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HOW HAS THE EURO'S INTRODUCTION AFFECTED INDUSTRIAL STRUCTURE AND COMPETITIVENESS IN THE EUROZONE AND ITALY?

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OUTLINE

General remarks on EU integration and euro

NBER paper on the effects of the euro on productive structure and efficiency

- aggregate evidence (sectoral) for EU15 countries
- microeconomic (firm level) evidence for Italy

Focus on Italy: structural features and policy implications

European integration

One of the main drivers of European integration was the idea that a more integrated European economy would promote efficiency allowing countries to:

- fully exploit competitive advantages
- foster factor mobility
- increase allocation efficiency

The euro was a crucial milestone along this path

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Euro: main achievements

(European Commission, EMU@10 (2008)…before crisis)

***Economic stability*: since start of EMU, inflation at 2% a year against 3.3% in 1990s; interest rates low; shield against turbolence in global economy and exchange rate volatility**

***More people at work*: 16 mil jobs since 1999; unemployment from 9% to 7%**

***Sound public finances*: 0.6% in 2007, best result in decades**

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Euro: main achievements

(Source: EMU@10, 2008…before crisis)

***Closer economic and financial integration*: increase in trade and FDI within EA; convergence of business cycles**

***Increasingly important role of euro internationally*: euro in foreign reserves from 18% in 1999 to 25% in 2007; outstanding euro-denominated intl debt securities surpassed USD-denominated**

***Enlargement*: Greece (2001), Slovenia (2007), Cyprus and Malta (2008), Slovakia (2009)**

Our focus today

What are the effects of the euro on EA countries' productive structure and efficiency?

Restricted view: euro as the end of competitive devaluations

Competitive devaluations (CD)

Before the euro, devaluations could help EA firms to cope with international competition, in particular from low-wage countries

After the euro, entrepreneurs' expectations must change: the CD channel is precluded within EA, but also externally (strong currency)

After the euro: no devaluation with respect to other EA countries; risk of sharper devaluations is smaller than before

Heterogeneous impact of the euro

Reliance on CD differentiated across sectors and countries

- **EU countries had different exchange rate policies vs DM (Giavazzi and Giovannini, 1998)**
- **CD helped cope with price-based competition: more relevant in some sectors**

Has the euro-shock been stronger the higher a country reliance on CD and the more relevant price competition at sectoral level?

Euro and restructuring

Do we observe more restructuring in countries and sectors mostly hit by the euro-shock?

Two dimensions of restructuring:

- ***between sector*: reallocation of production away from sectors more exposed to price competition, especially in countries more reliant on CD (sectoral EU data)**
- ***within sector* (reallocation from less to more efficient firms): productivity growth (sectoral EU level); adjustments at firm-level (Italy)**

SECTORAL ANALYSIS AT EU15 LEVEL

- 12 EA countries (up to Greece) + Denmark, Sweden and UK (control group)

- sectoral importance of price competition: skill/R&D intensity

- country reliance on CD: nominal/real effective exchange rate devaluation wrt DM in 1980-98

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Data: sectors

Sector (NACE code in parenthesis)	ICT intensity	R&D intensity	Skill intensity
Food products and beverages (15)	0.06	0.01	0.16
Tobacco products (16)	0.06	0.01	0.27
Textiles (17)	0.05	0.01	0.10
Wearing apparel, dressing (18)	0.05	0.01	0.14
Leather, leather products and footwear (19)	0.05	0.01	0.09
Wood and products of wood and cork (20)	0.04	0.01	0.08
Pulp, paper and paper products (21)	0.10	0.02	0.17
Printing, publishing and reproduction (22)	0.10	0.02	0.34
Coke, refined petroleum products and nuclear fuel (23)	0.05	0.06	0.31
Chemicals and chemical products (24)	0.12	0.14	0.41
Rubber and plastics products (25)	0.04	0.03	0.15
Other non-metallic mineral products (26)	0.07	0.02	0.14
Basic metals (27)	0.06	0.02	0.14
Fabricated metal products (28)	0.06	0.02	0.12
Machinery, n.e.c. (29)	0.18	0.06	0.16
Office, accounting and computing machinery (30)	0.16	0.42	0.49
Electrical machinery (31)	0.16	0.12	0.21
Radio, television and communication equipment (32)	0.16	0.22	0.36
Medical, precision and optical instruments (33)	0.16	0.36	0.38
Motor vehicles, trailers and semi-trailers (34)	0.14	0.13	0.20
Other transport equipment (35)	0.14	0.24	0.33
Manufacturing n.e.c.; recycling (36, 37)	0.09	-	0.16
Correlation matrix			
ICT intensity	1.0	0.7	0.6
R&D intensity		1.0	0.8
Skill intensity			1.0

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Data: countries

	$DEVNOM$	$DEVREAL$	ΔP
Austria	0.227	0.079	0.148
Belgium	0.408	0.187	0.222
Denmark	0.408	-0.042	0.450
Finland	0.432	0.109	0.323
France	0.479	0.068	0.411
Germany	0.000	0.000	0.000
Greece	1.945	0.086	1.859
Ireland	0.660	0.071	0.589
Italy	0.768	0.067	0.701
Luxembourg	0.408	0.187	0.222
Netherlands	0.185	0.167	0.018
Portugal	1.366	-0.196	1.562
Spain	0.864	0.150	0.715
Sweden	0.893	0.099	0.794
United Kingdom	0.490	-0.230	0.720

