

The Industrial Evolution of Colombia 1940-2015

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Rise & Fall of Industry, 1940-2015

Annual Growth of Industry and of GDP (%)

Period	Industry	GDP
1929-1973	7,5	4,7
1974-2015	2,2	3,6

The Argument here?

- Industrialization was never a serious concern of the Colombian State.
- Effective protection, credit and direct intervention were weaker than in the cases of the more advanced L.American economies.
- In Colombia, the development of industry was shallow, short lived and deindustrialization was rapid and far reaching.

Literature...

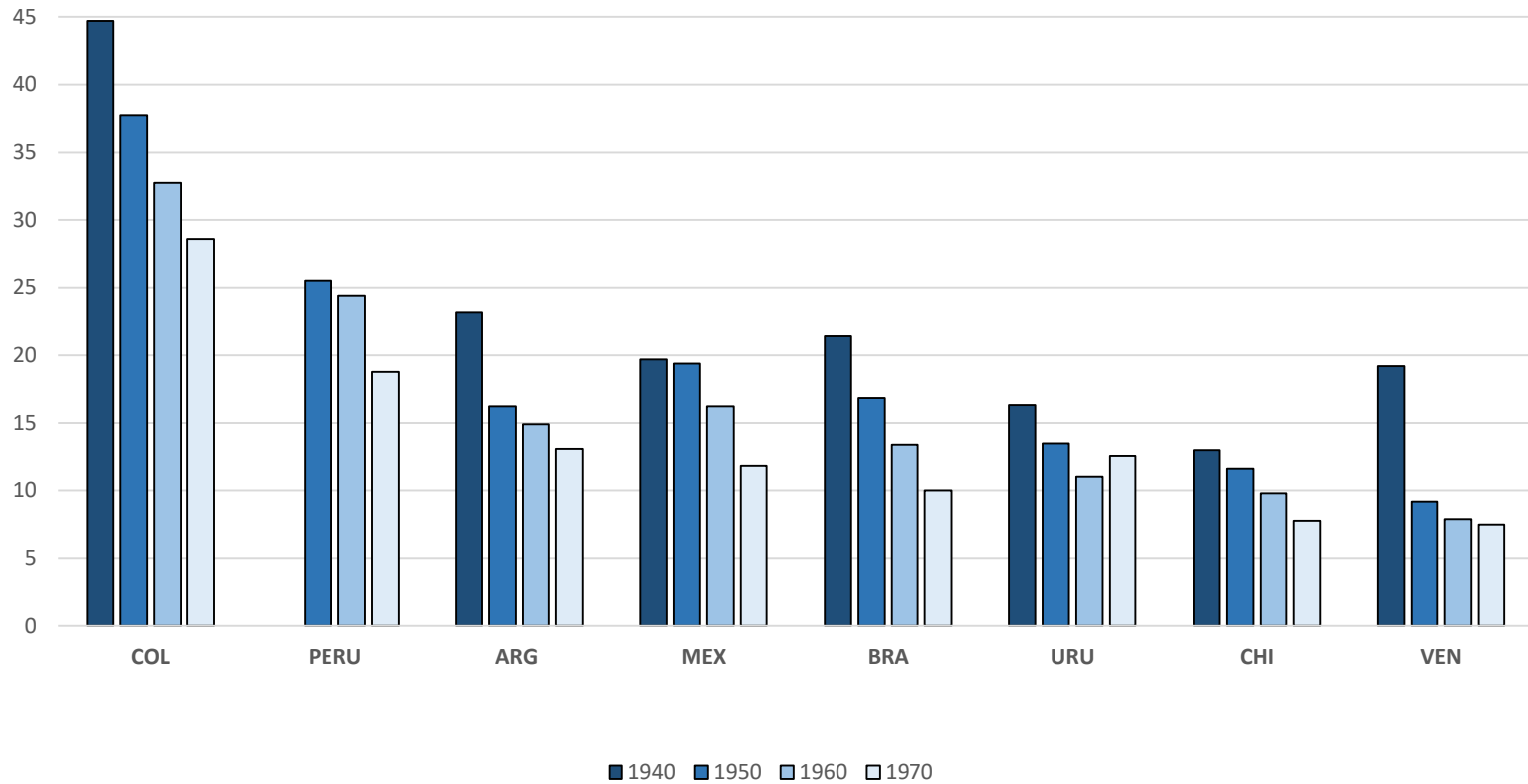
- State-led Industrialisation
 - (Ocampo & Tovar, 2000; Bertola & Ocampo, 2012; Munck, 2003; Edwards, 1995...)
- Import-Substituting Industrialisation
 - (Chu, 1983; Berry, 1977; Cabrera, 1977; Saenz-Rovner, 1997; Poveda, 1970....)

In common:

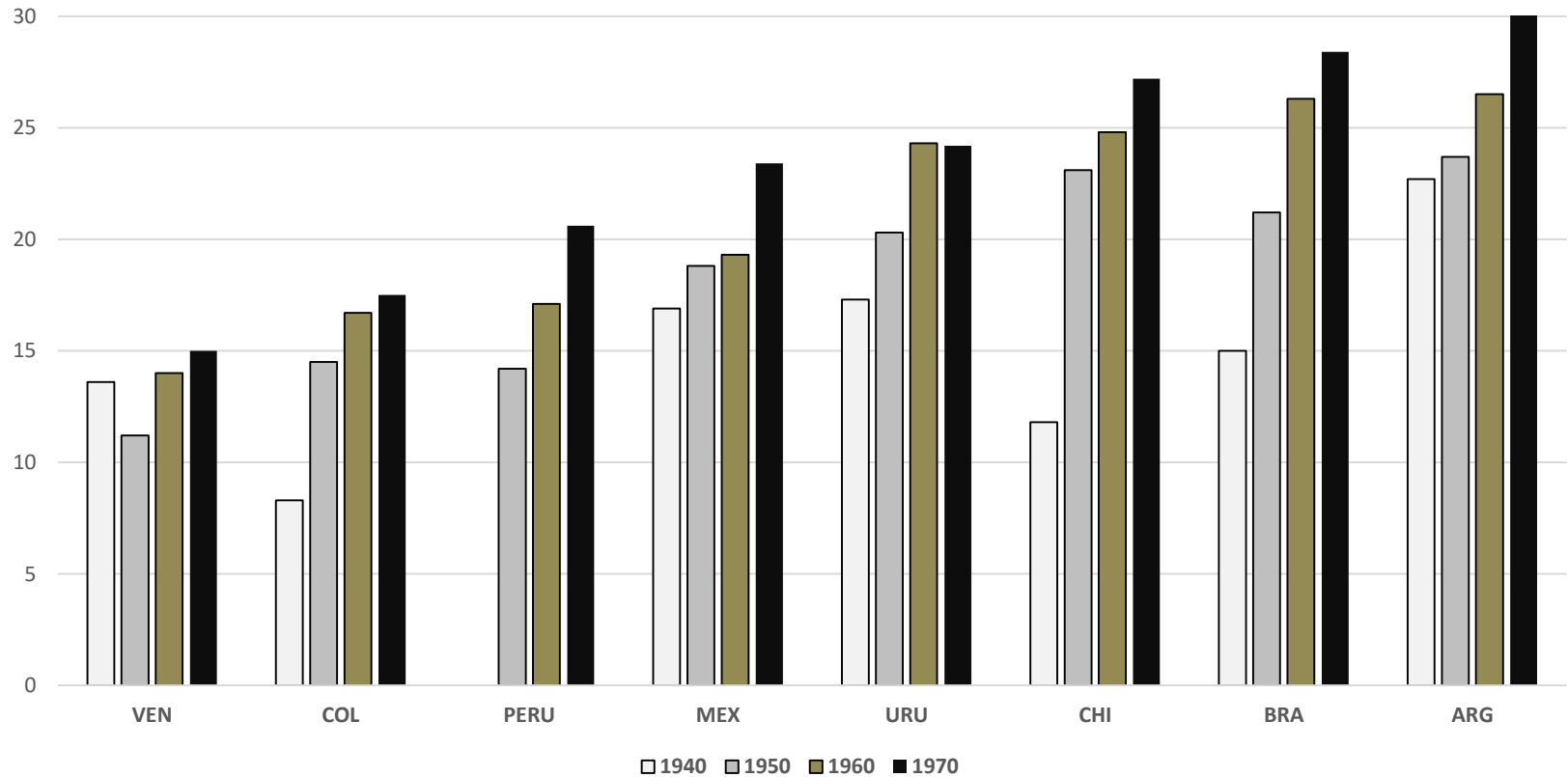
Structure of Presentation

- 1940 – 74
 - Literature note
 - Not as we ´ve been told (ISI & State-led)
 - Overview Industrialisation – short & shallow
 - Commercial Protectionism
 - Direct Industrial Promotion (IFI)
 - Credit
- 1975 – 2015
 - Deindustrialisation (Emp, VA, wages, production)
 - Taxation
 - Protection

LA8: Agriculture as Share of GDP, 1940-70 (Percentages)



LA8: Manufacturing as Share of GDP, 1940-70 (Percentages)

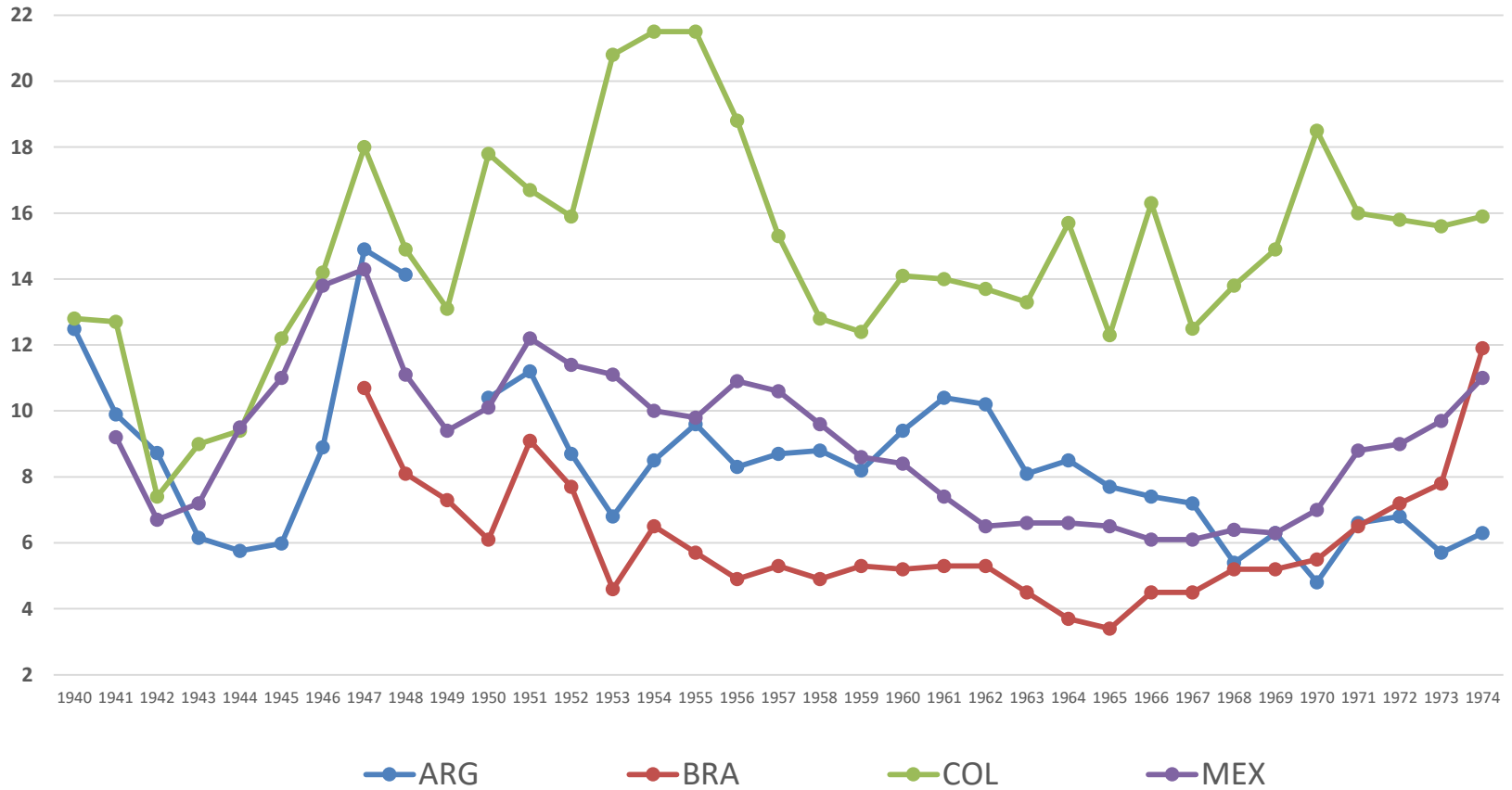


Colombian Industrialisation – Shallow

	Brazil	Mexico	Argentina	Chile	Colombia
Basic metals	8,8	4,4	6	30,9	3,8
Transport equipment	7,4	14,5	10,9	6,2	4,5
Metal-mechanics	21,4	14,9	14	10	10,4
Subtotal (non-traditional)	37,6	33,8	30,9	47,1	18,7

