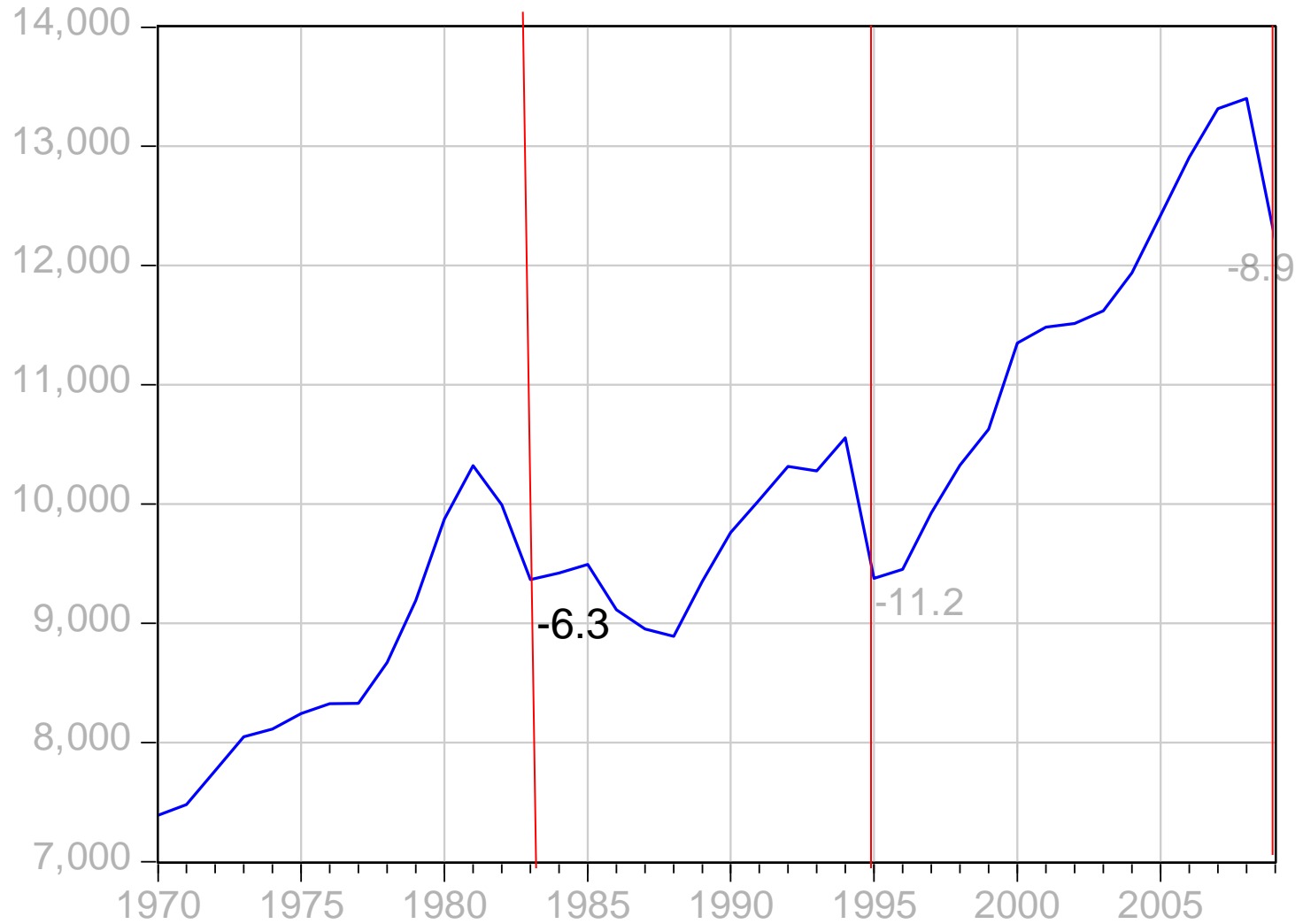


All the data for 2009 is preliminary. Eudoxio: Macroeconometric Model of the Mexican Economy. Forecasting date: February 24, 2010. We thank the econometric assistance of Jorge Ramirez.