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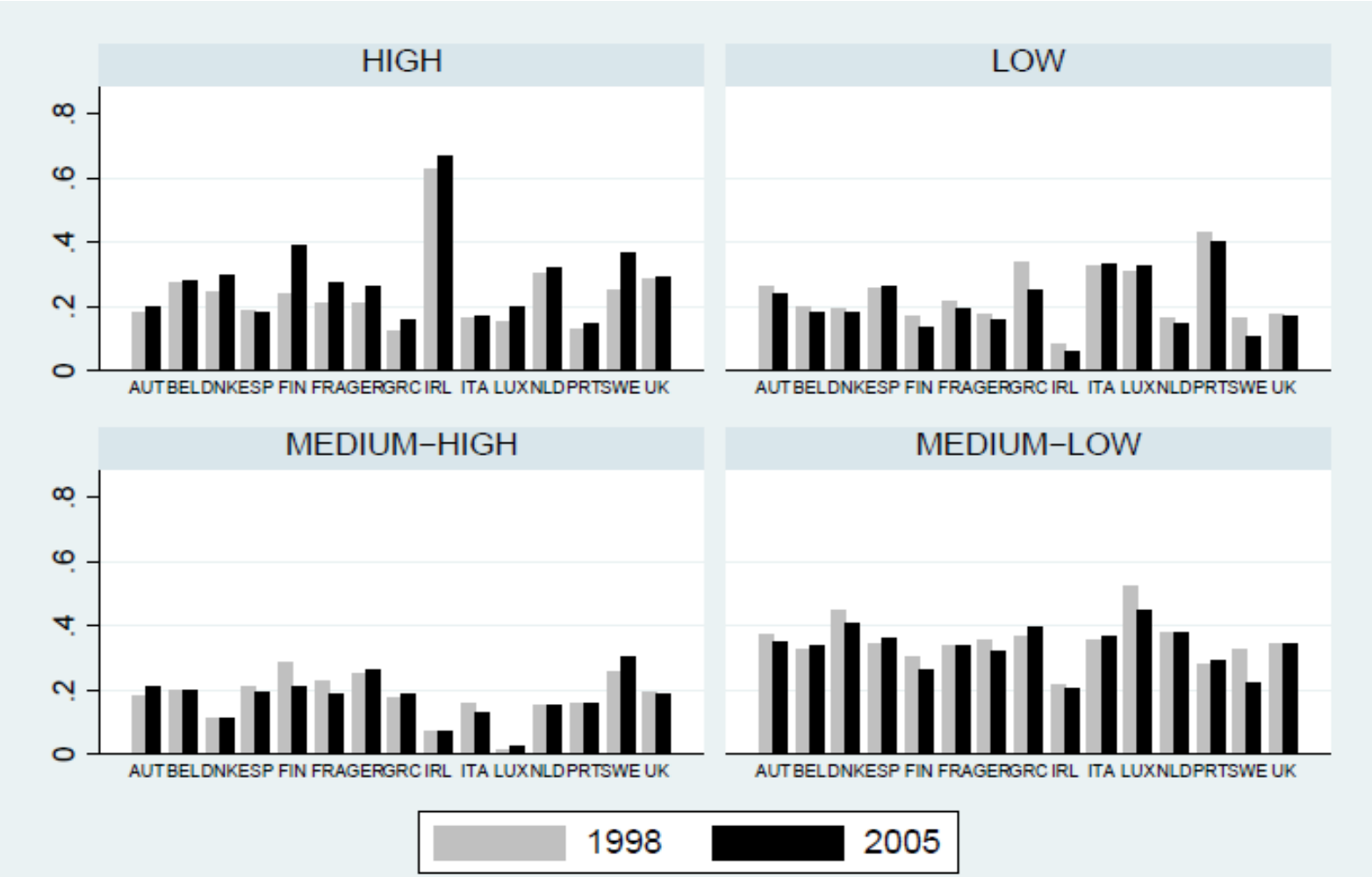
Between sector: value added share by skill



Within sector: main findings

After euro and relative to non EA countries, EA countries that had devalued more before the euro show higher productivity growth in low-skill intensive sectors

We find a sizeable effect on productivity growth

Importantly, no (negative) impact on employment

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ITALIAN FIRMS

Why Italy interesting?

Italy is a country that used CD and is specialized in low-skill intensive sectors

After CD in mid '90s Italy has gone through a prolonged period of slow growth and competitiveness problems (see next section): strong need of restructuring related to increased competitive pressures (globalization and euro)

We have detailed firm-level information: interviews with entrepreneurs and survey data

Interviews/case studies

In spring 2007 Bank of Italy's economists conducted in-depth interviews with entrepreneurs and CEOs of some 40 Italian firms (NBER/Sloan "Pin Factory" project)

Main goal: assess whether and how firms were restructuring their activities

Also: refine interpretative hypotheses, identify alternative explanations (to be taken to data)

Insights from case studies

Successful firms enjoy some degree of market power; cost-based competition unsustainable

Heterogeneous ways to gain market power

Common feature: shift the focus away from production

- upstream: product creation and branding
- organization of production
- downstream: sale and distribution network, post-sales assistance

Examples

Bag S.p.A – shoes for men and women (Nero Giardini): ***"Three key strategical ingredients: i) medium-high product quality; ii) high quality services to retailers; iii) marketing and advertising directed to final consumers. We need to focus more on product design, to strenghten our brands through a smart marketing activity."***

Finproject (or "the tail buying the dog")*: the original small firm producing heels (for shoes) has become a worldwide leader in the production of some plastic materials (with patents in US and EU). How did that happen? At some point, the original firm had the opportunity to make a big jump: for that, strong investments in brand, advertising, distribution network were needed. The old owners did not have the courage to do that. Therefore the final distributor (Crocs sandals), that is "the tail", acquired the "dog". Now a big part of the strategy of the new company is to impose their brand (the heels) to the shoe producers*.