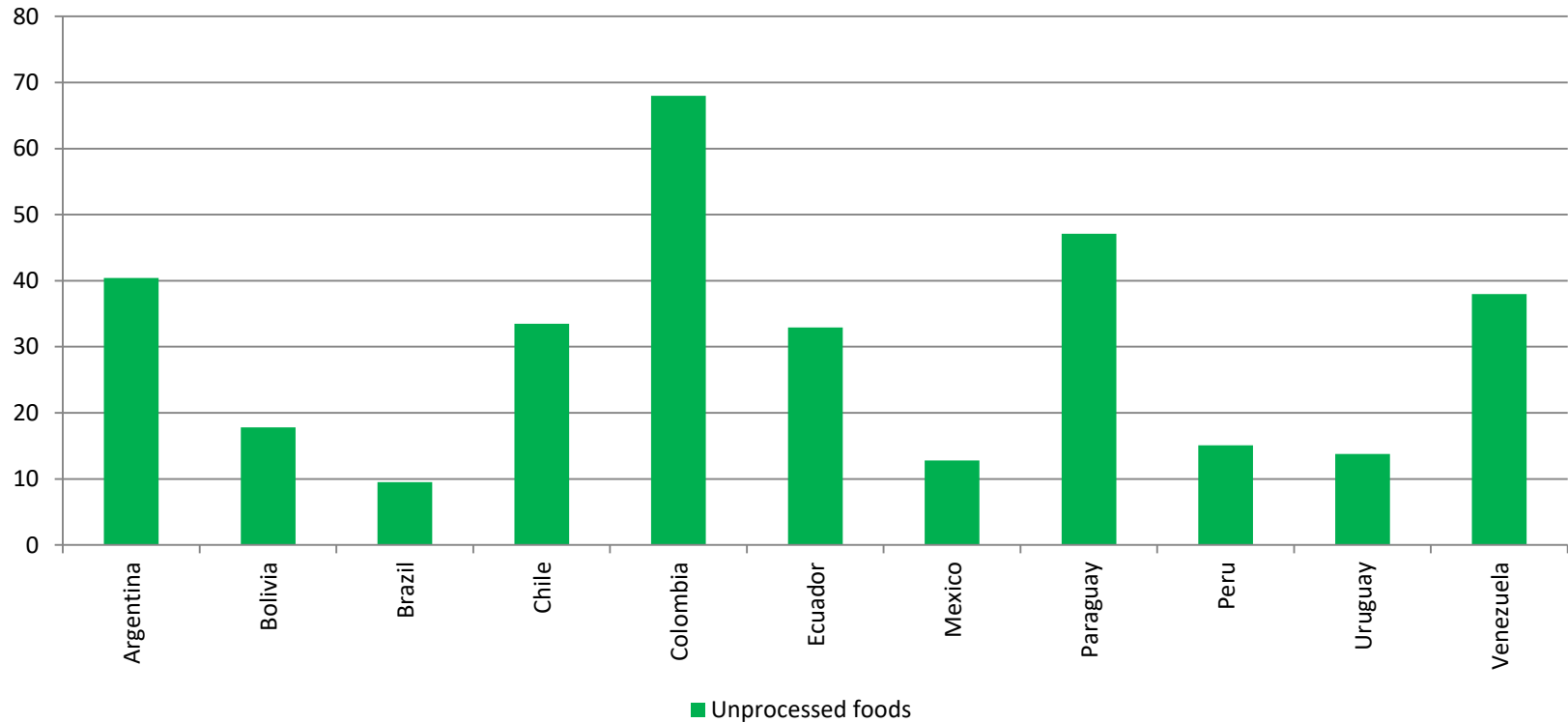
Economic Openness: Colombia and Other ISI Nations, 1940-74

(IMs as % of GDP)

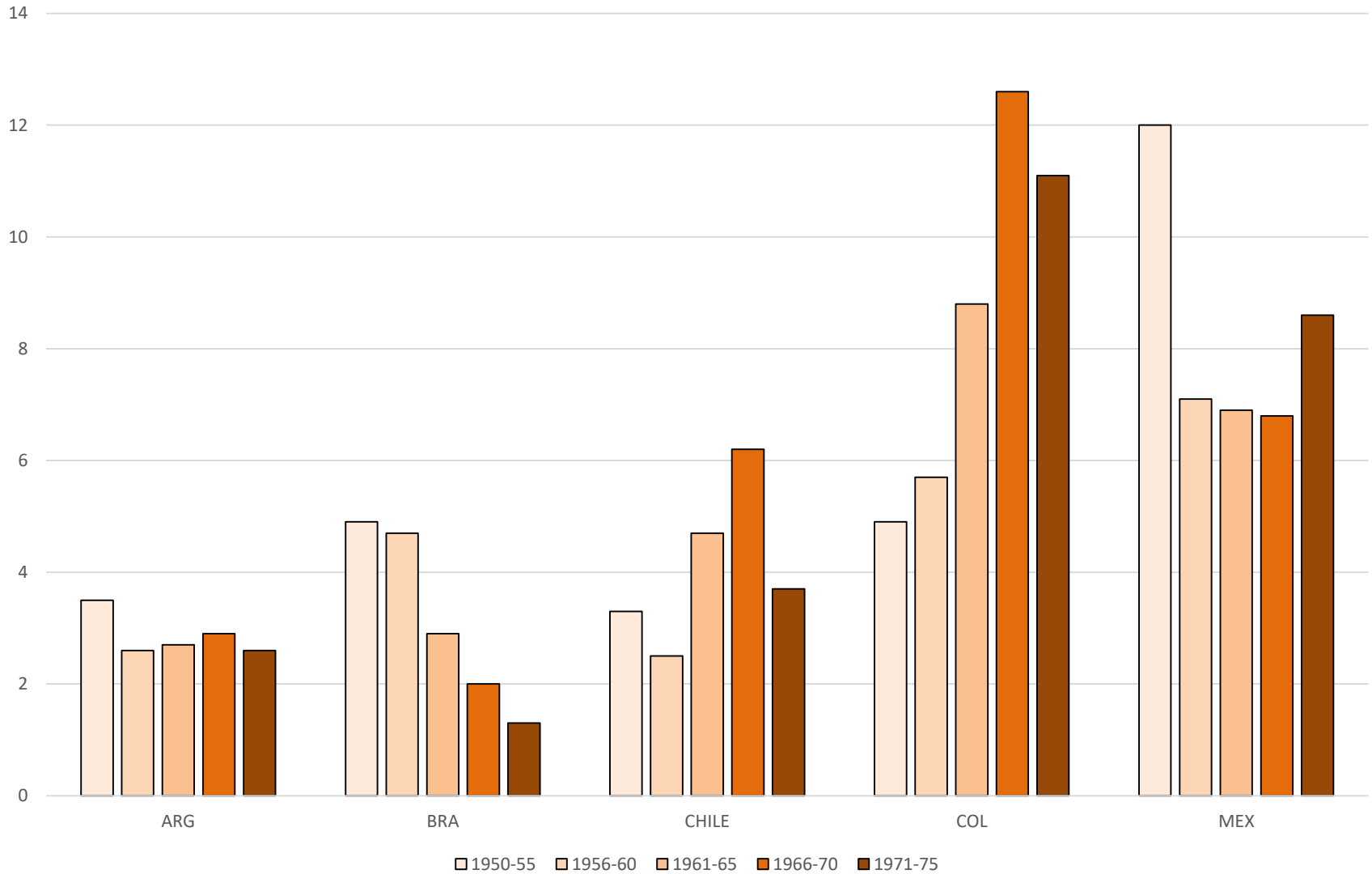


LATIN AMERICA: AGRICULTURAL PROTECTIONISM, 1956-59

(CUSTOM DUTIES & OTHER CHARGES: On Import values, c.i.f. – percentages)

