The Art of Emerging Markets: A Latin American Perspective

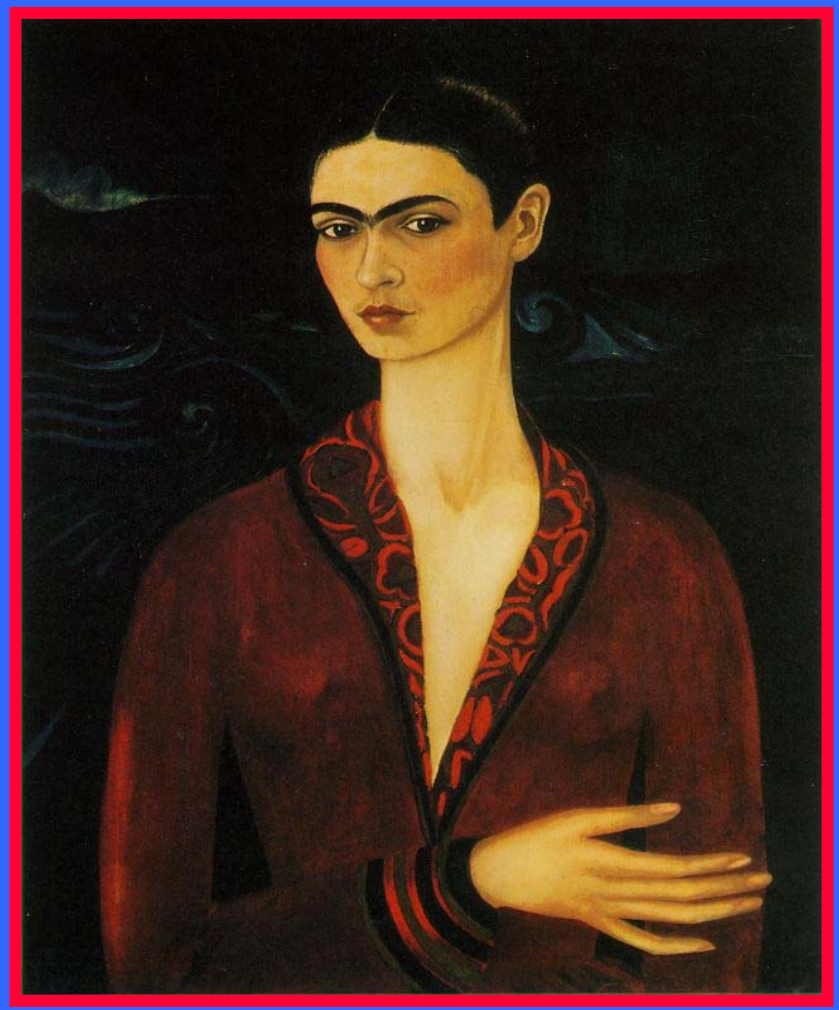
By

Sebastian Edwards

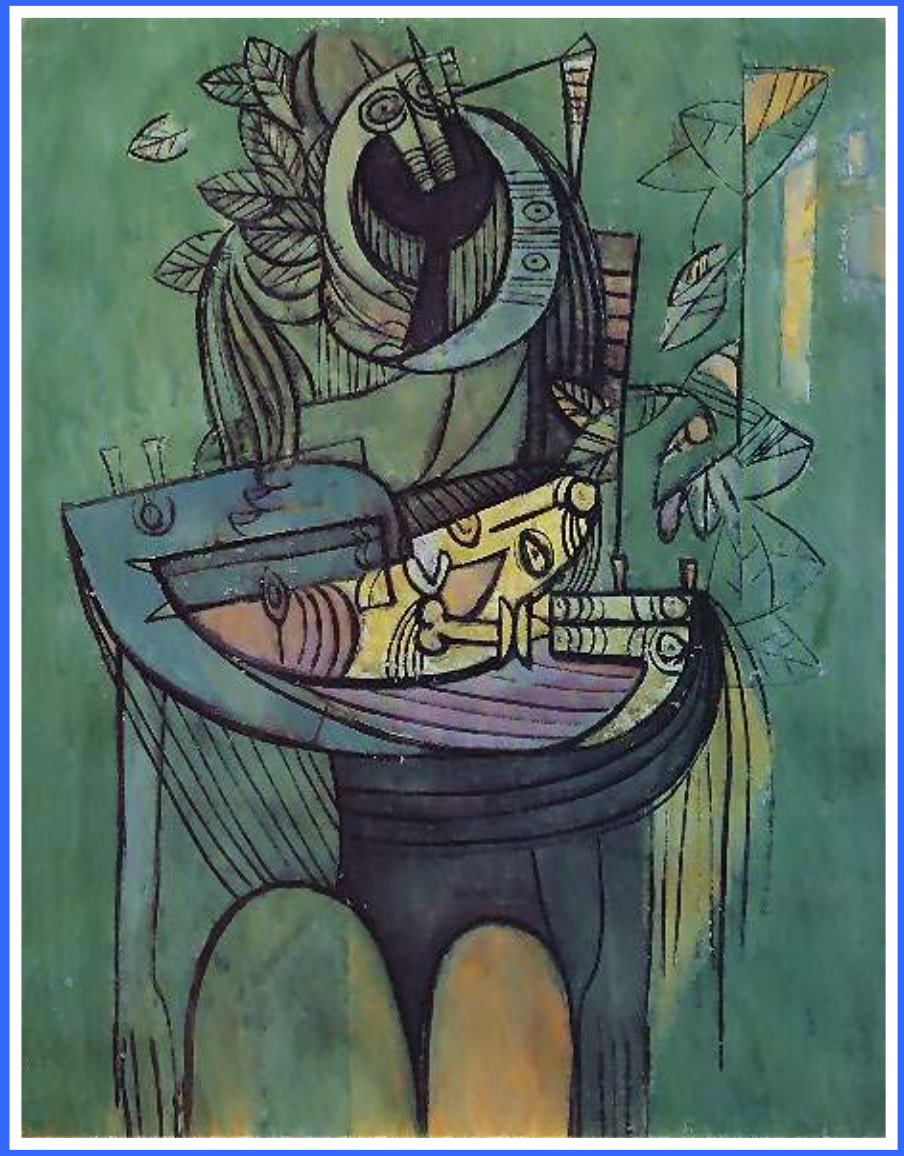
University of California, Los Angeles

June, 2005

Rivera and Kahlo...



…Botero and Lam...



...Matta and Tamayo...

- This talk is on the *economics* of Latin American art
- I use economic tools to try to understand the artistic *creative process* and art as an *investment*
- This research is part of the new and growing field of the *economics of art* or *cultural economics*
- Some authors:
  - Will Baumol, Richard Caves, Sherwin Rosen, Bruno Frey, and David Galenson

Some issues on the economics of Latin American art

- Patters of creativity
  - Do Latin American artists follow similar patterns than European and U.S. artists?
  - "Conceptual" and "experimental" artists
  - "Tradidional or indigenists" and "universalist" artists
- Latin American art as an investment
  - Alternative portfolios
  - Investment rules
- The role of foreign training, travel and exile on creativity and value

The data set

- Data on auctions
  - 13,000 observations on auctions
  - 115 artists from 17 countries for 1977-2001
  - Paintings and drawings
  - Prices, date auctioned, date painted, medium, size, signed, who sold it, and other characteristics
  - Number of pieces auctioned per artist:

    average = 260; median = 177; minimum = 35.
- Data on artists life
  - Biographies
  - Art publications

- Artists with largest number of pieces:
  - Fernando Botero,
  - Leonor Fini,
  - Wifredo Lam,
  - Roberto Matta,
  - Carlos Merida,
  - Rene Portocarrero,
  - Diego Rivera,
  - Rufino Tamayo,
  - Francisco Toledo,
  - Joaquin Torres-Garcia,
  - Francisco Zuniga.

