KDI-OECD Joint Conference on
Korea's Social Policy Challenges

Korea's Income Inequality: The Trend and major Issues

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Korea's Leading Think Tank KDI

Korea's income inequality (≠) has widened very fast between 1992 - 2009, not so exceptional but very large.

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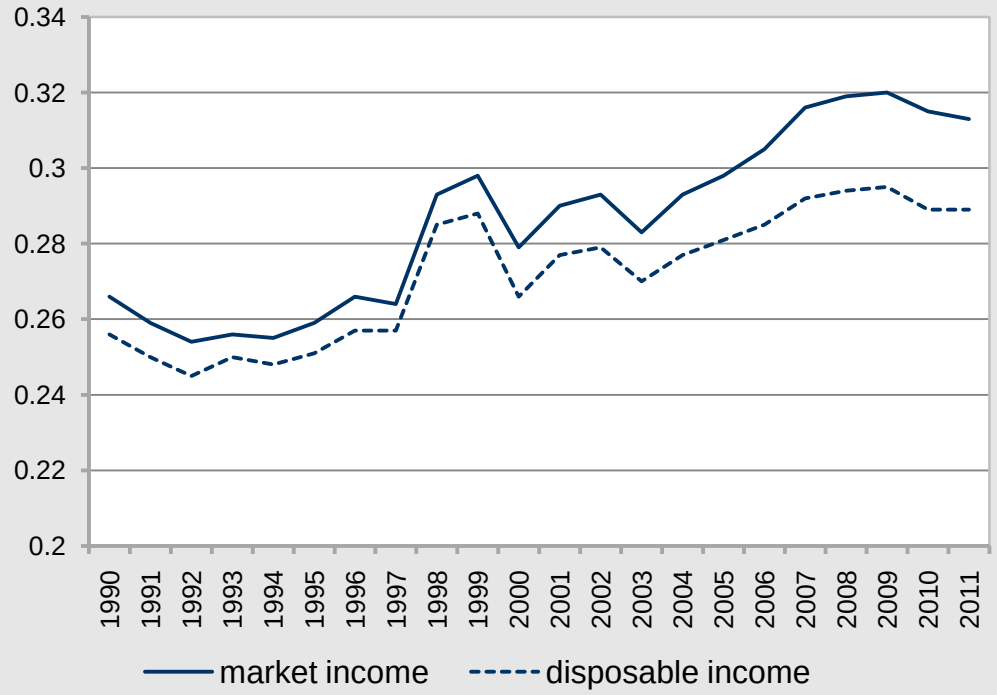
Market and disposable income Gini coefficients: 1990-2011



Note: individualized yearly income base, among urban area families with 2+ members
Source: The Statistics Korea, KOSIS database (www.kosis.kr)

The ≠ rise has been driven by market income ≠.

Taxes and transfers cancelled about 1/3 of the widening between1992 and 2009.

Market income (Y^M) = disposable income (Y^d) + Taxes and transfers

$Y^d \neq \quad \leftarrow \quad Y^M \quad \neq$

Decomposition of market income (Y^M) Gini coefficient : 1992, 2000, 2009

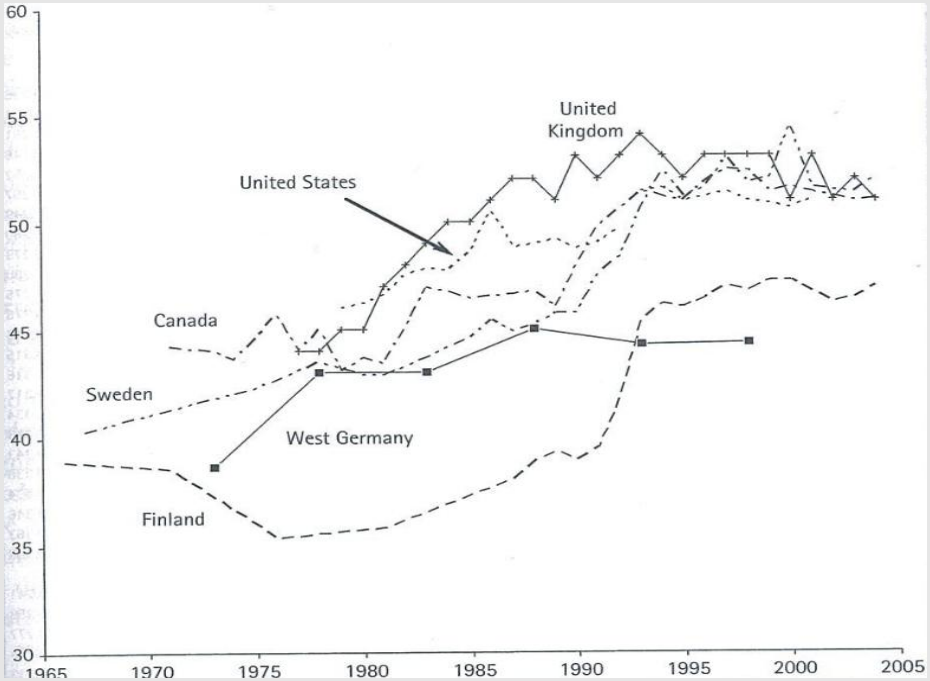
	Y^M Gini decomposition									
	Gini	Income share		Contribution to Gini		Change from 1992			official Gini index	
	Y^M	Y^d	Tax/transf	Y^d	Tax/transf	total	Y^d	Tax/transf	Y^M	Y^d
1992	0.237	0.969	0.031	0.222	0.015	0.000	0.000	0.000	0.254	0.245
2000	0.261	0.954	0.046	0.238	0.024	0.024	0.016	0.009	0.279	0.266
2009	0.300	0.954	0.046	0.264	0.036	0.063	0.042	0.021	0.324	0.295

Source: author's calculation from published KOSIS database.

Market income ≠ rise in richer countries was in 1970s and 1980s. Korea's rise is between 1992 and 2009.

Size of ≠ growth: Korea 28%, Japan, U.K., Italy ≈ 30%, U.S., Norway ≈ 20%, Canada, Germany, Denmark, NZ ≈ 15%, wide variation exists across countries.