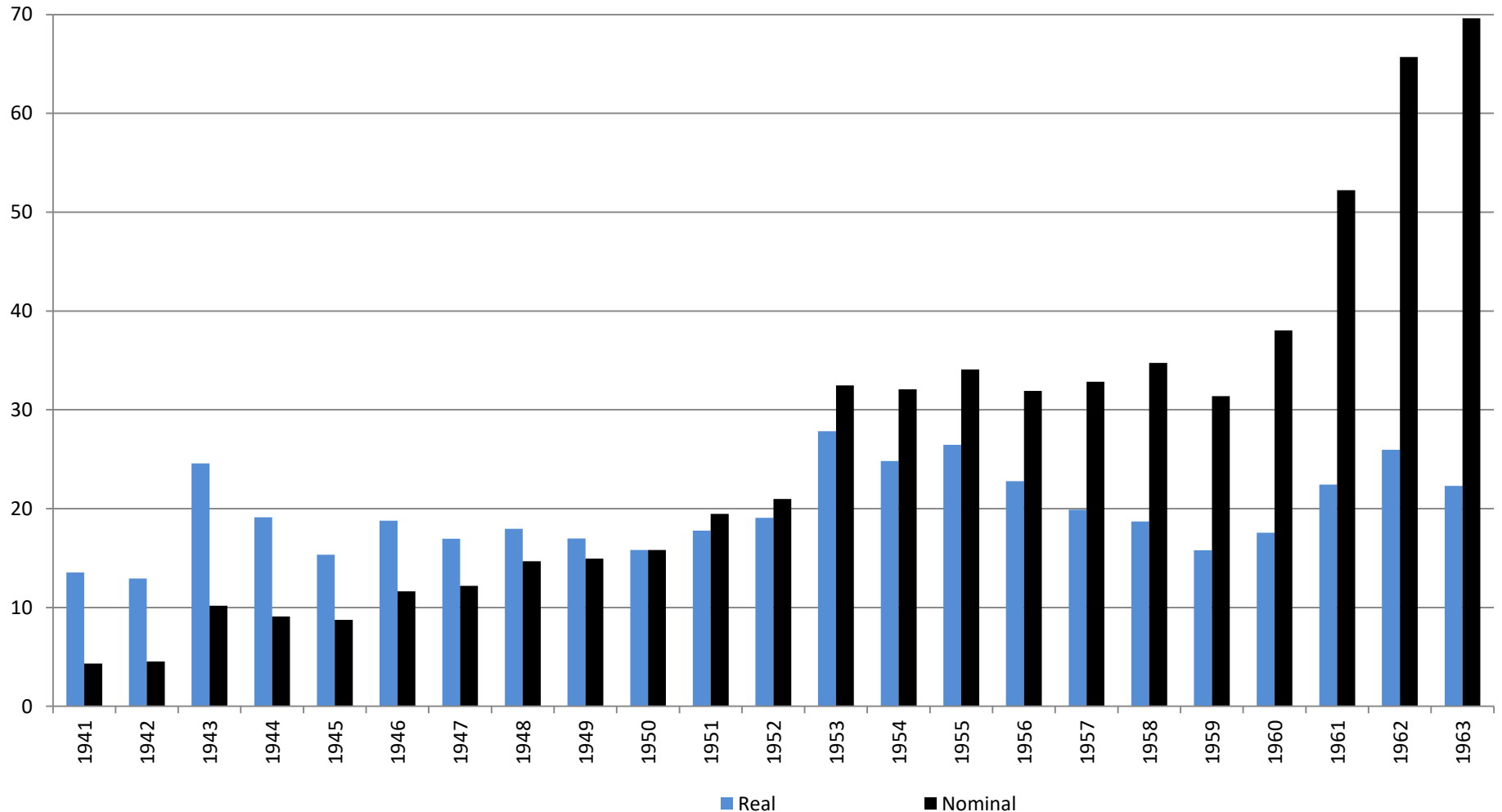


LA5: GOVERNMENT EXPENDITURES ON AGRICULTURE AS PERCENTAGE OF TOTAL GOVERNMENT SPENDING, 1950-75

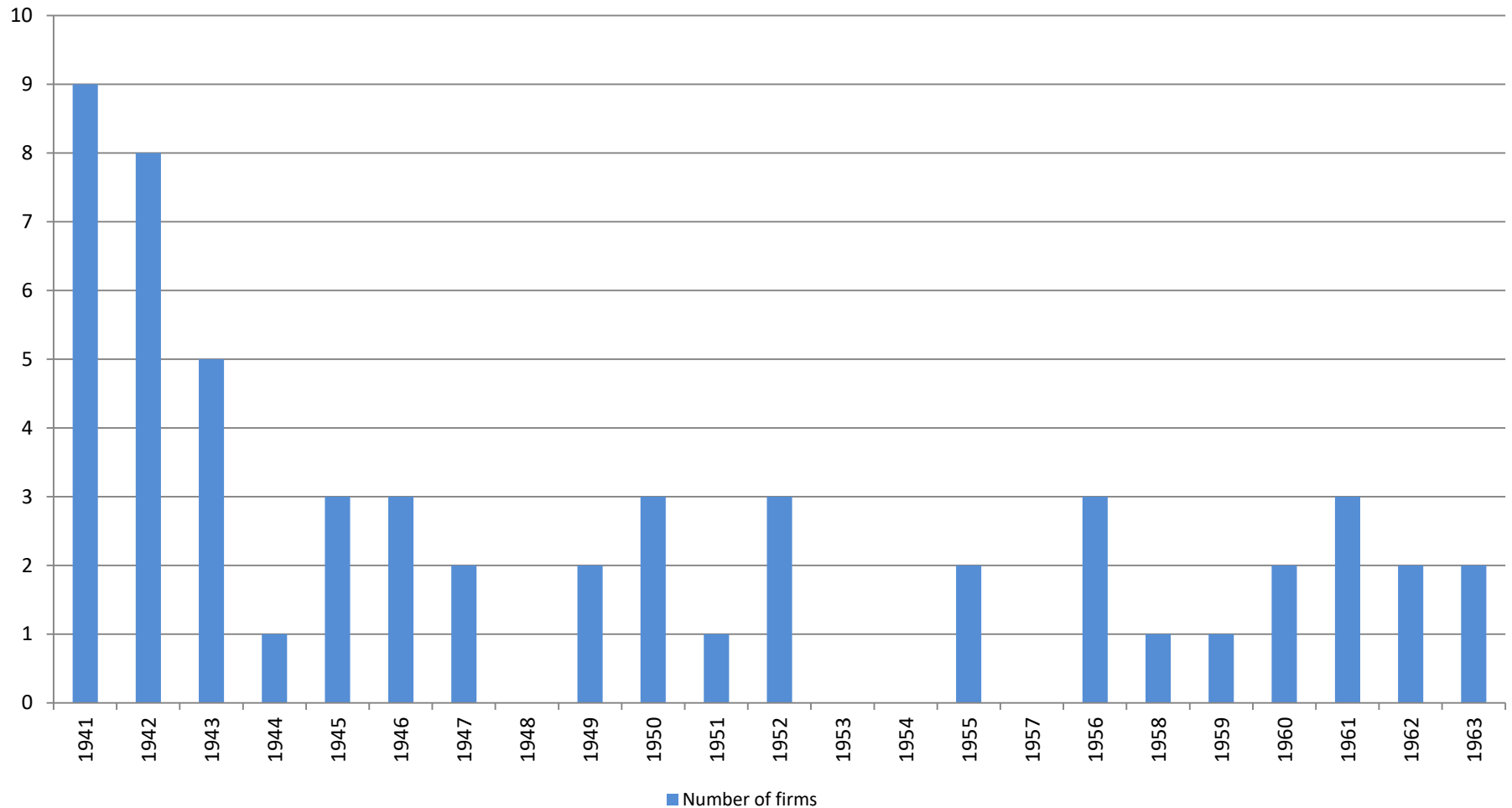


Direct Promotion: Institute of Industrial Development (IFI), 1940-63

A Paper Tiger? (Total Assets -MIn Pesos)

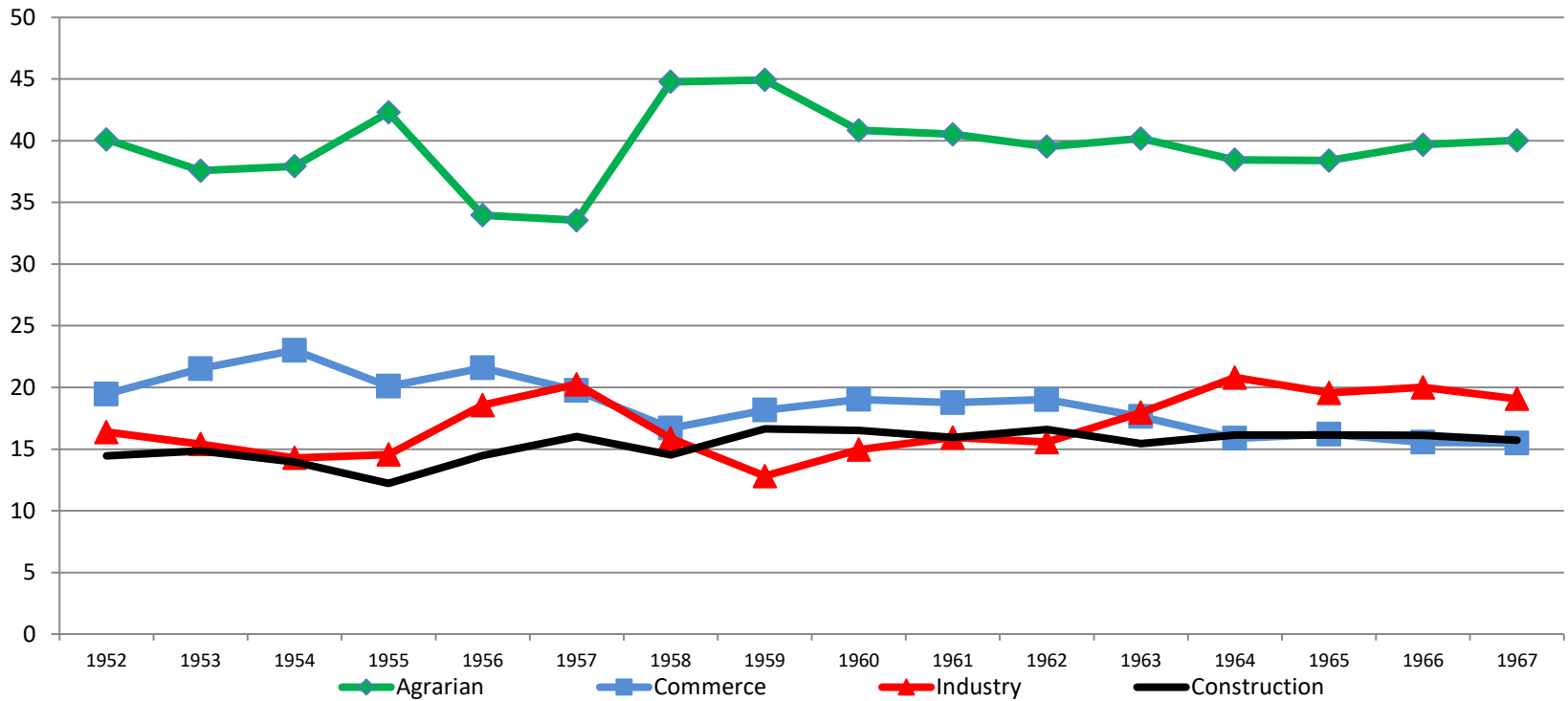


Direct Industrial Promotion: IFI Developmental Activities



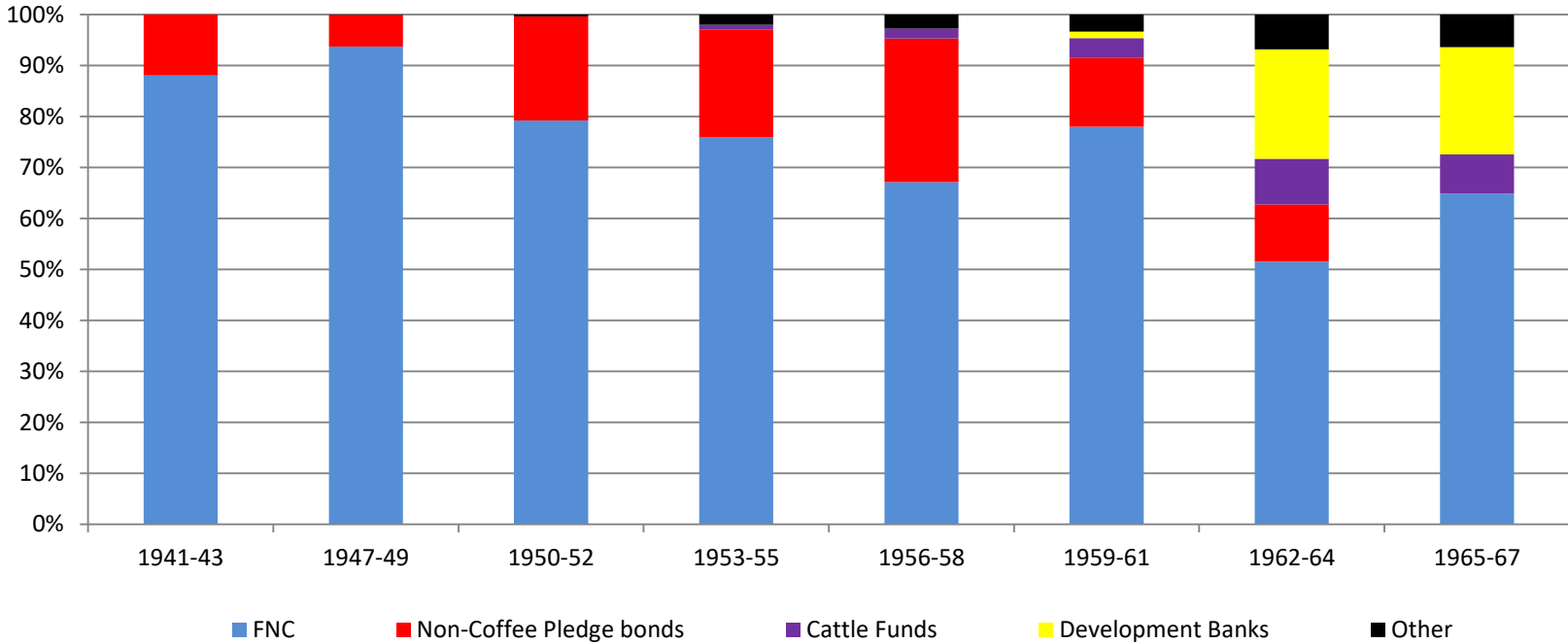
CREDIT ALLOCATION BY THE ENTIRE BANKING SYSTEM, 1952-67

(Outstanding Loans – Percentages)

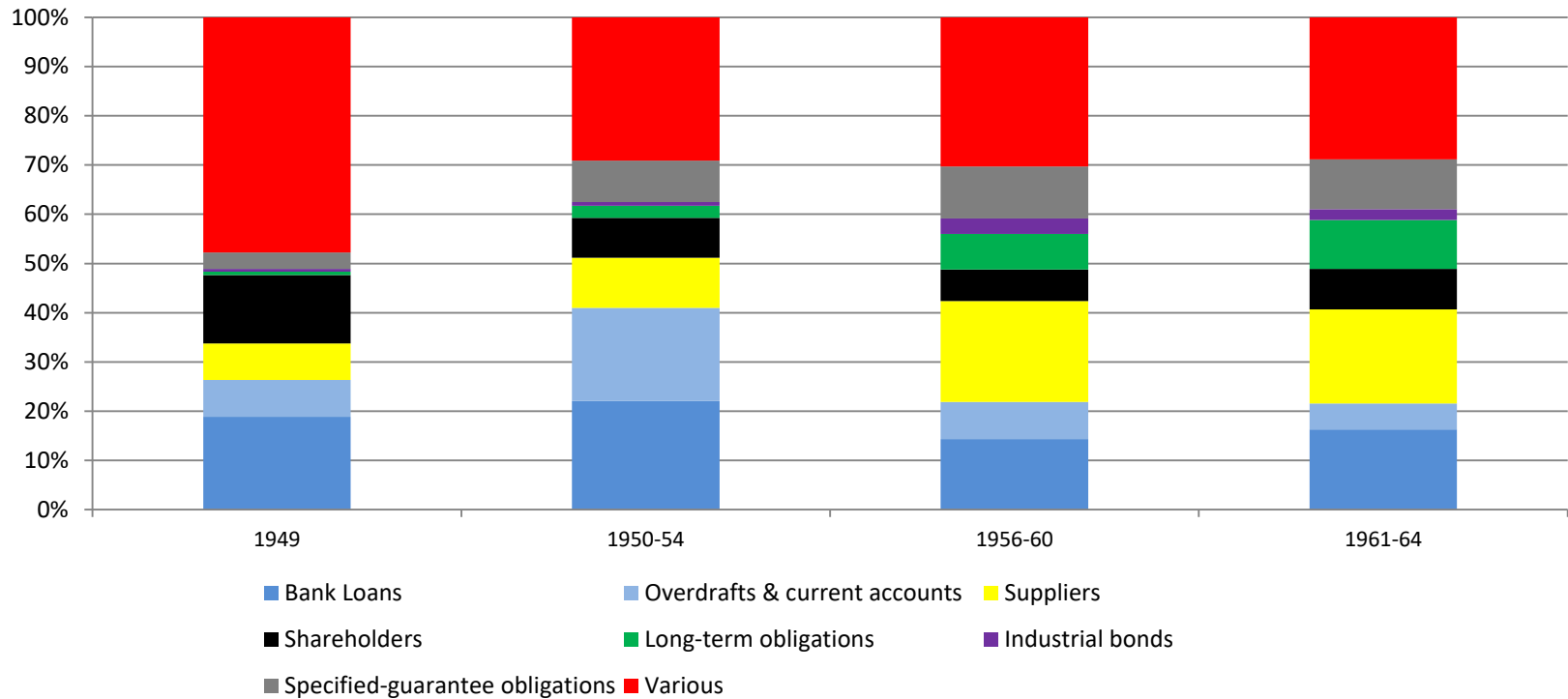


Loans & Discounts by CB, 1940-67

(3-Year Averages of Year-End Balances – Percentages)