- Artists with pieces that have been sold in excess of USD 1 million (in 1995 dollars):
  - Tarsila do Amaral
  - Fernando Botero,
  - Frida Kahlo
  - Wifredo Lam,
  - Roberto Matta,
  - Diego Rivera,
  - Rufino Tamayo,
  - Jose Maria Velasco

I. Patterns of Creativity

- Do patterns of creativity follow "northern" artists' patterns, or do they have own dynamics?
- David Galenson, ***Painting Outside the Lines*** (Harvard University Press, 2001)
  - Uses auction data to analyze when artists did their best work
  - Defines two patterns:
    - » "Conceptual": Best work is done early on, at a young age
    - » "Experimental": Best work done at older age
  - Finds that artists born before 1920 tend to be "*experimental*;" those born after 1920 tend to be "*conceptual*"

Methodology

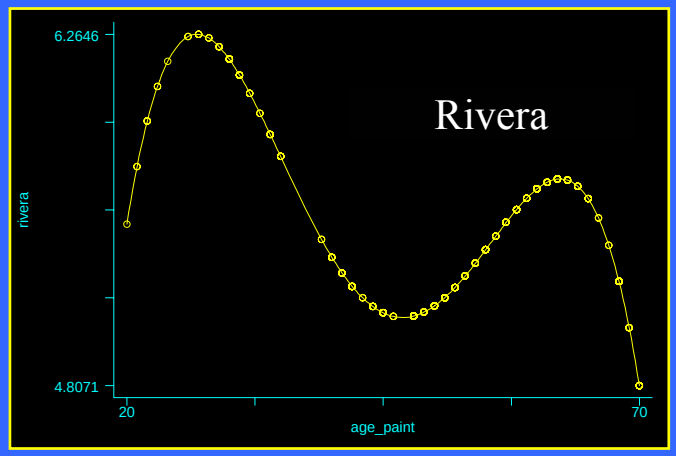
- Estimate, for different groups weighted-fixed-effect regressions of the following type:

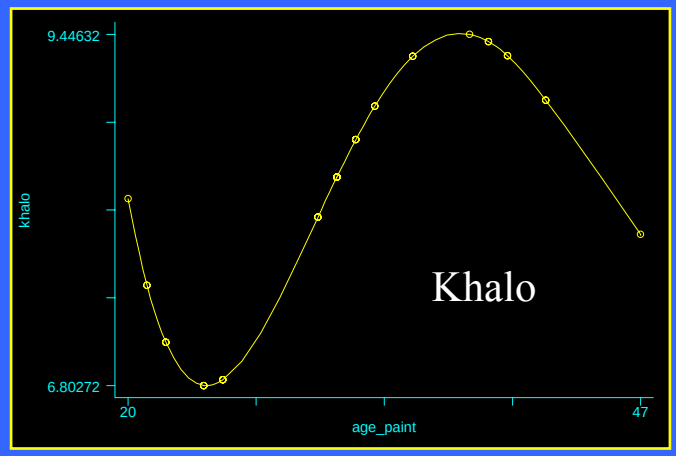
$$\ln \text{Price}_{jt} = \alpha_1 \text{age} + \alpha_2 \text{age}^2 + \alpha_3 \text{age}^3 + \alpha_4 \text{age}^4 + \alpha_5 \ln \text{height} + \alpha_6 \ln \text{width} + \alpha_7 \text{paper} + \alpha_8 \text{signed} + \Sigma \beta_i \text{year of sale dummy} + \Sigma \gamma_i \text{artist dummy} + \Sigma \sigma_i \text{decade dummy} + \varepsilon_{jt}$$

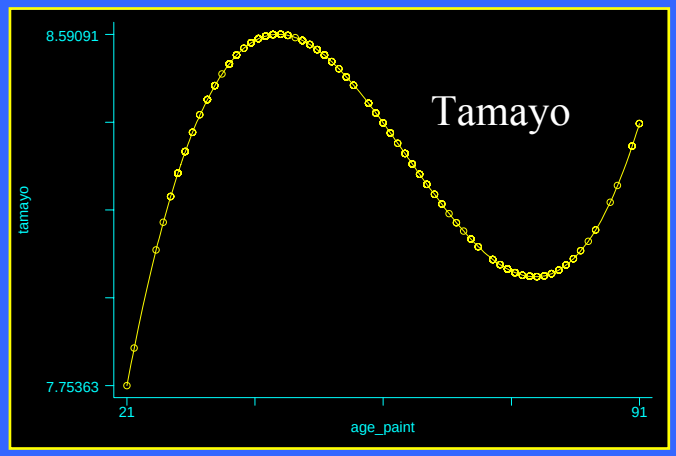
- The coefficients of ***age***, ***age^2***, ***age^3***, and ***age^4*** determine the "pattern of creativity"
- The patterns are compared statistically for the different groups

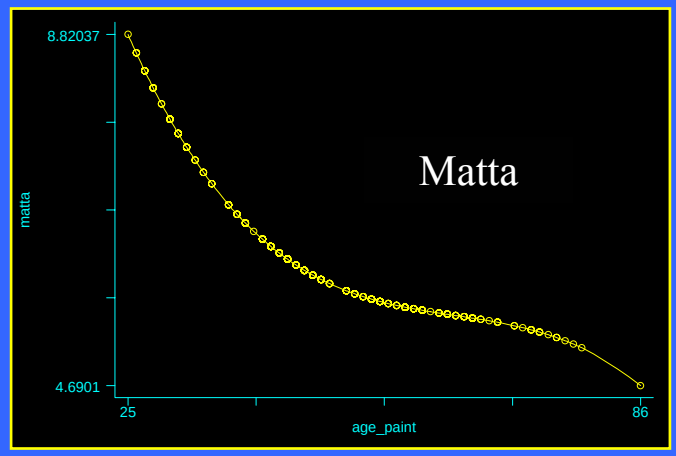
- Creative pattern equations were estimated for the following different groups:
  - "Early" (pre 1900 birth date), "intermediate" (1900-1920 birth date) and "younger" (post 1920 birth date)
  - By different schools: "Traditional" or "indigenists" vs. "universalists"
  - Artists with formal training abroad vs. artists without training abroad
- Weighted regressions are used, with the total numbers of pieces auctioned by each artist as weight.

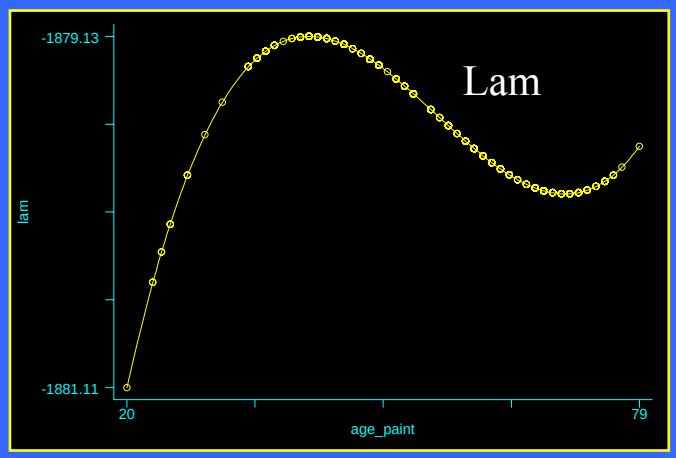
Individual patterns of creativity for the “big six”