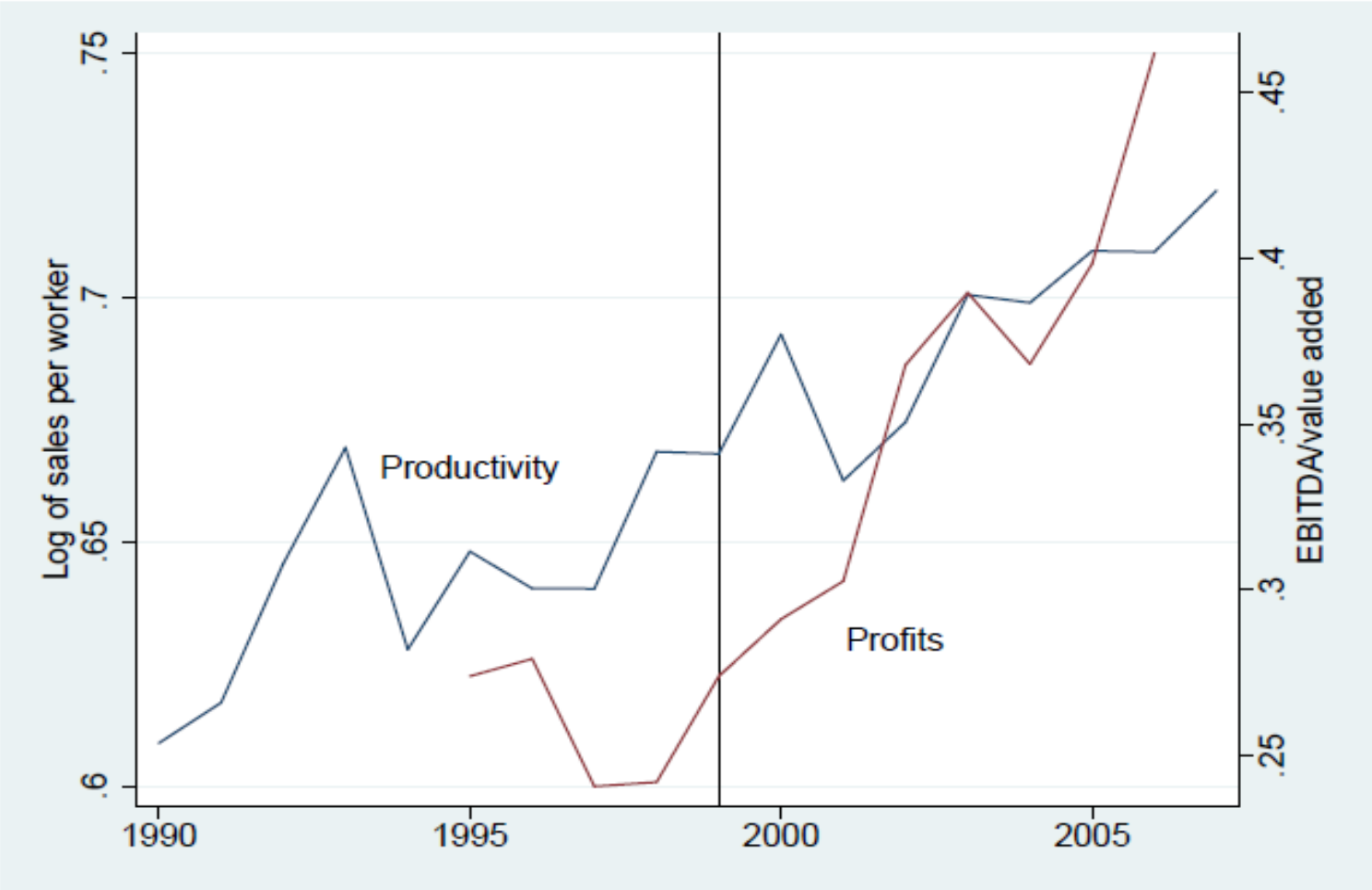
Quantitative analysis

Data: INVIND Survey managed yearly by the Bank of Italy (sample of 4,000 firms). Here focus on manufacturing firms with +50 empl

