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# Structural transformation of Portuguese exports and the role of FDI

Some descriptive analysis for the period 1995-2005

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## Two central concerns:

- Has the structure of Portuguese exports been evolving towards higher value products?
- If yes, what role did Foreign Direct Investment played in that evolution?

## Two methodological challenges:

- How to measure the 'value' of exports?
- How to measure the 'role of FDI' in exports?  
(absence of microdata, endogeneity issues)

## Two central concepts in measuring the value of exports (Hausmann et al., 2007):

PRODY (for each product)

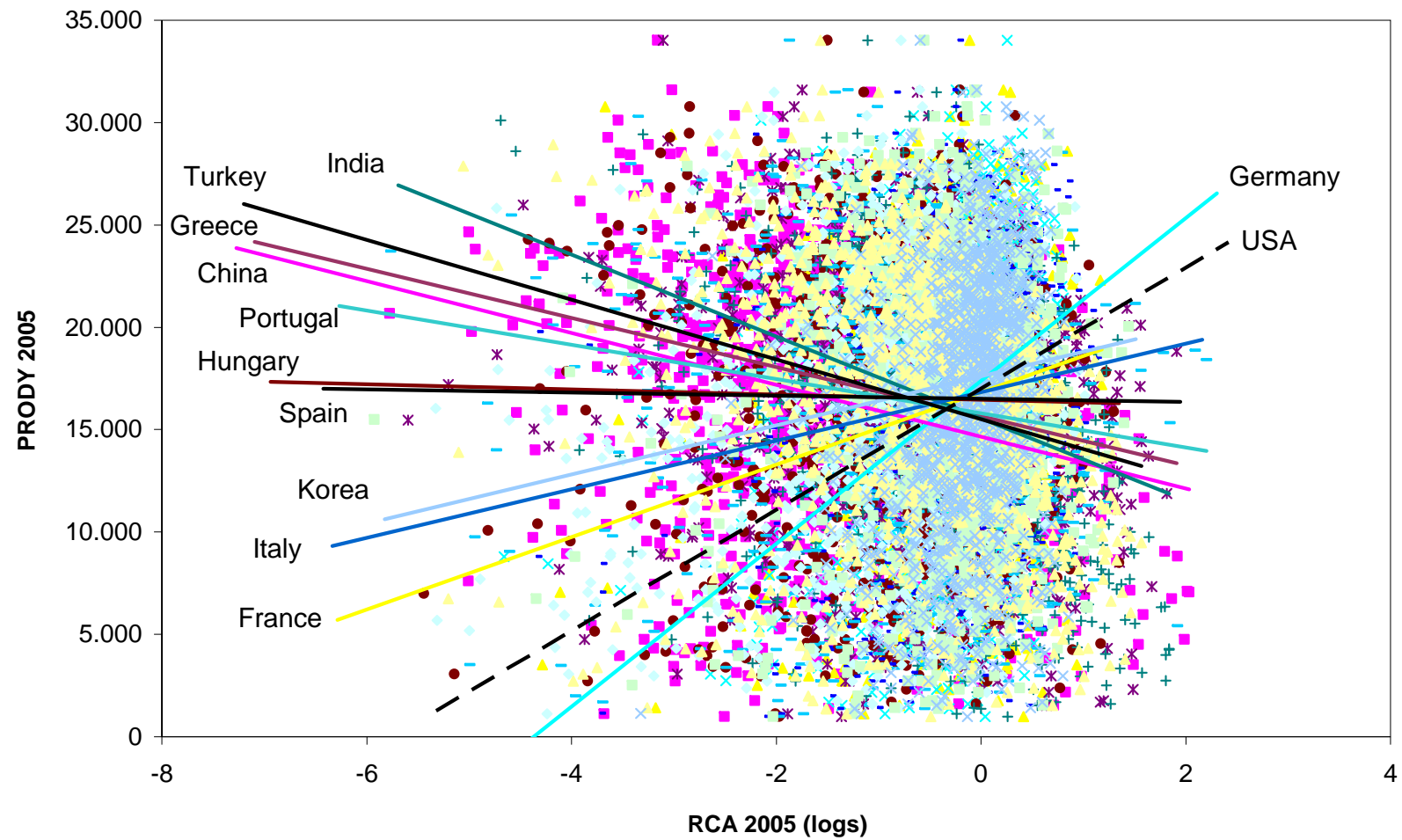
EXPY (for each country)

## Two central concepts in measuring the value of exports (Hausmann et al., 2007):

### PRODY:

the PRODY of a product is the weighted average of the per capita incomes of the countries exporting that product, with weights given by an index of the Revealed Comparative Advantage.

