



# **Is North America Coming of Age as NAFTA Turns 21?**

## **A Mexican Perspective**

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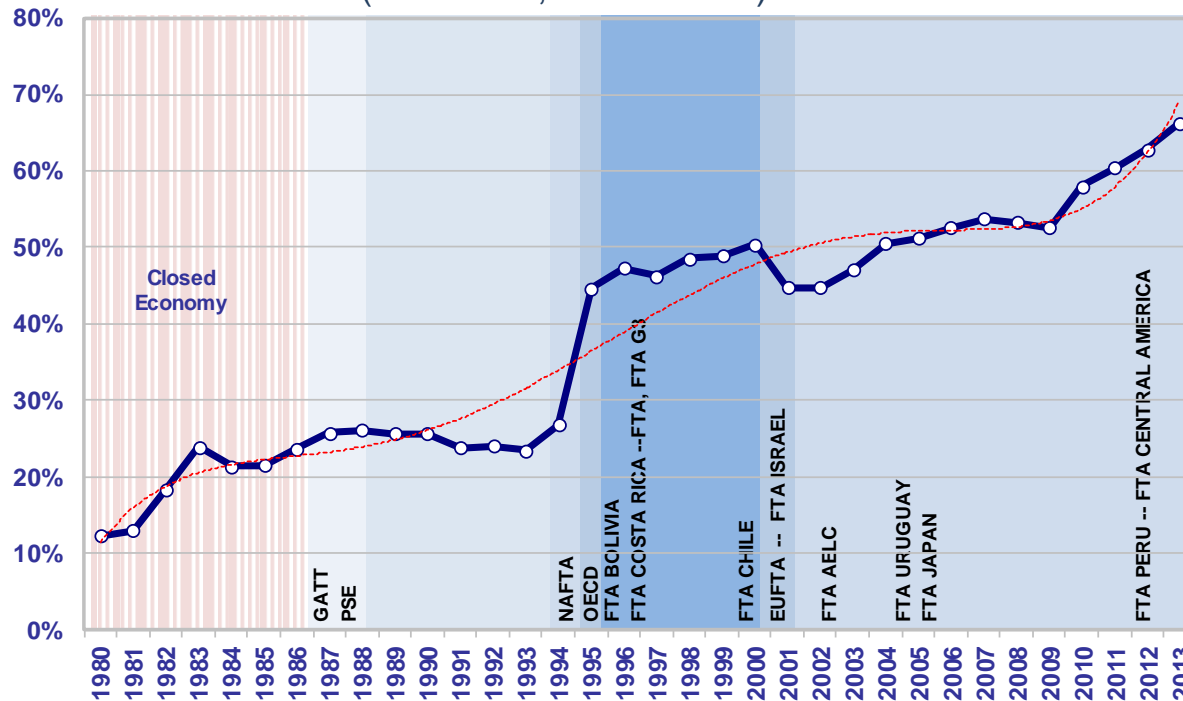
**Pedro Noyola**  
**April, 2015**

- A. Openness**
- B. Integration and Competitiveness**
- C. Competition and Transparency**
- D. The Future: A Dual Agenda**

## A. Openness

# Trade liberalization in Mexico

Degree of trade openness  
(X+M/GDP, 1981 - 2012)



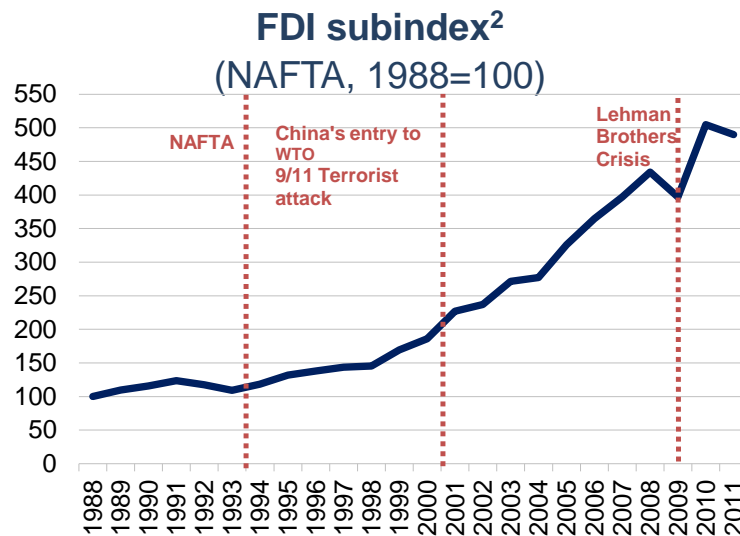
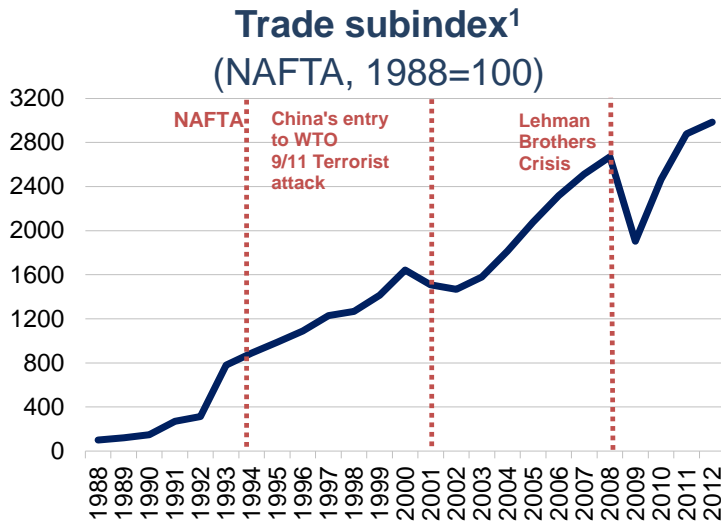
Dependent variable: Annual variation of trade openness

Variable	Coefficient	Std. Error	t-Statistic	P value
Dummy 1986-1987*GATT/PSE	0.04734	0.02707	1.74853	0.09260
Dummy 1994-1995**NAFTA	<b>0.11561</b>	<b>0.01980</b>	<b>5.83892</b>	<b>0.00000</b>
Dummy 2000-2001EUFTA	-0.01480	0.01558	-0.95014	0.35110
AR(1)	0.83738	0.14219	5.88911	0.00000
MA(1)	-1.08588	0.02497	-43.48797	0.00000
MA(4)	0.37436	0.01526	24.52906	0.00000