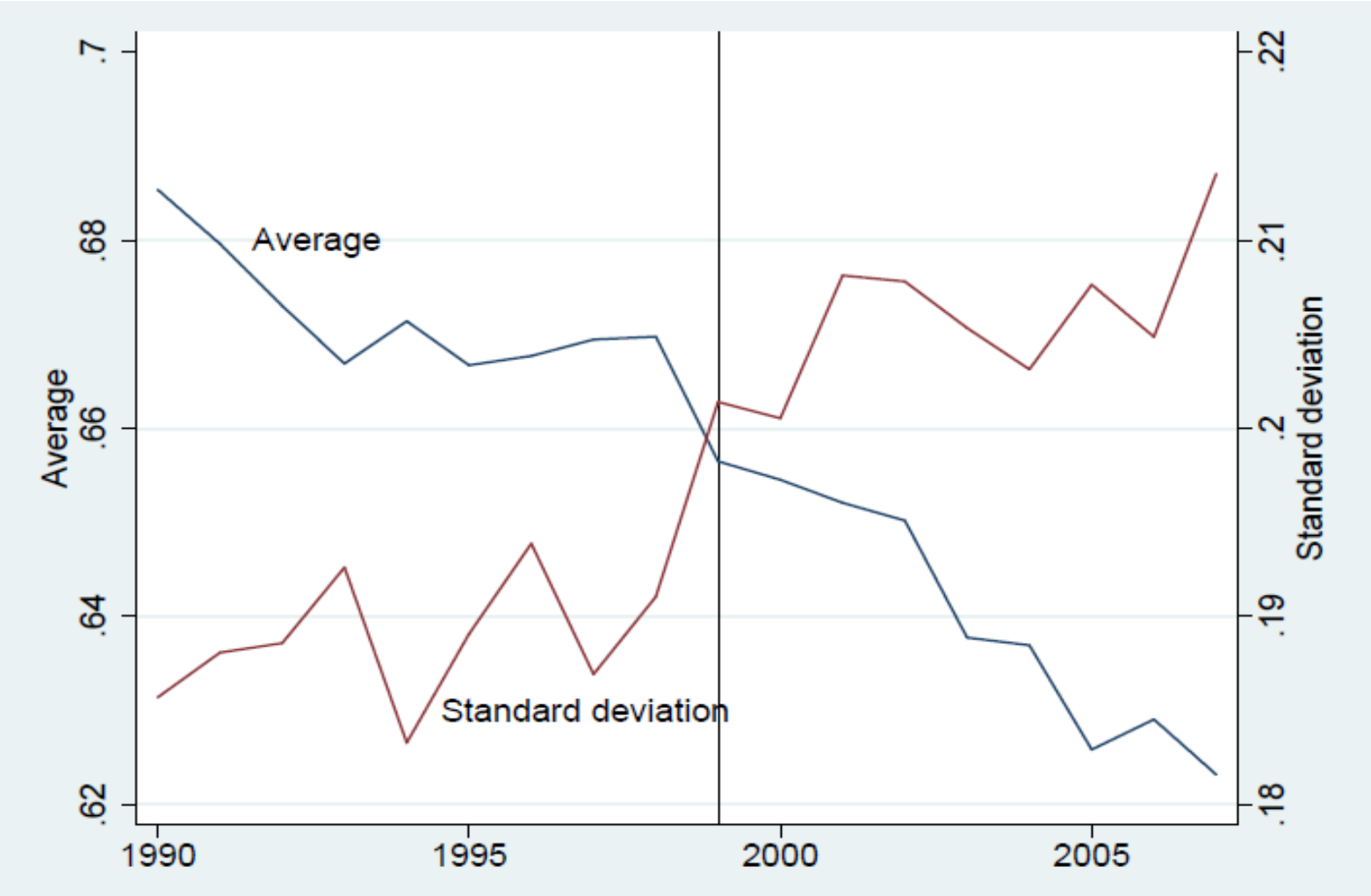
Study time series behavior of restructuring indicators searching for breaks after 1999:

- **increased dispersion of firm performance**
- **increased factor reallocation; in line with focus away from production: greater importance of non-production workers**
- **process more intense in low-skill sectors**

Increased dispersion



Production workers' share



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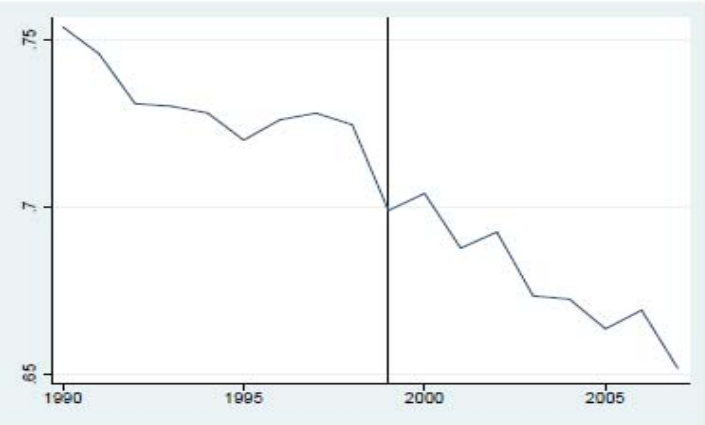
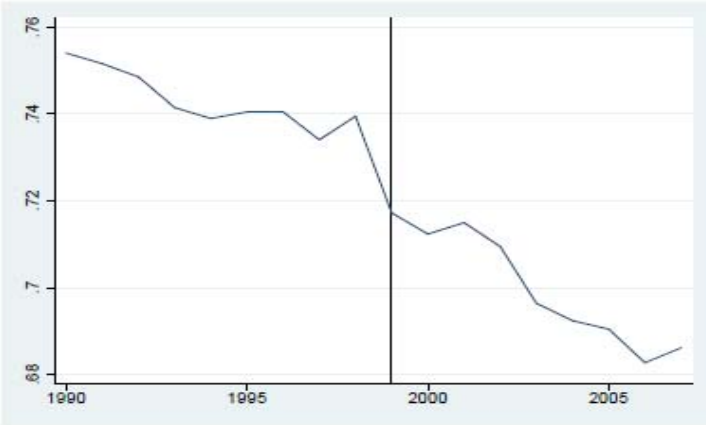
Production workers' share by skill content: average

