## Online Appendix C1 – Data representativeness

Table C1-1 reports the year-by-year total number of observations, as well as aggregate labor costs, value-added, investment, both in level and in share of their aggregate values for the corporate sector in France. There are on average 800 thousand observations per year, accounting for 87% of total labor costs, 84% of total value-added, with little variations over time. Our data only accounts for 68% of total investment in the corporate sector. This is due to the fact that many small firms affiliated to the simplified regime report missing investment. To construct measures of capital input, we use instead the reported book values of the capital stock.

Table C1-1 – **Data Representativeness**

| | Obs | Labor Costs | | Value Added | | Investment | |
|---|---|---|---|---|---|---|---|
| | (Nb) | Total (M €) | Share (%) | Total (M €) | Share (%) | Total (M €) | Share (%) |
| 1984 | 532,996 | 283,772 | 82 | 283,772 | 84 | 47,202 | 70 |
| 1985 | 548,669 | 312,930 | 84 | 312,930 | 87 | 49,752 | 68 |
| 1986 | 571,885 | 332,184 | 84 | 332,184 | 84 | 57,344 | 71 |
| 1987 | 592,065 | 351,970 | 84 | 351,970 | 84 | 56,737 | 65 |
| 1988 | 601,927 | 379,705 | 83 | 379,705 | 82 | 63,893 | 65 |
| 1989 | 596,754 | 413,480 | 84 | 413,480 | 83 | 73,858 | 67 |
| 1990 | 647,678 | 428,452 | 83 | 428,452 | 81 | 78,487 | 65 |
| 1991 | 666,606 | 458,394 | 84 | 458,394 | 83 | 81,559 | 64 |
| 1992 | 702,357 | 471,285 | 85 | 471,285 | 82 | 81,502 | 65 |
| 1993 | 734,122 | 475,615 | 86 | 475,615 | 84 | 77,745 | 67 |
| 1994 | 741,347 | 487,676 | 86 | 487,676 | 84 | 73,961 | 63 |
| 1995 | 765,457 | 510,294 | 87 | 510,294 | 84 | 79,238 | 66 |
| 1996 | 796,722 | 515,257 | 86 | 515,257 | 84 | 79,844 | 65 |
| 1997 | 868,408 | 544,548 | 88 | 544,548 | 85 | 112,410 | 90 |
| 1998 | 851,193 | 575,456 | 89 | 575,456 | 85 | 90,792 | 67 |
| 1999 | 852,305 | 607,464 | 89 | 607,464 | 87 | 97,016 | 66 |
| 2000 | 913,683 | 651,199 | 89 | 651,199 | 87 | 120,356 | 74 |
| 2001 | 891,453 | 672,645 | 89 | 672,645 | 86 | 120,600 | 70 |
| 2002 | 925,390 | 696,835 | 89 | 696,835 | 86 | 110,329 | 65 |
| 2003 | 938,783 | 707,062 | 89 | 707,062 | 85 | 120,849 | 71 |
| 2004 | 976,069 | 739,259 | 89 | 739,259 | 85 | 121,434 | 68 |
| 2005 | 991,904 | 770,758 | 89 | 770,758 | 86 | 146,352 | 78 |
| 2006 | 1,040,977 | 809,623 | 89 | 809,623 | 86 | 128,399 | 63 |
| 2007 | 1,058,540 | 845,743 | 89 | 845,743 | 85 | 169,717 | 75 |
| 2008 | 1,022,553 | 880,096 | 92 | 880,096 | 86 | 187,424 | 78 |
| 2009 | 991,614 | 830,123 | 90 | 830,123 | 84 | 148,316 | 70 |
| 2010 | 984,428 | 864,506 | 89 | 864,506 | 86 | 150,904 | 68 |
| 2011 | 947,166 | 874,459 | 88 | 874,459 | 84 | 154,229 | 65 |
| 2012 | 944,272 | 875,717 | 88 | 875,717 | 83 | 158,964 | 66 |
| 2013 | 943,845 | 882,930 | 87 | 882,930 | 82 | 174,412 | 72 |
| 2014 | 937,468 | 888,054 | 86 | 888,054 | 82 | 148,430 | 60 |
| 2015 | 952,305 | 911,883 | 86 | 911,883 | 81 | 158,674 | 62 |
| 2016 | 1,061,582 | 940,008 | 87 | 940,008 | 82 | 146,943 | 55 |
| 1984 - 2016 | 836,137 | 636,042 | 87 | 636,042 | 84 | 111,142 | 68 |

Note: This table presents the share of aggregate labor costs (including employer social contributions), value-added and investment in the corporate sector in France that our sample accounts for year by year and on average over the whole period. The sample is all firms in the corporate market sectors, excluding agriculture, finance and real estate, with non-zero employment.

## Online Appendix C2 – Discussion on markup wedges

In the presence of adjustment costs to the variable input, for instance in the case of capital, the relationship between the markup and the output elasticity becomes:

$$\mu_{it} = \frac{\theta_{k,it}}{\lambda_{it}^{k}(1+\Delta_{a,it})}, \tag{1}$$

where $\lambda_{it}^{k}$ is the capital share of revenue, $\theta_{k,it}$ is the output elasticity with respect to capital, and $\Delta_{a,it} = \frac{\partial \mathscr{C}_a}{\partial K}(K_{it}, K_{it-1}) + \frac{\partial \mathscr{C}_a}{\partial K_{-1}}(K_{it+1}, K_{it})$ is the wedge attributable to the adjustment costs. The sign of the wedge is not straightforward and depends on the convexity of the adjustment cost function as well as on expectations of future target stock of capital. De Loecker & Warzynski (2012) show that abstracting from adjustment costs generally results in a negative wedge, and therefore an overestimated markup. See Doraszelski & Jaumandreu (2019) for a theoretical discussion of the sign of adjustment cost wedges.