Gini coefficients of market income in richer countries: 1985-2005

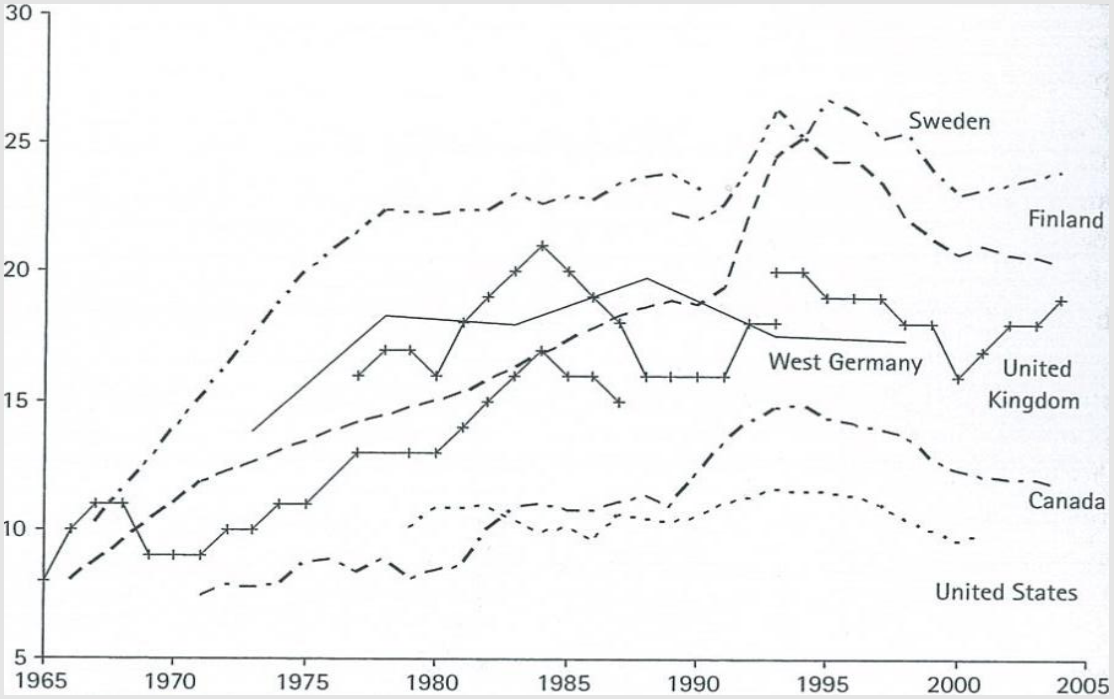


Source: Brandolini and Smeeding (2009), Figure 4.2, p.83

Taxes and transfers expanded when market income ≠ rose in the 70s to mid 90s

Korea faces no different situation.

equalizing effect of taxes and transfers in richer countries: 1985-2005



Source: Brandolini and Smeeding (2009), Figure 4.7, p.97

In richer countries, taxes and transfers reduce ≠ by about 1/3, Largely by taxes (including social contributions)

- The effect in Korea is about 12%.

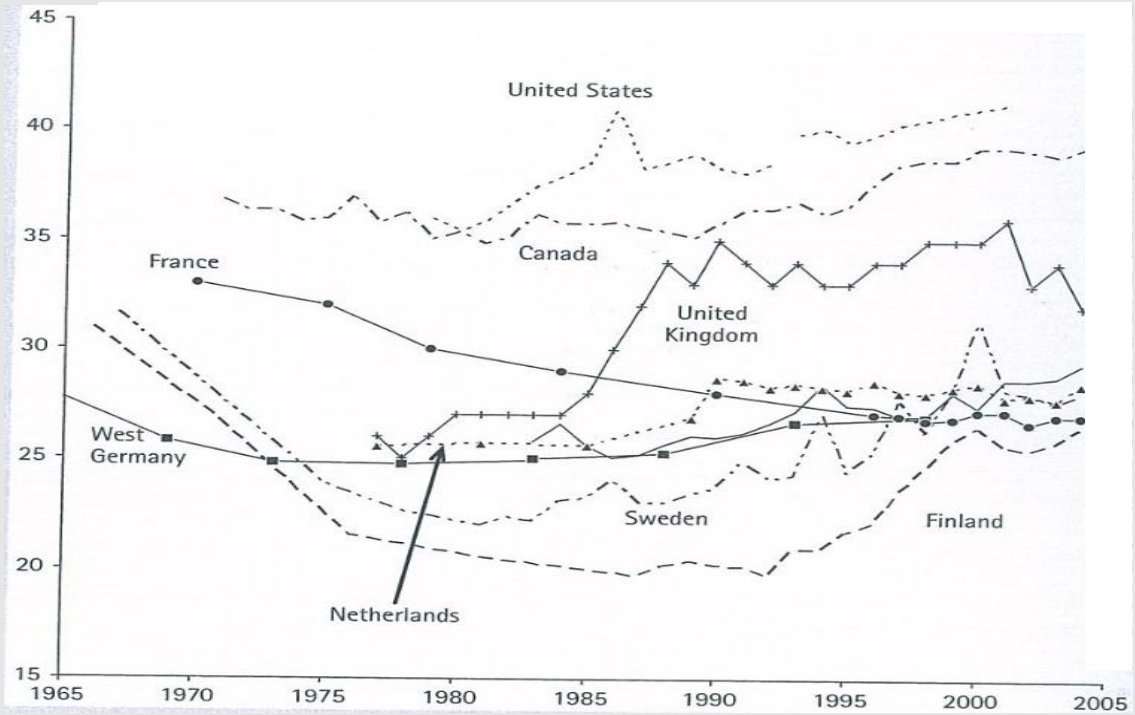
Reduction of market income Gini coefficient by sources (%)

	Finland	Germany	Poland	Sweden	Taiwan	UK	US
taxes and transfers	-43.1	-37.1	4.0	-44.5	-7.1	-31.9	-30.7
private transfers	0.2	-0.4	2.4	-0.6	-0.4	0.4	0.3
public social transfers	-7.7	-0.9	14.8	-7.6	1.0	-9.3	-0.1
taxes, social contributions	-35.6	-35.7	-13.2	-36.3	-7.8	-23.0	-31.0

Note: as of 2000, except for Poland (1999) and UK (1999) based on the LIS data sets.
Source: author's calculation from Brandolini & Smeeding 2009, Table 4.2, p.90-91.