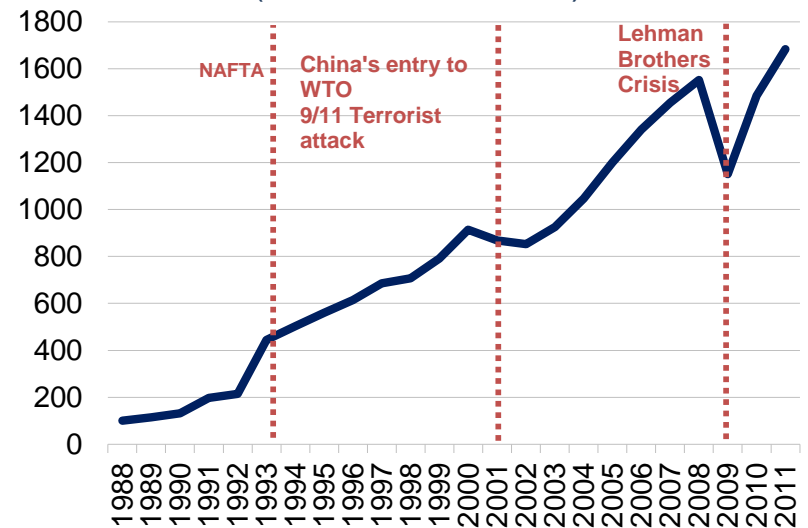
$$Y_t = \alpha_1 D_{\text{GATT/PSE}} + \alpha_2 D_{\text{NAFTA}} + \alpha_3 D_{\text{EUFTA}} + \text{AR}(1) + \text{MA}(1) + \text{MA}(4) + u_t$$

## **B. Integration and Competitiveness**

# North America's economic integration



### Trade & investment integration index (NAFTA, 1988=100)



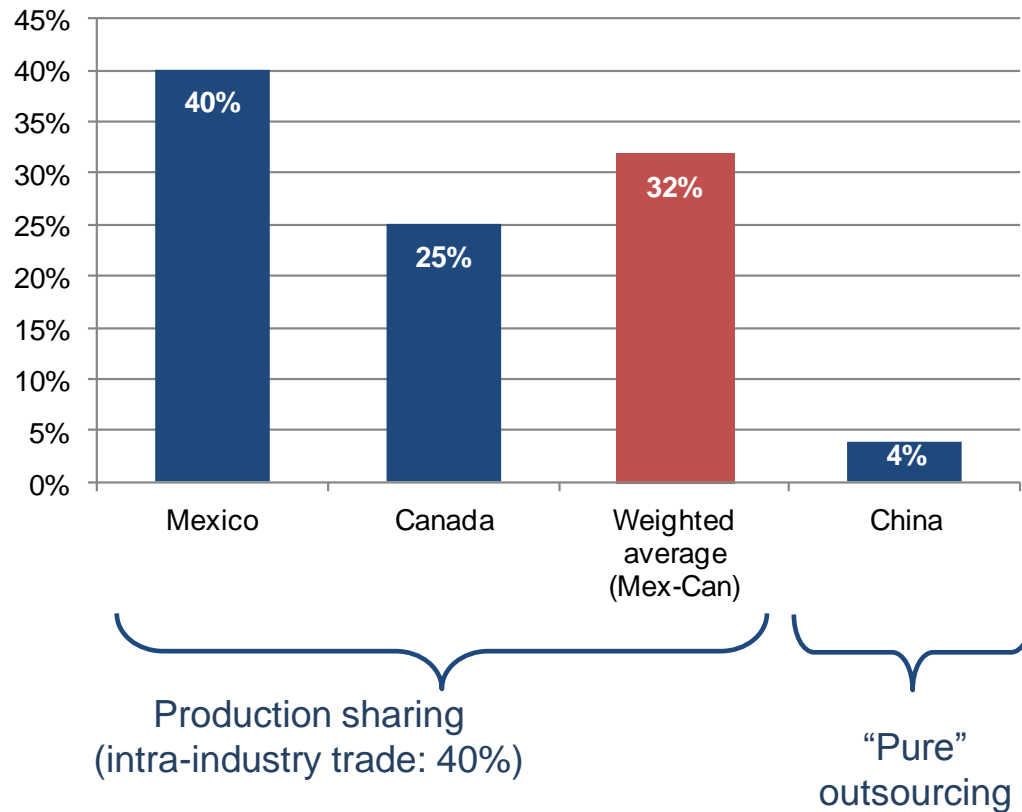
1/ Trade sub index: Weighted average of trade index (imports + exports) between Canada, Mexico and the United States.

2/ Investment sub index: Weighted average of foreign direct investment within NAFTA.

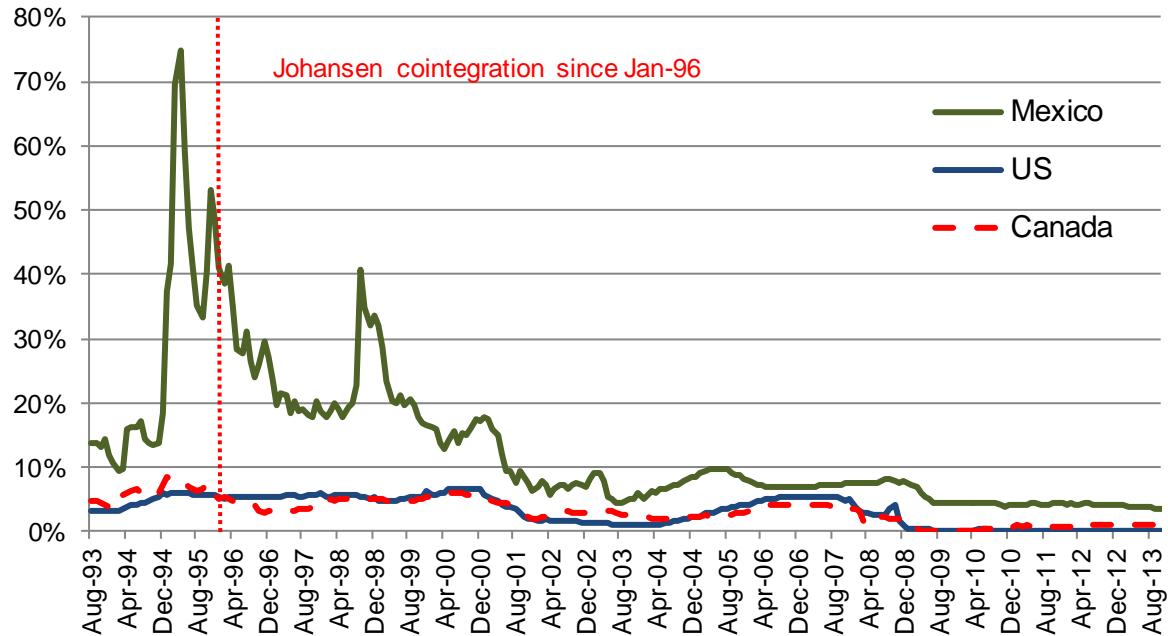
Integration index: Investment and trade sub indexes average

Source: SAI Law & Economics with data from INEGI, Bank of Mexico, Secretaria de Economía, US Census Bureau, US BEA & Statistics of Canada.