# PRODY and RCA in 2005

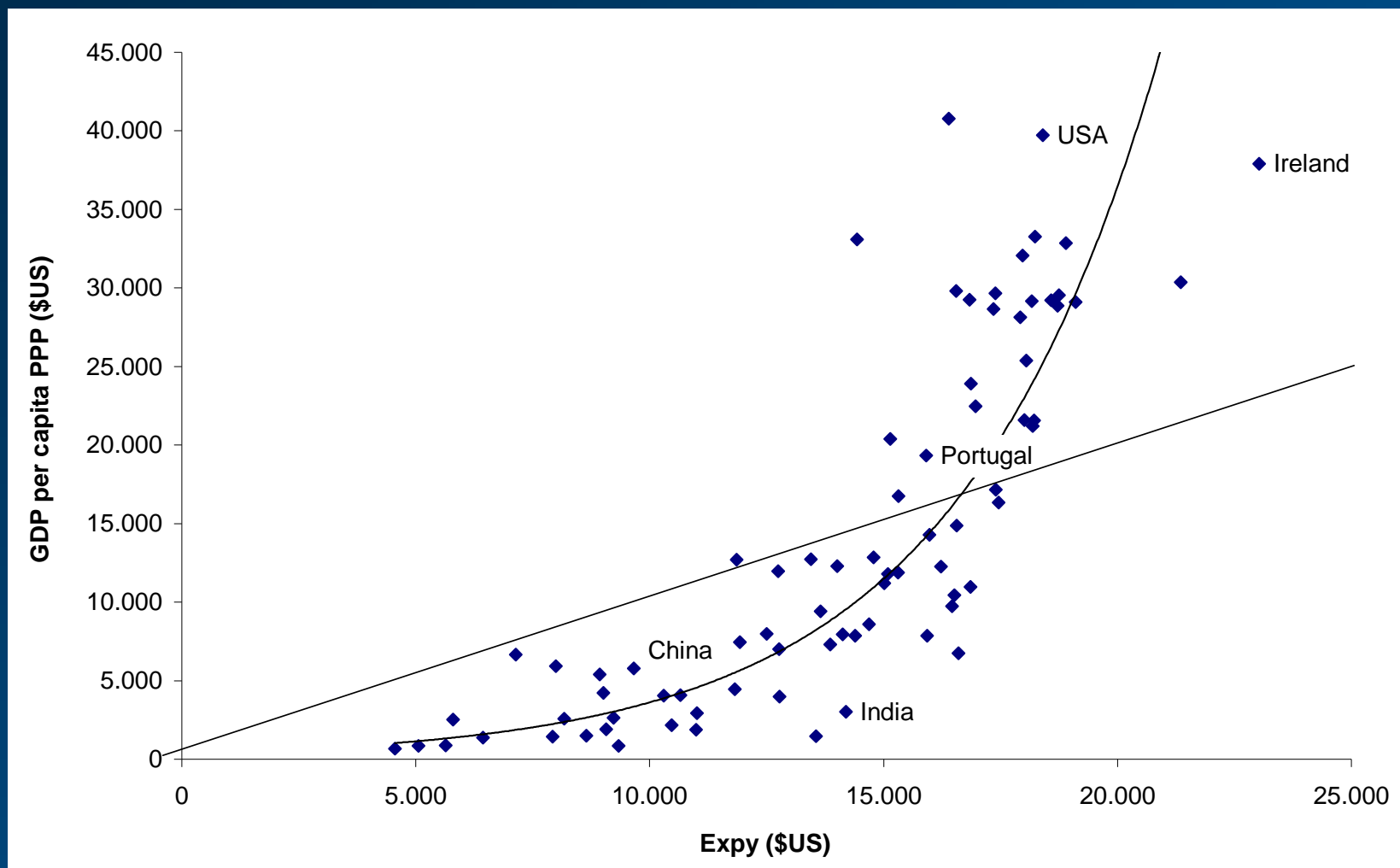


## Two central concepts in measuring the value of exports (Hausmann et al., 2007):

### EXPY

The EXPY of a country is the average PRODY of the products in a country's export basket, with weights given by the share of each product in the country's exports.

# *EXPY and GDP per capita at PPP (2005, \$US)*





## *The relation between EXPY and GDP growth*

An important finding by Hausmann et al. (2007):

EXPY is a strong and robust predictor of subsequent economic growth, controlling for standard covariates.