As a result, disposable income ≠ trend varies across countries and no common pattern exists, though ≠ rose commonly.

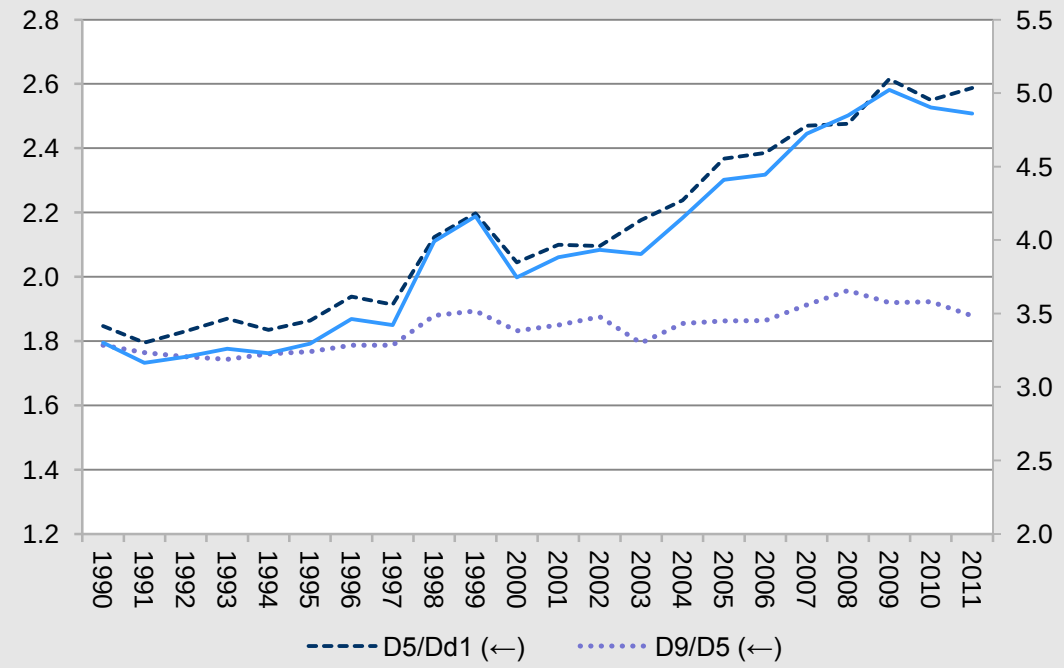
Gini coefficients of disposable income in richer countries: 1985-2005



Source: Brandolini and Smeeding (2009), Figure 4.5, p.88

In Korea, bottom gap widen, while top gap remained stable.

Market income deciles ratios - D5/D1, D9/D5, D9/D1: 1990-2011



Note: individualized yearly income, among urban area families with 2+ members.
Source: The Statistics Korea, KOSIS database (www.kosis.kr)

As the bottom income failed to rise, while median and top income grew.

real market income (monthly) at deciles, individualized & equivalized

unit: 2010 constant 000 KRW

	Market income			Disposable income		
	p10	p50	p90	p10	p50	p90
1990	494	912	1,631	495	889	1,564
1995	757	1,411	2,494	752	1,371	2,387
2000	674	1,379	2,525	678	1,319	2,377
2005	690	1,634	3,043	710	1,555	2,817
2010	671	1,712	3,290	747	1,642	3,049

Note and Source: same as in Figure 2.1. Nominal values are converted with a scale calculated from household income and expenditure statistics.

Korea's market income ≠ rise is contributed mostly by earnings dispersion.

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contributions to market income Gini coefficient by income sources

	Market income	Labor income	Business income	Property income	Private transfer
Contributions					
1990	0.260	0.165	0.086	0.004	0.006
1995	0.251	0.152	0.088	0.004	0.007
2000	0.270	0.196	0.066	0.004	0.004
2005	0.287	0.223	0.057	0.002	0.005
2010	0.296	0.234	0.056	0.001	0.005
Income shares					
1990	1.000	0.649	0.298	0.011	0.041
1995	1.000	0.632	0.322	0.011	0.036
2000	1.000	0.634	0.303	0.014	0.050
2005	1.000	0.685	0.261	0.005	0.049
2010	1.000	0.721	0.236	0.004	0.039
Concentration ratios					
1990	0.260	0.254	0.288	0.342	0.141
1995	0.251	0.240	0.274	0.370	0.192
2000	0.270	0.309	0.219	0.285	0.084
2005	0.287	0.326	0.220	0.303	0.105
2010	0.296	0.324	0.239	0.299	0.136

Source: author' calculation from yearly HIES data sets.

no great differences in market income ≠ among population with positive earnings. Large ≠ gaps come from % no income population, property income shares.