LIABILITIES BY TYPES OF CREDITORS, 1949-64: NATIONAL LIMITED-LIABILITY MANUFACTURING COMPANIES (Percentages)

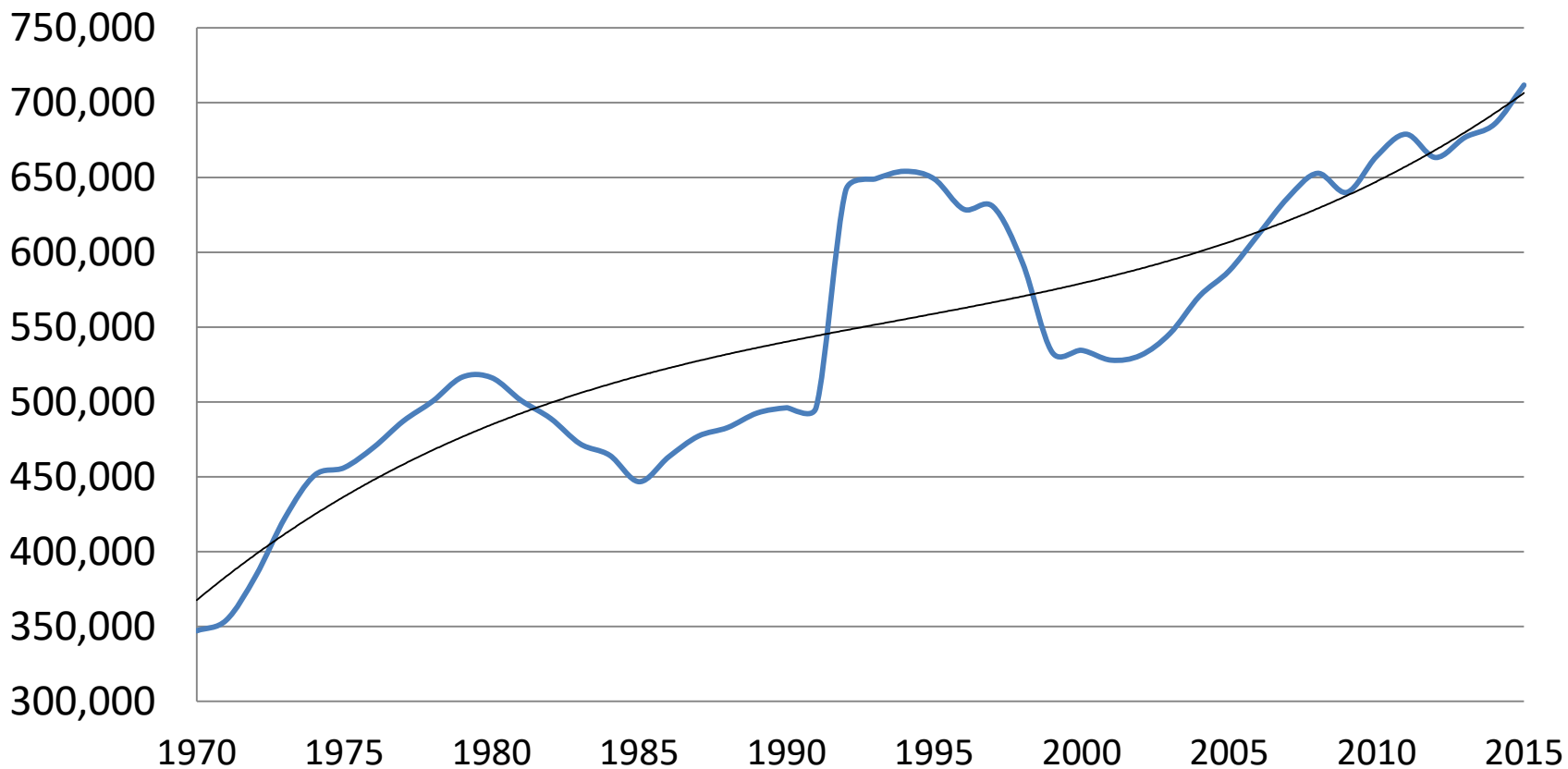


Credit to Industrialists a Privilege?

COMAPRISONS OF CREDIT TO ICORs, 1940-67	Coffee	Livestock	Non-Coffee Agriculture	Industry	Services	All Activities
ICORs [A]	0.37	0.52	0.87	1.19	2.54	1.93
Sector to Overall ICORs [B]	0.19	0.27	0.45	0.62	1.32	1.00
Loans to Output [C]	0.13	0.29	0.11	0.21	0.22	0.19
Sectoral to Overall Loans to Output [D]	0.66	1.52	0.56	1.10	1.12	1.00
D/B	3.39	5.62	1.24	1.79	0.85	

Average Growth rate of employment: 1.6% per annum

Industrial Employment

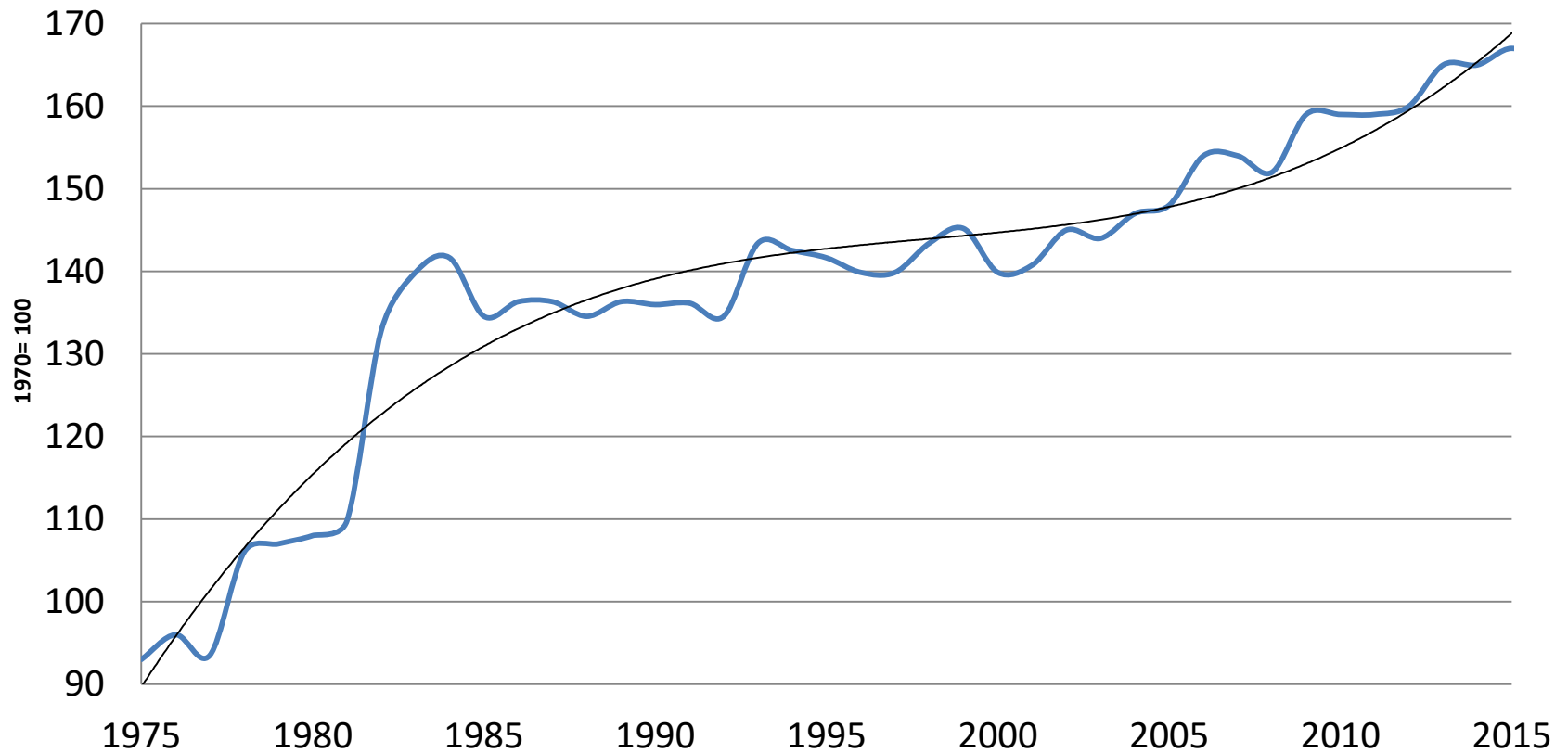


Industrial employment in total

- It has not been higher than 3,5%, even in the golden age of industrialization
- 1975 3,5%
- 1985 3,1%
- 1995 3,2%
- 2005 3,3%
- 2015 3,2%