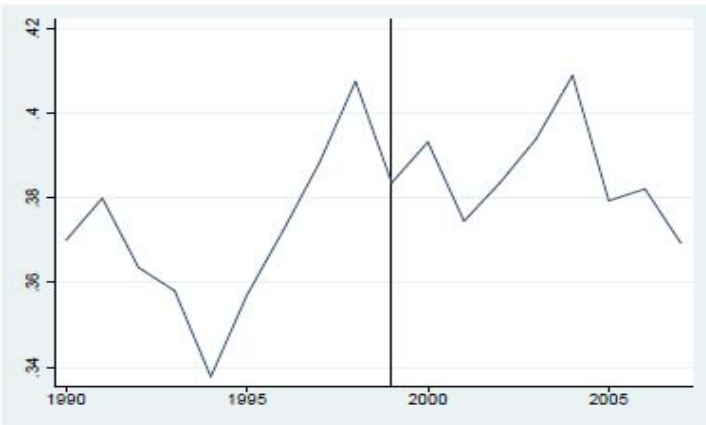


(a) low tech



(b) medium-low tech

(c) medium-high tech



(d) high tech

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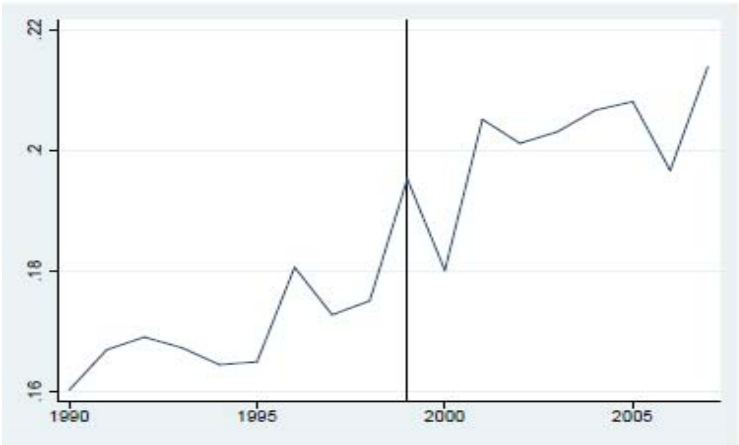
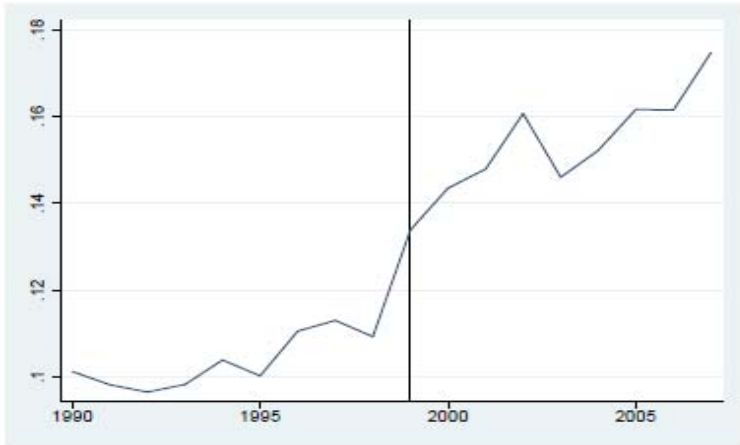
Production workers' share by skill content: standard deviation



(a) low tech



(b) medium-low tech

(c) medium-high tech

(d) high tech

Restructuring and performance

We use various indicators of restructuring at the firm-level

We find that indeed restructured firms recorded higher value added and productivity growth between 2000 and 2006

Restructuring is key to growth in Italy

Digging further

Why have only some firms been able to change strategies, to react to increased competitive pressures?

More importantly, why do most of Italian firms firms seems uncapable of reinventing themselves, deeply restructuring?

Which structural (firm) characteristics are penalizing these firms and, eventually, Italy's growth performance?

Digging further

- Firm size

- Family ownership and management

(see A. Brandolini and M. Bugamelli, eds (2009)"The Report on Trends in the Italian Productive System", Bank of Italy Occasional papers no. 45)

Firm size

Average firm size in Italy is 3.9 employees per firm. Number of plants is 1.06 per firm

Exceptional figure as compared to main European countries (Table)

It is true in all sectors (i.e., it is not due to sectoral specialization) (Table)

What's wrong with small firm size?

It was a winning model in traditional low-tech sectors…

- **scale economies not very relevant;**
- **high efficiency also through various externalities (industrial clusters);**
- **export-driven growth with support of CD**

What's wrong with small firm size?

…but exogenous shocks changed ingredients for competitiveness

- *ICT*: favor efficiency gains in larger firms with "codified knowledge"; break gains from firms' proximity (industrial clusters)
- *Globalization*: new competitors with very low production costs → scale economies and market power are more important; size is pre-condition for exports and FDI
- *Euro*: no more competitive devaluations. No more chances to compete on prices; need to shift the focus on non-price competitiveness factors

Non-price competitiveness and firm size

Non-price competitiv.: R&D, product innovation and non-technological innovation (brand, advertising, marketing…). These activities require large fixed costs and large firm size

The Economist (April 14, 2007) on Italy's luxury goods industry: ***"To do well in China calls for big investments in advertising and promotion. The Italian industry's artisans used to be extremely successful, says Bulgari's Mr. Trapani, but in today global economy size matters. Bigger companies can invest more in advertising and marketing, which is all-important in an industry built on image and aspiration. They can pay for an extensive retail network, the latest technology for the back office and employ the most talented designers and managers".***