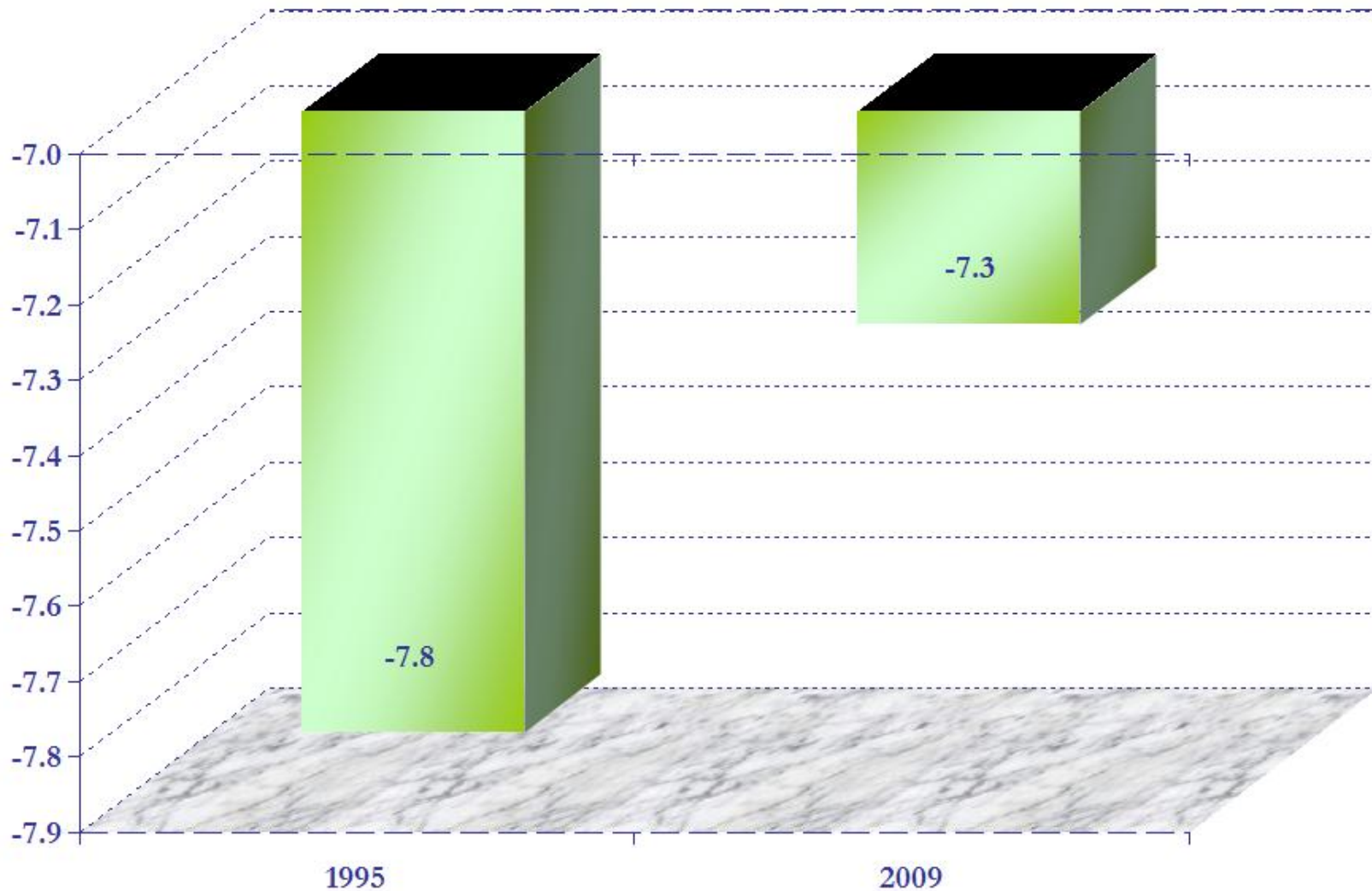
# PRIVATE INVESTMENT



# PER CAPITA CONSUMPTION

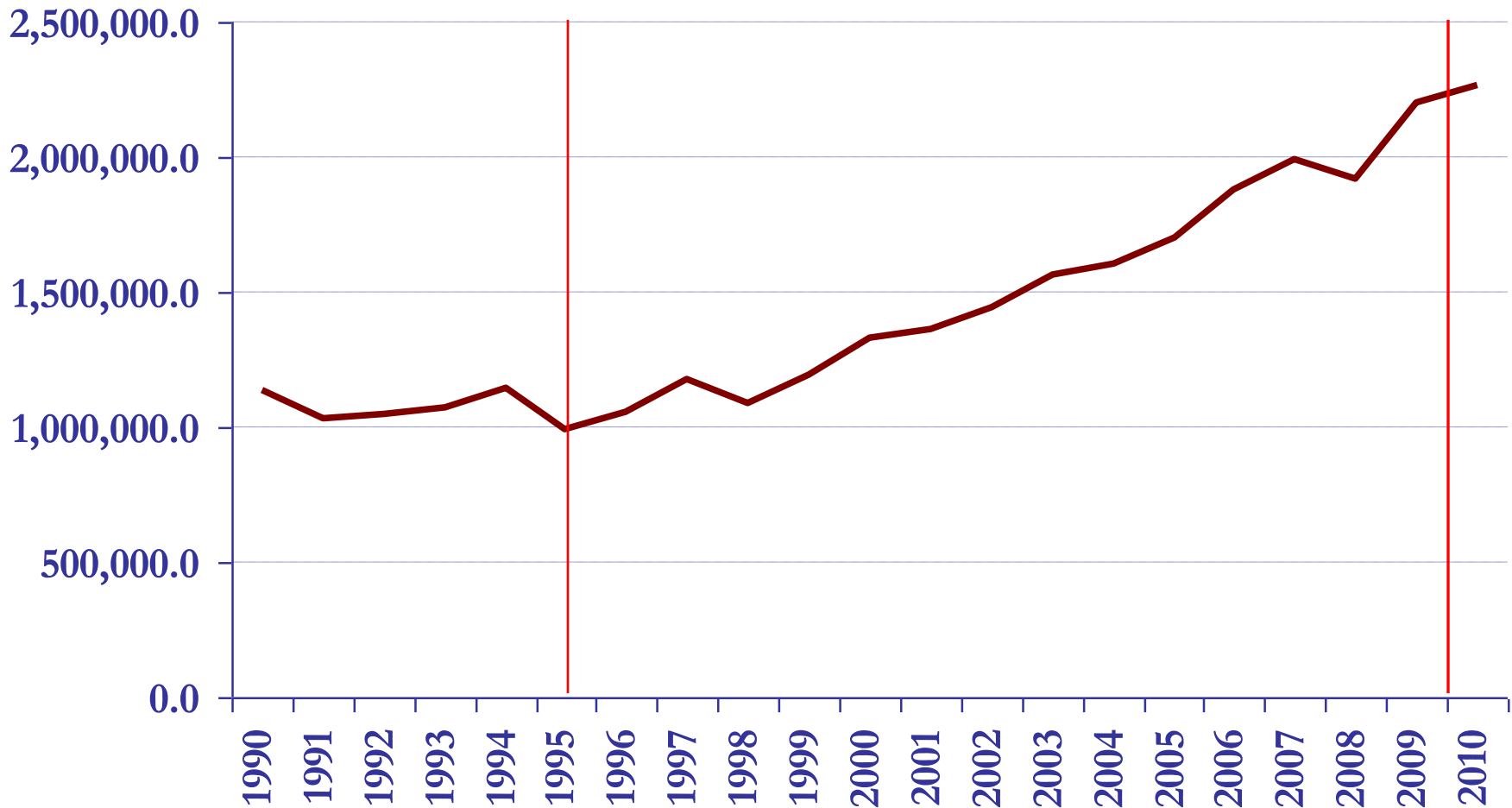


## Industrial Activity (Real Variation Rate, 2003=100)

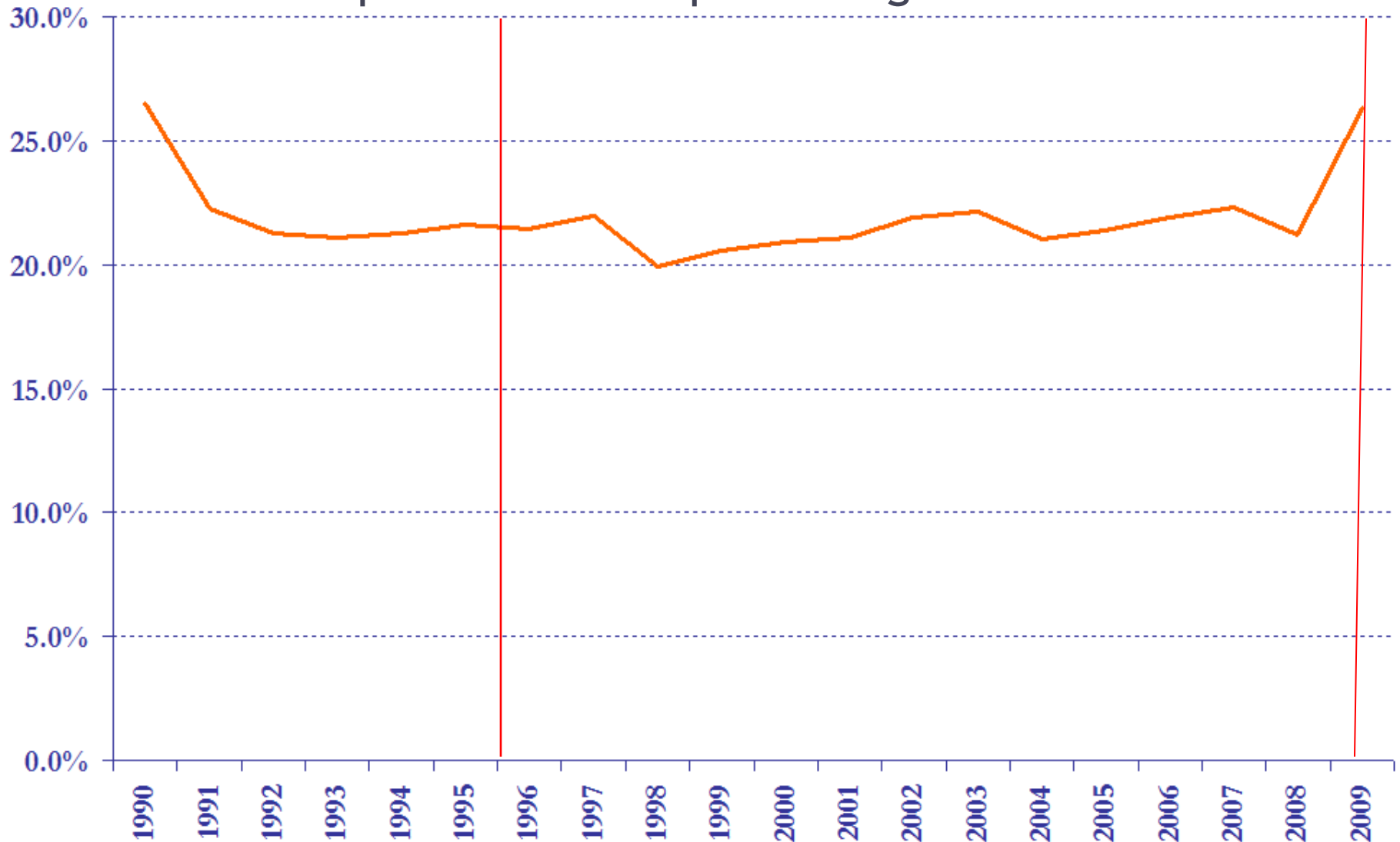


## **II. FISCAL VARIABLES**

## Net Public Expenditure 1990-2010 (Constant millions of pesos)

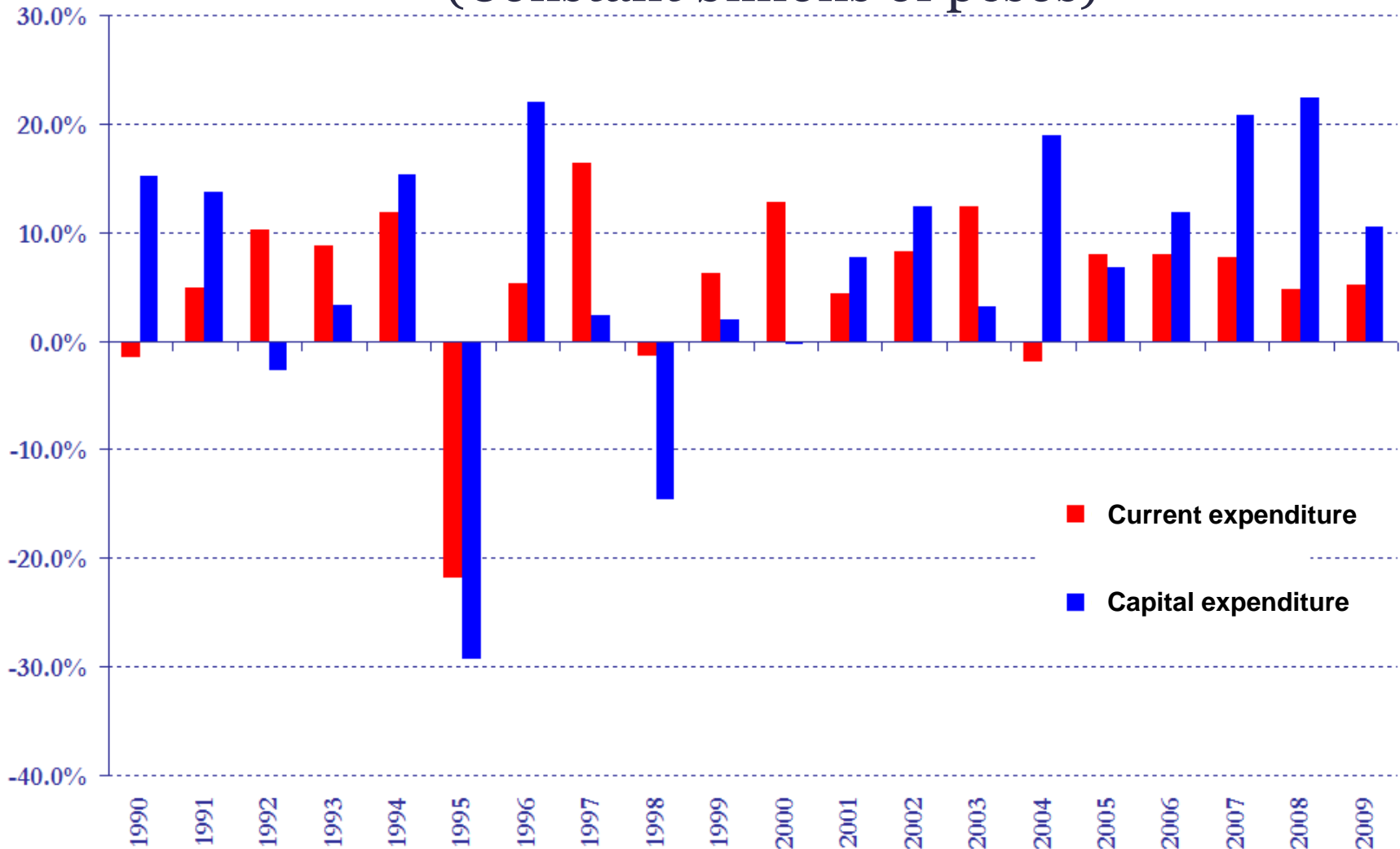