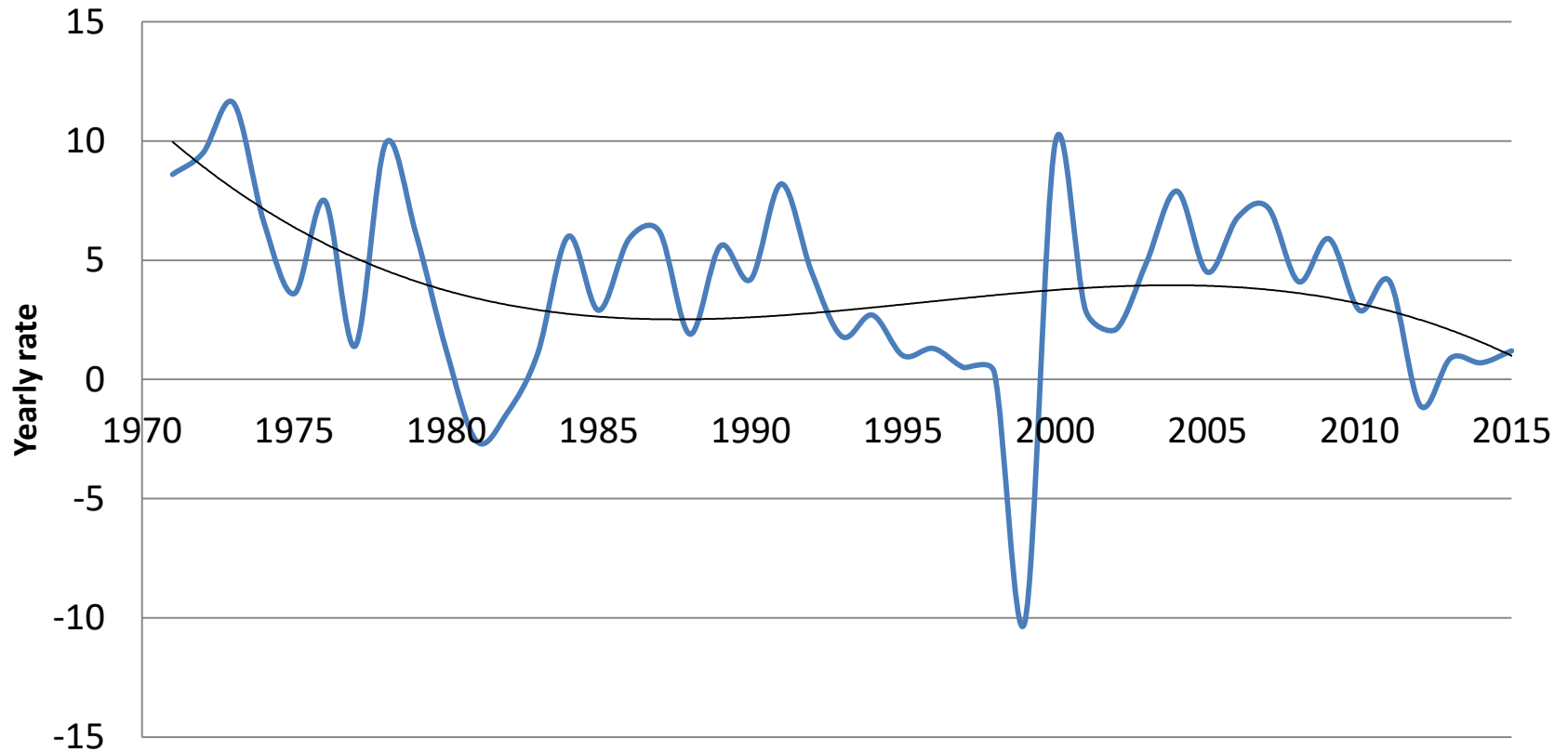
Wages stagnated 1985-2005

Industrial wage index



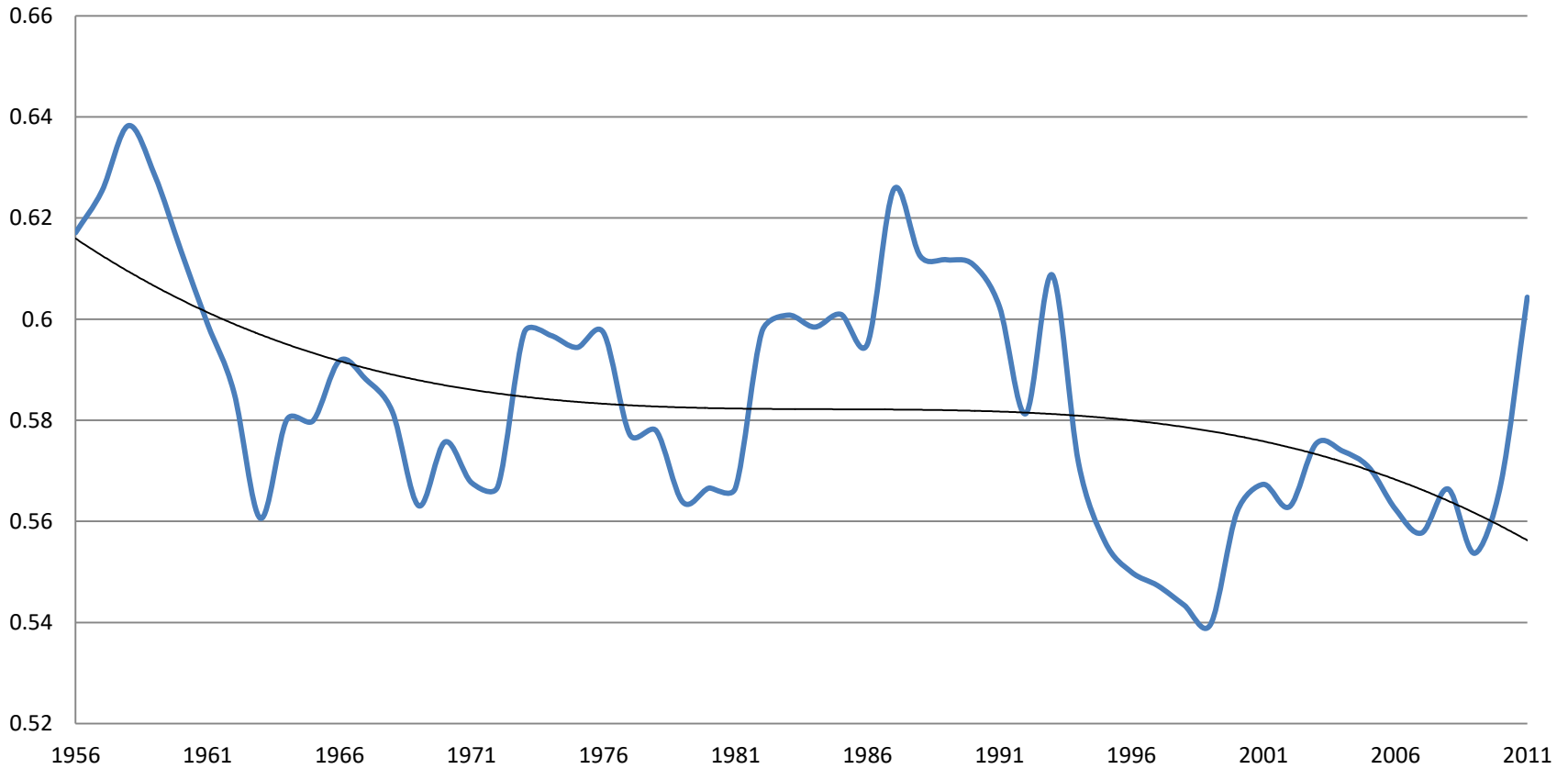
Value added Growth

Industrial VA Growth

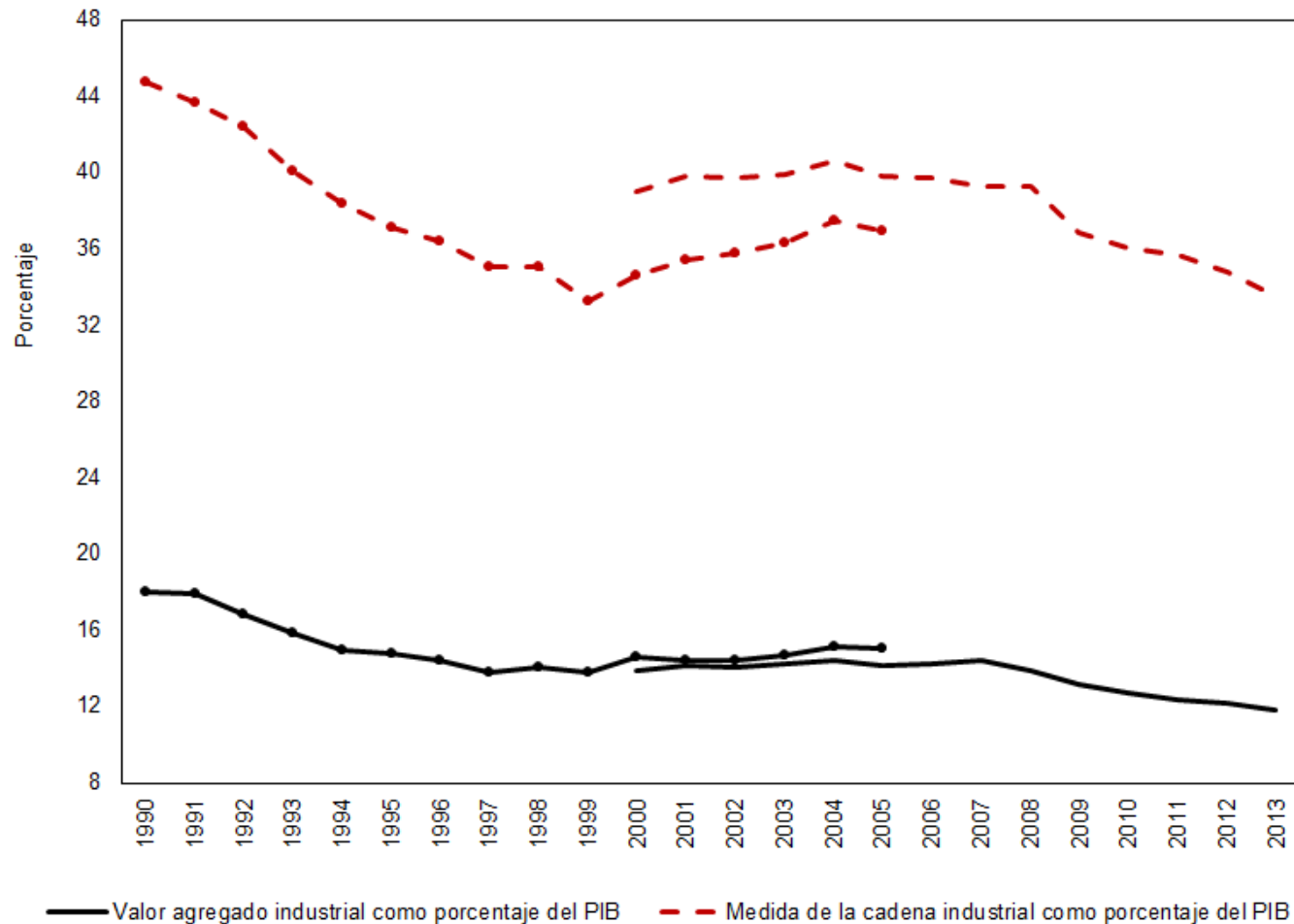


Higher input Transformation

Intermediate Consumption in Gross Industrial Production



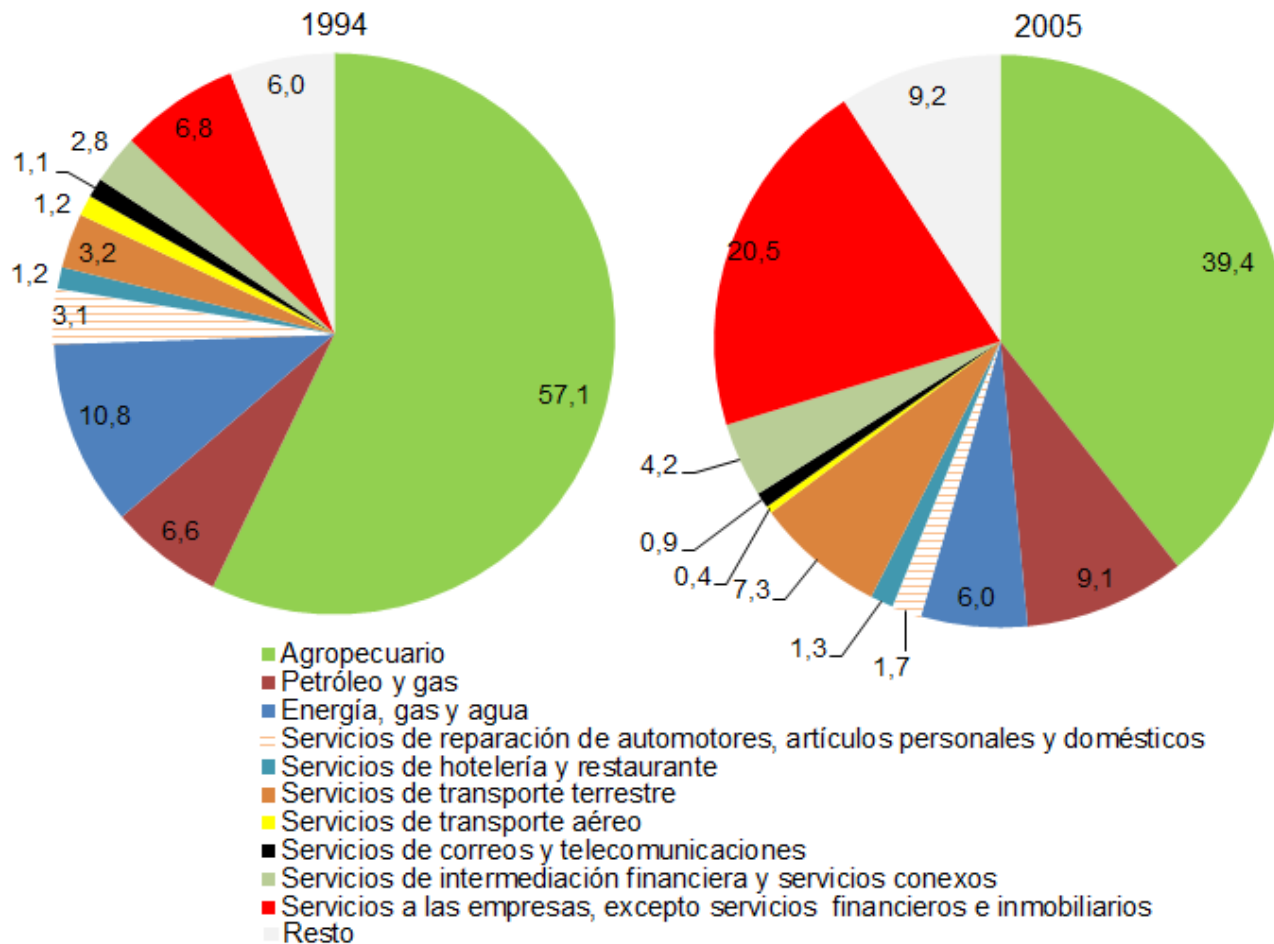
Value added falls more than the industrial chain but not really



Hard evidence for deindustrialization

- The weight of the industrial chain in gross production, considering services provided by other sectors of the economy, falls 25% between 1990 and 2013. If we chain the upper series the fall will be closer to 30%. The share of industry in GDP is reduced by 35%, according to the same author who fights the deindustrialization hypothesis
- See Stefany Moreno, 2016 “Estructura vertical de la industria manufacturera colombiana entre 1990 – 2013”, *Borradores de Economía* 925, Cali: Banco de la República.