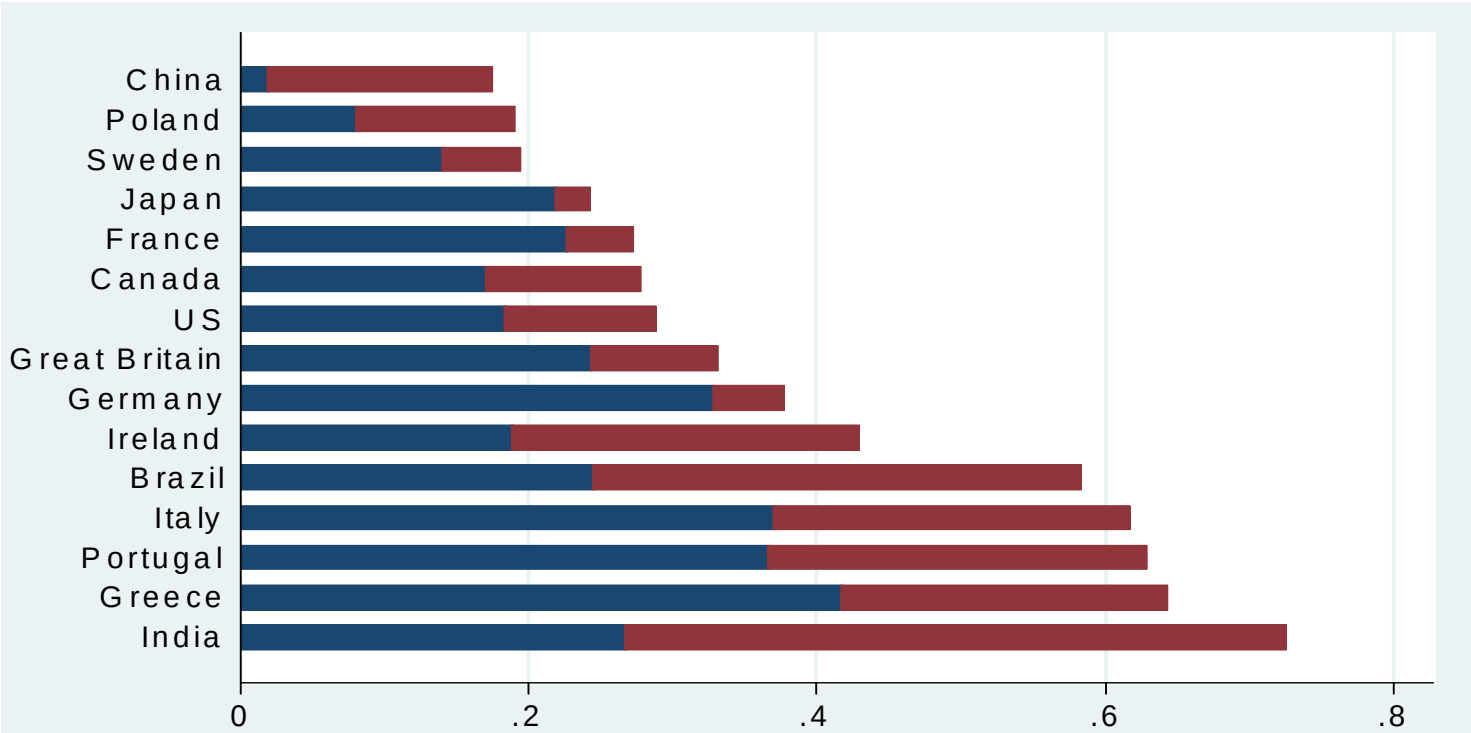
Intangible assets: the role of finance (see later)

Family ownership

Percentage of family-owned firms

(Source: Bloom et al., 2009)

(red: founder; blue: 2nd generation)



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Family ownership & management

	CEO is			
	no answer	owner or same family	external	internal
Industry	**32.4**	**64.1**	**1.3**	**2.3**
20-49 employees	29.7	67.7	0.8	1.8
>= 50 employees	38.2	56.2	2.3	3.3
Service	**44.8**	**49.6**	**2.4**	**3.2**
20-49 employees	38.7	55.2	2.4	3.7
>= 50 employees	58.1	37.2	2.5	2.1
Total	**37.6**	**57.9**	**1.8**	**2.7**