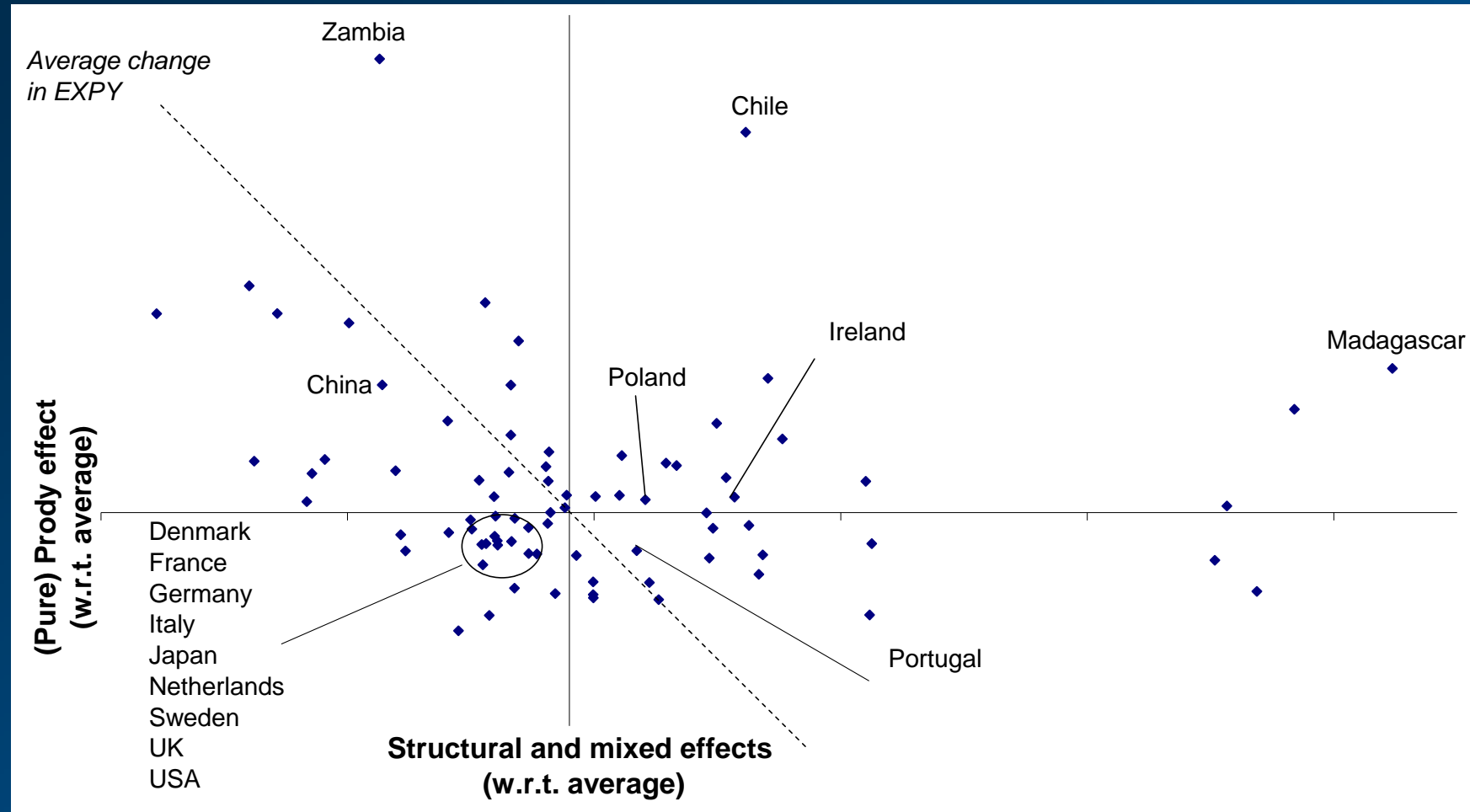
In other words, “countries become what they export”.