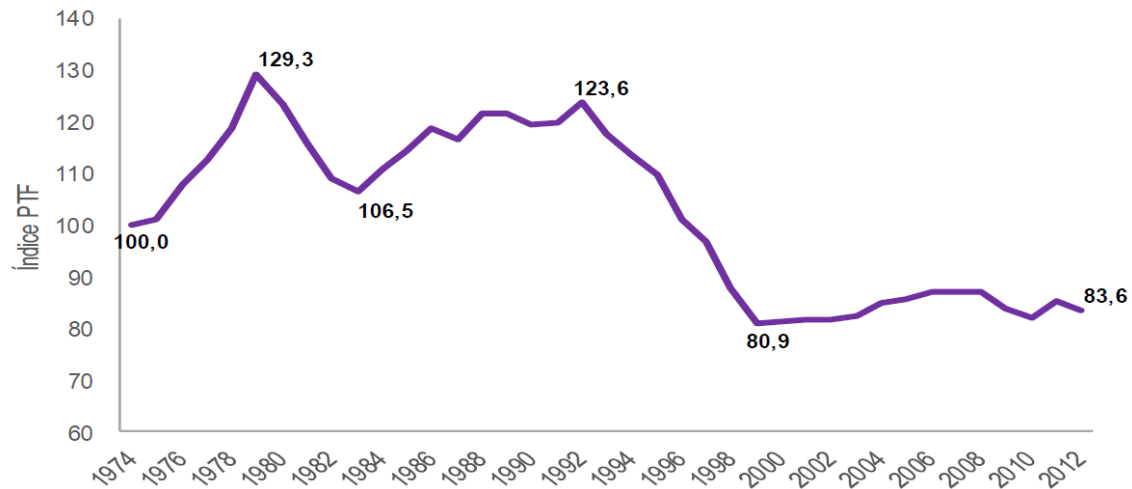
Change in intermediate consumption



Industrial PTF Index

Gráfica 9

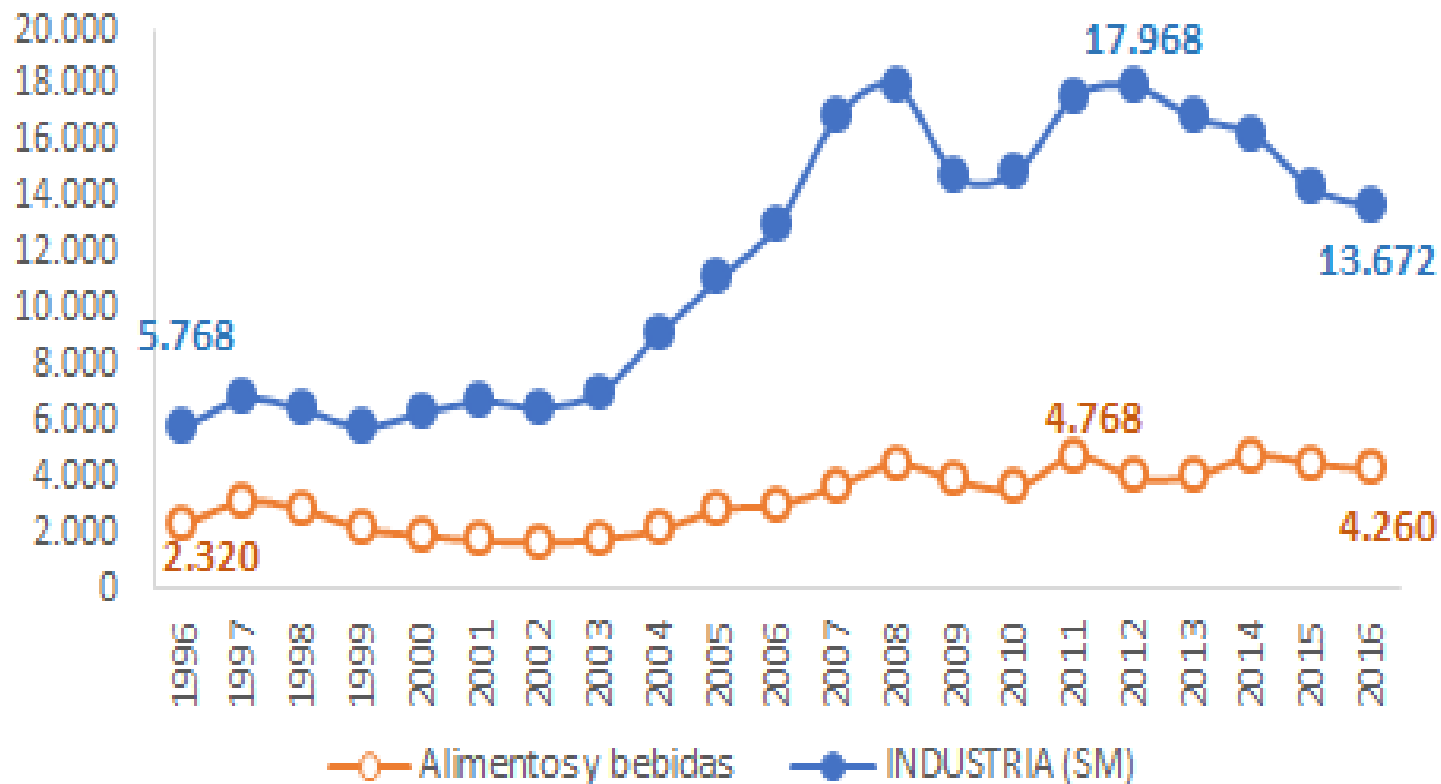
Evolución del Índice de la Productividad Total Factorial (PTF) del Sector Manufacturero (1974-2012)
Total Industria 1974=100



Fuente: DANE-EAM. Cálculos del autor.

El cuadro 5 muestra la evolución de la tasa de crecimiento de la PTF por 21

Total Industrial, food and coffee Exports 1996-2016



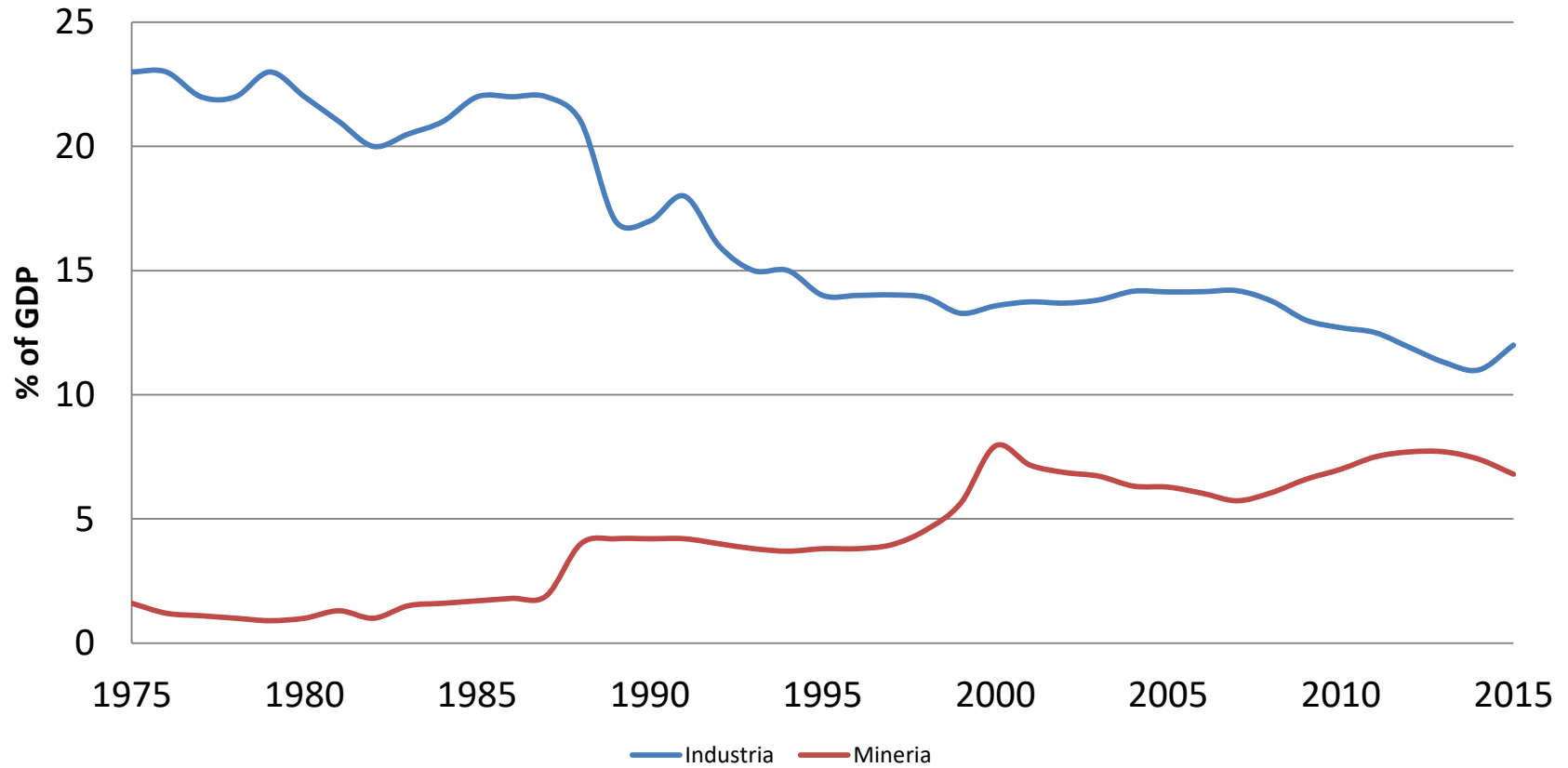
Industrial exports in 2016

Millions US\$

- 15 Food and beverages US\$4.260 31,2%
- 24 Chemicals US\$2.779 20,4%
- 27 Metallurgical 2.261 16,6%
- 25 Rubber and Plastic 549 4,0%
- 34 Vehicles , US\$534 3,9%
- 29 Machinery 461 3,4%
- **Total US\$13.636**
- These six divisions concentrated most of the industrial exports of the country: USD\$4,000 millions in 1996 and USD\$12,000 millions in 2010-2016. There was no widespread access to the export market by most divisions on the Colombian industry.

There was a sharp change in economic structure.