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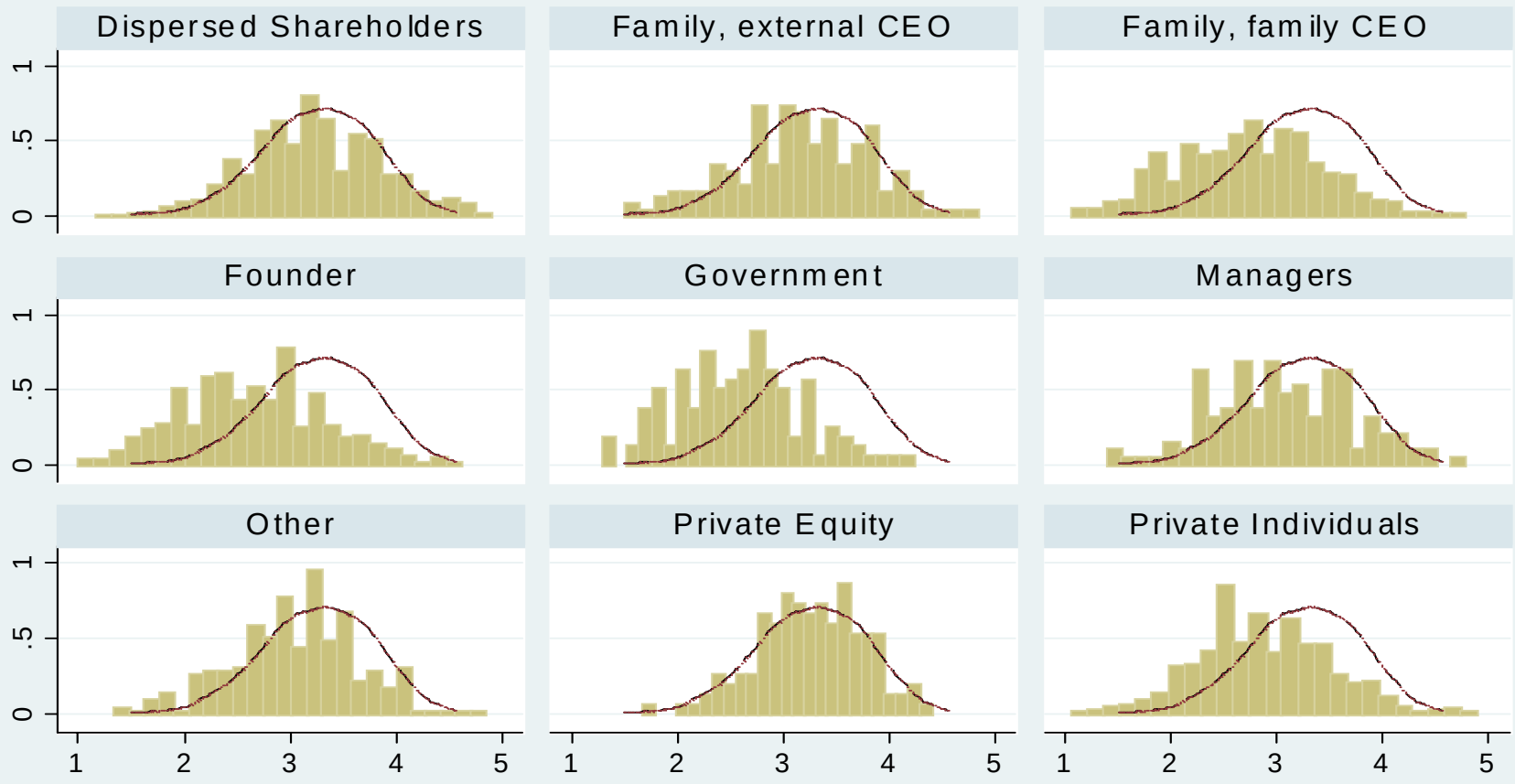
What's wrong with family ownership?

Quality of managerial practices by type of ownership

(Source: Bloom and Van Reenen)

Benchmark: dispersed shareholders (____)



What's wrong with family ownership?

Bloom & Van Reenen (2007): managerial practices worse in family firms with CEO son of founder and less exposed to competition

Michelacci & Schivardi (2008): in countries with more family firms, lower productivity growth, investment, firm natality in sectors exposed to international competitive pressures

Cucculelli (2007): in family firms more important to keep control than raise profitability and sales. Less reactivity to demand increases and new market opportunities

Barba Navaretti, Faini & Tucci (2008): family firms export less

COINCIDENCE BTW FIRM AND FAMILY NET WORTH MAKES FAMILY FIRMS (ENTREPRENEURS) MORE RISK-AVERSE

POLICY IMPLICATIONS

Competition, competition, competition…

Greater competitive pressures (euro but not only…): major difficulties of Italian firms, but also spurred efficiency through resource reallocation and firms' reactions: manufacturing and retail

Much remains to be done in services (professional activities, energy) to the benefit of consumers and user firms (Barone & Cingano, 2008)

Thus: no protectionism, but right instruments to reap positive effects of competition (bankruptcy law and social security system)

Promote greater efficiency at firm level

Support *innovation* and *internationalization:* this calls for a correct policy design (see next)

Favor *firm growth*: according to entrepreneurs whose firm is smaller than desired, lack of growth is due to lack of financial (difficulty to find new partners, private equity funds or to get access to stock mkts) and managerial resources

Overcome the restrictive vision of *family control*: some entrpreneurs refuse private equity or other partners to avoid losing control of the firm

Financial support to *intangible investment*

Private equity/venture capital industry

Need to develop a modern PE/VC industry to:

- **support firm's growth**
- **overcome family control (very important in current phase of frequent inter-generational succession)**
- **give managerial advice**
- **finance risky intangible investments (ideas, patents, non-technological innovations, etc.), often by more opaque firms with very volatile cash flows**

For those entrepreneurs not open to PE, increase contendibility of control and give incentives to M&A

Favor entry in Italy of foreign MNEs through M&A

CONCLUSIONS

Unsatisfactory performance of Italy since mid '90s due to a mix of old structural problems and new exogenous shocks (ICT revolution, globalization, EU integration with euro)

Need for a wide range of structural reforms

Some optimism: before the recent international crisis, there were positive signs of recovery. A non-negligible part of the Italian productive system has proved to be able to reinvent itself, to adopt new strategies, to regain competitiveness (see reaction to euro)

After the crisis, need to restart from those signs, trying to avoid in the meantime that better firms remain under the ruins. This calls for a coordinated and coherent action by policy-makers and the financial system