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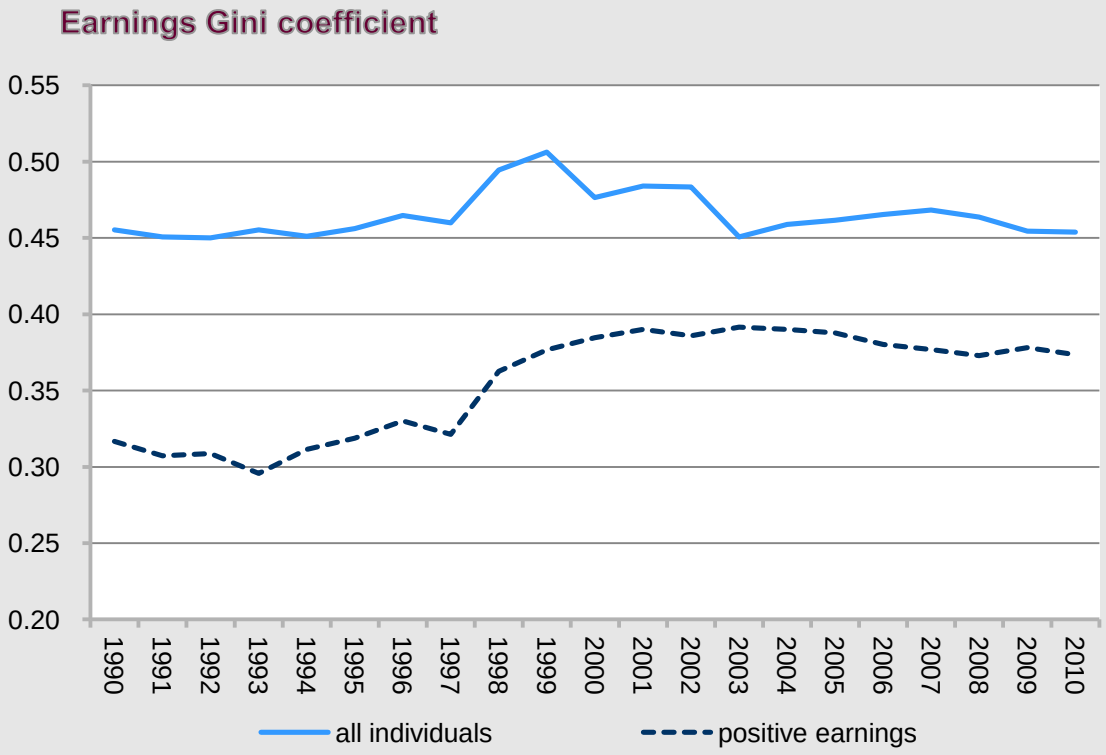
Contribution to market income Gini by income sources

Gini coefficient	Finland 2000	Germany 2000	Poland 1999	Sweden 2000	Taiwan 2000	UK 1999	US 2000	Korea 2010
market income	.469	.481	.530	.459	.325	.509	.479	.327
(> 0)	.416	.454	.373	.436	.322	.450	.455	.317
(> 0, %)	90.9	95.1	74.9	95.8	99.5	89.3	95.5	98.6
wages & salaries	.501	.531	.565	.505	.464	.582	.512	.488
(> 0)	.370	.364	.360	.379	.327	.389	.429	.384
(> 0, %)	79.2	73.8	68.0	79.7	79.7	68.5	85.6	82.8
Contribution of wages and salaries to market income Gini coefficient (%)								
	80.7	77.3	84.3	91.2	72.5	79.9	84.5	77.4
Income shares								
Wage & salaries	83.1	80.2	86.5	87.7	69.0	78.1	85.7	70.7
Self-emp income	9.2	11.6	12.9	3.0	21.1	10.6	6.3	24.1
Property income	7.8	8.2	0.7	9.3	9.9	11.2	8.0	0.4

Note: Korea is among all rural and urban households, including one person households.
Source: Brandolini and Smeeding (2009), Table 4.1, pp.79-80 and author's calculation from yearly HIES data sets for Korea.

EARNINGS distribution change:
≠ among wage earner families rose in the second half of the 1990s
And stable afterwards.



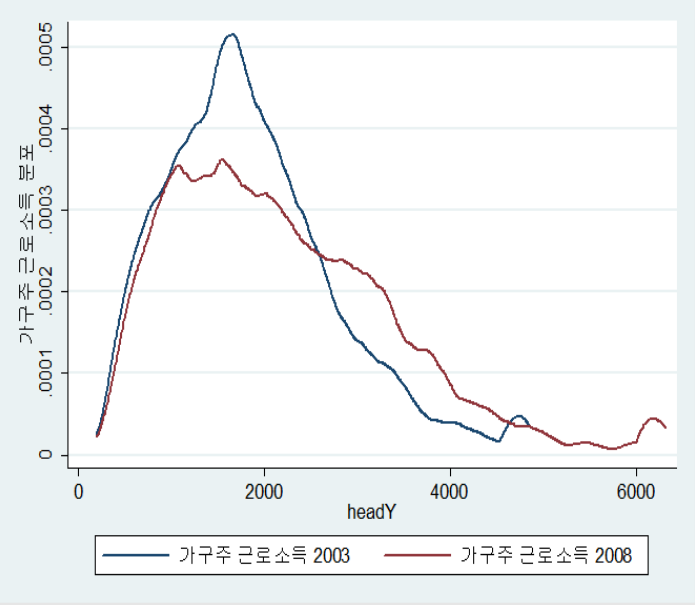
Note: among urban households with 2+ members and with head's age < 65.
Source: author's calculation from yearly HIES data sets.

Two issues:

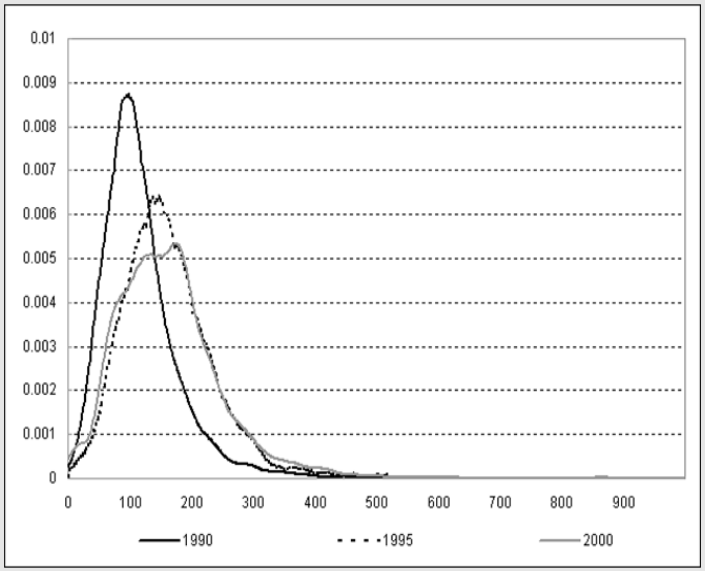
1) **Earnings distribution became more unequal.**
2) **Weak income growth at the bottom.**

Household head's monthly earnings distribution

2003 & 2008



1990, 1995, 2000



Source: author's calculation from HIES data sets.