## U.S. Content in U.S. imports (percentage)



## Short-term Interest Rates (percentage, 1993-2013)



### Cointegration test

(January 1996 – December 2013)

Series: Interest rates in Mexico, Canada & United States

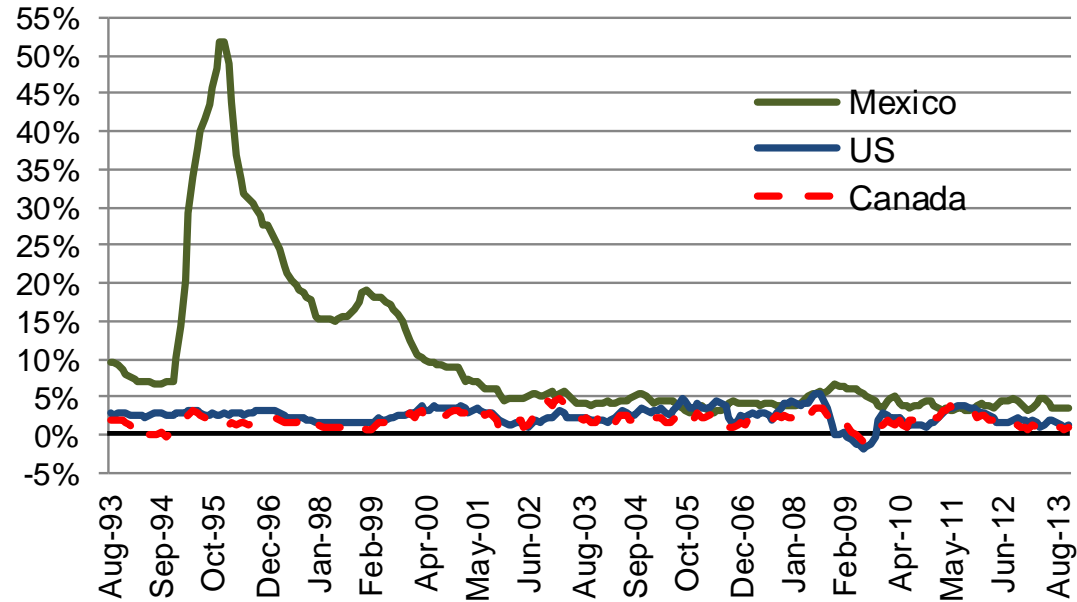
Eigenvalue	Likelihood ratio	Critical value 5%	Critical value 1%	Cointegrating Equations
0.117007	37.05229	29.79707	35.45817	<b>None **</b>
0.034787	10.17363	15.49471	19.93711	At most 1
0.011626	2.525861	3.841466	6.634897	At most 2

\* denotes rejection of the null hypothesis at a significance level of 5%

\*\* denota el rechazo de la hipótesis nula con un nivel de significancia del 1%

## Inflation

(annual variation, August 1999 – November 2013)



## Cointegration test

(January 2000 – October 2013)

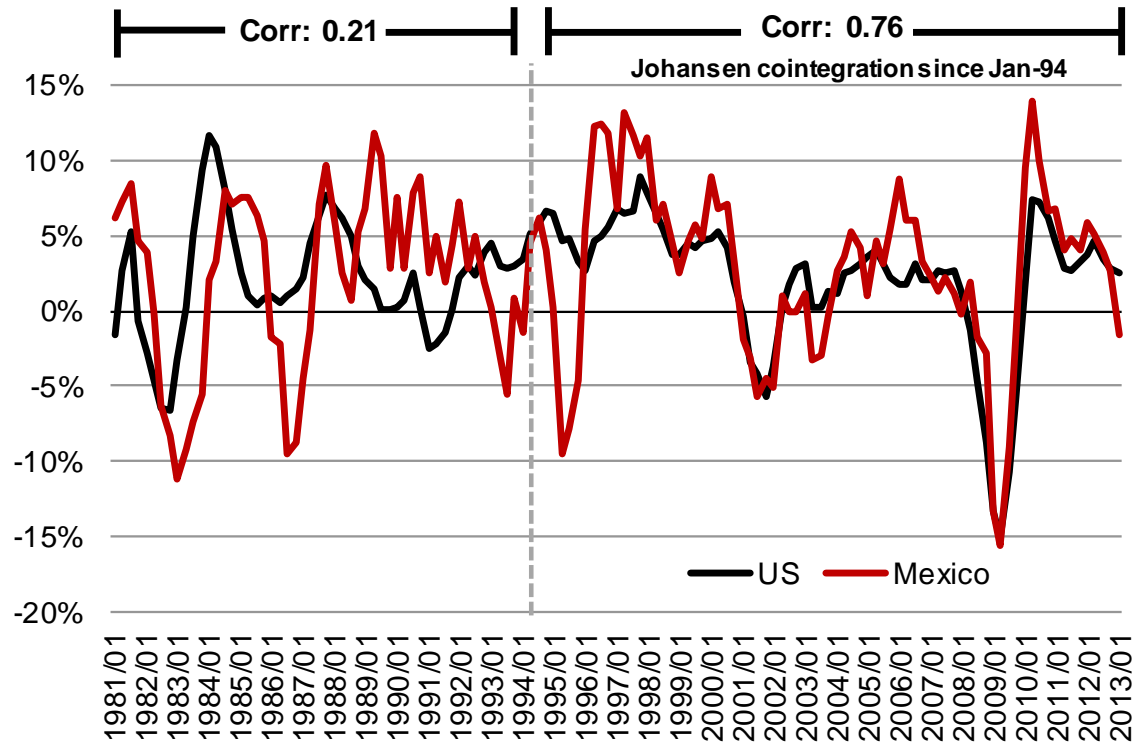
Series: Inflation in Mexico, Canada & United States

Eigenvalue	Likelihood ratio	Critical value 5%	Critical value 1%	Cointegrating Equations
0.120606	46.55095	29.79707	35.45817	None **
0.080837	25.85882	15.49471	19.93711	At most 1
0.073482	12.28778	3.841466	6.634897	At most 2

\*denotes rejection of the null hypothesis at a significance level of 5%

\*\* denotes rejection of the null hypothesis at a significance level of 1%

## Manufacturing production from Mexico and the United States (annual growth, 1981:T1-2013:T1)



### Johansen Cointegration test<sup>1</sup>

1980:T1 – 1993:T4

Series: LOG(Man.Prod.MEX) LOG(Ind.ProdUSA)				
Eigenvalue	Likelihood ratio	Critical Value 5%	Critical Value 1%	Cointegrating Equations
0.115693	8.516043	15.41	20.04	<b>None</b>
0.034156	1.876684	3.76	6.65	<b>At most 1</b>