Another important source of gap between the output elasticity of an input and its share in revenue is when firms are not price-takers on the market for inputs, for instance if the firm has monopsony power in the labor market, or engages in efficient bargaining (Dobbelaere & Mairesse, 2013; Dobbelaere & Kiyota, 2018). In that case, the relationship between the markup and the output elasticity becomes:

$$\mu_{it} = \frac{\beta_{l,it}}{\theta_{it}(1+\Delta_{m,it})}, \tag{2}$$

where the sign of the wedge $\Delta_{m,it}$ depends on the labor market setting. Dobbelaere & Kiyota (2018) show that in the case of efficient bargaining, the wedge is positive, and in the case of monopsony the wedge is negative.

## Online Appendix C3 – Firm-level trends

So far, we have focused on describing long term shifts in the distribution of firm outcomes, without discussing whether these firms are the same over time. In what follows, we look at the within-firm variation of labor share and markups, for different groups of firm size. For labor shares, we run the following regression:

$$\lambda_{it} = FE_i + \Psi_\lambda t + Control_{it} + \varepsilon_{it}, \tag{3}$$

where $\lambda_{it}$ is the labor share of firm $i$ in year $t$, $FE_i$ is a firm fixed effect, and $Control_{it}$ is either the logarithm of employment or a set of categories of employment size fixed effects. We run this regression on four samples, with different thresholds of employment size.

Table C3-1 – **Firm Level Labor Share Trends**

| **All Firms** | **No Size Threshold** | | | **More than 50 Employees** | | |
|---|---|---|---|---|---|---|
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | 0.5745 | 0.6221 | 0.5637 | 0.3830 | 0.4155 | 0.4128 |
| | (0.0014) | (0.0015) | (0.0015) | (0.0074) | (0.0082) | (0.0079) |
| Log Employment | | | 3.2248 | | | -2.2559 |
| | | | (0.0169) | | | (0.1432) |
| Observations | 26,761,933 | 26,032,310 | 26,623,375 | 849,448 | 803,590 | 818,020 |
| R2 | 0.594 | 0.630 | 0.598 | 0.608 | 0.630 | 0.577 |
| | **More than 100 Employees** | | | **More than 1000 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | 0.3688 | 0.3921 | 0.3971 | 0.3212 | 0.3311 | 0.3279 |
| | (0.0107) | (0.0115) | (0.0114) | (0.0422) | (0.0459) | (0.0445) |
| Log Employment | | | -2.6489 | | | -3.2060 |
| | | | (0.2206) | | | (0.8792) |
| Observations | 434,631 | 399,285 | 404,322 | 56,186 | 26,560 | 26,760 |
| R2 | 0.649 | 0.642 | 0.597 | 0.821 | 0.719 | 0.689 |
| **Balanced Panel** | **No Size Threshold** | | | **More than 50 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | 0.2528 | 0.2618 | 0.2523 | 0.2898 | 0.2998 | 0.3047 |
| | (0.0046) | (0.0051) | (0.0047) | (0.0120) | (0.0131) | (0.0129) |
| Log Employment | | | 0.1588 | | | -1.7508 |
| | | | (0.1115) | | | (0.3557) |
| Observations | 887,205 | 880,534 | 887,201 | 165,843 | 165,013 | 165,843 |
| R2 | 0.429 | 0.514 | 0.429 | 0.513 | 0.587 | 0.514 |
| | **More than 100 Employees** | | | **More than 1000 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | 0.2875 | 0.3003 | 0.3024 | 0.2750 | 0.2989 | 0.2883 |
| | (0.0167) | (0.0178) | (0.0177) | (0.0609) | (0.0635) | (0.0619) |
| Log Employment | | | -2.2025 | | | -3.1226 |
| | | | (0.5167) | | | (1.8391) |
| Observations | 95,311 | 94,916 | 95,311 | 9,406 | 9,383 | 9,406 |
| R2 | 0.538 | 0.602 | 0.539 | 0.668 | 0.716 | 0.669 |

Note: Each estimate is the result of OLS estimation of firm level labor share on time trends, for four samples: all firms, firms with more than 50 employees, 100 employees, and 1000 employees. The balanced panel corresponds to firms present in the data from 1984 to 2016 (these firms account of 20 to 25 % of total value-added). All regressions include a set of firm-level fixed effect. Columns "Firm x Size FE" also include a set of size category fixed effect. Standard errors are clustered at the firm level. Results are expressed in percentage points.

Table C3-1 presents the results of these regressions. We find that average firm experienced a trend increase in labor share of around 0.6 percentage points per year, including controlling for changes in the employment level. Table C3-1 also reports results on a balanced panel of firms present in the data from 1984 to 2016. It shows that firm-level labor shares have increased by close to 0.3 percentage points per

year across all specifications and samples.

We conduct a similar analysis for firm-level markups. We run the following regression:

$$\mu_{it} = FE_i + \Psi_\mu t + Control_{it} + \varepsilon_{it}, \tag{4}$$

where $\mu_{it}$ is firm $i$ markup in year $t$, $FE_i$ is a firm fixed effect, and $Control_{it}$ is either the logarithm of employment or a set of categories of employment size fixed effects. We run this regression on four samples, with different thresholds of employment size.