International comparison of earnings dispersion.
- Fraught with difficulties the comparison is based upon samples full time workers but the range of them differs a lot across countries.

decile ratios of gross earnings

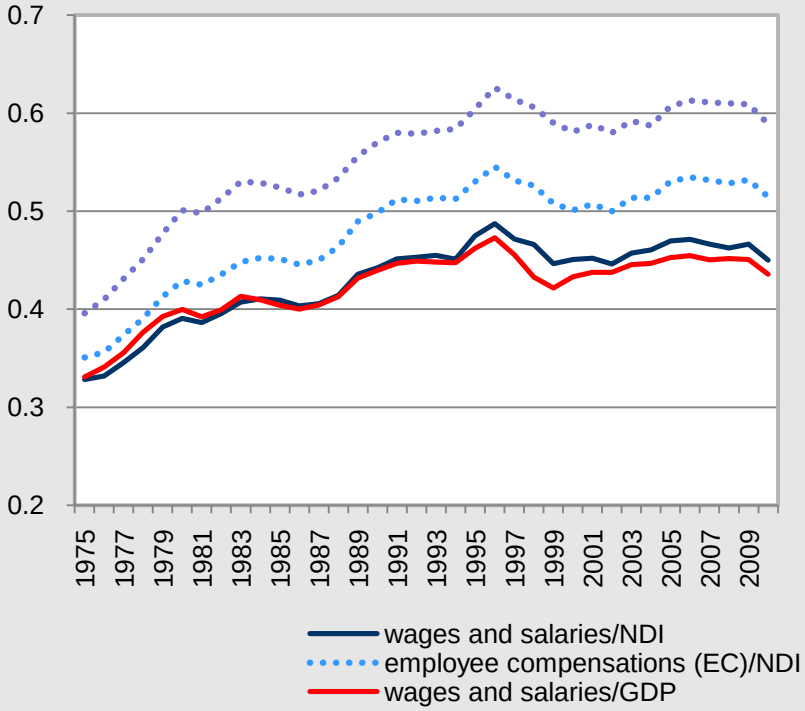
MEN

	D5 / D1			D9 / D5			D9 / D1		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
France*	1.62	1.59	1.48	2.13	2.08	2.05	3.46	3.31	3.04
Germany	..	1.67	1.78	..	1.83	1.72	..	3.04	3.07
Italy	..	1.50	1.49	..	1.67	1.56	..	2.50	2.33
Japan	1.64	1.59	1.61	1.73	1.73	1.77	2.84	2.75	2.85
Sweden	1.32	1.40	1.41	1.55	1.74	1.68	2.05	2.44	2.37
UK	1.81	1.83	1.83	1.80	1.89	2.03	3.26	3.45	3.71
US	2.13	2.14	2.20	2.07	2.24	2.33	4.40	4.79	5.13
Korea	1.77	1.97	2.16	1.78	1.88	2.10	3.15	3.71	4.53

Note: * France is 2009.
Source: OECD.STAT. data extracted on 15 Oct 2012 19:57 UTC (GMT) from OECD.Stat

In Korea, the share of wage and salaries in national income stopped growing since 1996.

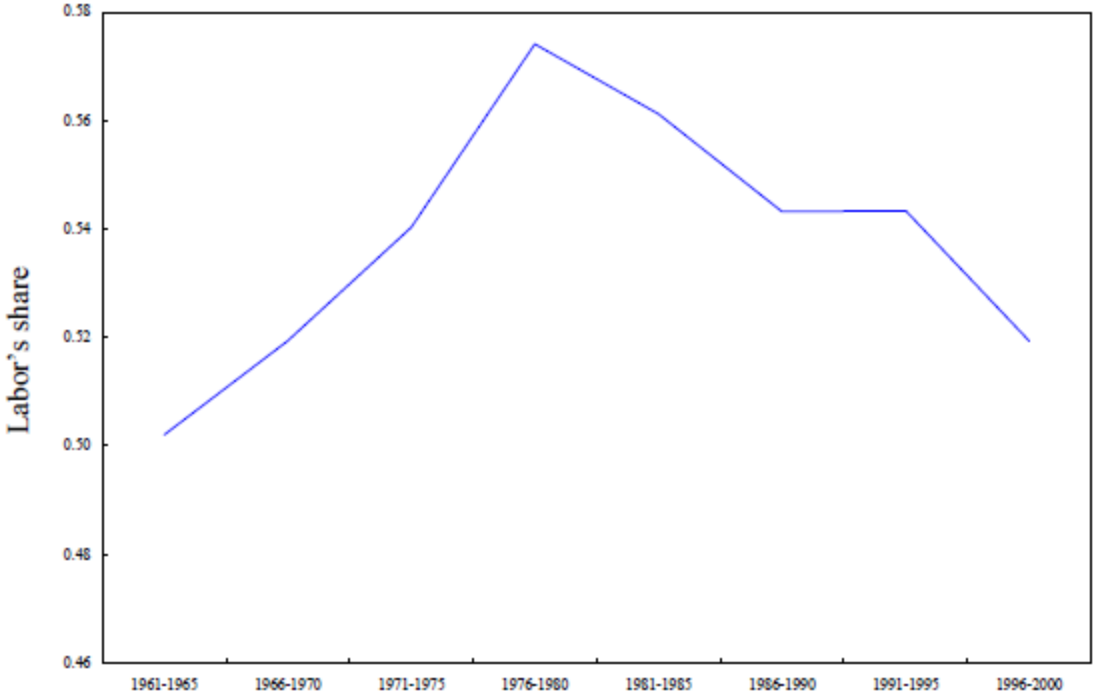
labor's share in national income: 1975-2010



Source: The Statistics Korea, KOSIS database.

While in richer countries it dropped since 1976.
In richer countries, earnings dispersion grew as labor's share decline.
Labor's share declined because i) Globalization, ii) Technology change,
iii) Terms of trade deterioration (high oil price), and iv) marginally weak union power.