1994:T1 – 2012:T2

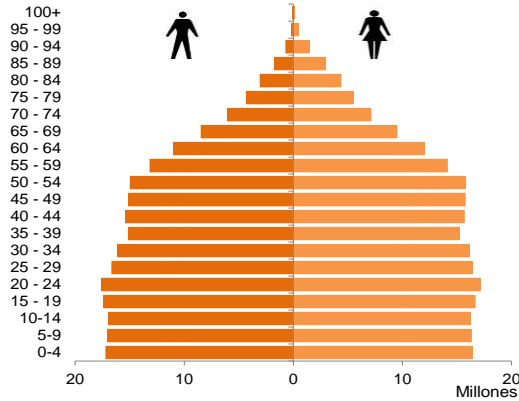
Series: LOG(Man.Prod.MEX) LOG(Ind.ProdUSA)				
Eigenvalue	Likelihood ratio	Critical Value 5%	Critical Value 1%	Cointegrating Equations
0.174543	16.594320	15.41	20.04	<b>None *</b>
0.031910	2.399811	3.76	6.65	<b>At most 1</b>

\* Rejects the null hypothesis with a confidence level of 95%. \*\*Rejects the null hypothesis with a confidence level of 99%.

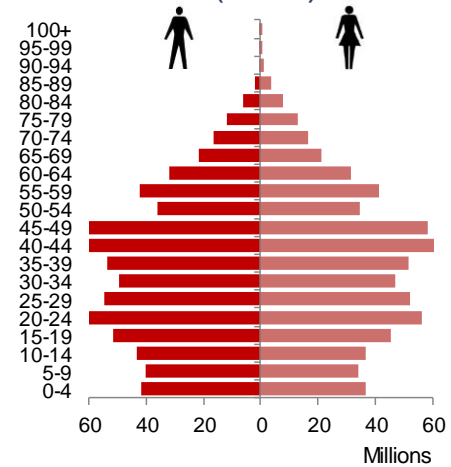
1/ The test supposes a deterministic lineal trend in the data.

Source: Analysis by SAI Law & Economics with data from INEGI and the US Federal Reserve.

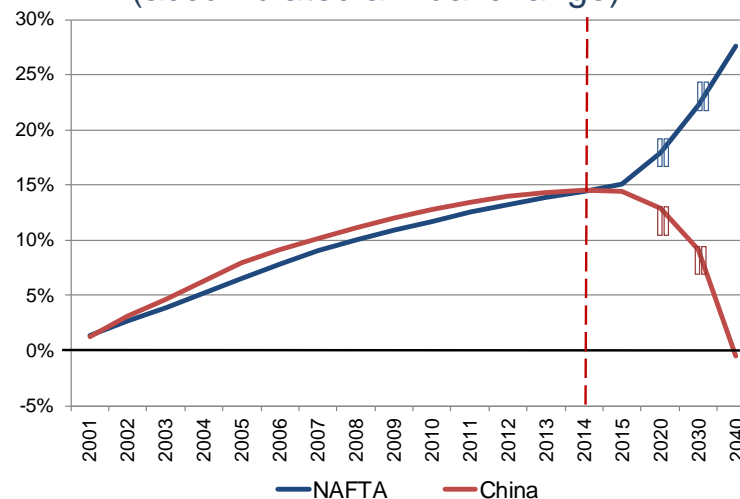
## NAFTA population (2012)



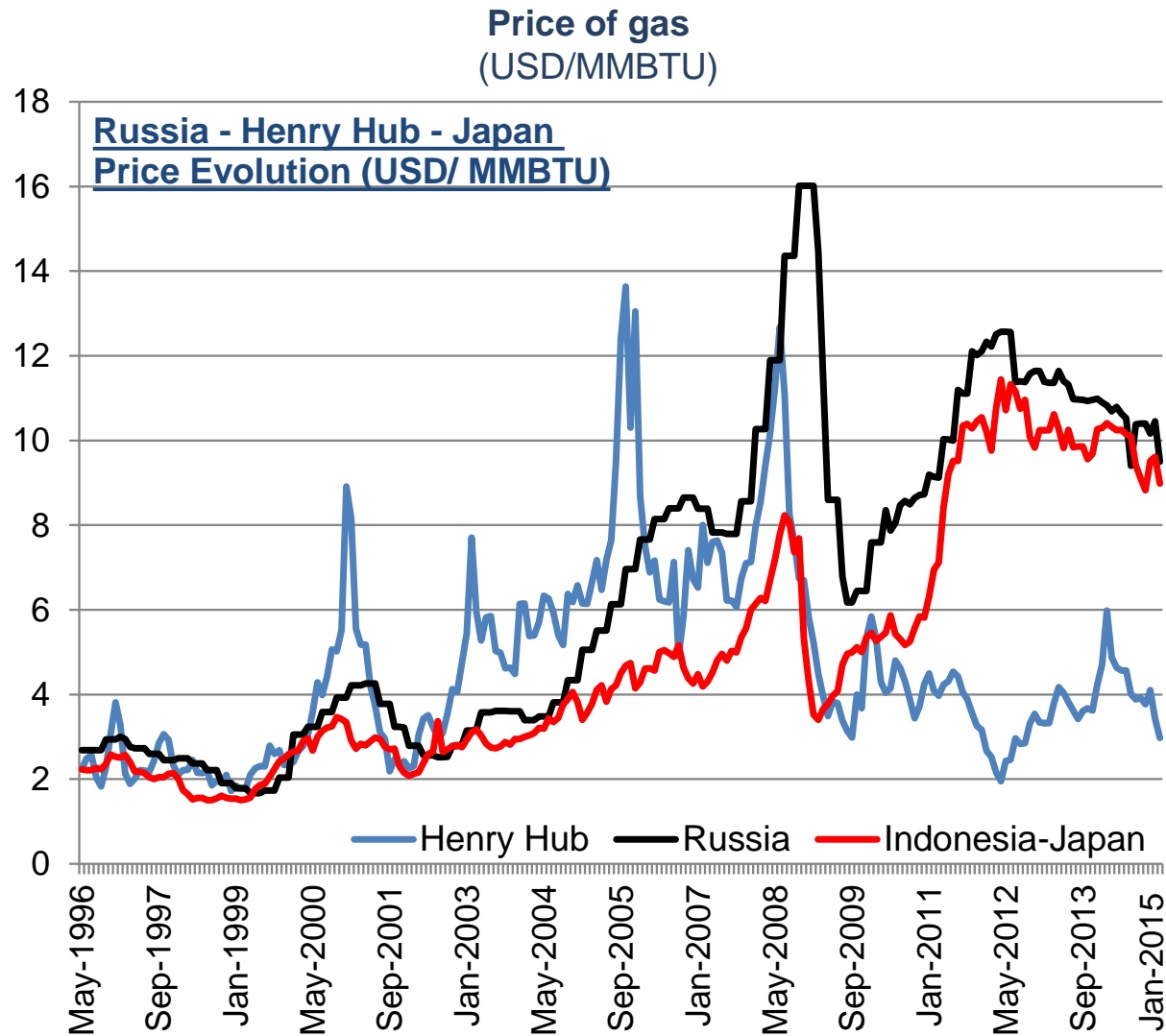
## China population (2012)