Table C3-2 – **Firm Level Markup Trends, Rolling**

| **All Firms** | **No Size Threshold** | | | **More than 50 Employees** | | |
|---|---|---|---|---|---|---|
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | -1.3232 | -1.5490 | -1.3424 | -0.1024 | -0.1969 | -0.1760 |
| | (0.0035) | (0.0038) | (0.0035) | (0.0150) | (0.0151) | (0.0151) |
| Log Employment | | | 2.6418 | | | 6.4540 |
| | | | (0.0403) | | | (0.2861) |
| Observations | 25,092,615 | 24,535,649 | 25,092,615 | 789,696 | 775,795 | 789,696 |
| R2 | 0.616 | 0.650 | 0.616 | 0.661 | 0.723 | 0.663 |
| | **More than 100 Employees** | | | **More than 1000 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | -0.0600 | -0.1344 | -0.1213 | 0.2335 | 0.2068 | 0.1708 |
| | (0.0235) | (0.0233) | (0.0239) | (0.1114) | (0.1147) | (0.1093) |
| Log Employment | | | 6.4650 | | | 9.9853 |
| | | | (0.4478) | | | (2.0191) |
| Observations | 391,061 | 386,202 | 391,061 | 26,261 | 26,072 | 26,261 |
| R2 | 0.675 | 0.730 | 0.677 | 0.745 | 0.784 | 0.747 |
| **Balanced Panel** | **No Size Threshold** | | | **More than 50 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | -0.2269 | -0.2853 | -0.2478 | 0.0712 | 0.0063 | 0.0165 |
| | (0.0102) | (0.0113) | (0.0101) | (0.0274) | (0.0275) | (0.0278) |
| Log Employment | | | 6.4068 | | | 6.4115 |
| | | | (0.2564) | | | (0.7099) |
| Observations | 879,223 | 872,598 | 879,223 | 163,698 | 162,859 | 163,698 |
| R2 | 0.514 | 0.613 | 0.519 | 0.594 | 0.688 | 0.597 |
| | **More than 100 Employees** | | | **More than 1000 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | 0.1088 | 0.0585 | 0.0686 | 0.3305 | 0.2772 | 0.2752 |
| | (0.0416) | (0.0410) | (0.0423) | (0.1669) | (0.1728) | (0.1599) |
| Log Employment | | | 5.8994 | | | 12.9552 |
| | | | (1.1011) | | | (4.2156) |
| Observations | 94,072 | 93,670 | 94,072 | 9,309 | 9,286 | 9,309 |
| R2 | 0.615 | 0.702 | 0.617 | 0.744 | 0.798 | 0.747 |

Note: Each estimate is the result of OLS estimation of markups from rolling estimates on time trends, for four samples: all firms, firms with more than 50 employees, 100 employees, and 1000 employees. The balanced panel corresponds to firms present in the data from 1984 to 2016 (these firms account of 20 to 25 % of total value-added). Markups are computed using rolling estimation of a translog production function. All regressions include a set of firm-level fixed effect. Columns "Firm x Size FE" also include a set of size category fixed effect. Standard errors are clustered at the firm level. Results are expressed in percentage points.

Table C3-2 reports results for markups obtained with rolling estimation. We find that the average firm experienced a trend decrease in markup of around 1.3 to 1.6 percentage points per year. Table C3-3 reports the trends in firm level markups obtained with non-rolling estimation, or on a balanced panel of firms. The decrease in firm level non rolling markups is observed across all samples and panels. Large firms in the balanced panel have experienced an average positive trend in markups, but not statistically significant. The decrease in larger firm markups is close to zero. For the balanced panel of firms that remain in the sample, markups decreased close to zero according to rolling estimates. Overall, we find

that firm level markups on average decreased, but less so for large and surviving firms. This result indicates that part of the decrease of the within-quantile contribution to aggregate markup is driven by smaller firms and by firm entry and exit.

Table C3-3 – **Firm Level Markup Trends, Non-Rolling**

| **All Firms** | **No Size Threshold** | | | **More than 50 Employees** | | |
|---|---|---|---|---|---|---|
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | -1.4066 | -1.5764 | -1.4209 | -0.7991 | -0.8802 | -0.8711 |
| | (0.0030) | (0.0033) | (0.0030) | (0.0141) | (0.0145) | (0.0142) |
| Log Employment | | | 1.9781 | | | 6.3147 |
| | | | (0.0379) | | | (0.2662) |
| Observations | 25,092,615 | 24,535,649 | 25,092,615 | 789,696 | 775,795 | 789,696 |
| R2 | 0.617 | 0.649 | 0.617 | 0.676 | 0.733 | 0.678 |
| | **More than 100 Employees** | | | **More than 1000 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | -0.8326 | -0.8936 | -0.8911 | -0.9272 | -0.9639 | -0.9774 |
| | (0.0218) | (0.0221) | (0.0222) | (0.1028) | (0.1051) | (0.1019) |
| Log Employment | | | 6.1678 | | | 7.9760 |
| | | | (0.4134) | | | (1.8552) |
| Observations | 391,061 | 386,202 | 391,061 | 26,261 | 26,072 | 26,261 |
| R2 | 0.694 | 0.743 | 0.696 | 0.781 | 0.815 | 0.782 |
| **Balanced Panel** | **No Size Threshold** | | | **More than 50 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | -0.5987 | -0.6431 | -0.6200 | -0.6928 | -0.7419 | -0.7458 |
| | (0.0089) | (0.0097) | (0.0088) | (0.0256) | (0.0262) | (0.0259) |
| Log Employment | | | 6.5040 | | | 6.2127 |
| | | | (0.2481) | | | (0.6554) |
| Observations | 879,223 | 872,598 | 879,223 | 163,698 | 162,859 | 163,698 |
| R2 | 0.556 | 0.644 | 0.561 | 0.630 | 0.711 | 0.632 |
| | **More than 100 Employees** | | | **More than 1000 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Trend | -0.7380 | -0.7764 | -0.7762 | -0.9368 | -1.0228 | -0.9738 |
| | (0.0384) | (0.0387) | (0.0389) | (0.1551) | (0.1610) | (0.1510) |
| Log Employment | | | 5.6164 | | | 8.6591 |
| | | | (0.9855) | | | (3.7272) |
| Observations | 94,072 | 93,670 | 94,072 | 9,309 | 9,286 | 9,309 |
| R2 | 0.652 | 0.725 | 0.654 | 0.785 | 0.829 | 0.787 |

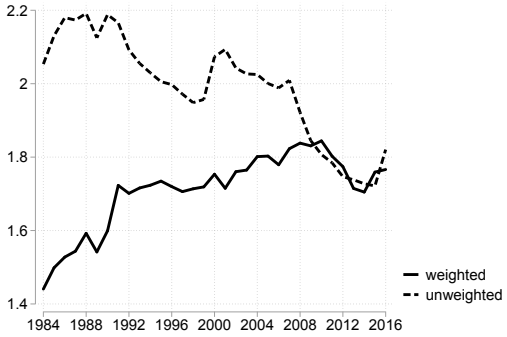
Note: Each estimate is the result of OLS estimation of markups from non-rolling estimates on time trends, for four samples: all firms, firms with more than 50 employees, 100 employees, and 1000 employees. The balanced panel corresponds to firms present in the data from 1984 to 2016 (these firms account of 20 to 25 % of total value-added). Markups are computed using non-rolling estimation of a translog production function. All regressions include a set of firm-level fixed effect. Columns "Firm x Size FE" also include a set of size category fixed effect. Standard errors are clustered at the firm level. Results are expressed in percentage points.