Figure 1. Cross-Country Average Labor's Share in National Income
(Ratio of labor income to national income)



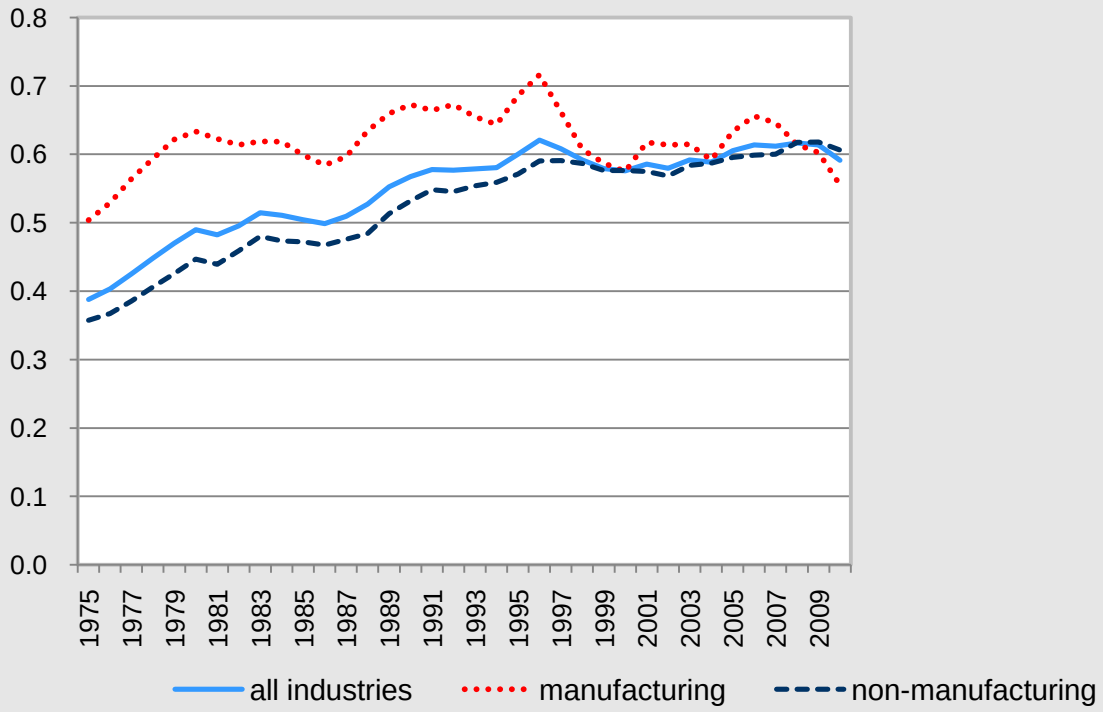
Source: OECD, Structural Analysis Database.

Guscina, 2006, p.4

Policies addressing labor's income share are policies for equitable growth.

Industrial structural shift is not a major factor in labor's share decline.

Labor's share in all Industries and manufacturing: 1975-2010



Source: The Statistics Korea, KOSIS database.

Incorporation Trend in the 2000s:

The driving force is capital and knowledge, capital released from credit rationing and knowledge accumulated by work experience at large companies.
Unless the resources leave the economy, the trend would continue.

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workers by business types ('000)

Year	Total	Unincorporated	Incorporated	Non-profit	Associations
1993	12,245	5,986	4,583	1,427	250
2000	13,604	6,645	4,818	1,823	318
2010	17,647	6,900	7,670	2,650	427
1993-2000	1,359	659	235	396	68
2000-2010	4,043	255	2,852	827	109

Source: KNSO, Census of Establishments,

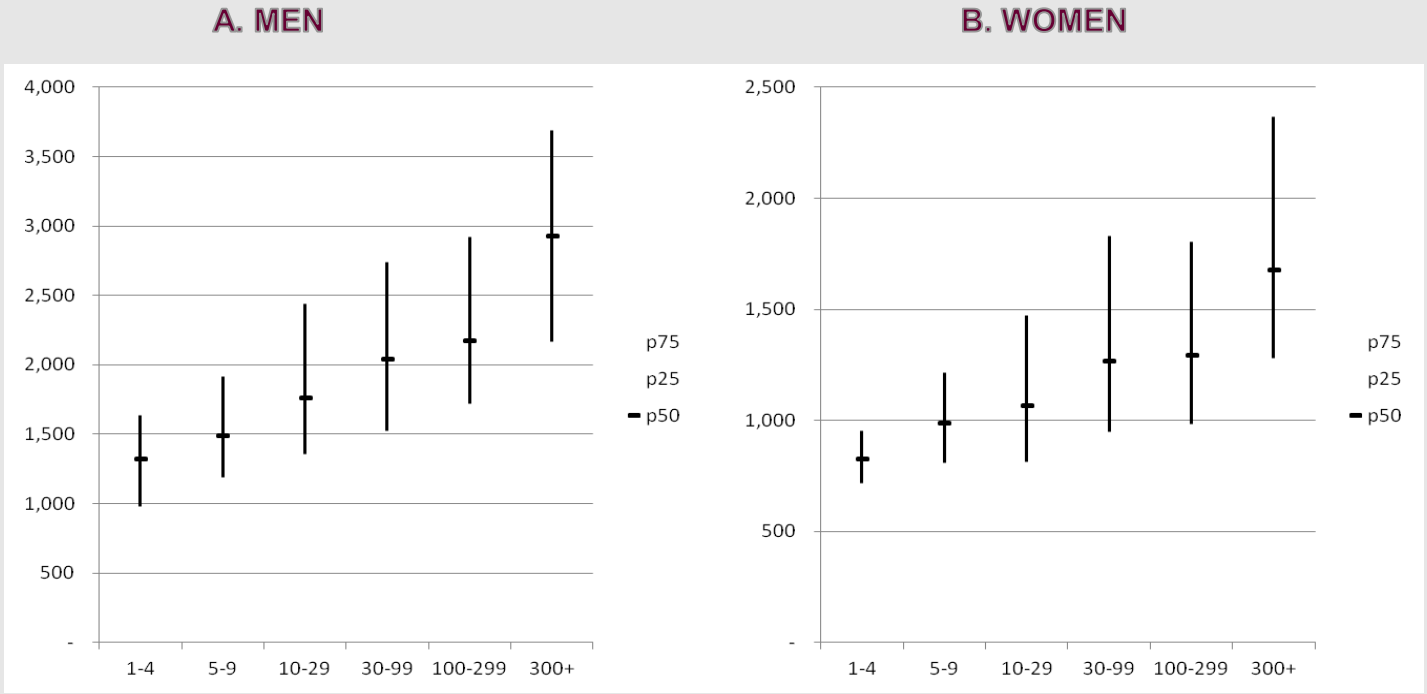
workers by establishment sizes ('000)

	total	1-4	5–9	10–19	20-99	100-299	300-999	1000+
1993	12,245	3,538	1,240	1,072	2,603	1,225	1,048	1,519
2000	13,604	4,651	1,552	1,429	3,020	1,315	930	706
2010	17,647	5,075	1,841	1,894	4,321	1,961	1,345	1,211
1993-2000	1,359	1,113	312	357	417	90	-118	-813
2000-2010	4,043	424	289	465	1,301	646	414	504

Source: KNSO, Census of Establishments, various years.