## Public Expenditure as a percentage of GDP 1990-2009



Source: Own calculations based on Cuenta de la Hacienda Pública Federal 1990-2007, y el Presupuesto de Egresos de la Federación 2008-2009, SHCP.

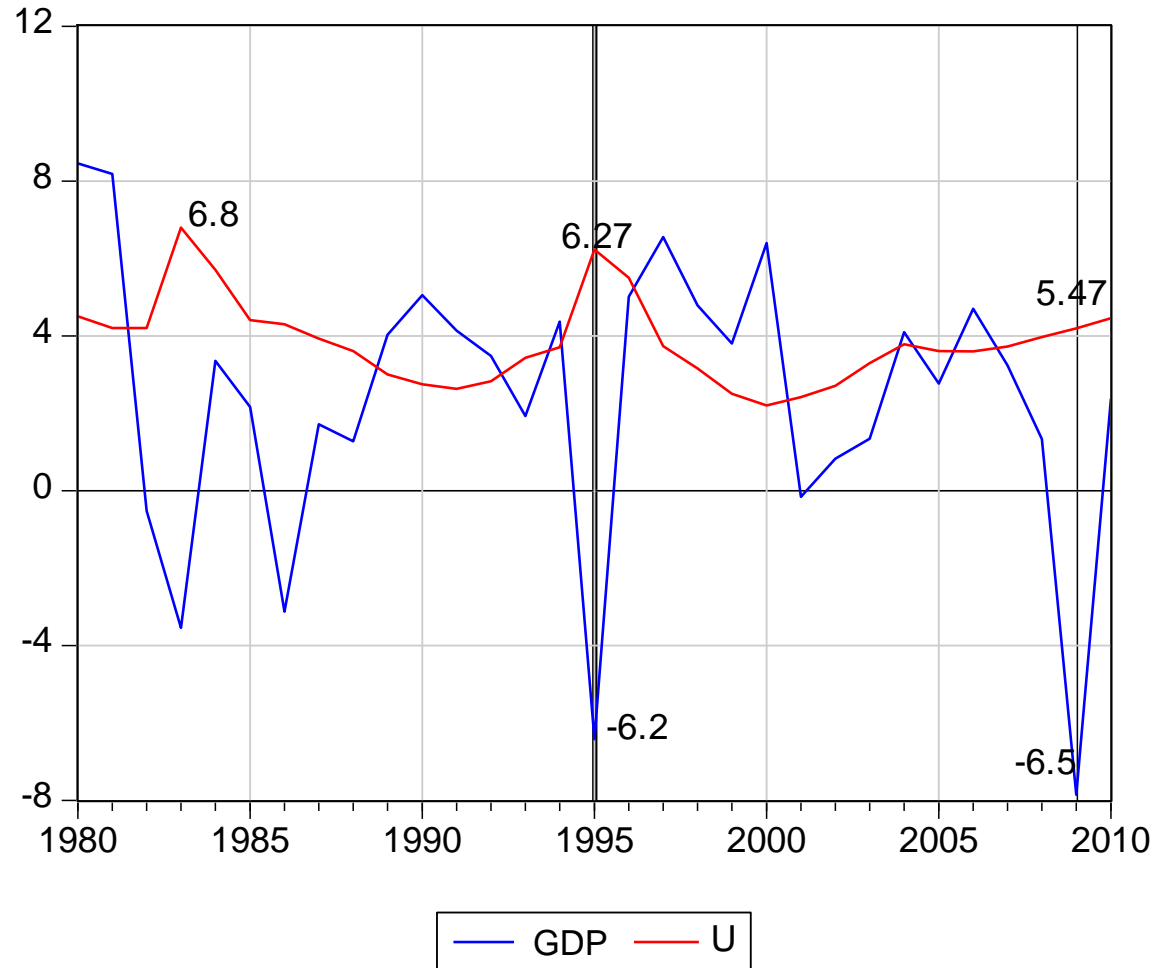
## Consumption & Capital Public Expenditure, 1990-2010 (Constant billions of pesos)