## Online Appendix C4 – Estimation wih proxy variable method (Ackerberg et al., 2015)

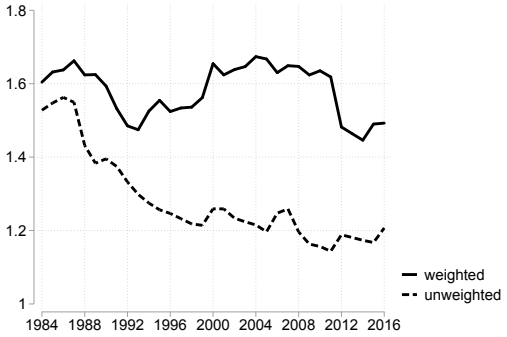
Figure C4-I shows how relying on the proxy-variable method of Ackerberg et al. (2015) (ACF) would have changed our results. The level of the estimated markups differ, because DP estimates of the output elasticity of labor are on average lower than the ACF estimates. Second, in non-rolling estimation, the unweighted markup is not always larger than the weighted markup, suggesting that the increasing relationship between size and markups is not verified. Third, the trend of the average ACF estimated aggregate markup, is significantly different from the average DP estimated aggregate markup. For instance, with rolling estimations, average markup remained however broadly stable around 1.6 according to the ACF estimates.

Figure C4-I – **Aggregate Markup - Proxy Variable Method (Ackerberg et al., 2015)**

(a) ACF - Non Rolling




(b) ACF - Rolling




Note: This figures reports the levels of the weighted and unweighted mean markup based on non-rolling and rolling estimation of a translog value-added production function following the ACF procedure.

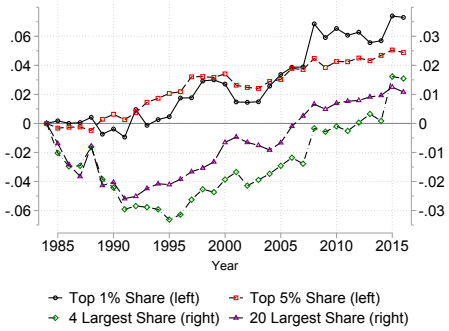
## Online Appendix C5 – Results in manufacturing and non manufacturing industries

This appendix reproduces the analysis conducted in the main text on firms operating in manufacturing and non manufacturing industries separately, and shows that our results (mainly the rise in concentration, the labor share reallocation, and the firm-level decrease in markup and increase in labor share) are not driven by either one broad sector but that they in fact hold in both.

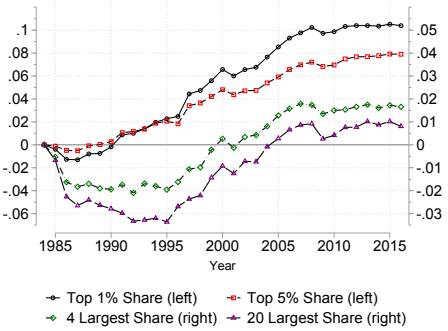
Figure C5-I shows that the average rise in concentration is observed across broad sectors of the economy: the magnitude of the increase is similar in both the manufacturing (3 to 7 percentage points from the lowest point to 2016, depending on the index) and non-manufacturing sector (4 to 10 percentage points).

Figure C5-I – **Cumulative Change in Concentration in Manufacturing and non Manufacturing Industries**

(a) Manufacturing Industries




(b) Non Manufacturing Industries

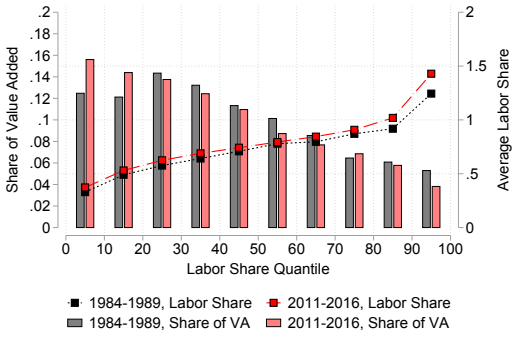



Note: This figure reports the cumulative change of concentration in sales across each 3-digit industry. Sample is firms in the market sectors, excluding agriculture, finance and real estate. Industry changes in concentration are weighted by the share of each industry in total sales the previous year.

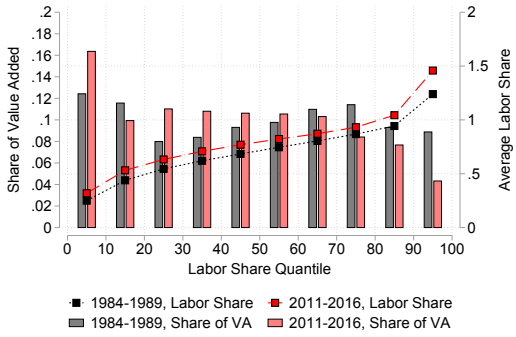
Figure C5-II shows that the market shares gains by low labor share firms and the upward shift of the raw distribution of labor shared are observed across broad sectors of the economy, in manufacturing as well as non-manufacturing industries. Figure C5-III shows the 1984-2016 cumulative results of the decomposition described in Appendix B for manufacturing and non-manufacturing industries separately.