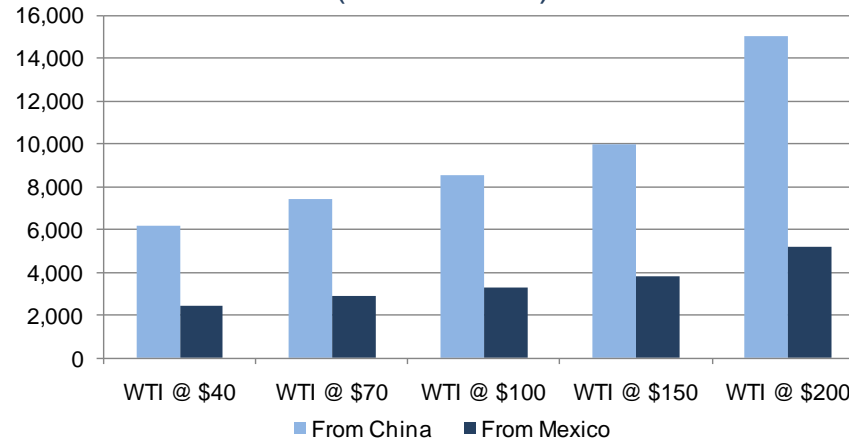
## Labor force, from 15 to 64 years (accumulated annual change)



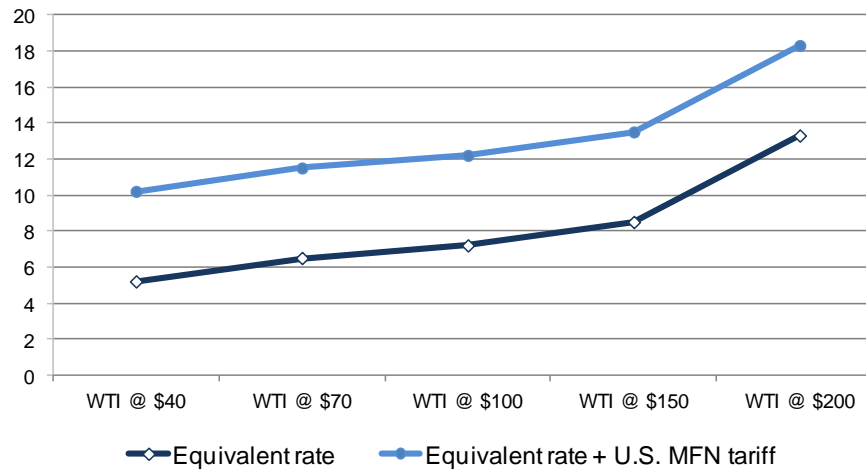
Source: SAI Law & Economics with data from U.S. Census Bureau and National Bureau of Statistics of China.



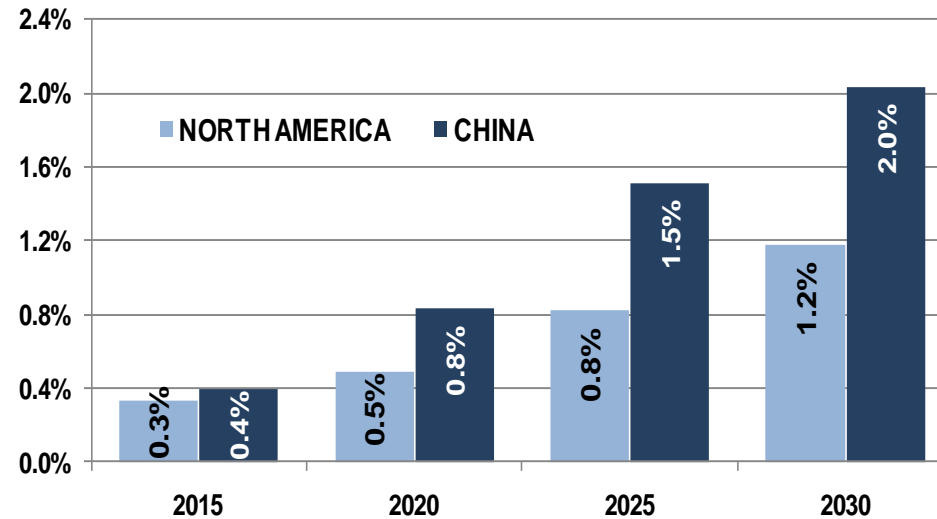
## Cost of transporting a 40' container to the U.S. east coast (U.S. dollars)