***So, how did Portugal performed in terms of EXPY in recent decades?***

## Factors underlying changes in the EXPY of a country:

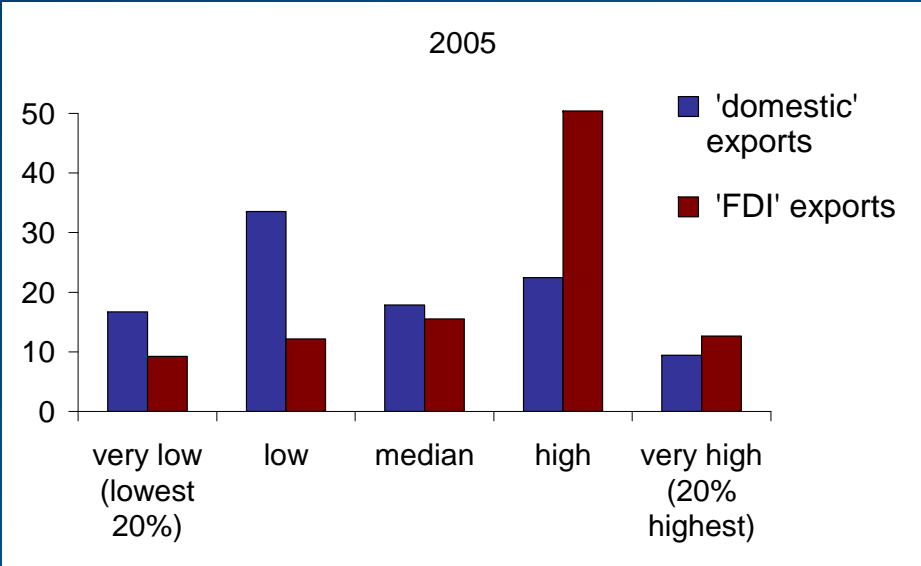
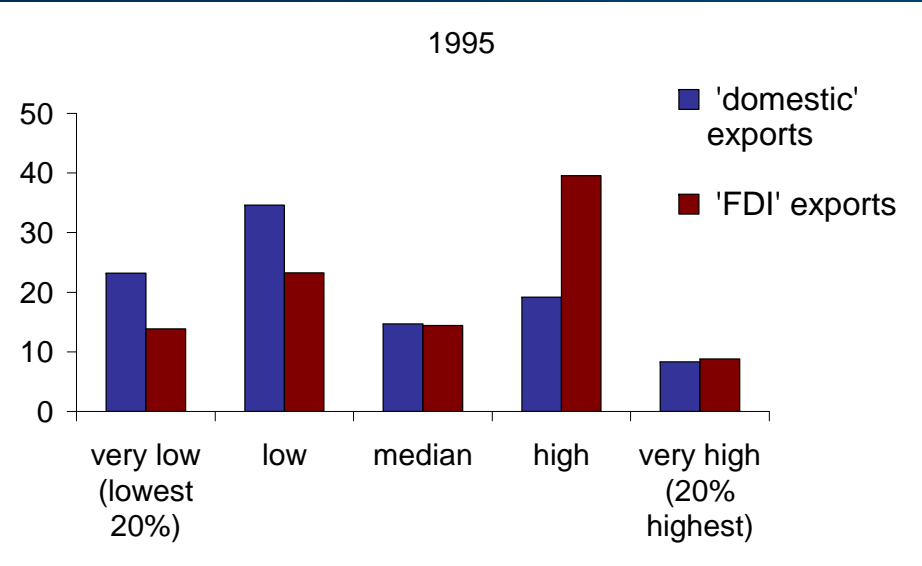
- Changes in the value of PRODY of the products in the country's export basket (PRODY effect)
- Changes in the composition of the export basket of that country (structural effect).
- Combinations of PRODY and structural effects (mixed effect).

# Decomposition of EXPY growth



***What was the role of FDI in the increase of income content of Portuguese exports?***

# Distribution of exports by classes of PRODY (2005 value)



## The role of FDI in Portuguese exports by classes of PRODY (2005 value)

Prody Class in 2005	number of product classes	share of exports (%)		contribution to export growth (%)	share of FDI in total exports (%)		share of exports by foreign firms (%)	
		1995	2005		1995	2005	1995	2005
<b>very high (20% highest)</b>	217	8	10	13	34	43	9	13
<b>high</b>	235	25	31	40	50	56	40	50
<b>median</b>	216	14	16	19	33	33	14	16
<b>low</b>	215	30	25	17	25	17	23	12
<b>very low (lowest 20%)</b>	211	20	13	4	23	24	14	9
<b>All products</b>	1094	97	96	93	33	36	100	100

Sources: own calculations based on INE and GEP/MTSS, Quadros de Pessoal

Notes: the table does not include data on 140 product classes, for which there is no data available on the presence of FDI; the share of FDI in each group is calculated as the weighted average of the FDI shares in the exports in each product, with the weights given by the share of each product in the exports of the group.