Figure C5-II – **Distributions of Labor Shares and Value Added in Manufacturing and non Manufacturing Industries**

(a) Manufacturing Industries



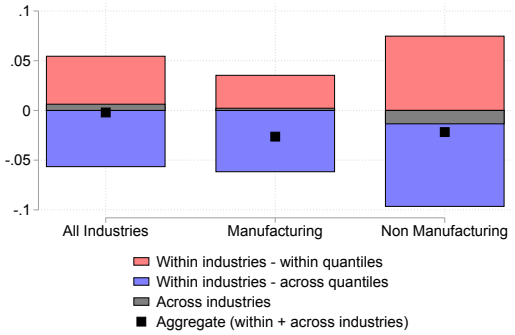

(b) Non Manufacturing Industries




Note: The connected lines (right axis) reflect the raw cross-firm distribution of labor shares. The vertical bars (left axis) reflect the share of industry value added of firms in each unweighted decide of labor share. These distributions are averaged across 3-digit industries using value added weights in a given year, and then average across 5 year periods.

In both macro sectors, as in the whole economy, the reallocation across industries had a negligible impact, the reallocation of value-added contributed negatively to the aggregate labor share and the labor

Figure C5-III – **Decomposition of the Cumulative Change in Aggregate Labor Share in Manufacturing and non Manufacturing Industries**




Note: This figures reports the results of decomposition of the aggregate labor share described in Appendix B. Quantiles of labor share are calculated each year within 3-digit industries.

Table C5-1 – **Correlations Between Variations in Industry-Level Concentration and Labor Shares in Manufacturing and non Manufacturing Industries**

| **Manufacturing** | **Industry Labor Share** | | **Across Labor Share Quantiles** | | **Within Low Labor Share Quantiles** | |
|---|---|---|---|---|---|---|
| Top 1% Share | -0.0694 | | -0.0793 | | 0.0387 | |
| | (0.0188) | | (0.0156) | | (0.0139) | |
| Top 5% Share | | -0.1178 | | -0.1355 | | 0.0663 |
| | | (0.0254) | | (0.0214) | | (0.0190) |
| Observations | 2,131 | 2,143 | 2,135 | 2,143 | 2,130 | 2,142 |
| R2 | 0.0805 | 0.0828 | 0.0553 | 0.0641 | 0.0622 | 0.0647 |
| 4 Largest Share | -0.0955 | | -0.0852 | | 0.0424 | |
| | (0.0232) | | (0.0196) | | (0.0177) | |
| 20 Largest Share | | -0.1764 | | -0.1796 | | 0.0008 |
| | | (0.0285) | | (0.0239) | | (0.0215) |
| Observations | 2,121 | 2,147 | 2,122 | 2,148 | 2,119 | 2,144 |
| R2 | 0.0816 | 0.0879 | 0.0580 | 0.0705 | 0.0618 | 0.0588 |
| **Non-Manufacturing** | **Industry Labor Share** | | **Across Labor Share Quantiles** | | **Within Low Labor Share Quantiles** | |
| Top 1% Share | -0.0943 | | -0.0458 | | -0.0014 | |
| | (0.0171) | | (0.0161) | | (0.0139) | |
| Top 5% Share | | -0.1054 | | -0.1448 | | -0.0310 |
| | | (0.0238) | | (0.0223) | | (0.0189) |
| Observations | 2,202 | 2,201 | 2,202 | 2,196 | 2,192 | 2,190 |
| R2 | 0.0234 | 0.0192 | 0.0298 | 0.0419 | 0.0354 | 0.0422 |
| 4 Largest Share | -0.0601 | | -0.0629 | | 0.0690 | |
| | (0.0194) | | (0.0181) | | (0.0156) | |
| 20 Largest Share | | -0.1102 | | -0.1196 | | 0.0597 |
| | | (0.0208) | | (0.0198) | | (0.0171) |
| Observations | 2,172 | 2,145 | 2,176 | 2,150 | 2,163 | 2,137 |
| R2 | 0.0146 | 0.0272 | 0.0355 | 0.0454 | 0.0448 | 0.0455 |

Note: Each estimate is the result of OLS estimation at the 3-digit industry with year fixed-effects. The dependent variable in columns "Industry Labor Share" is the long-term change of the industry aggregate labor share, defined as the ratio of the sum of firm level compensation and taxes paid on labor over the sum of firm level value added in that industry. The dependant variable in columns "Across Labor Share Quantiles" and "Within Low Labor Share Quantiles" are the corresponding contributions to the industry aggregate labor share according to the decomposition described in Appendix B. The independent variables are the changes of the share of sales of the top 1%, top 5 %, largest 4 and largest 20 firms.

share distribution shifted upwards and contributed positively to the aggregate labor share. In manufacturing, the aggregate labor share decreased because the upward shift in the labor share distribution did not offset the reallocation. Interestingly, the aggregate labor share decreased in both manufacturing and

non-manufacturing but it does not on aggregate. This is because while reallocation across industries within each macro sectors contributed negatively to each macro sectors aggregate labor share, reallocation from manufacturing to non-manufacturing industries contributed positively to the total aggregate labor share.

Table C5-1 replicates the results from Table 2 in the main text to manufacturing and non-manufacturing industries separately. This first two columns show that the negative correlation observed between the rise in concentration and the decline in labor share is present in both manufacturing and non-manufacturing industries. The next two columns confirm that both with manufacturing and non-manufacturing sectors, concentration is correlated with a negative contribution of reallocation in both sectors. Finally, the last two column show that the correlation between variations of concentration and variations of the labor share of low-labor-share firms is positive in manufacturing, indicating that the 'superstar' firms in manufacturing today have not only higher market shares but also higher labor shares. Results for non-manufacturing are mixed and vary with the concentration index, but we do not find a negative correlation that is significant at the 5% level.