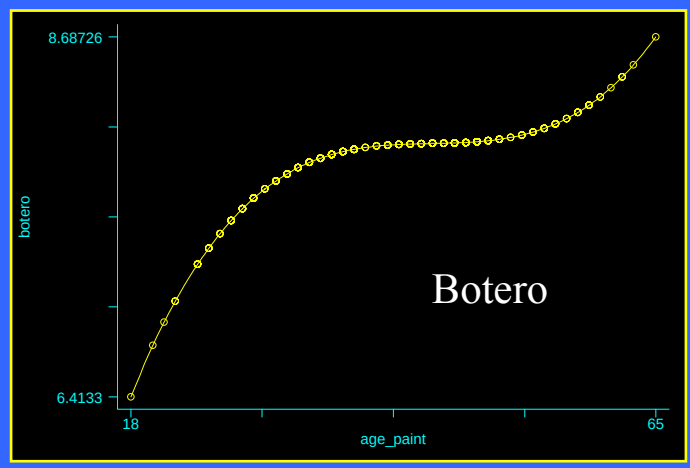

Rivera
6.2646
4.8071
rivera
20
70
age_paint


Khalo
9.44632
6.80272
khalo
20
47
age_paint


Tamayo
8.59091
7.75363
tamayo
21
91
age_paint


Matta
8.82037
4.6901
matta
25
86
age_paint


Lam
-1879.13
-1881.11
lam
20
79
age_paint

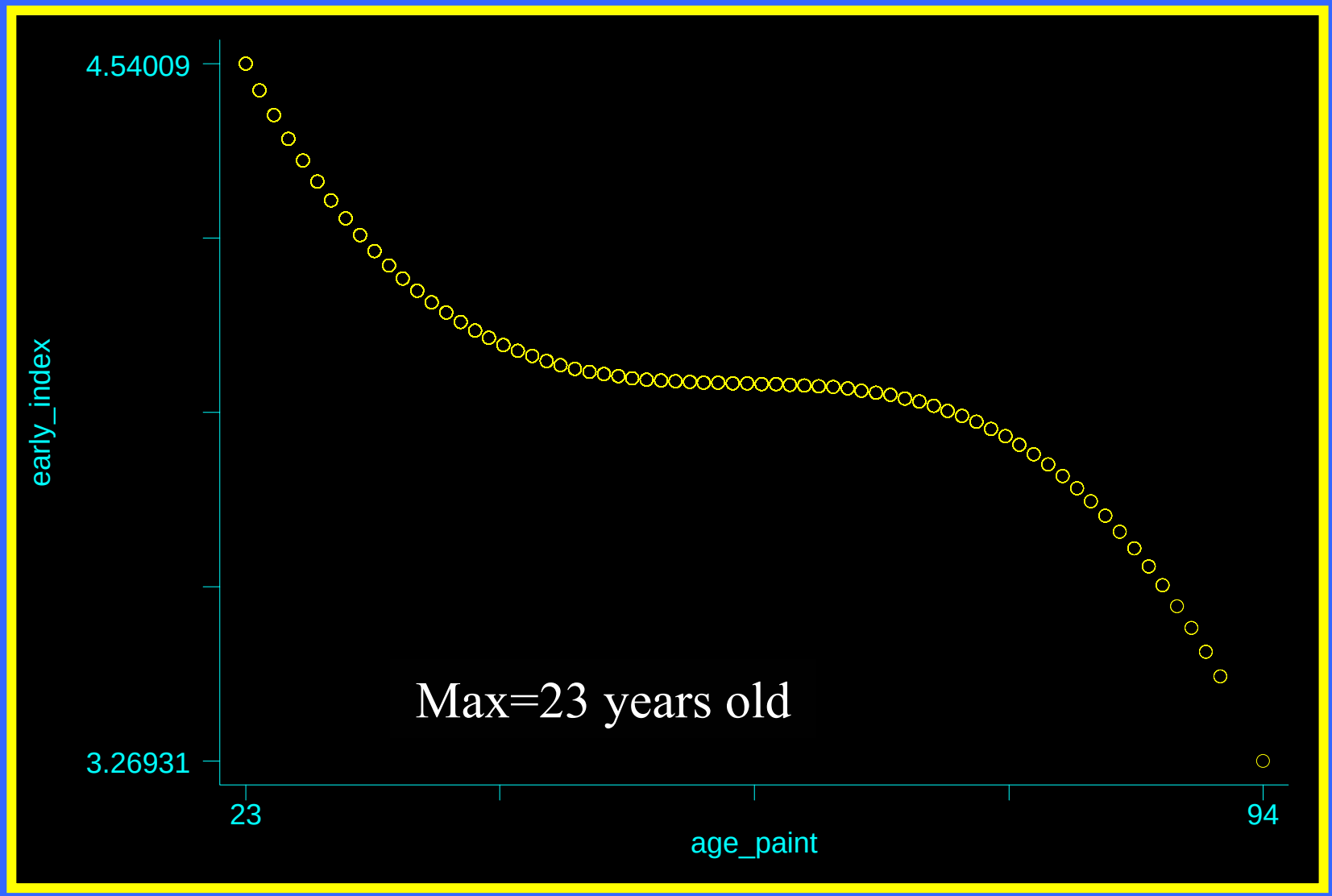

Botero
8.68726
6.4133
botero
18
65
age_paint

Summary of Results on Creativity

- In contrast to Galenson, **we don't see** a decline in the age at which artists do their best work
- On the contrary, the **age when best work is done has increased for younger generations** of artists
- We do see that patters of creativity differ for different artistic schools: *"traditionalists"* peak earlier than *"universalists"*
- We do see that "foreign training" does affect patterns of creativity: those trained abroad have a steep increase in prices.

Results of Patterns of Creativity by Year of Birth

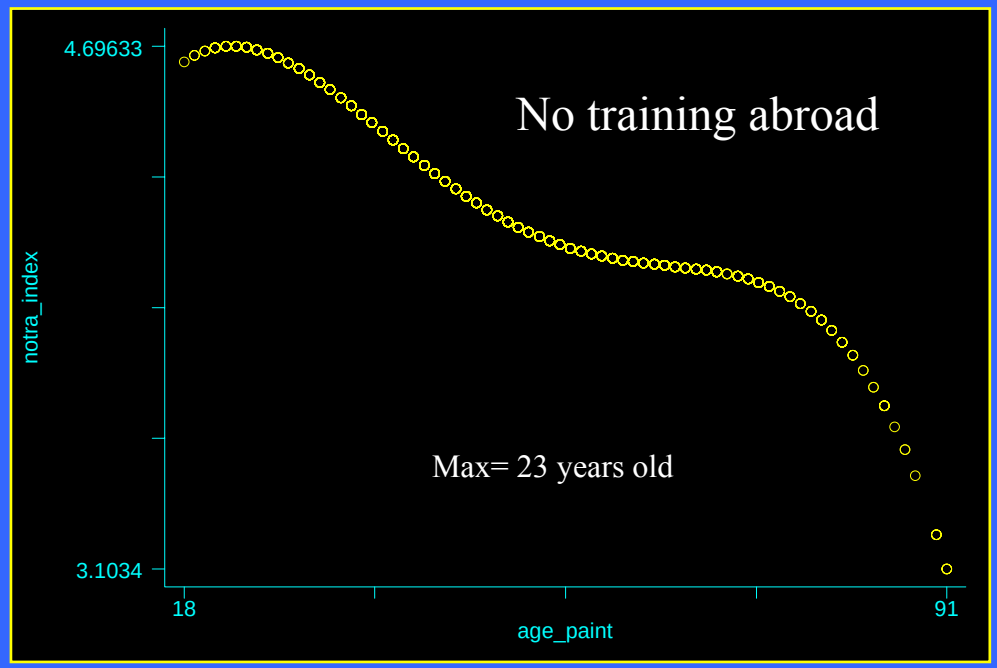
Creative pattern for *pre-1900* artists



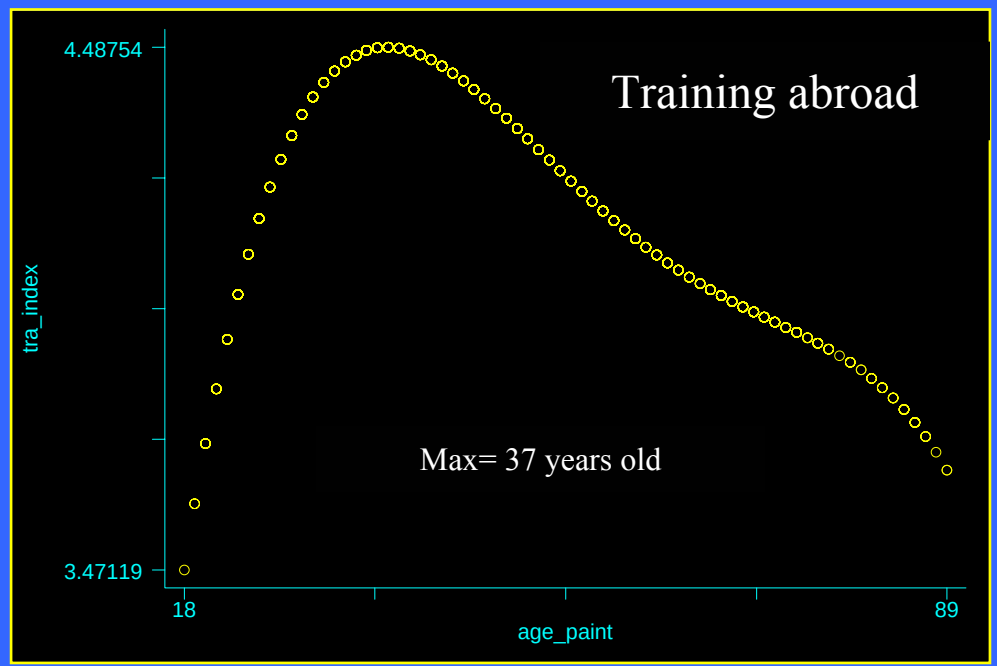
Creative pattern for *1900-1920* artists