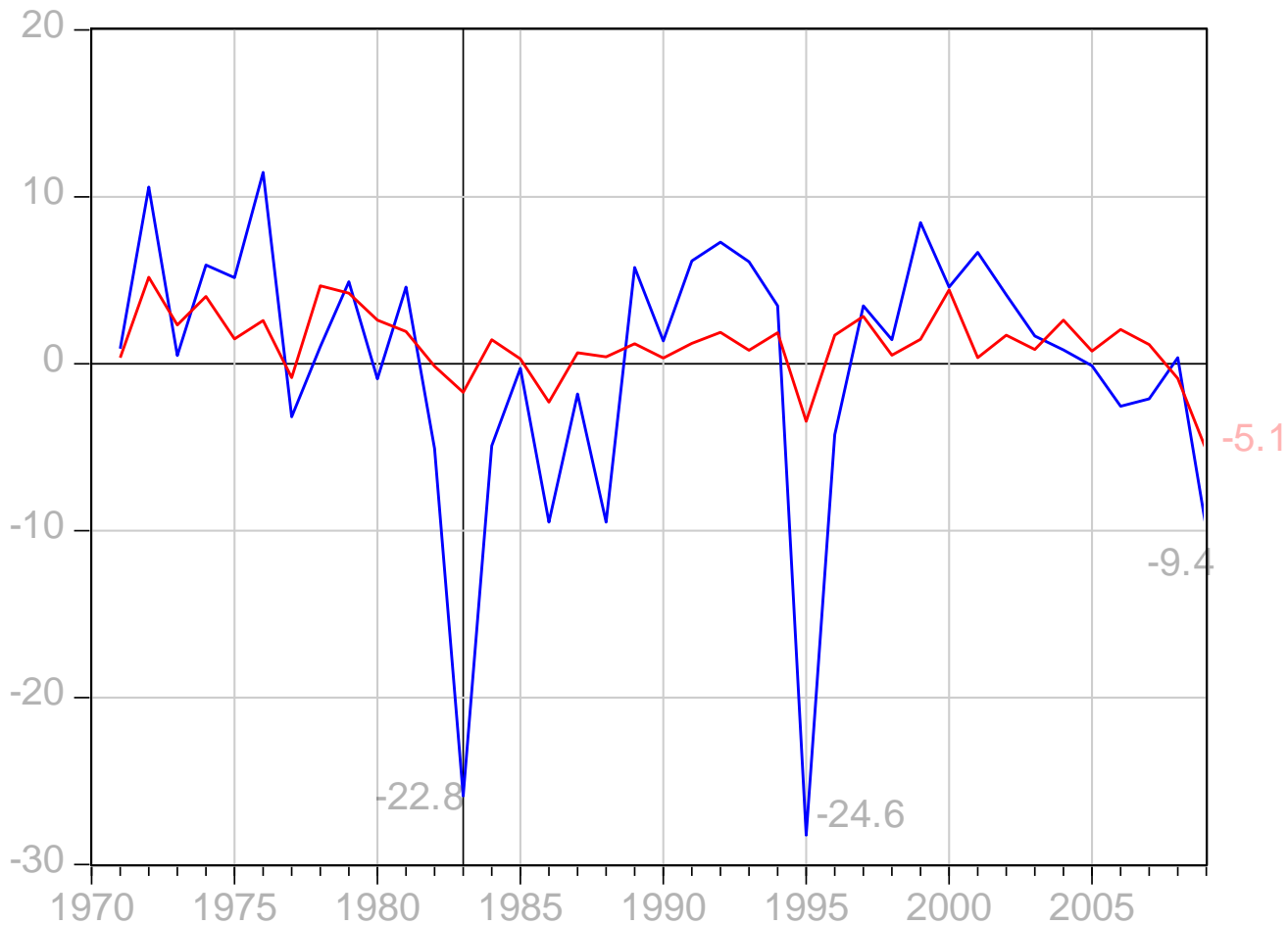


Source: Own calculations based on Cuenta de la Hacienda Pública Federal 1990-2007, y el Presupuesto de Egresos de la Federación 2008-2009, SHCP.

# **III. SOCIAL INDICATORS**

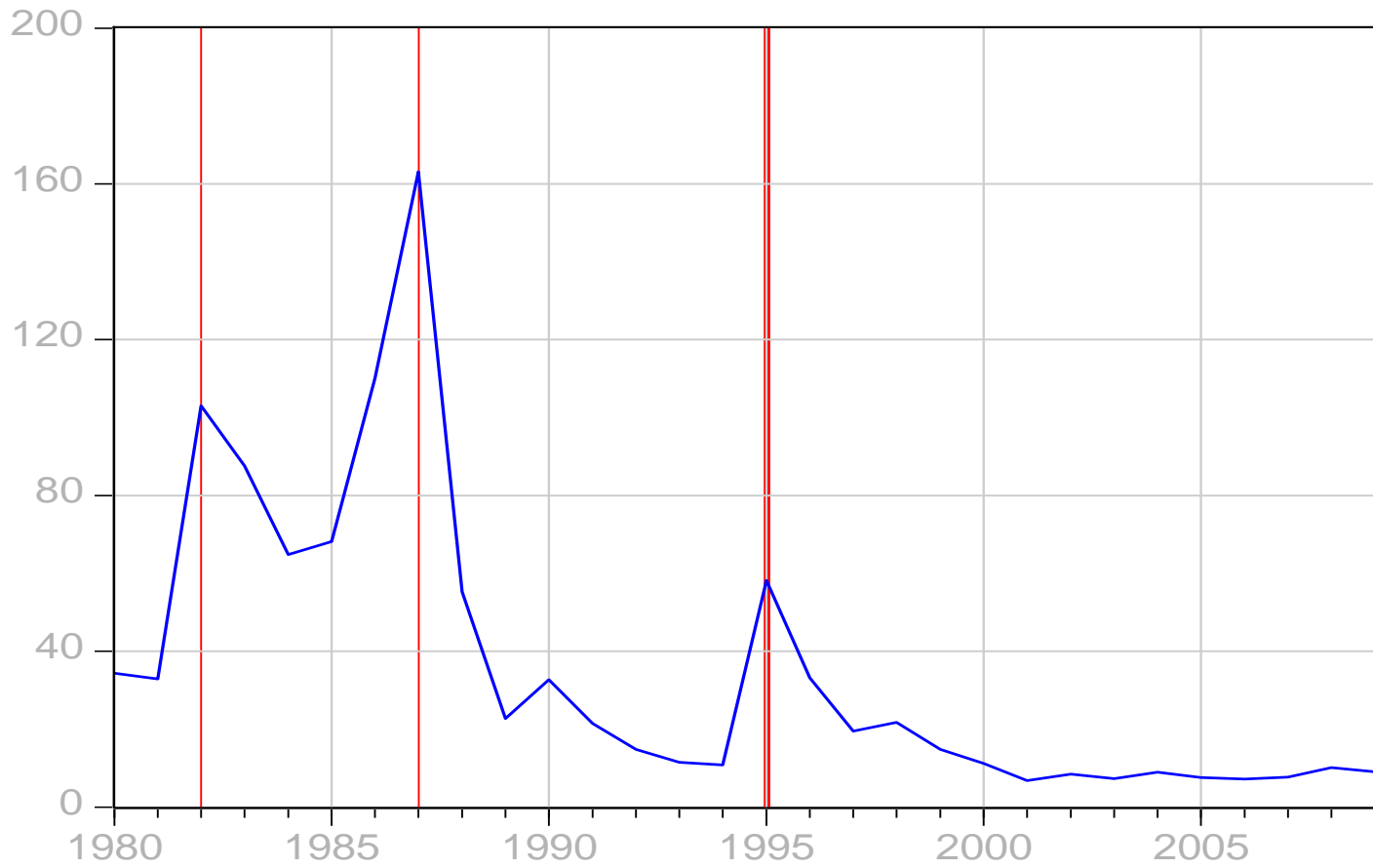
## GDP Growth &amp; Unemployment, 1980-2010