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THANKS FOR YOUR ATTENTION

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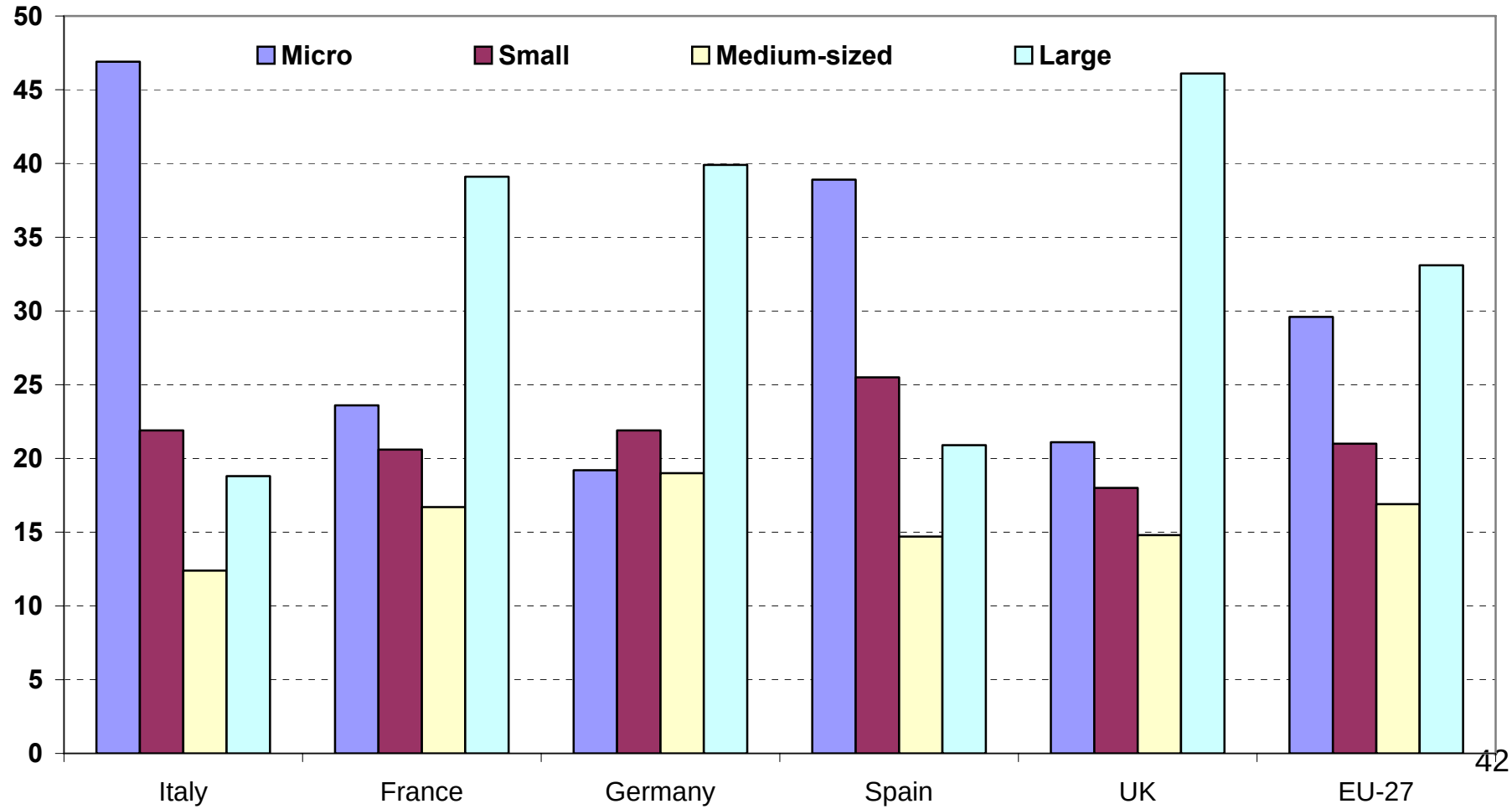
Italy has a high share of micro and small firms

Share of employees by firm size
(percentages)



Average firm size across countries and sectors

(source: Pagano and Schivardi, 2003)

Firm size as percentage of EU15 average

	eu15	de	dk	es	fi	fr	it	se	uk
Real estate	81.66	0.76	0.22	0.37	0.94	0.91		1.32	
Wood	103.96	1.90	1.75	0.34	3.21	0.68	0.21	1.63	0.93
Leather	105.10	0.48			0.77	2.05	0.51	0.47	2.21
Construction	106.72	1.23	1.17	1.06	1.86	1.32	0.38	3.36	0.86
Textile	175.35	1.86	0.61	0.65	1.06	0.95	0.48	0.49	1.96
Hotel&rest.	182.68	0.83	0.71	0.33	1.31	0.84	0.43	0.78	3.56
Other serv.	204.85	1.40		1.22	2.44	0.72	0.68	1.08	1.38
Business services	254.28	1.14	1.12	0.63	0.77	1.40	0.30	0.70	1.23
Pap.&pub.	300.65	1.57	1.63	0.51	2.99	0.72	0.60	1.28	0.97
Metal prod.	305.03	1.55	0.45	0.59	1.71	1.05	0.48	1.22	0.90
Non-met. prod.	319.66	1.84	1.16	0.50	0.79	1.35	0.44	0.81	1.38
Food	338.66	0.91	1.95	0.58	1.68	0.84	0.75	1.69	2.46
Trade	343.04	1.35	1.11	0.44	0.63	0.76	0.16	0.62	2.91
Transport	347.03	1.57	0.51	0.60	1.02	1.32	0.70	0.89	1.35
Rubber	394.55	1.65	0.50	0.77	0.67	1.29	0.44	0.53	0.72
Machinery	406.08	1.33	1.09	0.56	0.89	1.44	0.94	1.09	0.92
Other manuf.	532.43	2.00	0.36	0.11	0.32	0.31	0.09	0.22	0.30
Chemical	728.99	1.72	0.94	0.43	1.06	0.87	0.70	0.84	1.07
Elett. mach.	780.51	1.49	0.30	0.46	0.78	0.79	0.52	1.48	0.62
Finance	1163.84	0.94	0.66	1.15	0.92	1.03		1.53	1.55
Petroleum	1196.54	1.40				1.15	0.87		
Transp. equip.	1742.63	1.93	0.31	0.67	0.42	1.14	0.88	0.84	0.72
Total	336.33	1.58	0.97	0.58	1.06	0.98	0.42	1.13	1.58