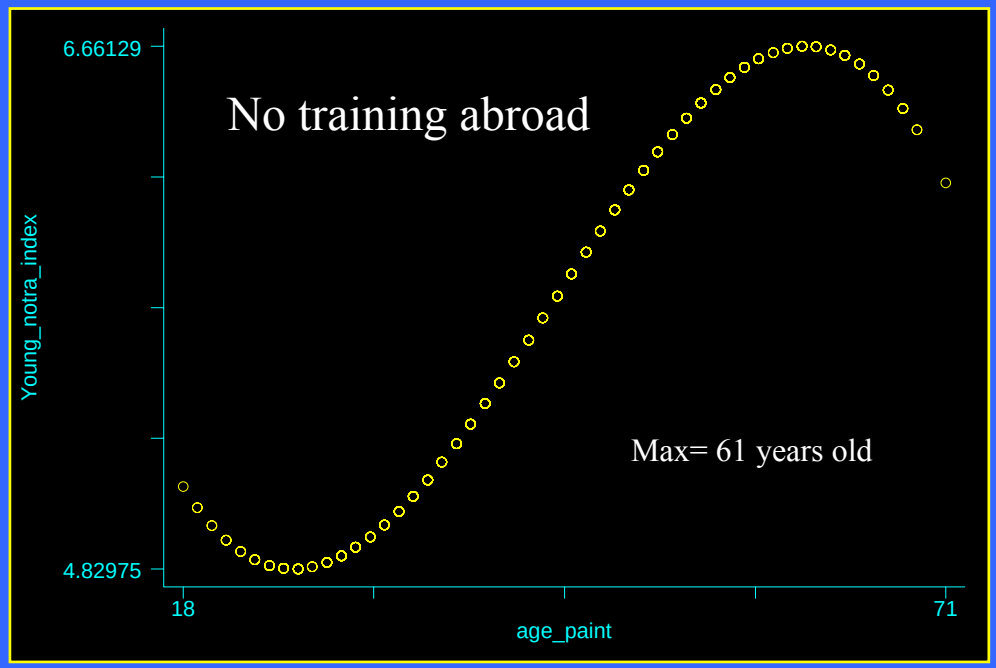
Creative pattern for *post-1920* artists

Results of Creativity and Foreign Training

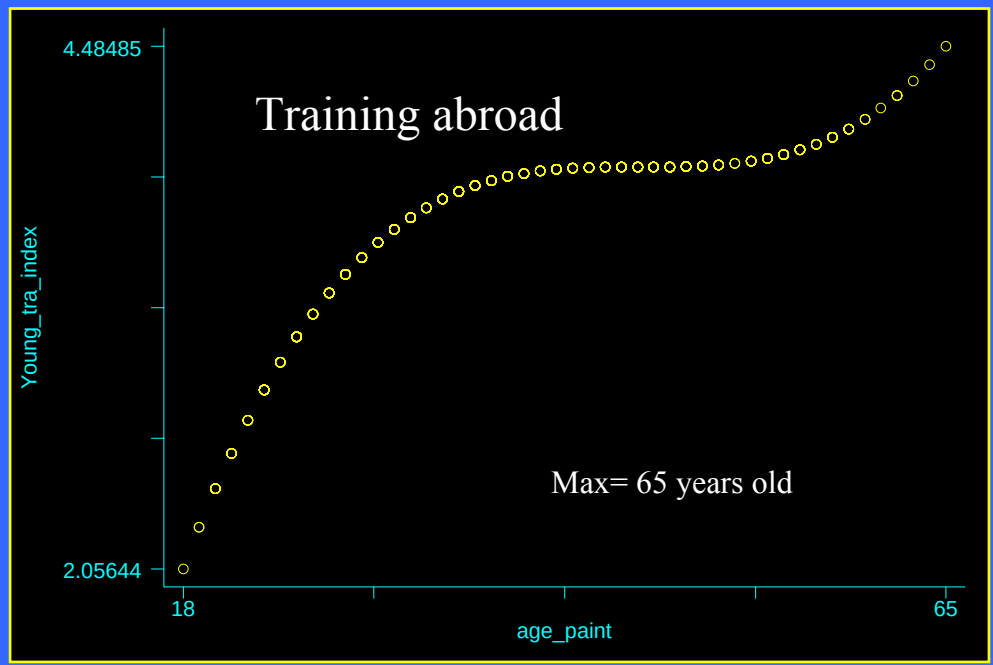

4.69633
No training abroad
notra_index
Max= 23 years old
3.1034
18
91
age_paint

All Artists


4.48754
Training abroad
tra_index
Max= 37 years old
3.47119
18
89
age_paint



Artists born after 1925

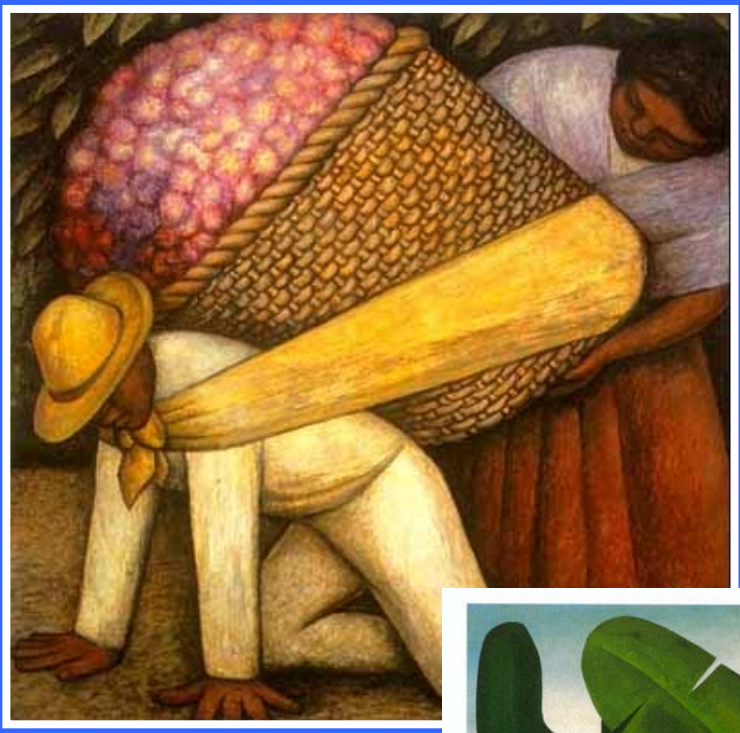


Creativity patterns for "*traditionalists*" and "*universalists*"