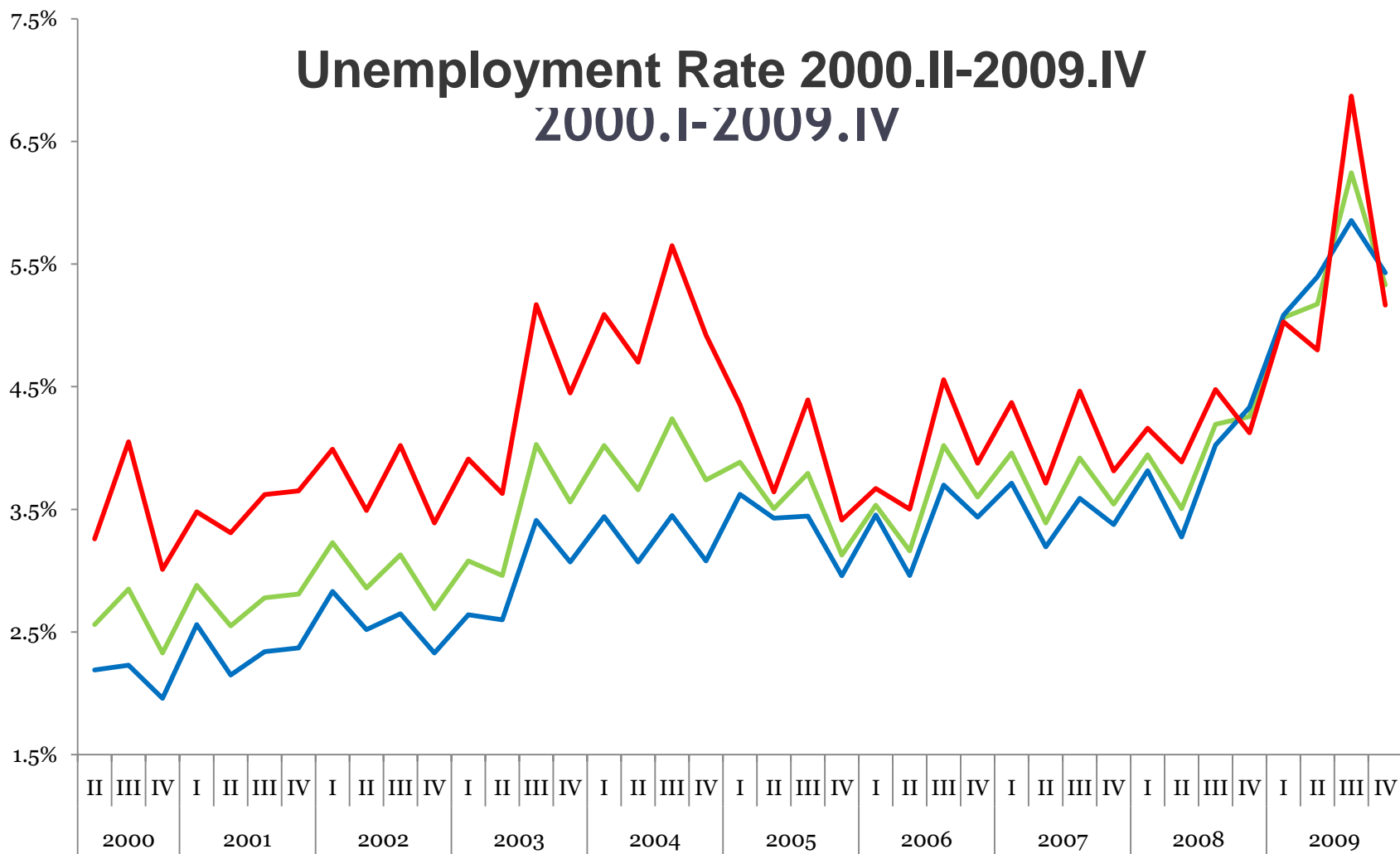


— AVERAGE REAL WAGE  
— LABOR PRODUCTIVITY

# MISERY INDEX (INFLATION+UNEMPLOYMENT)



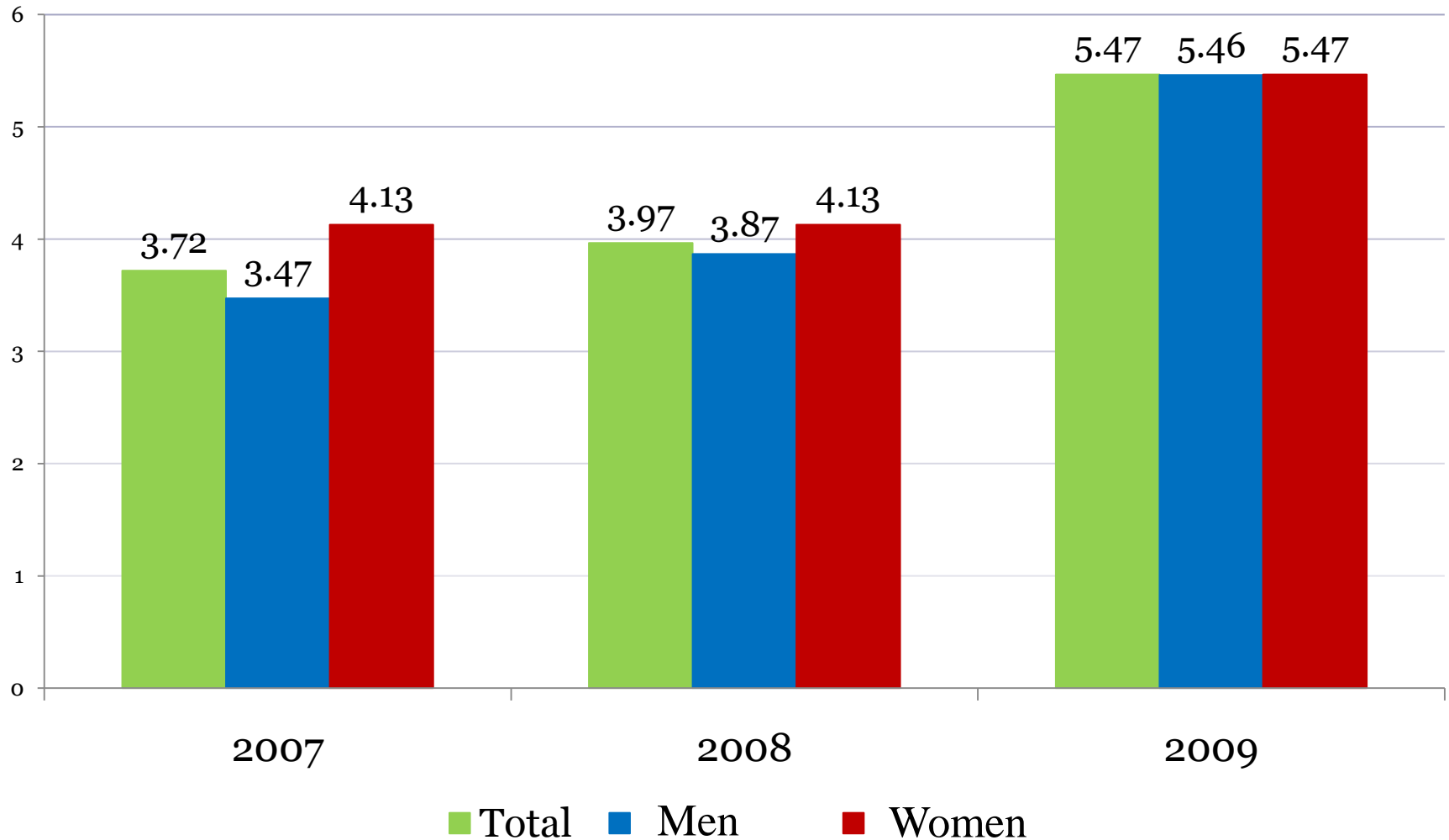
# **IV. UNEMPLOYMENT**



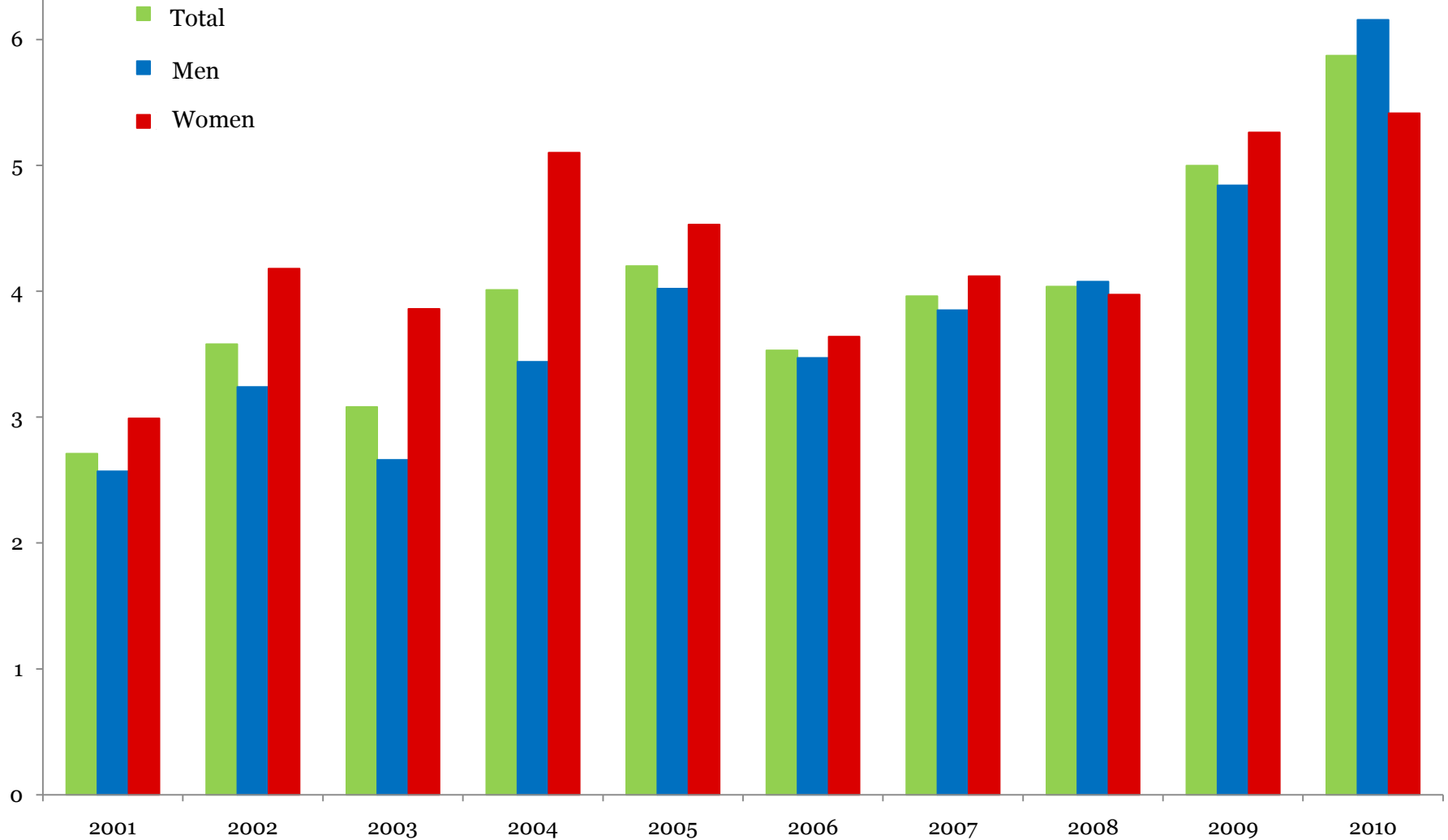
— Total    — Men    — Women

Fuente: INEGI (2010).