Table C5-2 – **Average Output Elasticities, Non Rolling Estimation**

| | $\theta_l$ | $\theta_k$ | N | | $\theta_l$ | $\theta_k$ | N |
|---|---|---|---|---|---|---|---|
| Mining | 0.607 | 0.297 | 45,698 | Gas and electricity | 0.677 | 0.231 | 22,243 |
| | (0.048) | (0.081) | | | (0.193) | (0.169) | |
| Food products | 0.759 | 0.130 | 1,277,913 | Water supply and waste | 0.652 | 0.183 | 118,249 |
| | (0.053) | (0.100) | | | (0.141) | (0.125) | |
| Textiles | 0.588 | 0.111 | 282,598 | Construction | 0.649 | 0.057 | 4,969,117 |
| | (0.136) | (0.048) | | | (0.145) | (0.082) | |
| Wood, paper and printing | 0.813 | 0.041 | 552,510 | Wholesale and retail trade | 0.758 | 0.086 | 8,502,337 |
| | (0.118) | (0.105) | | | (0.171) | (0.138) | |
| Coke and refined petroleum | 0.736 | 0.323 | 2,472 | Transportation | 0.830 | 0.049 | 988,348 |
| | (0.250) | (0.074) | | | (0.151) | (0.145) | |
| Chemicals | 0.819 | 0.156 | 62,567 | Accomodation and food services | 0.601 | 0.184 | 3,076,031 |
| | (0.059) | (0.073) | | | (0.151) | (0.128) | |
| Pharmaceuticals | 0.901 | 0.050 | 11,657 | Publishing and motion pictures | 1.033 | 0.010 | 309,540 |
| | (0.344) | (0.295) | | | (0.237) | (0.214) | |
| Rubber and plastic products | 0.774 | 0.119 | 245,896 | Telecommunications | 1.089 | -0.055 | 25,191 |
| | (0.150) | (0.164) | | | (0.187) | (0.213) | |
| Basic Metals | 0.729 | 0.108 | 545,742 | ICT | 0.938 | -0.016 | 324,622 |
| | (0.131) | (0.094) | | | (0.128) | (0.135) | |
| Computers and electronics | 0.764 | 0.104 | 110,072 | Legal, accounting and engineering | 0.859 | -0.025 | 1,499,590 |
| | (0.071) | (0.023) | | | (0.150) | (0.144) | |
| Electrical equipments | 0.750 | 0.135 | 50,476 | Scientific research | 0.935 | 0.055 | 30,461 |
| | (0.026) | (0.048) | | | (0.242) | (0.211) | |
| Machinery and equipments | 0.839 | 0.073 | 161,603 | Advertising and market research | 0.998 | -0.103 | 406,636 |
| | (0.071) | (0.046) | | | (0.091) | (0.092) | |
| Transport equipments | 0.836 | 0.115 | 71,000 | Administrative and support | 0.746 | 0.044 | 1,401,753 |
| | (0.159) | (0.139) | | | (0.120) | (0.157) | |
| Other manufacturing products | 0.797 | 0.008 | 650,254 | Total | 0.736 | 0.078 | 25,744,576 |
| | (0.089) | (0.073) | | | (0.175) | (0.137) | |

Note: This table reports the output elasticities from non rolling estimation of the translog production function. Columns $\theta_l$ and $\theta_k$ report the average estimated output elasticity with respect to each factor of production for the translog production function for all firms. Column N report the number of observations in each sector. Standard deviations (not standard errors) of the output elasticities are reported in brackets.

Tables C5-2, C5-3, and C5-4 provide respectively the average output elasticities from non rolling estimation, median output elasticities from non rolling estimation, and median output elasticities from rolling estimation.

Figure C5-IV present the levels of the unweighted and weighted average markups for all firms and for firms in the manufacturing and non-manufacturing sectors separately, using rolling and non rolling estimation. The top right panel is the same as Figure VI in the main text. Patterns are qualitatively similar

Table C5-3 – **Median Output Elasticities, Non-Rolling Estimation**

| | $\theta_l$ | $\theta_k$ | N | | $\theta_l$ | $\theta_k$ | N |
|---|---|---|---|---|---|---|---|
| Mining | 0.606 | 0.308 | 45,698 | Gas and electricity | 0.648 | 0.276 | 22,243 |
| | (0.048) | (0.081) | | | (0.193) | (0.169) | |
| Food products | 0.754 | 0.138 | 1,277,913 | Water supply and waste | 0.665 | 0.182 | 118,249 |
| | (0.053) | (0.100) | | | (0.141) | (0.125) | |
| Textiles | 0.569 | 0.110 | 282,598 | Construction | 0.643 | 0.063 | 4,969,117 |
| | (0.136) | (0.048) | | | (0.145) | (0.082) | |
| Wood, paper and printing | 0.813 | 0.048 | 552,510 | Wholesale and retail trade | 0.752 | 0.098 | 8,502,337 |
| | (0.118) | (0.105) | | | (0.171) | (0.138) | |
| Coke and refined petroleum | 0.720 | 0.341 | 2,472 | Transportation | 0.822 | 0.063 | 988,348 |
| | (0.250) | (0.074) | | | (0.151) | (0.145) | |
| Chemicals | 0.821 | 0.156 | 62,567 | Accomodation and food services | 0.590 | 0.197 | 3,076,031 |
| | (0.059) | (0.073) | | | (0.151) | (0.128) | |
| Pharmaceuticals | 1.013 | 0.067 | 11,657 | Publishing and motion pictures | 1.118 | -0.005 | 309,540 |
| | (0.344) | (0.295) | | | (0.237) | (0.214) | |
| Rubber and plastic products | 0.772 | 0.127 | 245,896 | Telecommunications | 1.160 | -0.083 | 25,191 |
| | (0.150) | (0.164) | | | (0.187) | (0.213) | |
| Basic Metals | 0.734 | 0.115 | 545,742 | ICT | 0.937 | -0.015 | 324,622 |
| | (0.131) | (0.094) | | | (0.128) | (0.135) | |
| Computers and electronics | 0.757 | 0.104 | 110,072 | Legal, accounting and engineering | 0.857 | -0.017 | 1,499,590 |
| | (0.071) | (0.023) | | | (0.150) | (0.144) | |
| Electrical equipments | 0.749 | 0.130 | 50,476 | Scientific research | 0.956 | 0.067 | 30,461 |
| | (0.026) | (0.048) | | | (0.242) | (0.211) | |
| Machinery and equipments | 0.842 | 0.076 | 161,603 | Advertising and market research | 1.006 | -0.109 | 406,636 |
| | (0.071) | (0.046) | | | (0.091) | (0.092) | |
| Transport equipments | 0.840 | 0.122 | 71,000 | Administrative and support | 0.737 | 0.052 | 1,401,753 |
| | (0.159) | (0.139) | | | (0.120) | (0.157) | |
| Other manufacturing products | 0.795 | 0.015 | 650,254 | Total | 0.734 | 0.086 | 25,744,576 |
| | (0.089) | (0.073) | | | (0.175) | (0.137) | |