## Equivalent tariff (percentage)



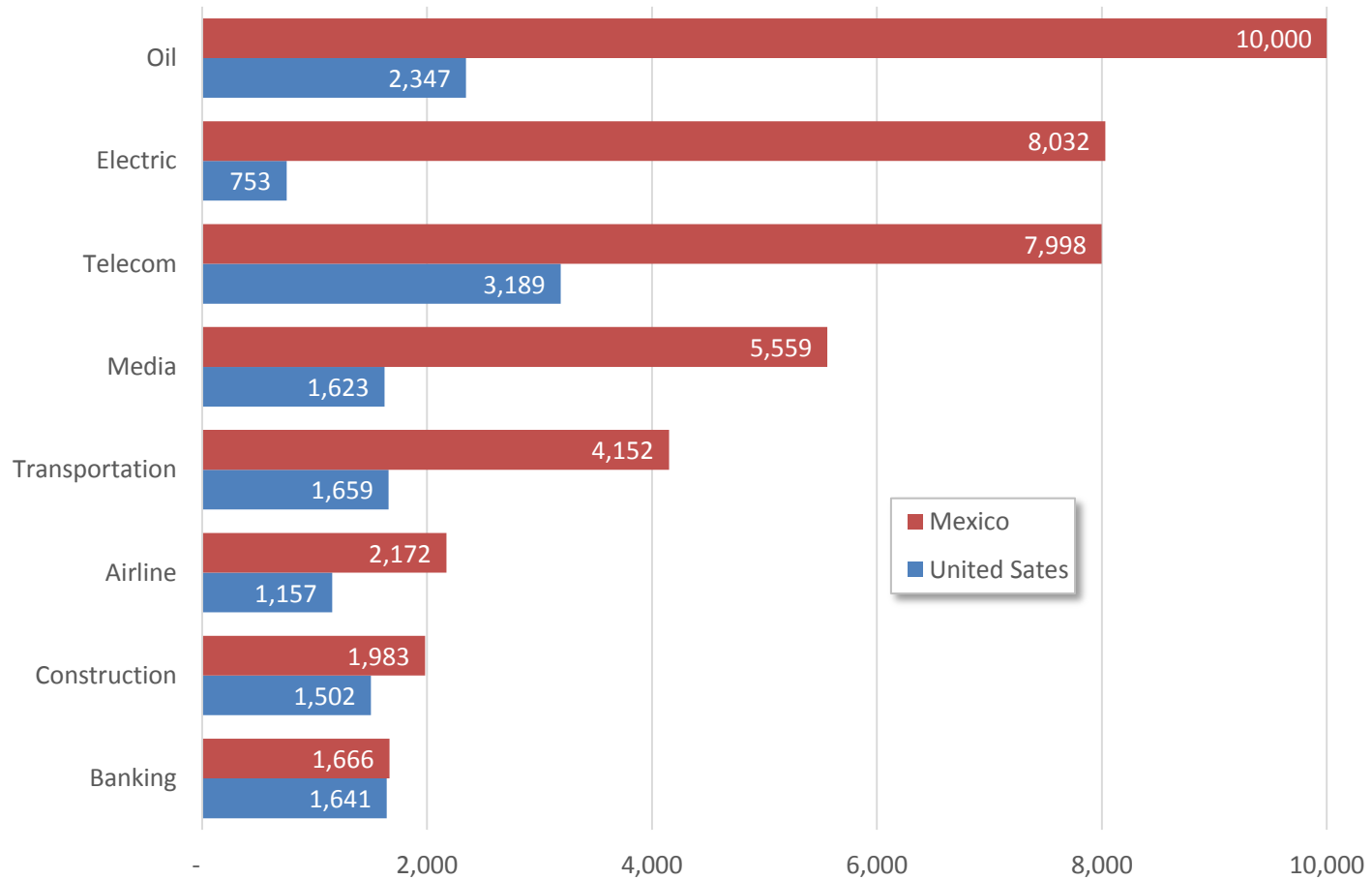
## Additional investment to reach 450 Scenario (% of GDP)



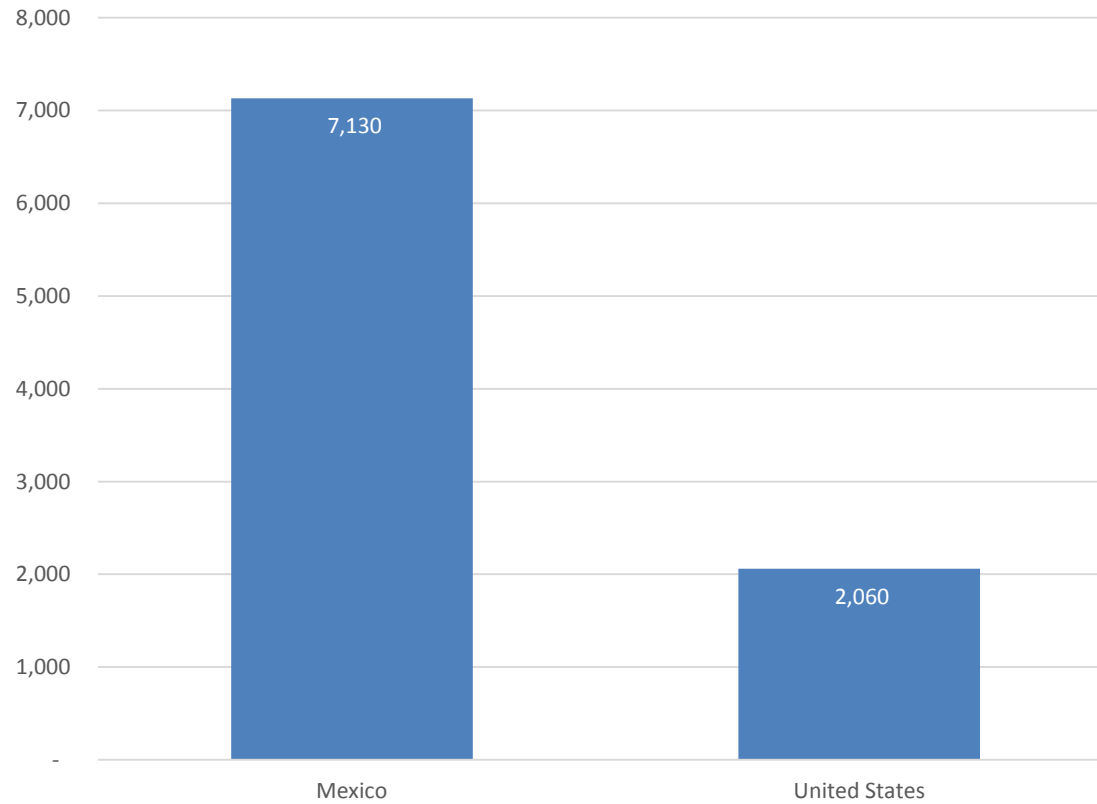
The 450 Scenario analyzes different measures to bring energy related CO<sub>2</sub> emissions down to a trajectory that would be consistent with ultimately stabilizing the concentration of all greenhouse gases in the atmosphere at 450 particles per million.

## **C. Competition and Transparency**

## Sectoral Herfindahl Index



## Aggregate Herfindahl Index



## Reverse English

Dutch

Partial Lots

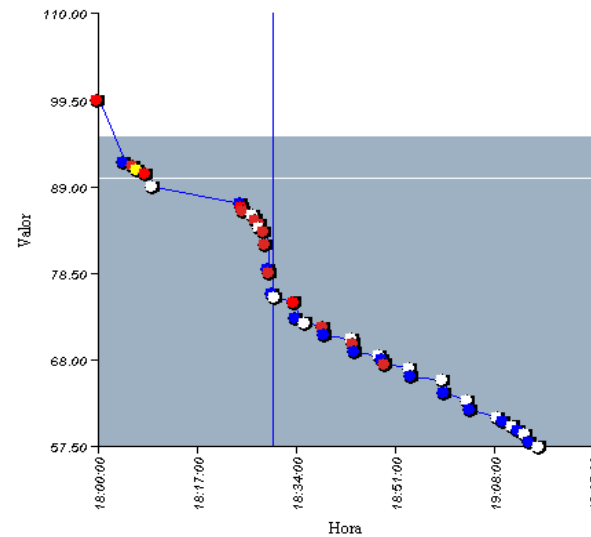
Vickrey

Ranking

### 1298.05.19.19.Call center: Servicios de Telecomunicaciones (Subasta Inglesa Descendente)

Hora de apertura: 04/08/2005 18:00:00

Hora de cierre: 04/08/2005 19:25:00



Estatus: **CERRADA**

Valor Actual : 95.00

Beneficios : 37.50

Valor de Reserva:90.00

Posturas: 43

Ver todas

1298.05.19.19.postor2 (14 posturas)  
 1298.05.19.19.postor3 (10 posturas)  
 1298.05.19.19.postor4 (1 posturas)  
 1298.05.19.19.postor5 (14 posturas)  
 1298.05.19.19.postor6 (4 posturas)