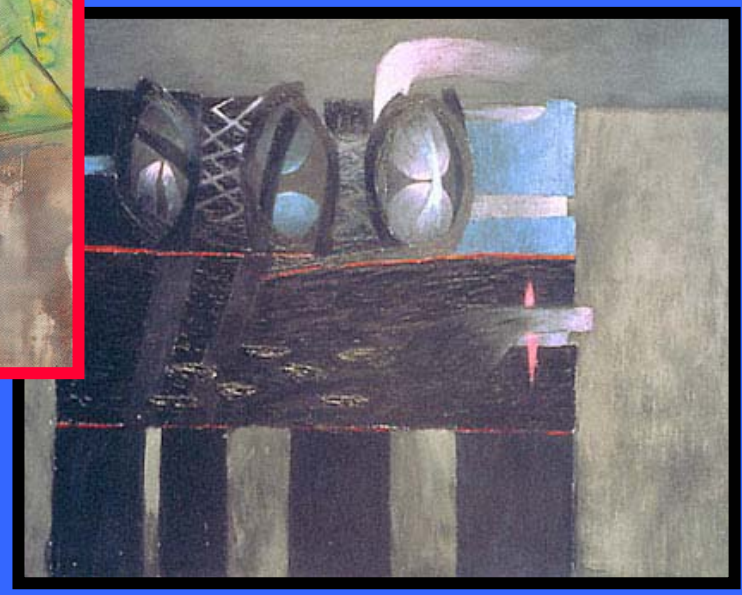
An artistic controversy

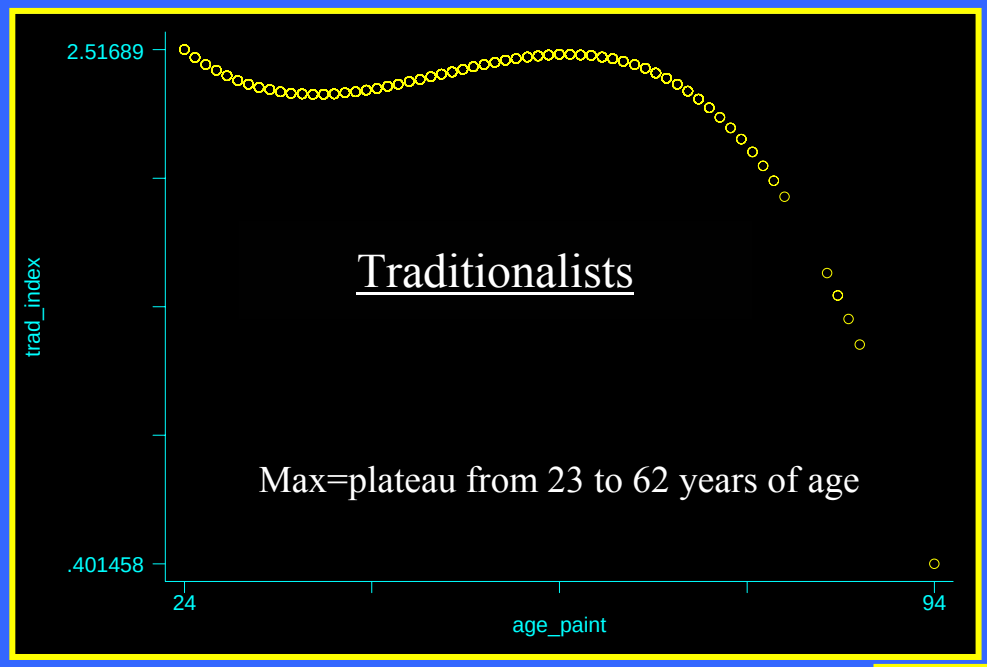
- For many years Latin American artists believed that their work should reflect the region's *reality*.
- The Mexican muralists --***Rivera***, ***Siqueiros***, ***Orozco***--are the best known "traditionalists"
- Brazil's ***"antropofagia"*** school of ***Tarsila do Amaral*** is another manifestation of this view
- ***Fernando Botero***, is a modern representative of this view, with his works on typical families, bullfights, and "banana republic" dictators

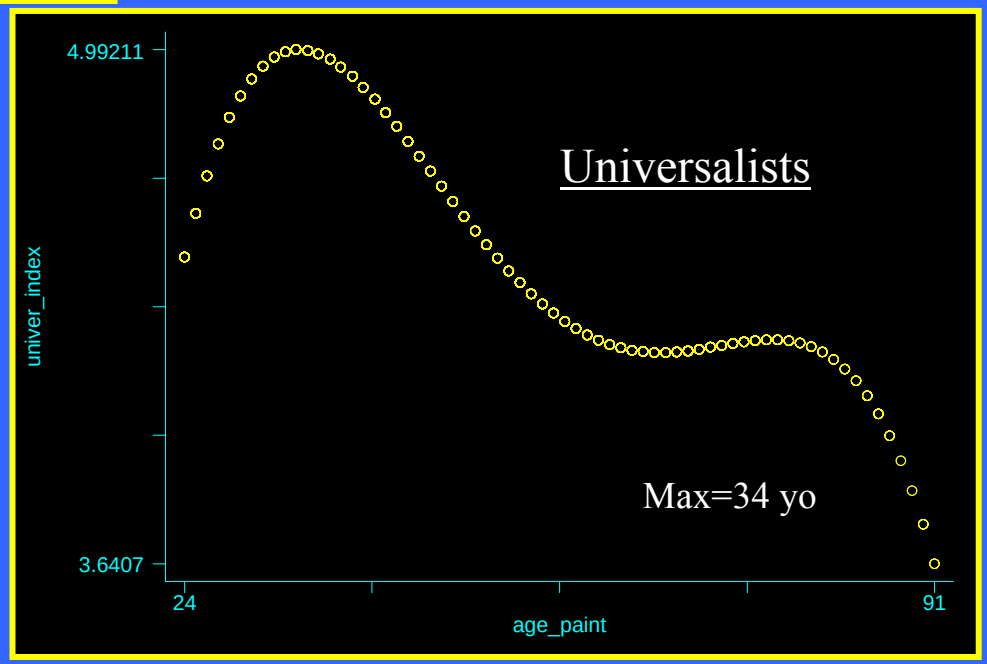
- Other representatives of this “traditional” view include Francisco Zuniga, Ana Mercedes Hoyos, Armando Morales and others
- These artists have in common the use of a distinctive Latin American “imagery”



- This approach was rejected early on by some individual artists. The most important one was **Roberto Matta**, who did not really consider himself, a Latin American artist
- Wifredo Lam -- whose work evokes African masks -- is another artist that rejected the "traditional" Latin American art
- Others include **Jose Luis Cuevas**, **Rufino Tamayo**, **Fernando de Szyszlo**; all of them called for a "universal" art, and rejected the strict Latin American imagery




2.51689
.401458
trad_index
Traditionalists
Max=plateau from 23 to 62 years of age
24
94
age_paint


4.99211
3.6407
univer_index
Universalists
Max=34 yo
24
91
age_paint

II. Latin American Art as an Investment

Two approaches

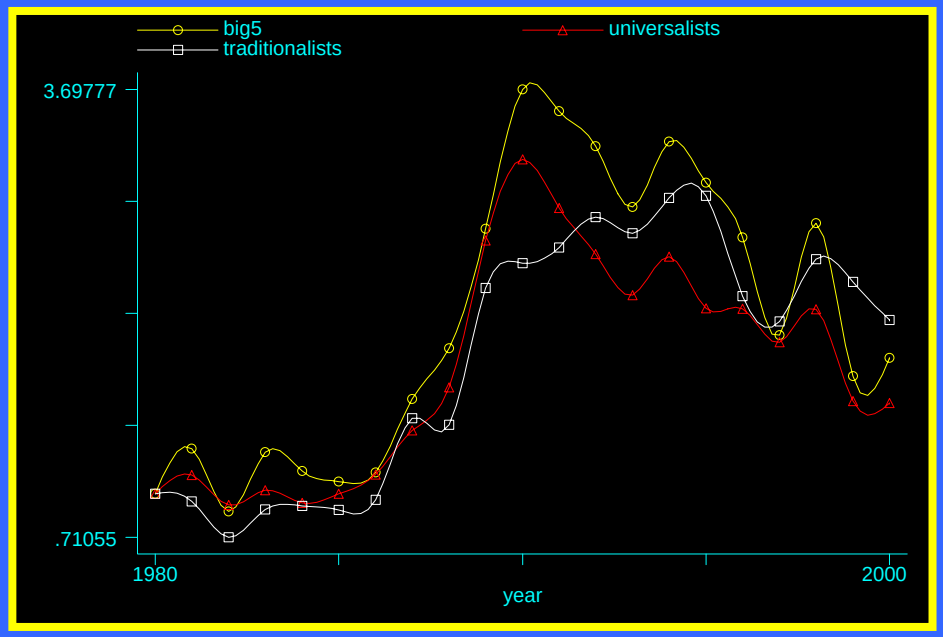
- **Repeated sales:** In order to compare works with exactly the same characteristics, this approach looks only at repeated sales of the same work through time
- **Hedonic prices:** The "properties" of the prototypical work are maintained "constant" using regression analysis. Time-specific dummies are then used to construct an ***"hedonic price index"***