## Unemployment rate by gender 2007 - 2009

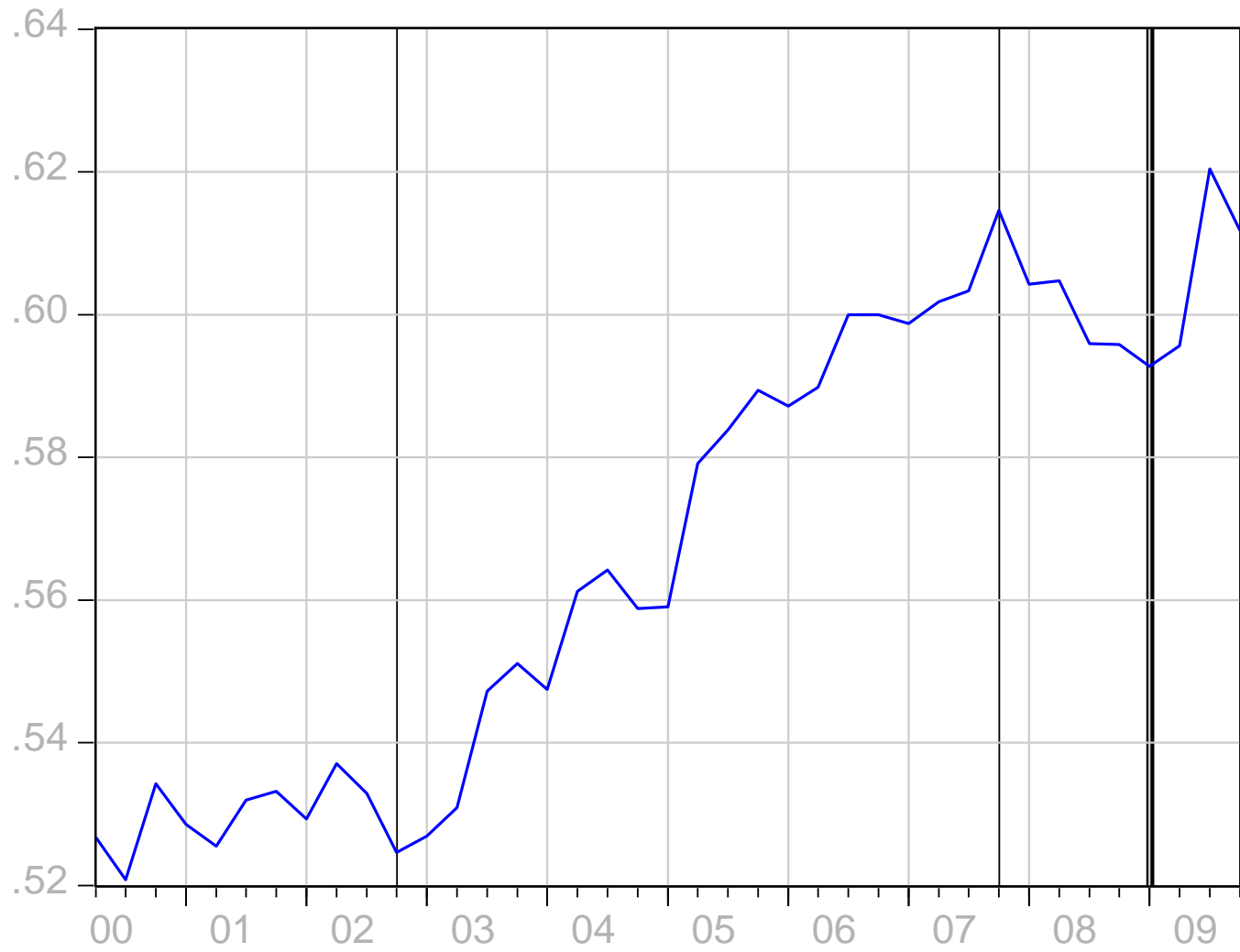


## Unemployment Rate in January by Gender 2001-2010

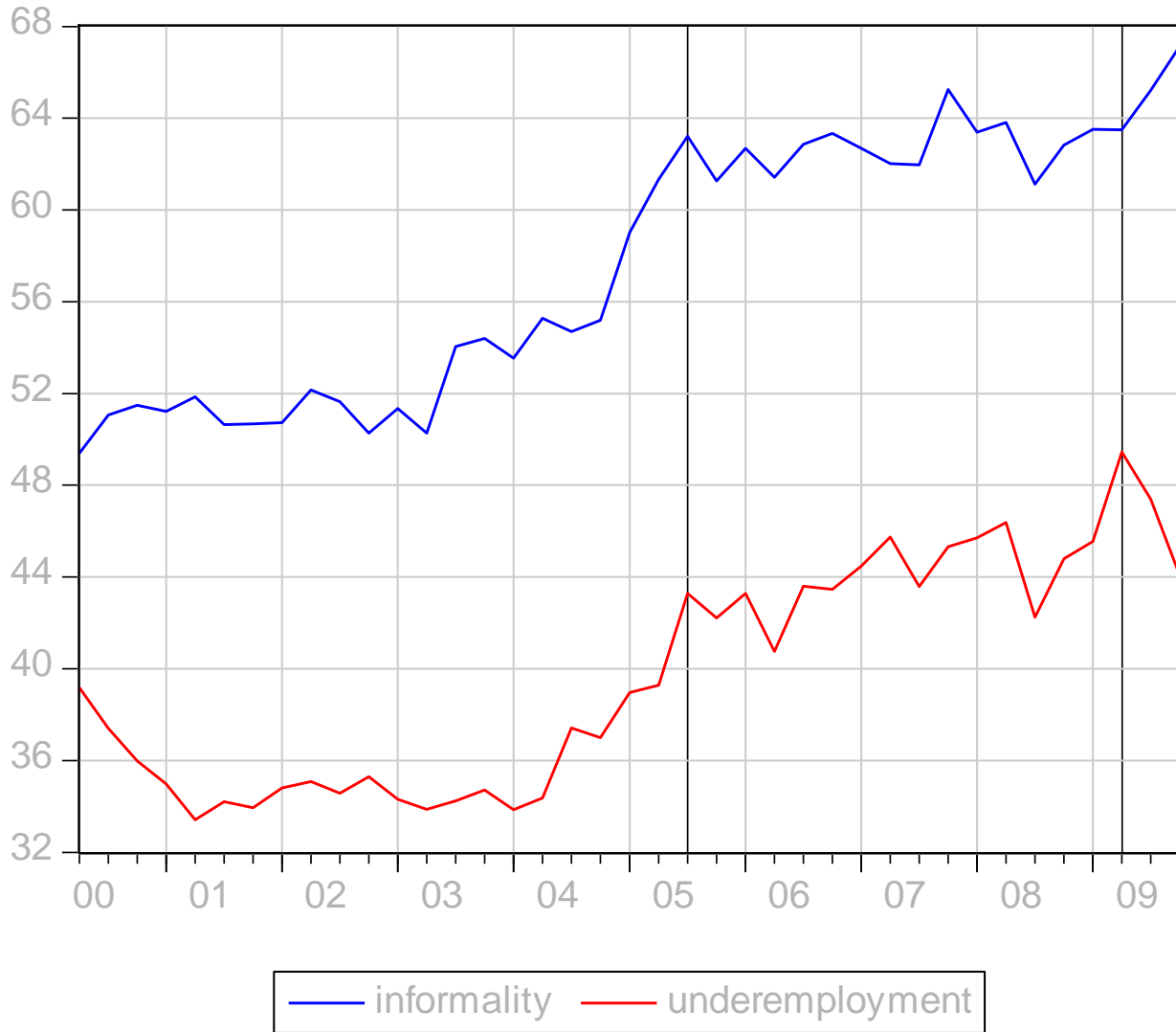


Fuente: INEGI (2010).