Note: This table reports the output elasticities from non rolling estimation of the translog production function. Columns $\theta_l$ and $\theta_k$ report the median estimated output elasticity with respect to each factor of production for the translog production function for all firms. Column N report the number of observations in each sector. Standard deviations (not standard errors) of the output elasticities are reported in brackets.

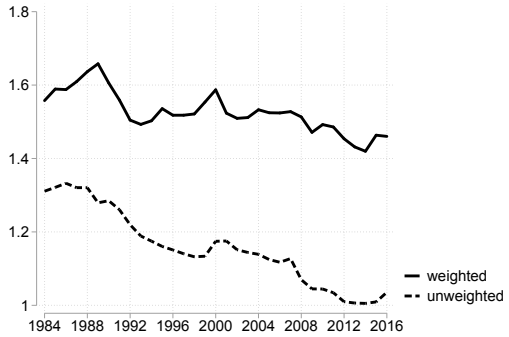
in both sectors to what they are in the overall economy. We find a decrease in unweighted markups for both non-rolling and rolling estimations both in manufacturing and non-manufacturing sectors, that broadly matches the one observed in the whole economy. Similarly, the variations of the weighted average markup estimates observed in both manufacturing and non-manufacturing, and according to both sets of estimates, quantitatively matches the one observed in the whole economy. These aggregate patterns are therefore neither specific to one sector nor driven by a reallocation from manufacturing to non-manufacturing. Interestingly, our results show that, regardless of the pre-crisis trend, the weighted average markup of manufacturing firms sharply dropped after 2008, and only recovered its pre-crisis level at the end of the period.

The top two panels of Figure C5-VI show that the increasing relationship between markup and firm size holds both in manufacturing and non-manufacturing sectors separately, although for larger manufacturing firms the relationship flattens out. The other four panels of Figure C5-VI show that the decreasing relationship between firm size and intensity of labor and the increasing relationship between firm size and returns to scale are present both in the manufacturing and non-manufacturing sectors.

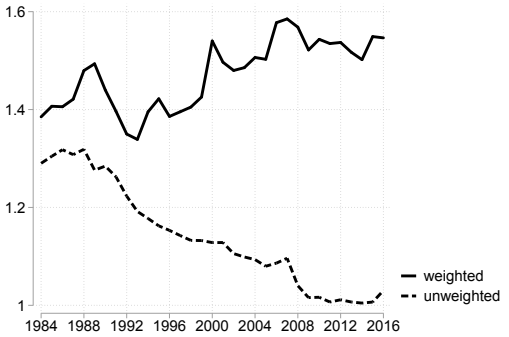
Figure C5-V shows that the reallocation from low to high markup firms holds both in manufacturing and non-manufacturing separately. Comparing rolling and non-rolling window estimations shows why accounting for variations over time of the production function parameters matter. Even though both estimations yield qualitatively similar contributions of the within and across terms, the within term dominates with rolling estimations and the cross term dominates with non-rolling estimations. This quantitative differences translate into qualitative difference in the aggregate trends of markups estimated

Figure C5-IV – **Aggregate Markup in Manufacturing and non Manufacturing Industries**

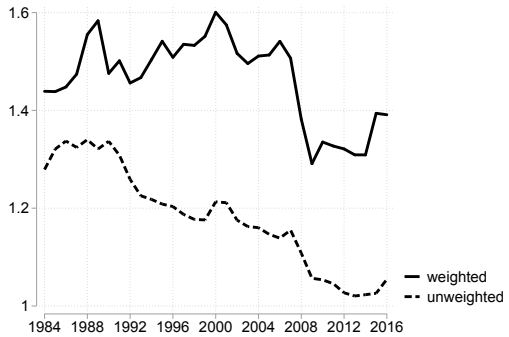
(a) Non Rolling



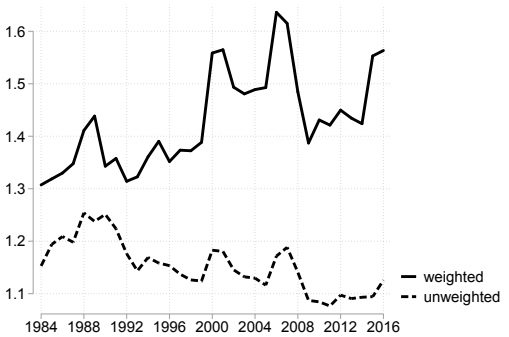

(b) Rolling



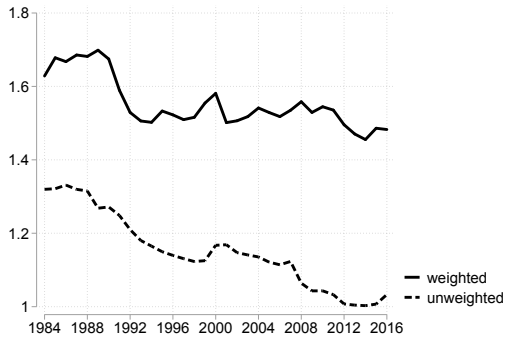

(c) Manufacturing, Non Rolling



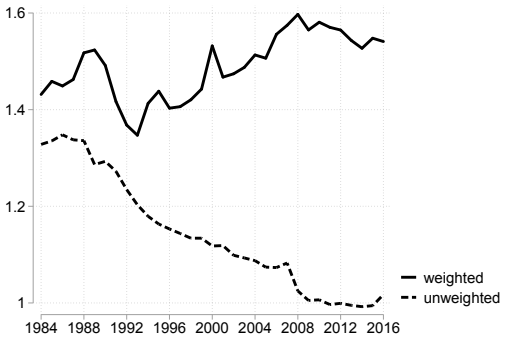

(d) Manufacturing, Rolling




(e) Non Manufacturing, Non Rolling




(f) Non Manufacturing, Rolling




Note: This figures reports the levels of the weighted and unweighted mean markup based on non-rolling and rolling estimation of a translog value-added production function.

with both estimations.