Share of industry and mining in GDP



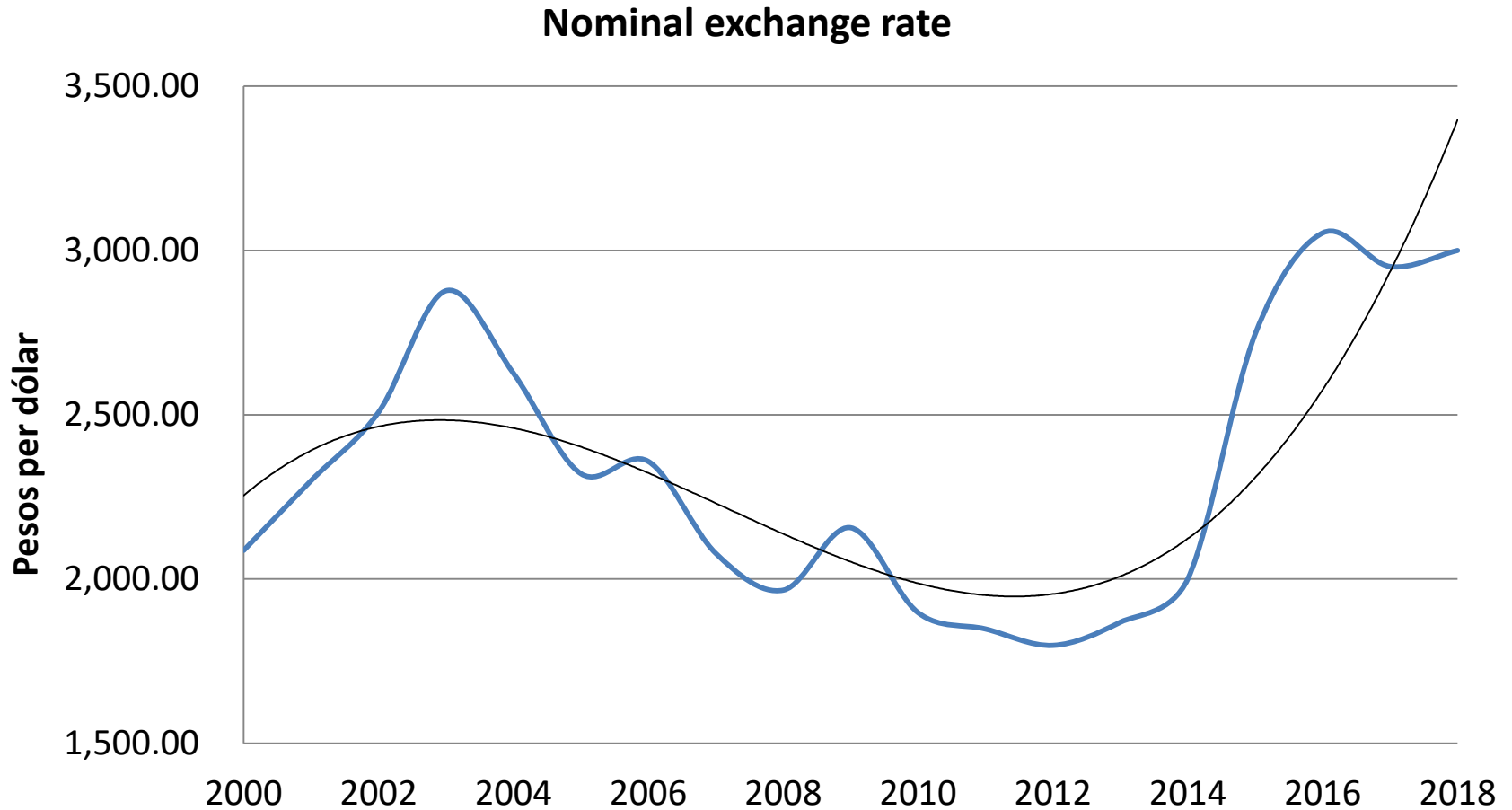
Industry exported little but mining sent most of its product to the globe

- Industry was labor intensive while mining was capital intensive.
- Therefore, the displacement effect was greater than the expansion of domestic demand, thru government expenditure.

Was there Dutch disease?

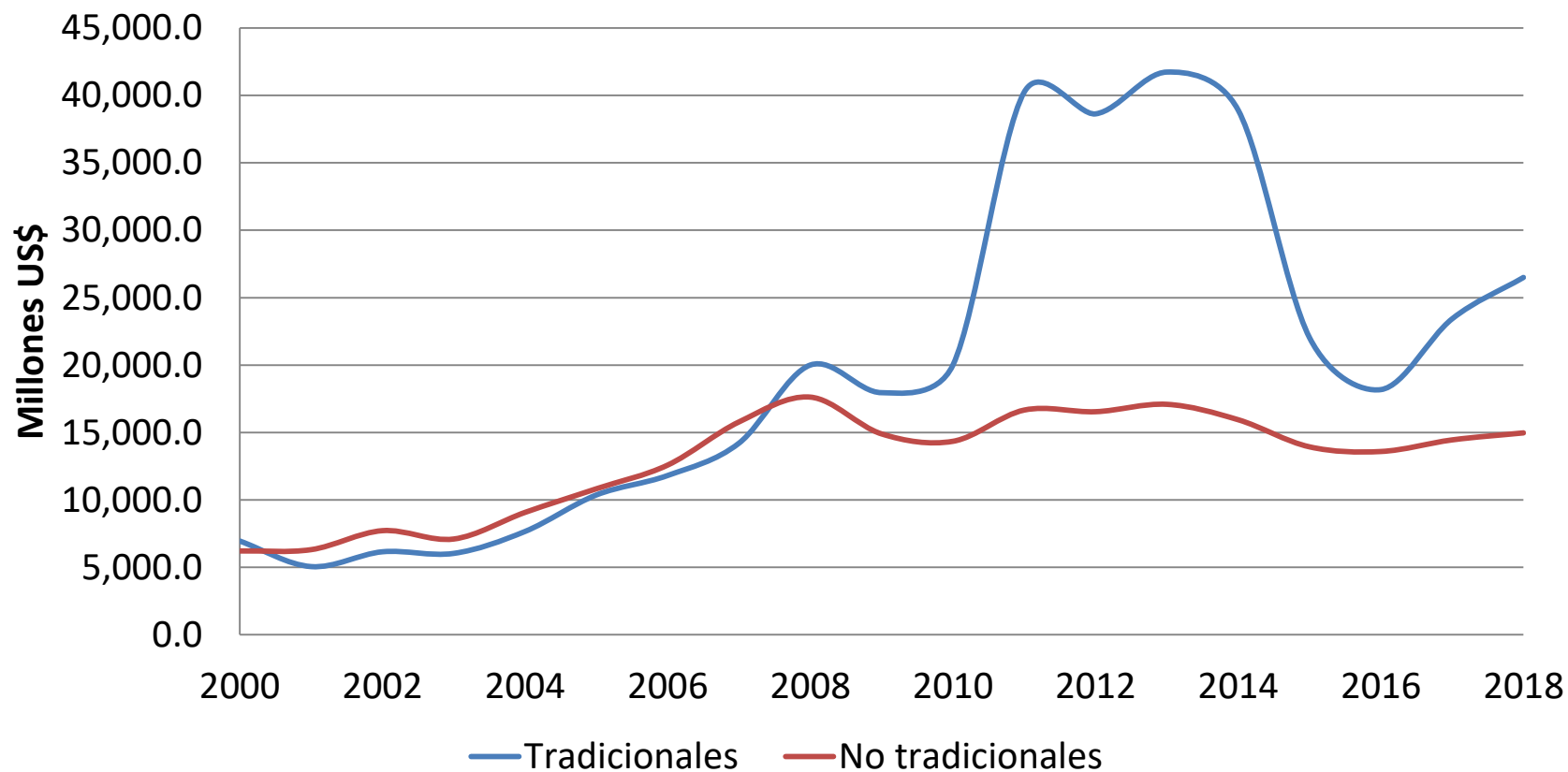
- Definition: Process in which the export of a natural resource containing rent appreciates the exchange rate, displaces activities not participating in the rent, either in the form of exports or domestic production.
- We can check the level of the exchange rate.
- We can compare exports containing rent (traditional) with those without rent (non traditional).
- Then we can analyse the share of imports in the market of manufactures, including industrial exports.

Strong appreciation followed by sharp depreciation



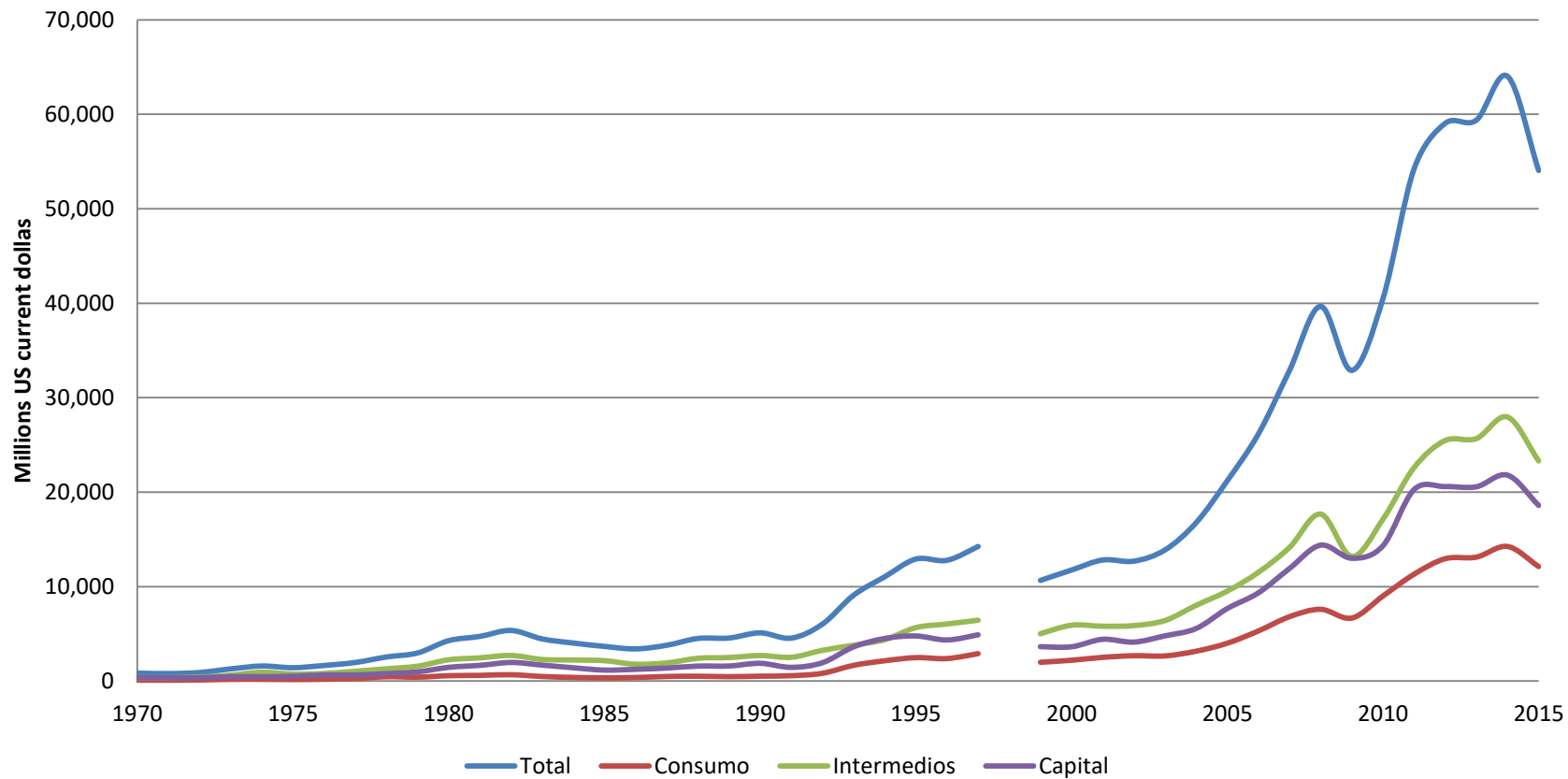
Traditional exports include oil, non traditional are mostly industrial