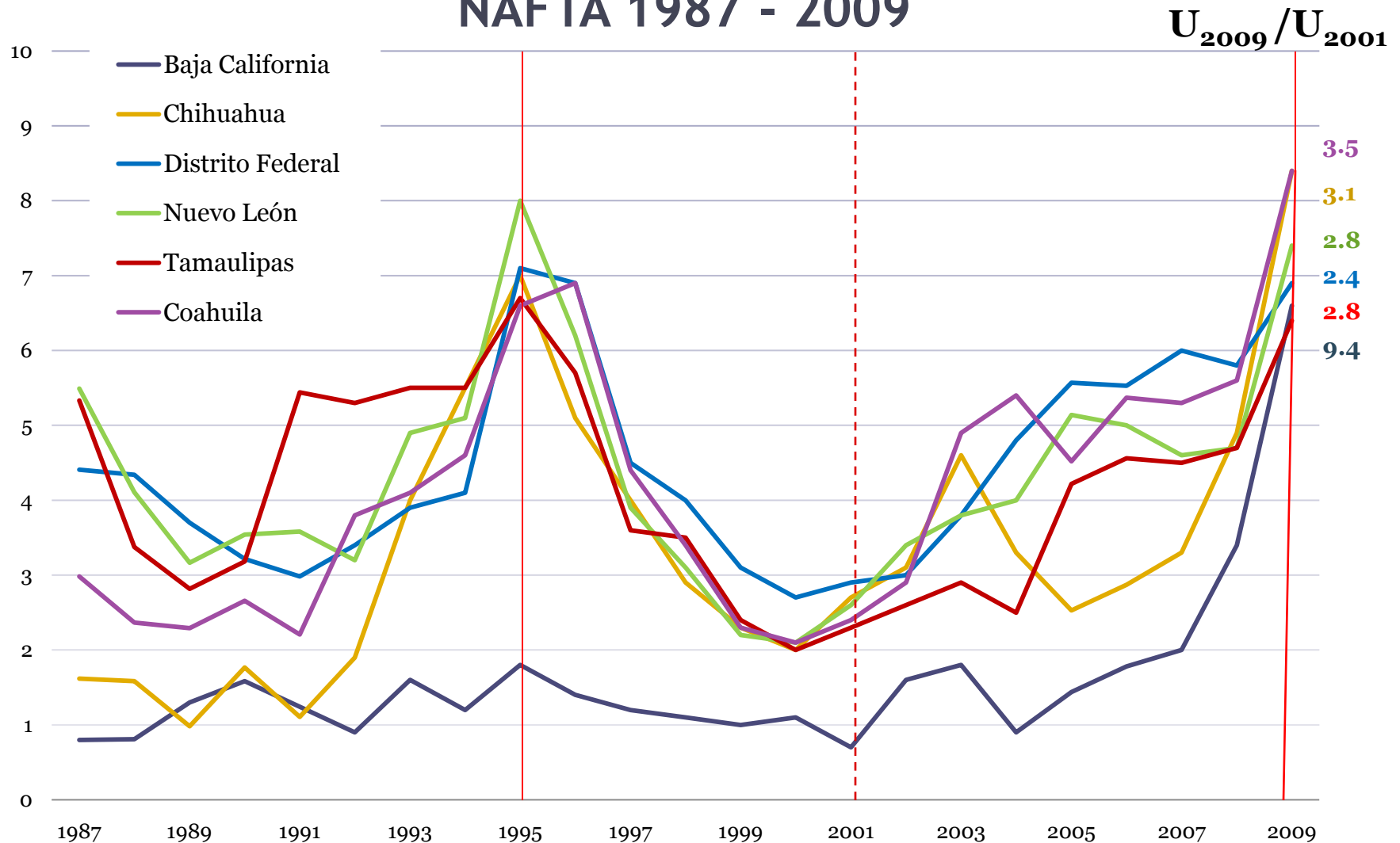
# FEMALE/MALE PARTICIPATION RATE



## FEMALE/MALE RATIO



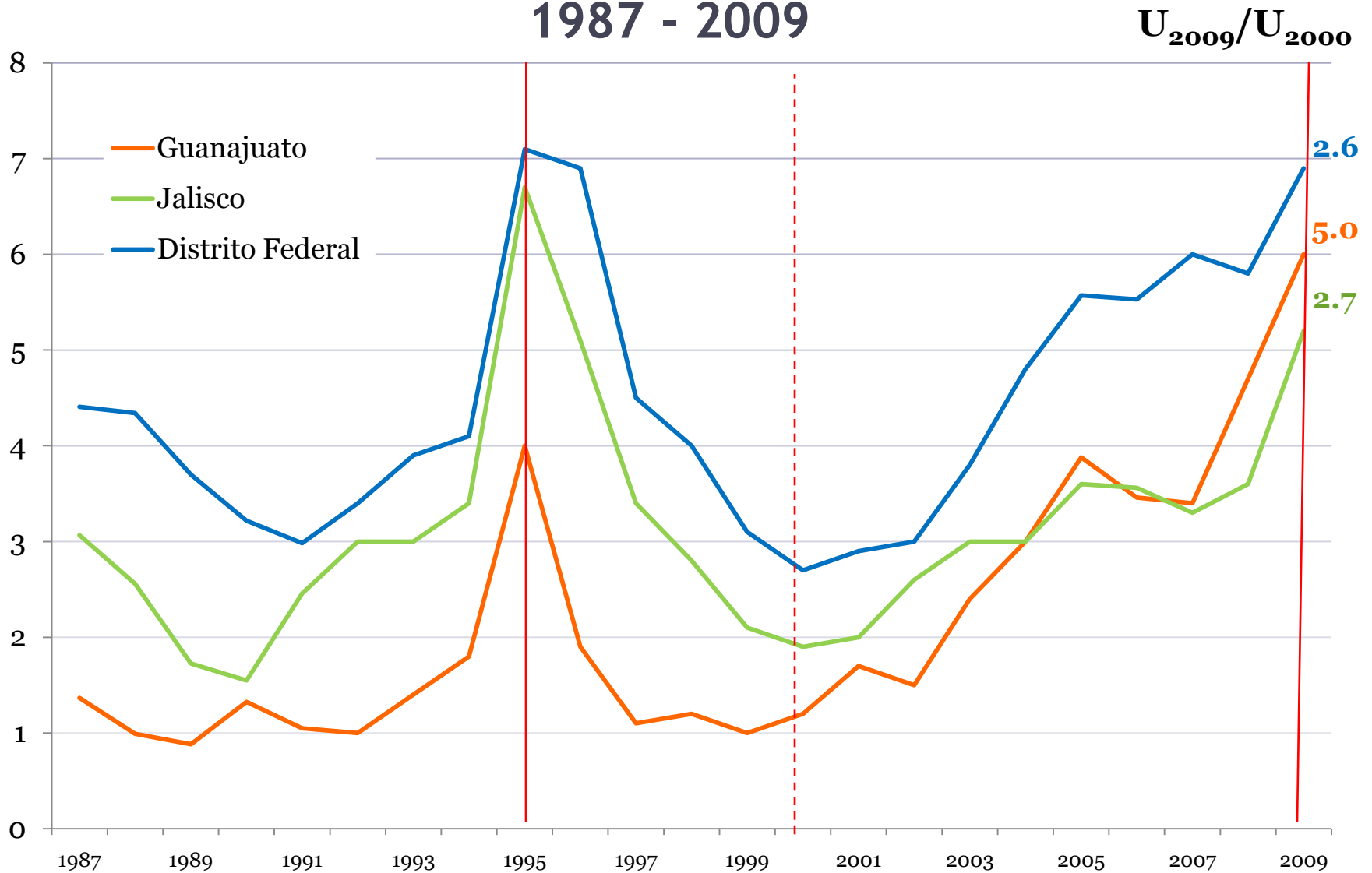
# Unemployment: States with highest participation in NAFTA 1987 - 2009



Fuente: INEGI (2010)