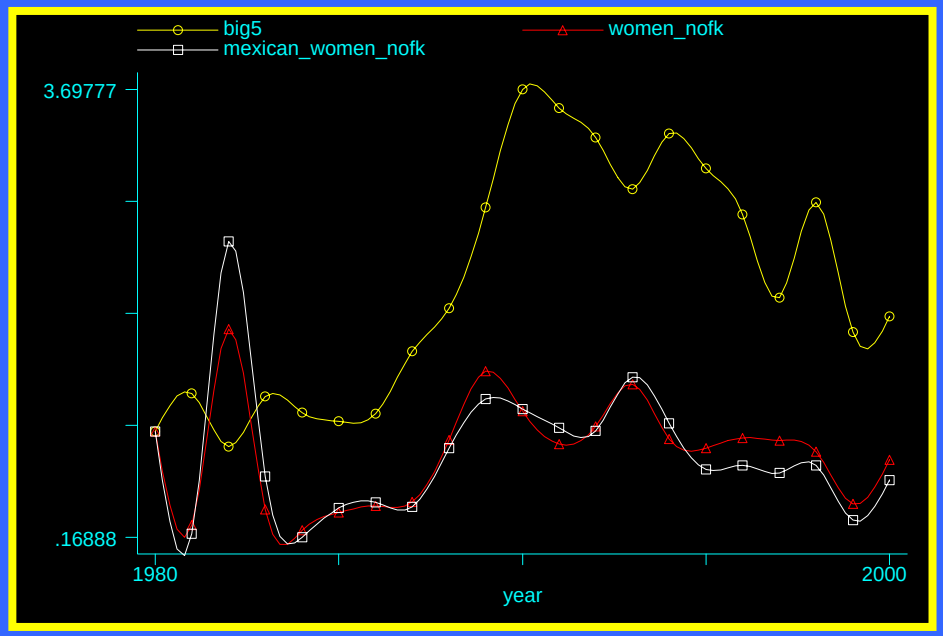
Some examples of repeated sales

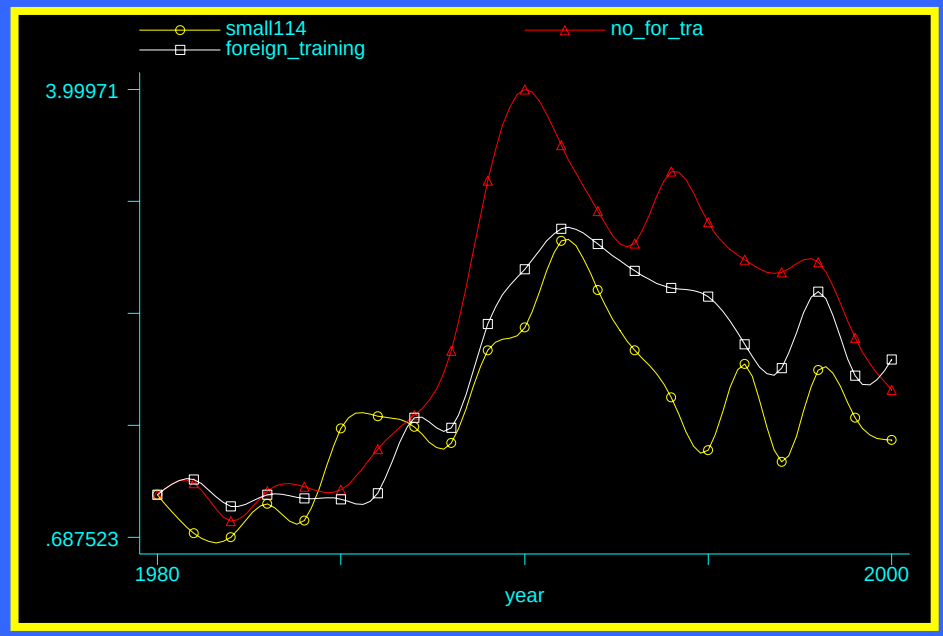
- Matta, *"The Disasters of Mysticism,"* *(1942)*
  - 1983: $ 160,000
  - 1990: $ 1,155,000
  - 1999: $ 2,400,000
- Lam, *"La mañana verde,"* *(1943)*
  - 1987: $ 380,000
  - 1990: $ 550,000
  - 1994: $ 870,000
- Gerszo, *"Rojo, azul y amarillo,"* *(1966)*
  - 1985: $ 12,000
  - 1992: $ 38,000