But the trend is unfavorable for the less skilled and low wage workers as they work at small firms.

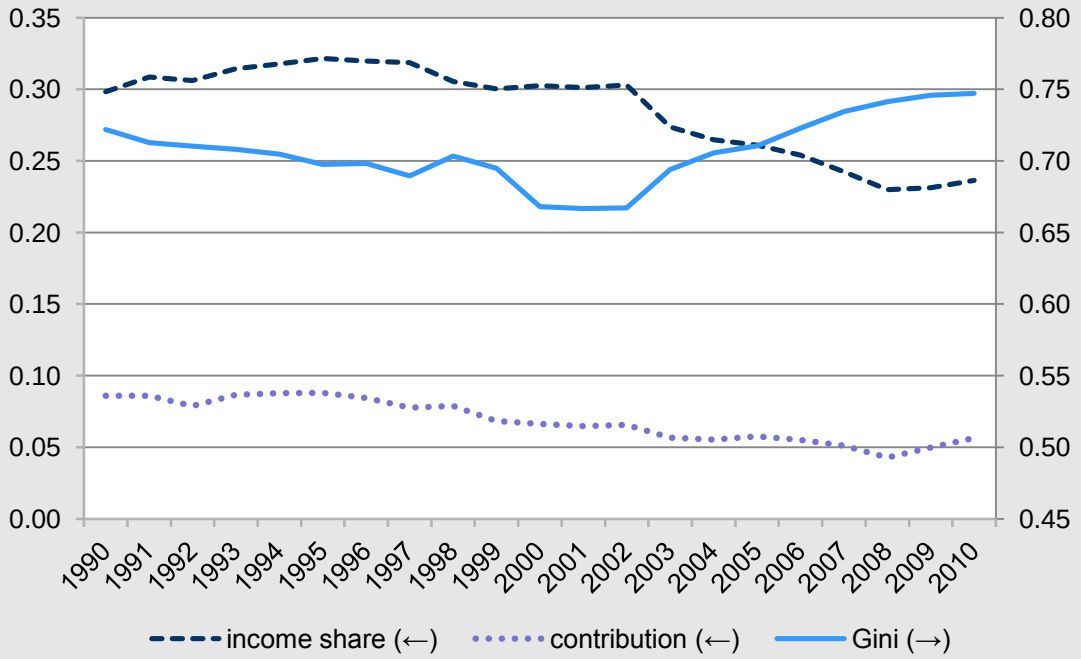
monthly earnings by establishment size



Source: author's calculation from EAPS, supplementary survey, August 2007

BUSINESS INCOME:
Business income share declined and its contribution to ≠ dropped.

Business income Gini, income share and contribution to income ≠



Source: author's calculation from yearly HIES data sets.

No progress of income among self-employed in the 2000s at the bottom.

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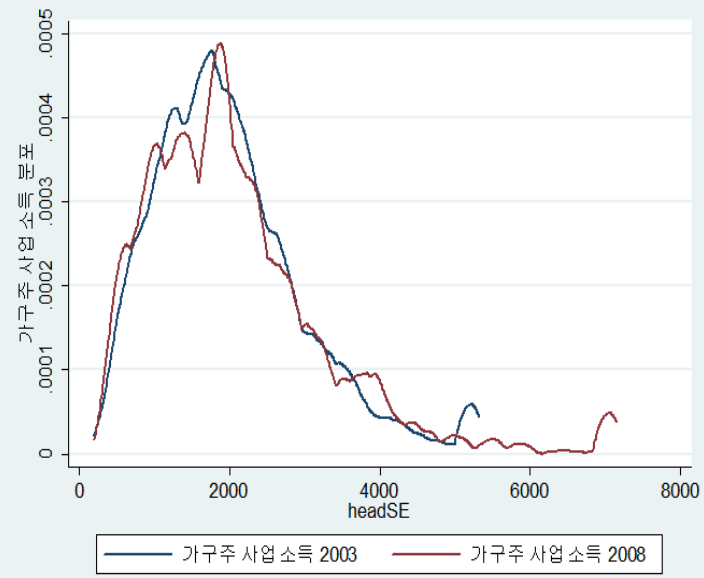
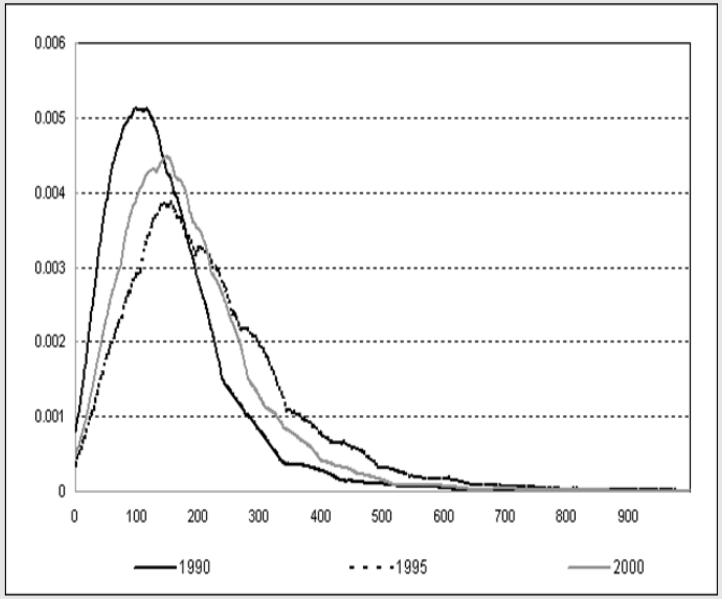
distribution of household head's monthly business income

2003, 2008



1990, 1995, 2000



Source: author's calculation from HIES data sets.