## *The role of FDI in Portuguese exports by classes of PRODY*

Types of products	number of product classes	share of exports (%)		contribution to export growth (%)	share of FDI in total exports (%)		share of exports by foreign firms (%)	
		1995	2005		1995	2005	1995	2005
<i>classics</i>	175	67	54	35	26	26	54	41
<i>rarities</i>	682	12	15	19	33	46	12	20
<i>emerging</i>	110	10	24	45	64	52	21	36
<i>decaying</i>	51	8	2	-5	52	46	13	3
<b>All products</b>	1094	97	96	93	33	36	100	100

Sources: own calculations based on INE and GEP/MTSS, Quadros de Pessoal

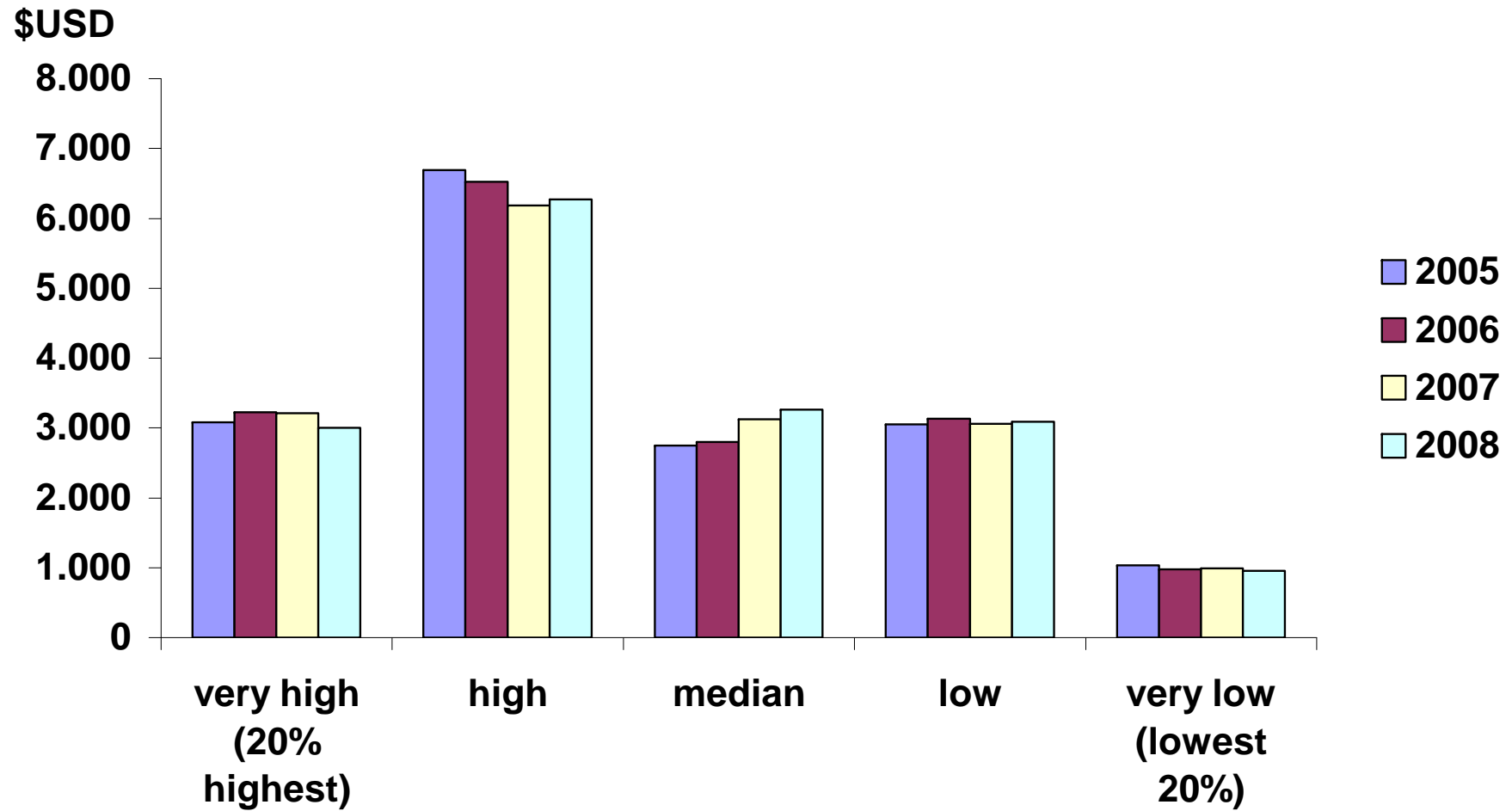
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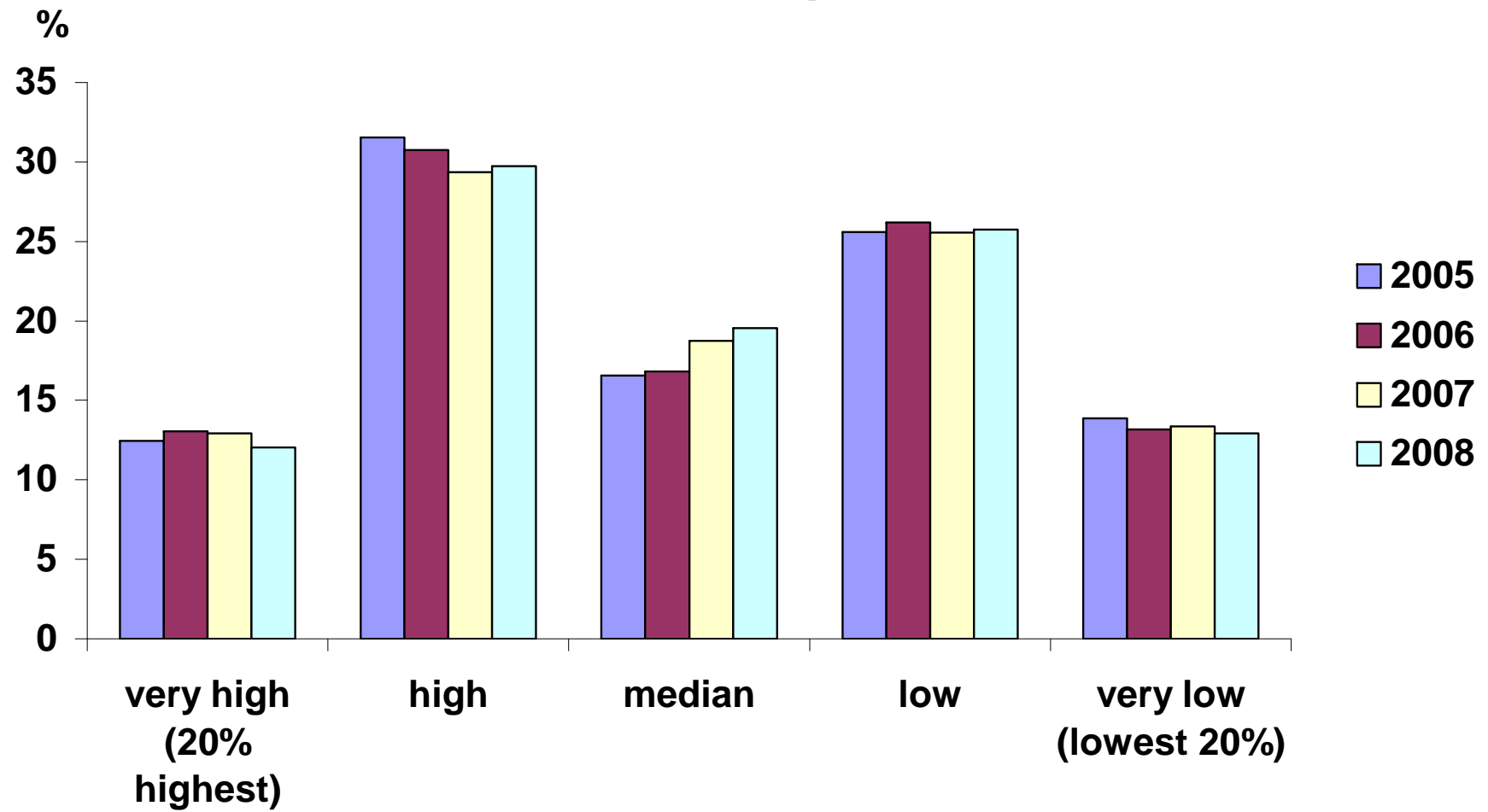
## Main conclusions:

1. The average income content (EXPY) of Portuguese exports has grown (slightly) above the world average in recent years.
2. This evolution was related to a structural transformation of the country's exports (and not to changes in PRODYs).
3. Products with 'High' PRODY (in which foreign firms is strongest) contributed the most to this evolution (automotive was central).
4. FDI played a relevant role both in the growth of Portuguese exports during the period and in increasing their income content, helping to diversify the pattern of specialisation.

## Contribution to EXPY (in \$USD, PRODY in 1995)



## Share of exports



## Weight of FDI-led exports