Mejor postura

Postor : 1298.05.19.19.postor2

Valor : 57.50

Hora : 19:16:11

Beneficios :39.47 %

Hora del servidor: 4/11/2005 09:12:28

Reverse English

Dutch

Partial Lots

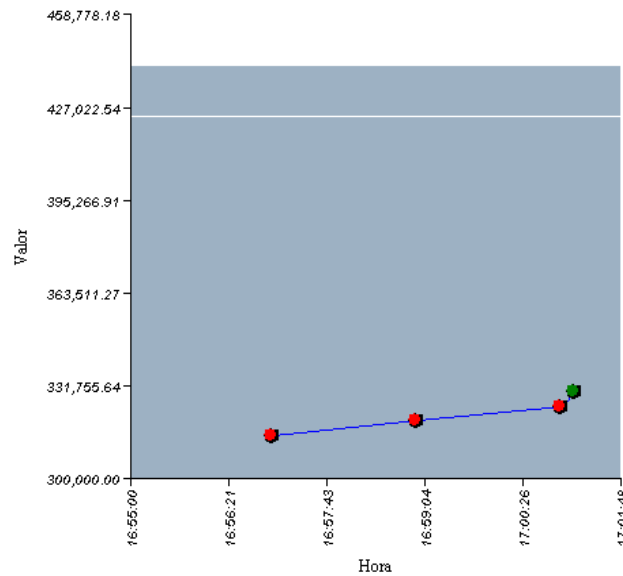
Vickrey

Ranking

## 1306.05.01.15. Camisas y blusas: Camisas y blusas (Subasta Holandesa Ascendente)

Hora de apertura: 05/11/2005 16:55:00

Hora de cierre: 05/11/2005 17:01:11



Estatus: **CERRADA**

Valor Actual : 441,383.09

Beneficios : 111,383.09

Valor de Reserva: 423,988.00

Posturas: 1

Ver todas

1306.05.01.15.postor5 (1 postura)

Mejor postura

Postor : 1306.05.01.15.postor5

Valor : 330,000.00

Hora : 17:01:11

Beneficios : 25.24 %

Hora del servidor: 5/11/2005 17:11:49

Reverse English

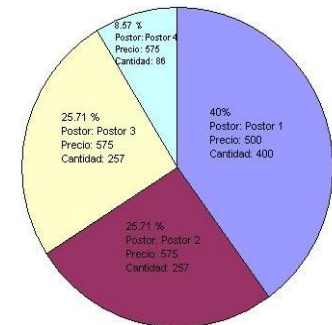
Dutch

Partial Lots

Vickrey

Ranking

Postor	Precio	Cantidad Solicitada	Cantidad Asignada	Hora de postura
Postor 1	500	400	400	11/02/2005 2:54 p.m.
Postor 2	575	300	257	11/02/2005 2:34 p.m.
Postor 3	575	300	257	11/02/2005 2:38 p.m.
Postor 4	575	100	86	11/02/2005 2:51 p.m.
Postor 3	600	300	0	11/02/2005 2:38 p.m.
Postor 3	650	300	0	11/02/2005 2:37 p.m.
Postor 2	800	600	0	11/02/2005 2:40 p.m.
Postor 6	700	400	0	11/02/2005 2:55 p.m.



## Reverse English

Dutch

Partial Lots

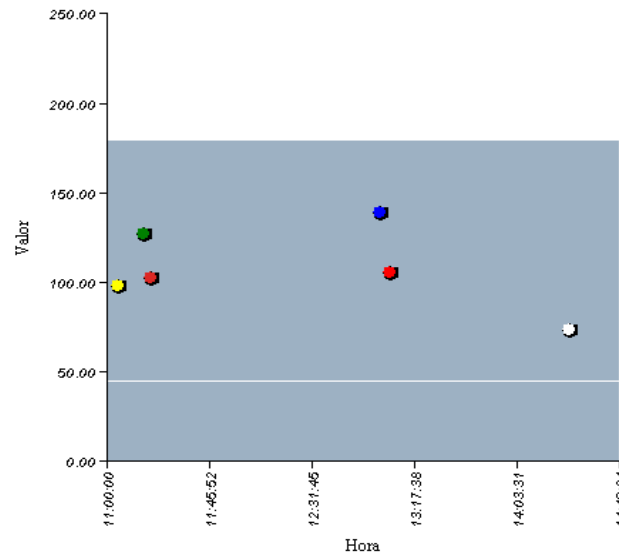
Vickrey

Ranking

### 1479.05.01.15.Sudaderas: Sudadera (Subasta De Sobre Cerrado Descendente)

Hora de apertura: 07/08/2005 11:00:00

Hora de cierre: 07/08/2005 14:28:35



Estatus: **CERRADA**

Valor Actual : 179.00

Beneficios : 105.50

Valor de Reserva:44.90

Posturas: 6

Ver todas

1479.05.01.15.postor1 (1 postura)

1479.05.01.15.postor2 (1 postura)

1479.05.01.15.postor3 (1 postura)

1479.05.01.15.postor5 (1 postura)

1479.05.01.15.postor7 (1 postura)

1479.05.01.15.postor8 (1 postura)

Mejor postura

Postor : 1479.05.01.15.postor3

Valor : 73.50

Hora : 14:28:33

Beneficios :58.94 %

Hora del servidor: 7/08/2005 16:03:47

Reverse English

Dutch

Partial Lots

Vickrey

Ranking

aklara

d.d.d.porcel02

La subasta ha terminado

Datos generales		Indicaciones	
Tipo de subasta	Subasta inglesa de pujas descendente	Colaboración	
Código de la subasta	d.d.d.porcel02.Tur	Estado	CERRADO
Estado	CERRADO	Comentarios	
Hora de inicio	10/12/2005 14:17:00		
Hora de cierre	10/12/2005 14:22:00		
Edificios	Antigua, Basurales, 0/5		

Ranking: 1º

Sitio de pujas			
Pudra	Hora de pudra	Pudra	Estado
\$2,000.00	10/12/2005 14:18:01	d.d.d.porcel02	1º Adjudicado

aklara

d.d.d.porcel01

La subasta ha terminado

Datos generales		Indicaciones	
Tipo de subasta	Subasta inglesa de pujas descendente	Colaboración	
Código de la subasta	d.d.d.porcel01.Tur	Estado	CERRADO
Estado	CERRADO	Comentarios	
Hora de inicio	10/12/2005 14:17:00		
Hora de cierre	10/12/2005 14:22:00		
Edificios	Antigua, Basurales, 0/5		