# Unemployment: Manufacturing States

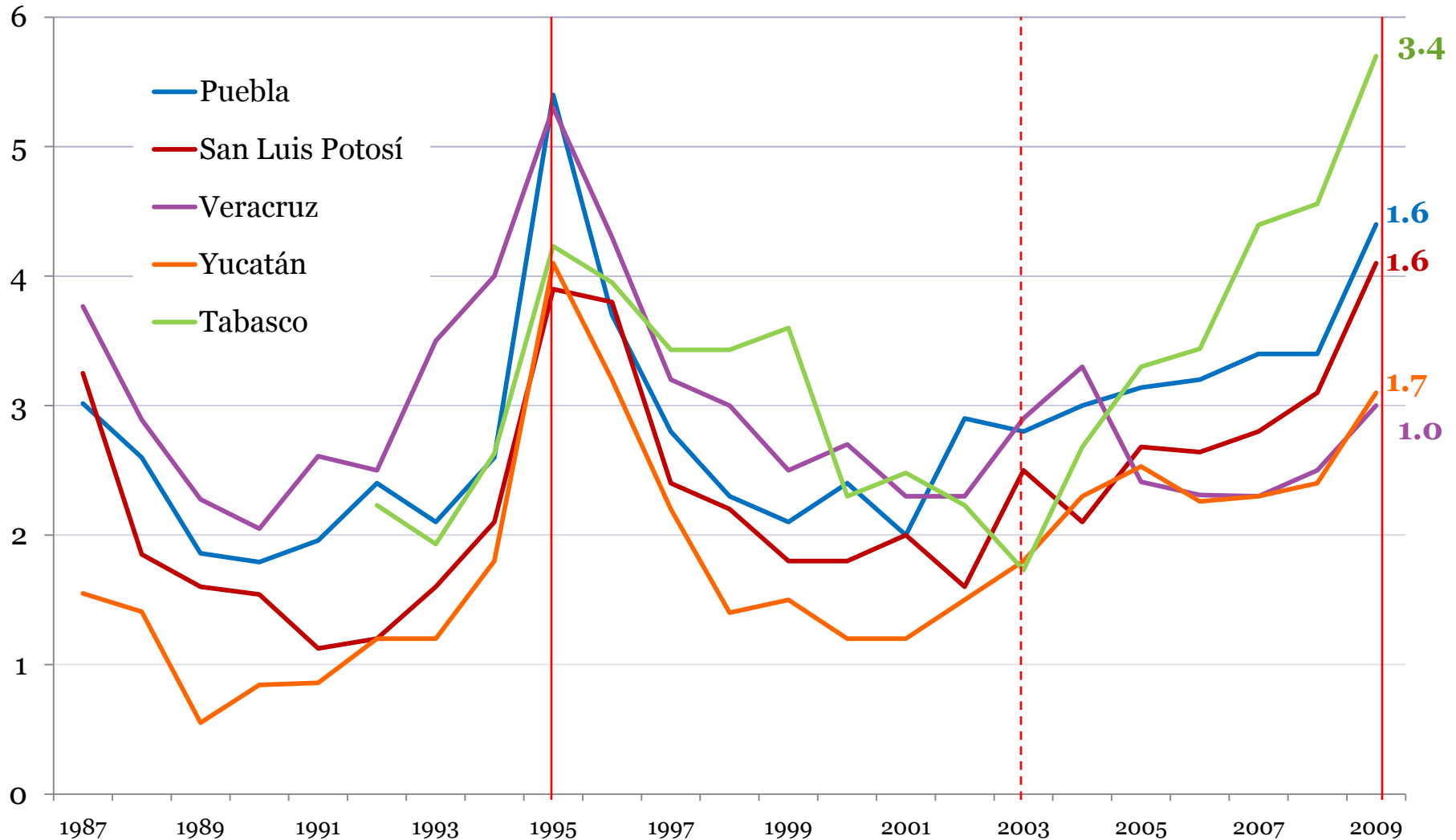
## 1987 - 2009



Fuente: INEGI (2010)

# Unemployment: Other States

## 1987 - 2009

 $U_{2009}/U_{2003}$ 


Fuente: INEGI (2010)

## Forecasting Outcome: 2010-2012

Variable	2010	2011	2012
GDP <sup>1</sup>	4.6	4.3	4.1
Employment <sup>1</sup>	2.5	1.0	1.5
Employment Variation <sup>2</sup>	869.0	368.0	544.0
Unemployment rate	5.5	4.8	4.2
Average Real Wages <sup>1</sup>	0.4	1.1	2.5
Inflation <sup>3</sup>	4.7	3.7	3.8
Trade Balance <sup>4</sup>	-10.3	-9.6	-10.2
As % of GDP	-1.06	-0.95	-0.98
Current Account <sup>4</sup>	-11.0	-6.6	-10.3
As % of GDP	-1.13	-0.65	-0.98
US GDP	3.3	3.4	3.2

1 Percentage Change

2 Thousands of people

3 December - december

4 Billions of USD

*Estimates of March 22<sup>nd</sup> 2010 with the collaboration of Jorge Ramírez.*

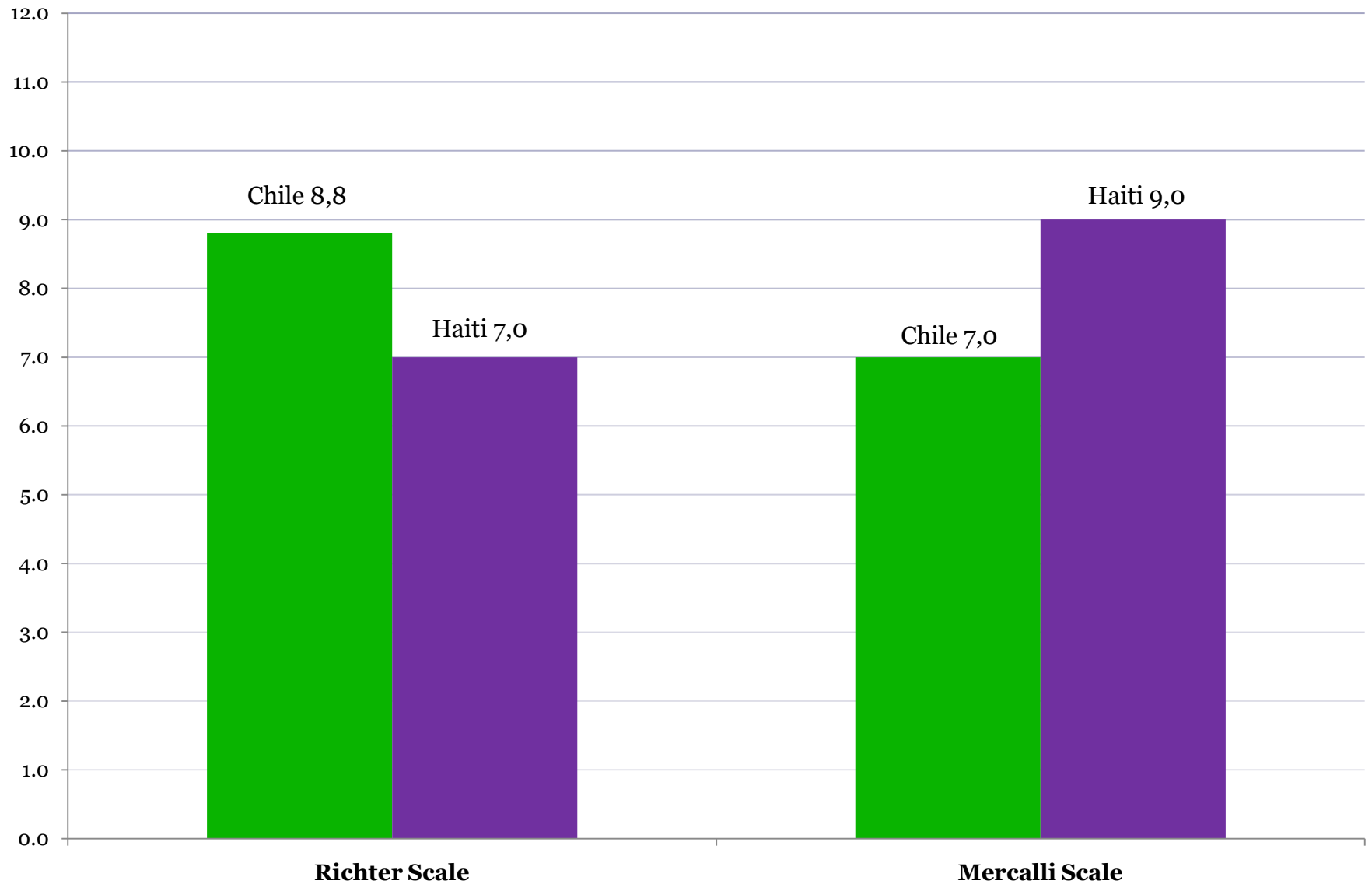
## Quarterly Forecast: 2010 - 2012

Variable	2010	2011	2012
<b>GDP</b>	<b>4.6</b>	<b>4.3</b>	<b>4.1</b>
I	5.4	3.5	5.2
II	5.0	5.0	1.9
III	4.6	3.9	5.9
IV	3.5	4.6	6.3
<b>Unemployment</b>	<b>5.5</b>	<b>4.8</b>	<b>4.2</b>
I	5.7	5.1	4.6
II	5.6	5.1	4.6
III	5.6	4.7	4.1
IV	4.9	4.2	3.3

*Estimates of March 22<sup>nd</sup> 2010 with the collaboration of Jorge Ramírez.*

V. An approach to two crises from  
a different perspective

## Both crises in actual seismological terms



**Richter equation:**  $M = \log A + 3 \log(8\Delta t) - 2.92$

**Where:**

**A=** the amplitude of waves in millimeters.

**$\Delta t$** = time in seconds since the start of the P waves to S waves.

**M=** an arbitrary but constant magnitude given to earthquakes that release the same amount of energy.

### Mercalli scale:

INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
Shaking	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
Damage	None	None	None	Very slight	Light	Moderate	Moderate/ heavy	Heavy	Very heavy
Peak Acc	<0.17	0.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
Peak Vel	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116

Peak Acc = Peak ground acceleration (g), Peak Vel = Peak ground velocity (cm/s)



**Thank you!**

**Eduardo Loría**

**Coordinator**

**Center of Modeling & Economic Forecasting  
CEMPE**

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