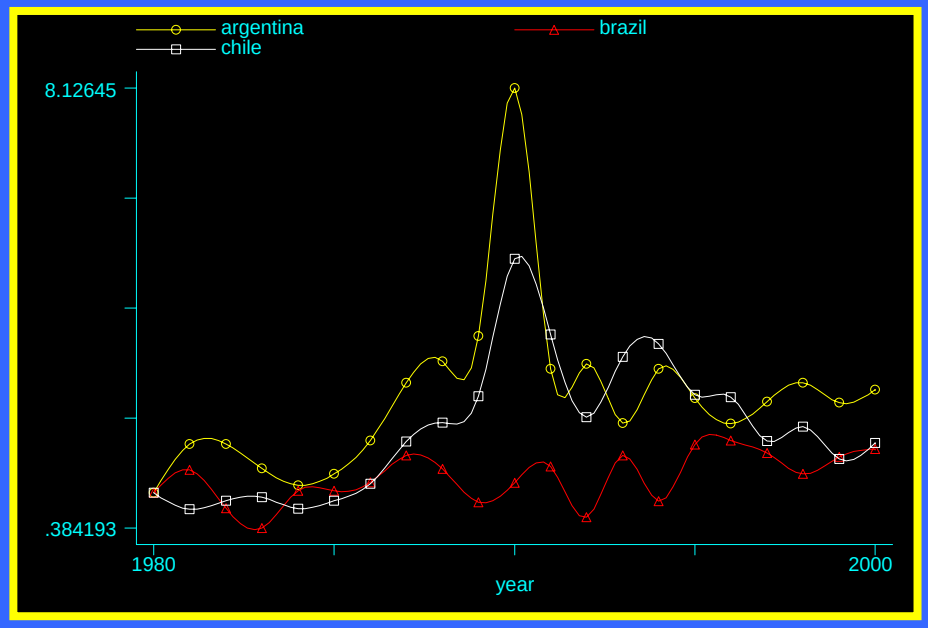
Results from hedonic price estimations

Hedonic Price Indexes for Selected Portfolios

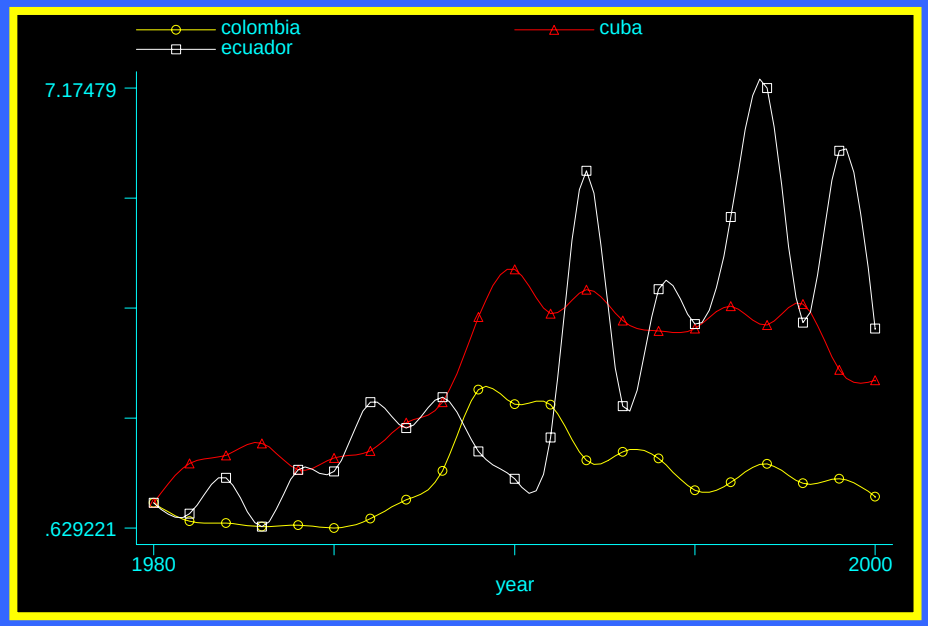


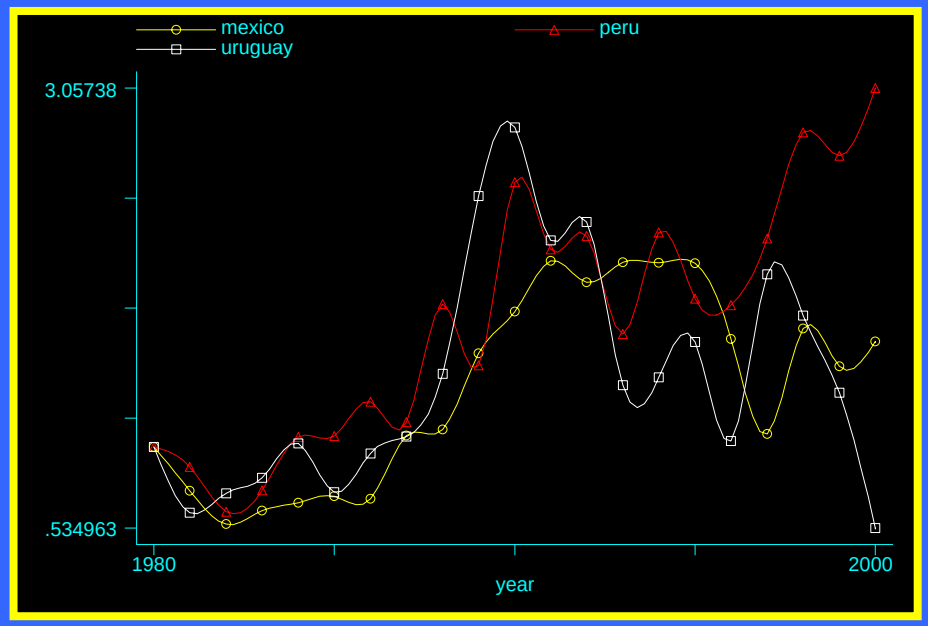






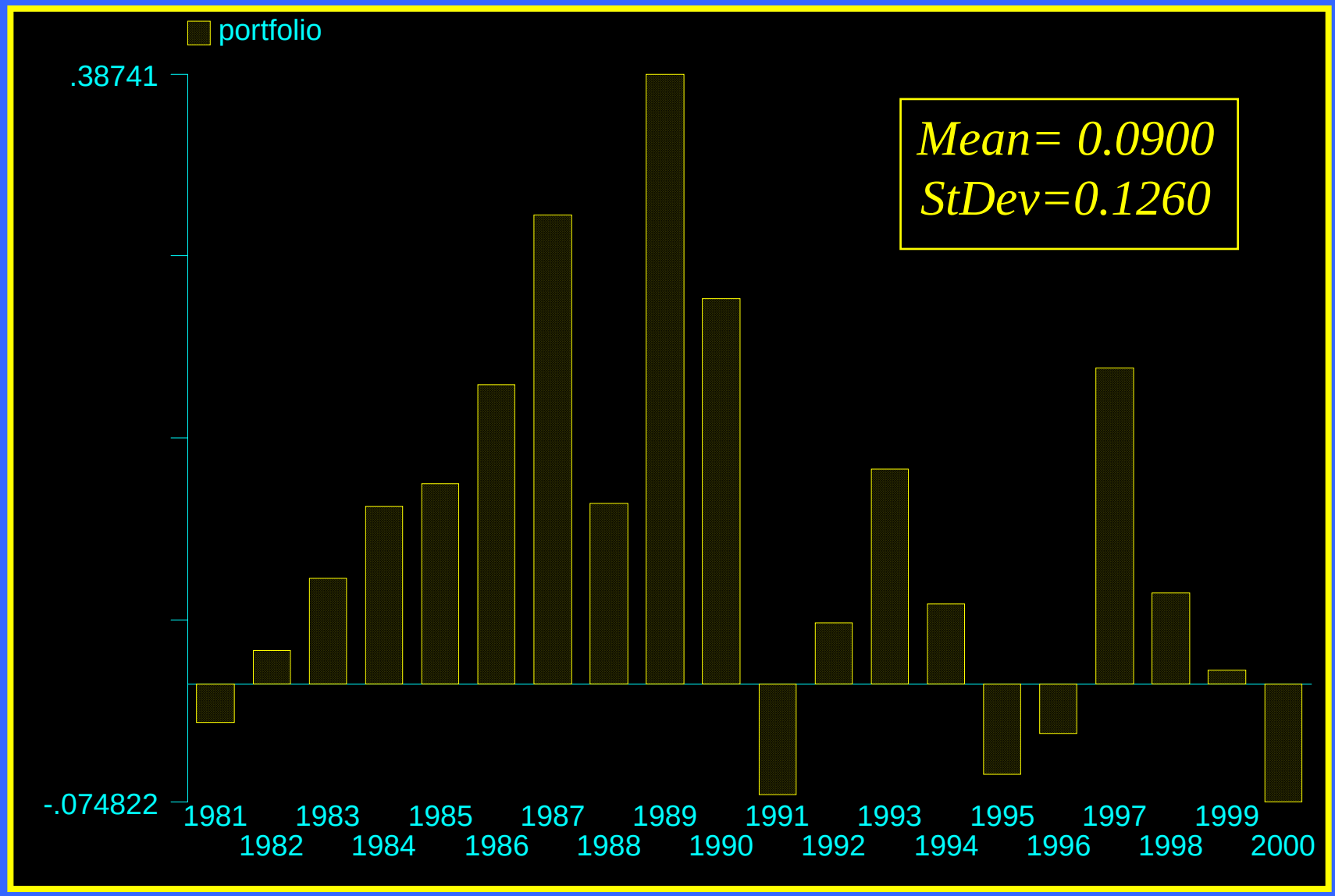
Hedonic Price Indexes for Selected Country Portfolios