Ranking: 2º

Sitio de pujas			
Pudra	Hora de pudra	Pudra	Estado
\$3,000.00	10/12/2005 14:19:46	d.d.d.porcel01	2º No adjudicado

aklara

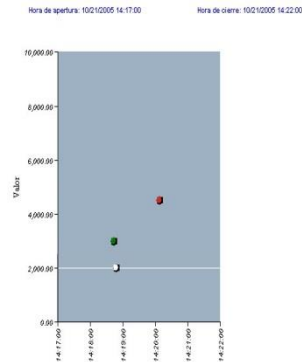
d.d.d.refere

La subasta ha terminado

Datos generales		Indicaciones	
Tipo de subasta	Subasta inglesa de pujas ascendente	Colaboración	
Código de la subasta	d.d.d.refere01.Tur	Estado	CERRADO
Estado	CERRADO	Comentarios	
Hora de inicio	10/12/2005 14:17:00		
Hora de cierre	10/12/2005 14:22:00		
Edificios	Antigua, Basurales, 0/5		

Ranking: 1º

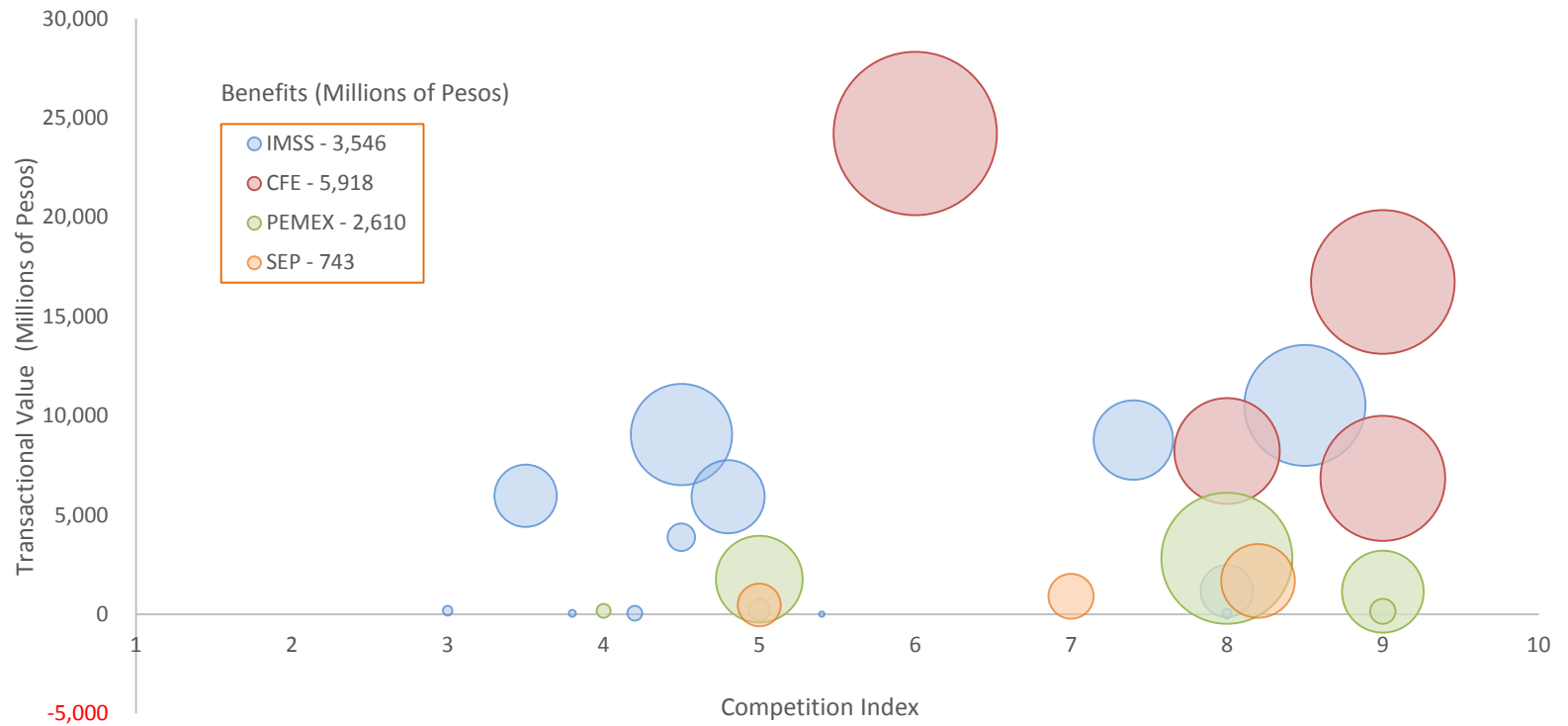
Sitio de pujas			
Pudra	Hora de pudra	Pudra	Estado
\$2,000.00	10/12/2005 14:18:05	d.d.d.porcel02	1º Adjudicado
\$3,000.00	10/12/2005 14:19:46	d.d.d.porcel01	2º No adjudicado
\$4,500.00	10/12/2005 14:20:10	d.d.d.porcel03	3º No adjudicado



# Government procurement auctions

Through February 2015	Total	CFE	IMSS	PEMEX	SEP
Processes	64	6	49	6	3
Line Items	673	25	523	110	15
Auctions	995	25	876*	79	15
Spend (Million USD)	8,412	4,306	3,515	339	252
Benefits (Million USD)	879	453	271	155	76
Average Savings (%)	10%	11%	7%	46%	23%
Adjudication Rate (%)	94%	96%	91%	99%	100%
Average Number of Bidders	5	7	3	7	8
ROI	271	453	54	298	139

# Government procurement auctions



## **D. The Future: A Dual Agenda**

## Intra-regional

### Market access

Dumping + ITEC<sup>1</sup> vs. common competition policy (Chapter 15)

### Seamless borders and transportation

North America Logistics Program

### Energy synergies

North American Energy Program

### Labor mobility vs. migration

North American Labor Agreement

### 2012 Dependency ratio

Country	Ratio <sup>2</sup>
Mexico	10.06
US	19.76
Canada	23.17
NAFTA	17.66

### 2030e/ Dependency ratio

Country	Ratio <sup>2</sup>
Mexico	17.45
US	32.10
Canada	41.40
NAFTA	28.85

### Dependency ratios

- 2012: NAFTA 11% smaller than that of the United States
- 2030e: NAFTA 10% smaller than that of the United States

1/ Interagency Trade Enforcement Center.

2/ 64+ age population/ labor force population (15-64 age).

e/ Estimated.

Source: SAI Law & Economics with data from U.S. Census Bureau and National Bureau of Statistics of China..

## Extra-regional

### **TPP**

Preservation of NAFTA for trade and investment flows from North America

### **TTIP**

Regional negotiation v.s. convergence