Exportaciones tradicionales y no tradicionales



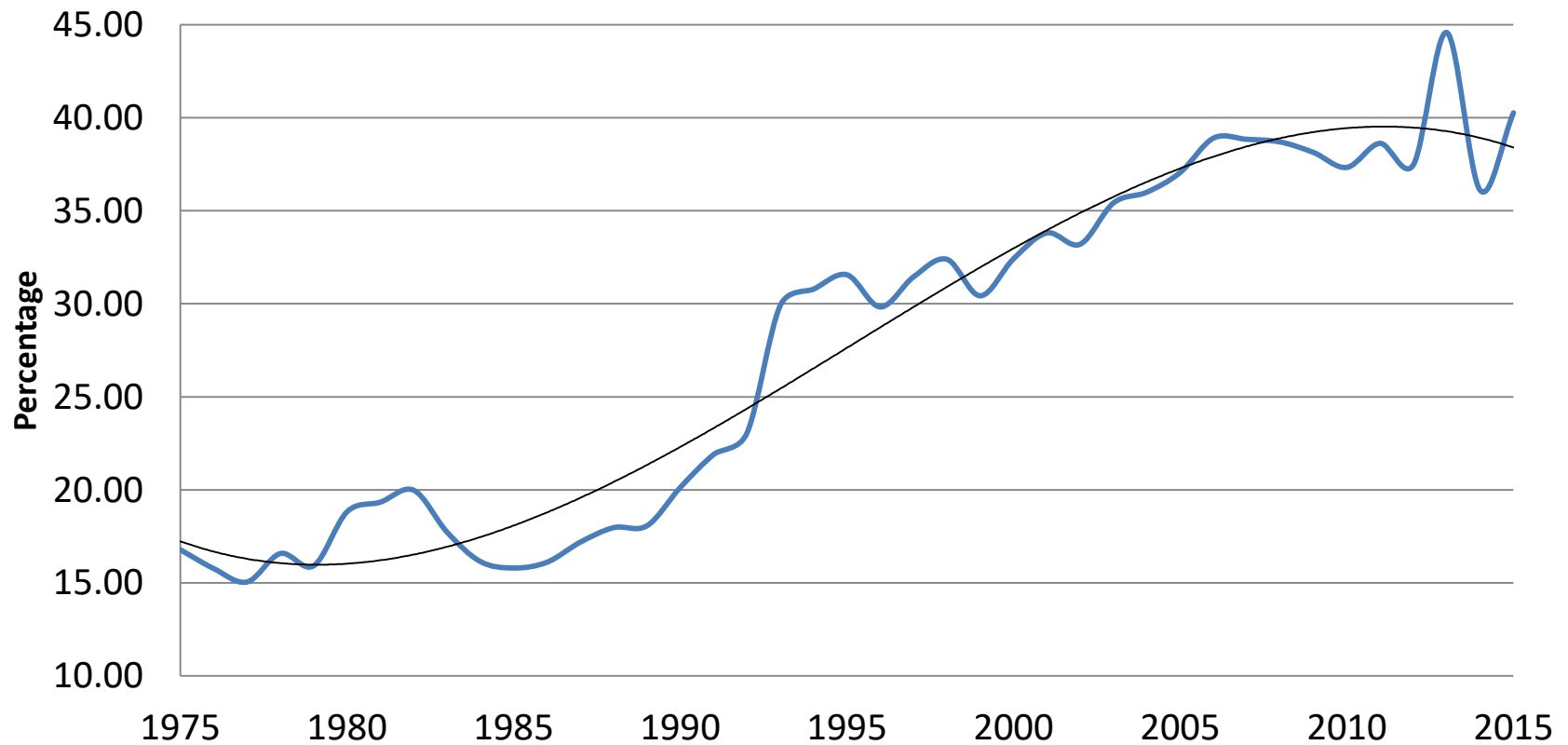
Imports had a huge increase after 1992

Imports by use



Industrial Imports share in apparent industrial consumption = $M/(Y+M-X)$

Total Industrial Import Penetration



Which industrial sectors were most affected?

Import Penetration in some industries

Item	1975	2000	2015
Food	2	10	20
Tobacco	1	22	20
Textiles	2	36	52
Shoes	0.5	10	20
Garments	5	5.3	20
Iron and Steel	36	45	47
Machinery	63	83	83
Autos	36	60	72

The three symptoms of Dutch disease are present

- Appreciation of the exchange rate.
- Displacement of exports lacking rent by oil exports.
- Displacement of domestic production by cheapened imports.

Colombian industry was not favored by the state in this period either

- The income tax is heavily charged against firms. It amounts to 7% of GDP, and only 1% is paid by individuals. Total tax collection amounts to 15% of GDP.
- The weakness of the income tax goes hand in hand with payroll taxes and social security contributions: 4% goes to Cajas de Compensación which is a peculiar figure taken from Falangist Spain which favors some oligopolistic groups at the national and local levels; another 4 and 2% goes to a work training institute and a Family wellbeing Intitute, although these two have been suspended for smaller firms; 8% has to be paid by the firm for health insurance and 12% for pension funding. They sum up between 24 to 30% of the payroll.
- Then there are VAT taxes of 19% for processed goods and heavy taxes on fuel than hit transport costs. There are very few free roads and tolls are quite high. Heavy subsidies for ethanol and palm oil producers added to fuel and diesel prices, compounding transport costs.

Other sources of industry's discomfort.

- Narcotrafficking financed great amounts of contraband at black exchange rates, for money laundering purposes, not shown in our data.
- Bad quality of transport infrastructure, high energy tariffs and deficient supply of natural gas. Lousy logistics in customs and ports.
- Poor public investment in human capital.

Industrial protection was abandoned

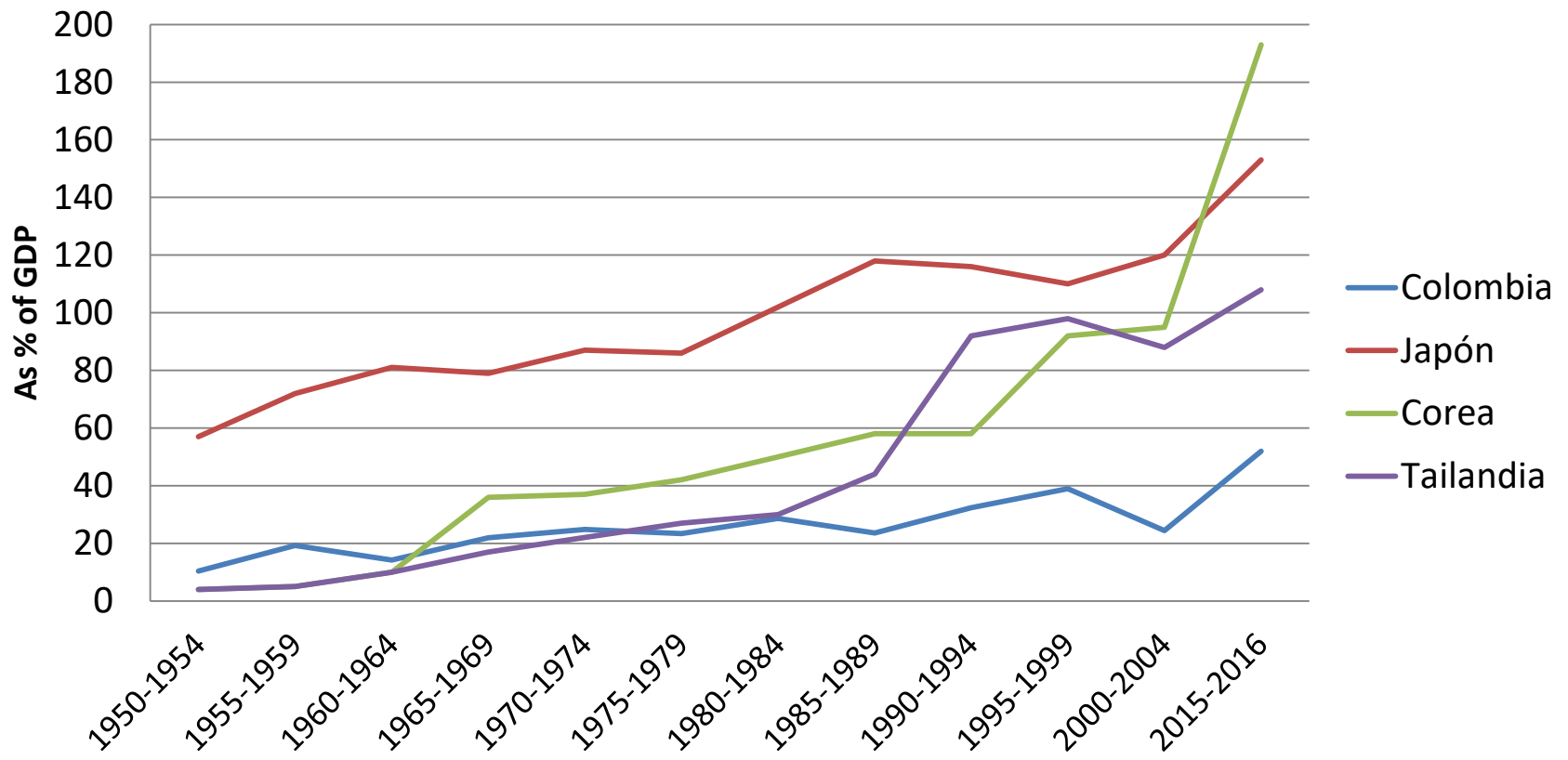
- Tariffs were around 40% and were decreased to 12% in the nineties and 6% at present.
- Protection continued for agriculture, specially for sugar, palm oil and rice.
- The real exchange rate appreciated sharply and worst it became volatile at the tune of the prices of oil and coal.

During the interventionist era, specialized banks offered some industrial credit

- In the 1970's credit started to depend on private savings in the mortgage banks and time deposits became widely used by the rest of the financial system. High inflation impeded the widespread supply of credit.
- The financial system was very shallow and started to deepen up. After a financial crisis in 1999-2000, specialized banks were dissolved and credit flowed more freely to all the sectors of the economy.
- With the taming of inflation after 2003, interest rates came down and demand and supply of credit were normalized.

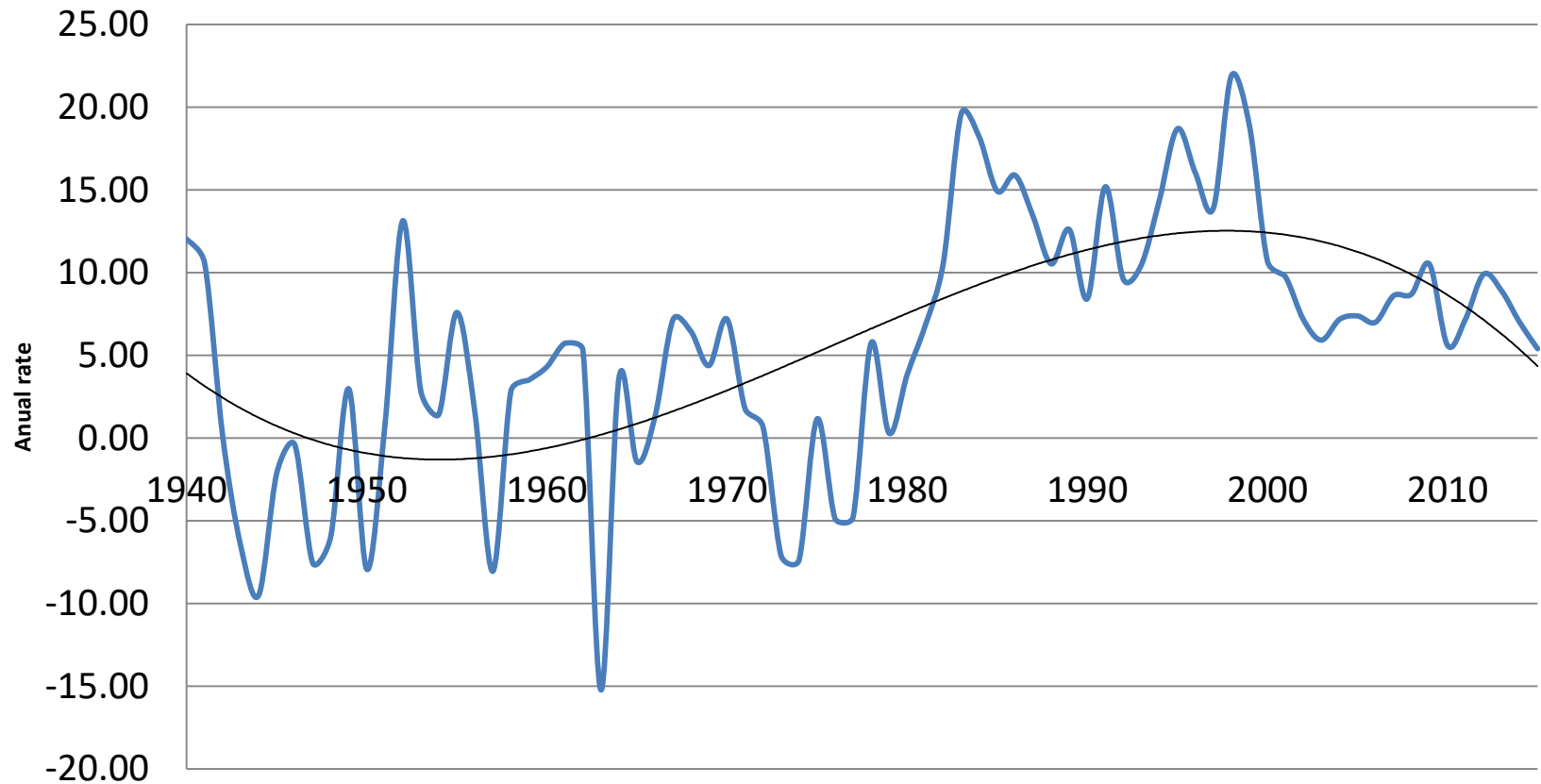
Compared wiht some Asian economies

Net Credit



In the 80's there was high inflation and banking freedom

Real active interest rates



In conclusion

- In the beginning there was no strong compromise of the Colombian elites in favor of industrialization. Agriculture received more public resources than industry.
- Protection and credit provision to industry were weakened up during the 80's and 90's.
- Macroeconomic policy allowed for the volatility of the exchange rate and long term appreciation since 2000.
- Deindustrialization was fast and blunt.