Still, % of households that depends upon business income did not fall.

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Earnings and business income shares in market income by income decile groups (%)

Deciles	A. Earnings					B. business income				
	1990	1995	2000	2005	2010	1990	1995	2000	2005	2010
1	58	55	52	58	64	29	34	29	24	19
2	66	67	58	60	66	28	27	32	29	26
3	65	62	58	62	65	30	34	36	31	30
4	69	69	59	61	70	26	28	34	33	26
5	66	65	58	64	69	28	32	36	31	27
6	67	63	62	69	69	29	33	33	27	26
7	66	65	64	67	71	30	31	30	28	24
8	66	65	65	72	72	30	30	30	24	25
9	67	64	65	69	75	28	30	29	26	22
10	61	58	70	76	77	34	37	25	20	18

Source: author's calculation from yearly HIES data sets.

Decline of small firms and self-employment squeezes household income
(as shown by business profit drops in household income.)

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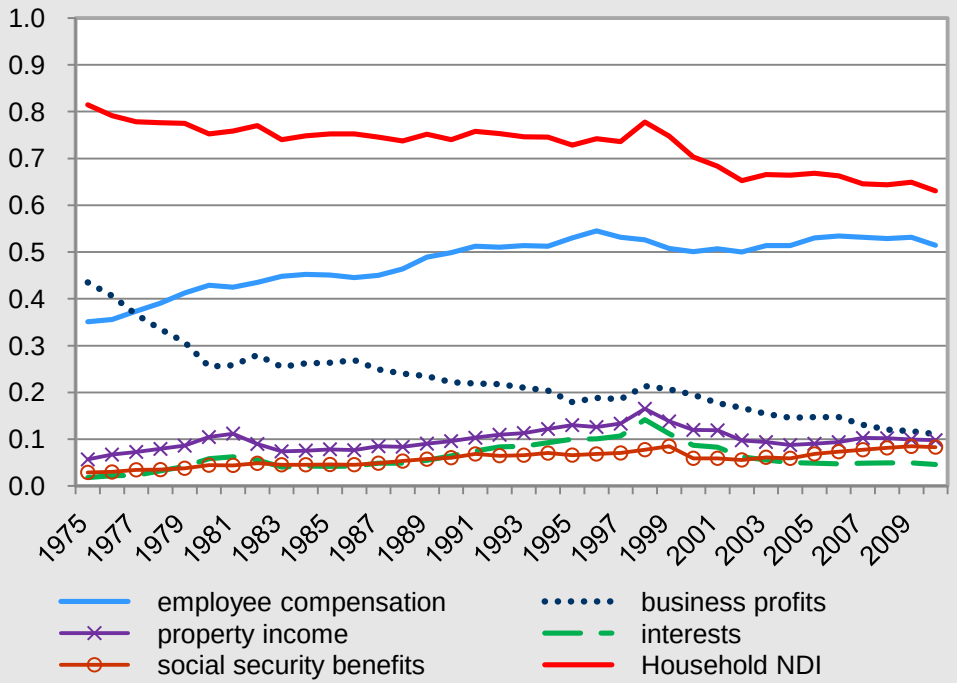
Household income by sources as a proportion to NDI



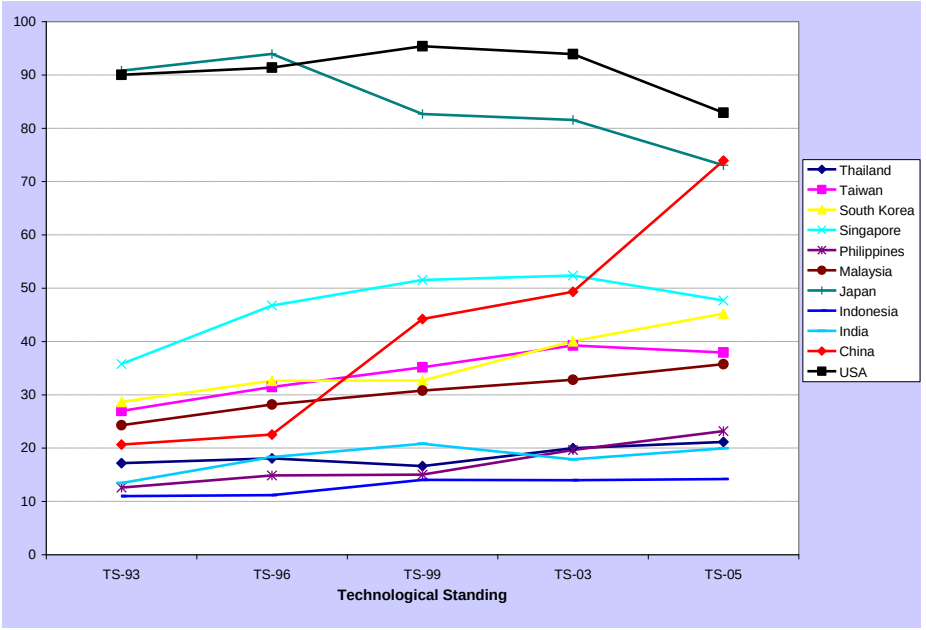
Source: The Statistics Korea, KOSIS database.

Policy agendas

Keeping labor income share from further drop improves market income distribution.

1. Science and technology for a knowledge based economy prevents further deterioration of terms of trade and competitive loss.
2. Slow down decline of small firms unless it impedes overall economic efficiency and national competitiveness
3. Labor reforms in tandem with product market reforms.
   - Japan's labor flexibility reform failure is attributed not to its own reform, but to failure of product market reforms.

Georgia Tech indicator of Technological Standing: 1993-2005



Source: High Tech competitiveness: Spotlight on Asia, Georgia Tech Technology Policy and Assessment Center.

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Thank you

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