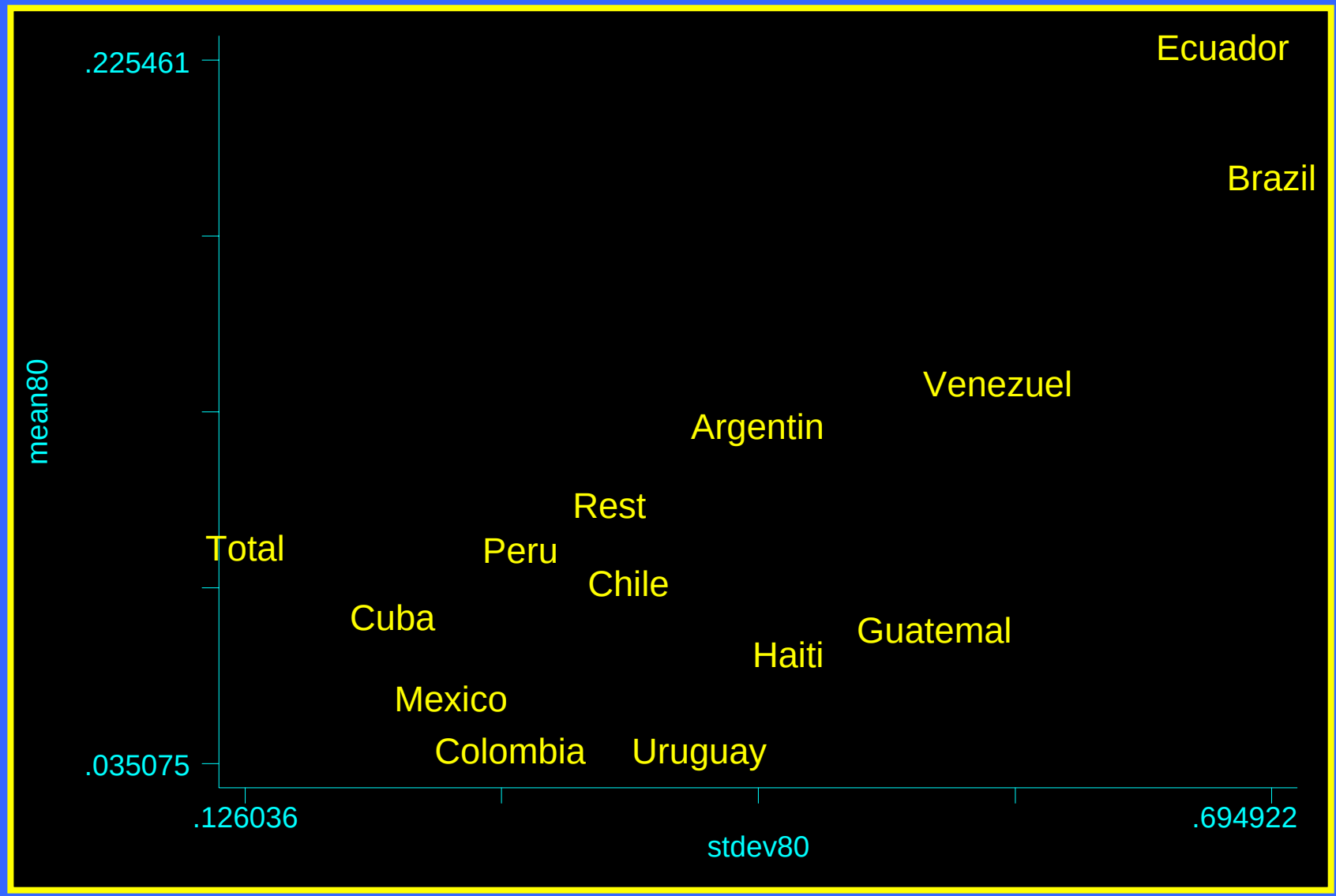
Return for overall portfolio

(Real US Dollars)



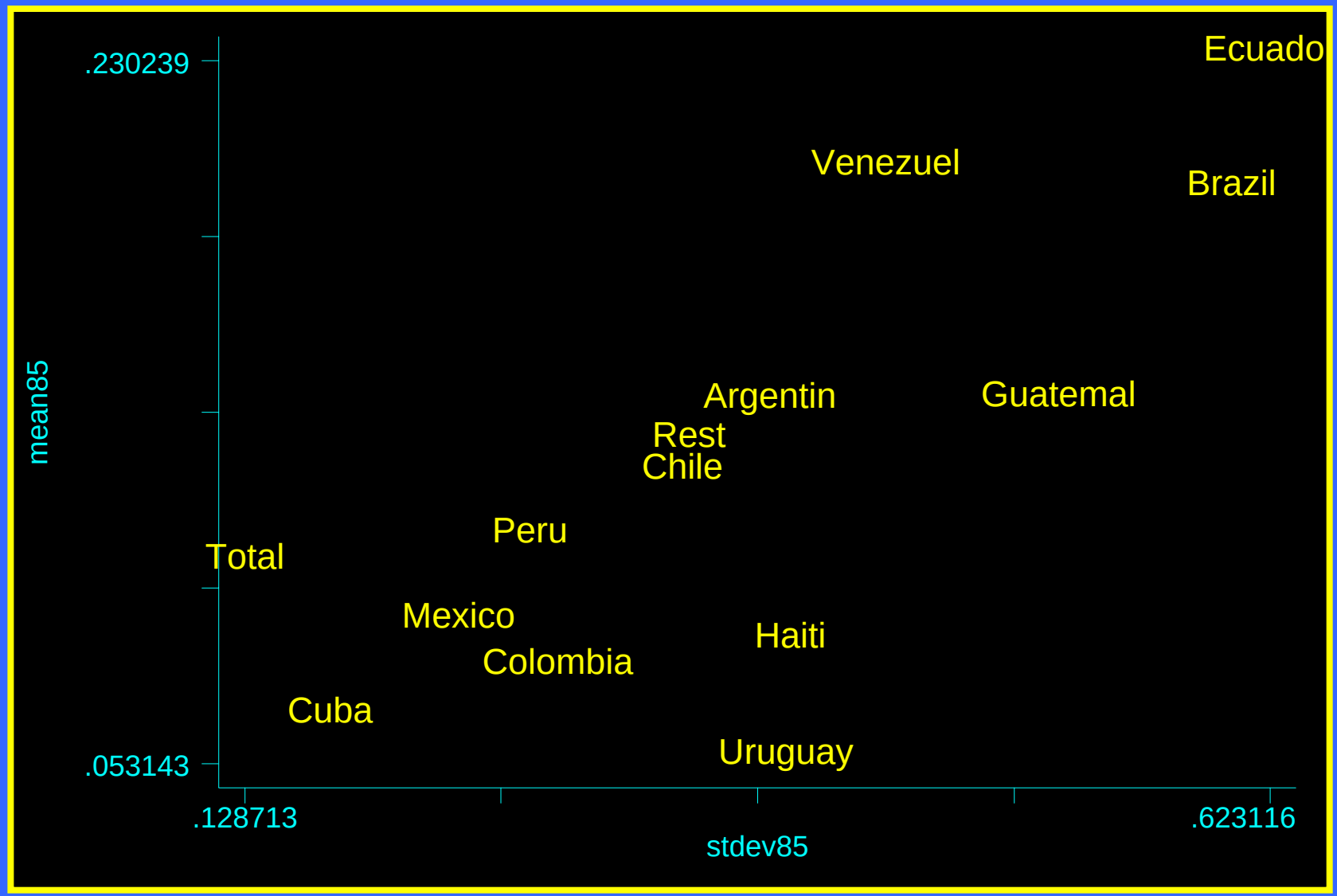
Risk and Return

(National Portfolios, Real USD 1980-2000)



Risk and Return

(National Portfolios, Real USD 1985-2000)



Return Correlations and Risk

- Capital Asset Pricing Model
  - Risk free rate: U.S. Treasuries
  - World Portfolio: Morgan Stanley MSCI Index
- Beta = 0.1080
- Alfa = 0.0548

Risk and Return of Alternative Portfolios: 1980-2000 & 1985-2000

country	mean80	stdev80	mean85	stdev85
Argentina	0.122998	0.410319	0.142733	0.382075
Brazil	0.190238	0.694922	0.196511	0.604255
Chile	0.080423	0.338426	0.124855	0.339861
Colombia	0.035075	0.272991	0.075682	0.279756
Cuba	0.071225	0.208069	0.063512	0.16988
Ecuador	0.225461	0.667639	0.230239	0.623116
Guatemal	0.06784	0.508002	0.143147	0.521134
Haiti	0.060978	0.427294	0.082377	0.391661
Mexico	0.049248	0.240452	0.087368	0.231991
Peru	0.089348	0.278531	0.108879	0.266357
Uruguay	0.035244	0.377689	0.053143	0.38964
Venezuel	0.134352	0.543334	0.201552	0.437669
Rest	0.101668	0.328212	0.132951	0.342959
Total	0.090011	0.126036	0.102169	0.128713

Risk and Return of Alternative Portfolios: 1980-2000 & 1985-2000

portfolio	mean80	stdev80	mean85	stdev85
Traditionalists	0.058262	0.219014	0.081053	0.213996
Universalists	0.039561	0.19092	0.058371	0.193431
Old	0.03899	0.207098	0.056611	0.200067
Young	0.055367	0.18261	0.073505	0.187737
Intermediate	0.041235	0.214441	0.064352	0.201476
Training	0.052471	0.205294	0.072575	0.210456
NoTraining	0.049053	0.216564	0.061776	0.212836
ManyPieces	0.043358	0.179329	0.059973	0.182317
Big5	0.062479	0.254084	0.068919	0.228527
Small	0.060238	0.3277	0.094032	0.328954
Women	0.265447	1.100482	0.2182	0.464957
WnoFrida	0.320473	1.400005	0.23236	0.501046
WnoFT	0.324347	1.417048	0.233664	0.503269
MexWnoF	0.626591	2.681618	0.355209	0.784392