Table C5-5 replicates Table 4 in the main text with non-rolling estimates. The relationships observed between industry-level concentration and markups are similar for markups estimated with rolling window estimation and for markups estimated with non-rolling estimation.

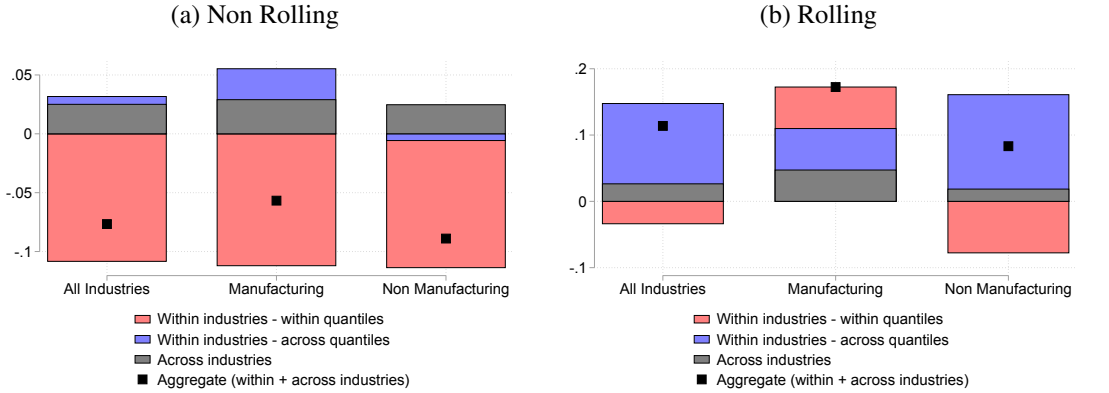
Tables C5-6 and C5-7 show that this is also the case both in the manufacturing and the non-manufacturing sectors. The last two columns of these two tables show that the relationship between concentration and high markups is not significantly postive in manufacturing, and is significantly positive in non manufacturing only when concentration is proxied with top shares.

Table C5-4 – **Median Output Elasticities, Rolling Estimation**

| | $\theta_l$ | $\theta_k$ | N | | $\theta_l$ | $\theta_k$ | N |
|---|---|---|---|---|---|---|---|
| Mining | 0.612 | 0.334 | 45,698 | Gas and electricity | 0.688 | 0.265 | 22,243 |
| | (0.199) | (0.162) | | | (0.190) | (0.174) | |
| Food products | 0.750 | 0.134 | 1,277,913 | Water supply and waste | 0.639 | 0.211 | 118,249 |
| | (0.052) | (0.104) | | | (0.178) | (0.146) | |
| Textiles | 0.540 | 0.118 | 282,598 | Construction | 0.605 | 0.084 | 4,969,117 |
| | (0.221) | (0.157) | | | (0.175) | (0.087) | |
| Wood, paper and printing | 0.803 | 0.050 | 552,510 | Wholesale and retail trade | 0.762 | 0.105 | 8,502,337 |
| | (0.110) | (0.104) | | | (0.175) | (0.145) | |
| Coke and refined petroleum | 0.258 | 0.433 | 2,472 | Transportation | 0.835 | 0.060 | 988,348 |
| | (0.391) | (0.258) | | | (0.156) | (0.148) | |
| Chemicals | 0.808 | 0.179 | 62,567 | Accomodation and food services | 0.585 | 0.192 | 3,076,031 |
| | (0.143) | (0.122) | | | (0.174) | (0.133) | |
| Pharmaceuticals | 0.981 | 0.106 | 11,657 | Publishing and motion pictures | 1.163 | -0.023 | 309,540 |
| | (0.359) | (0.286) | | | (0.245) | (0.215) | |
| Rubber and plastic products | 0.759 | 0.136 | 245,896 | Telecommunications | 1.111 | -0.056 | 25,191 |
| | (0.159) | (0.176) | | | (0.242) | (0.217) | |
| Basic Metals | 0.726 | 0.117 | 545,742 | ICT | 0.921 | 0.008 | 324,622 |
| | (0.128) | (0.095) | | | (0.140) | (0.140) | |
| Computers and electronics | 0.756 | 0.091 | 110,072 | Legal, accounting and engineering | 0.843 | -0.012 | 1,499,590 |
| | (0.084) | (0.068) | | | (0.164) | (0.150) | |
| Electrical equipments | 0.774 | 0.142 | 50,476 | Scientific research | 0.881 | 0.017 | 30,461 |
| | (0.136) | (0.101) | | | (0.259) | (0.230) | |
| Machinery and equipments | 0.823 | 0.093 | 161,603 | Advertising and market research | 0.887 | -0.056 | 406,636 |
| | (0.137) | (0.069) | | | (0.269) | (0.140) | |
| Transport equipments | 0.837 | 0.131 | 71,000 | Administrative and support | 0.753 | 0.047 | 1,401,753 |
| | (0.180) | (0.156) | | | (0.126) | (0.165) | |
| Other manufacturing products | 0.748 | 0.051 | 650,254 | Total | 0.733 | 0.096 | 25,744,576 |
| | (0.129) | (0.080) | | | (0.193) | (0.143) | |

Note: This table reports the output elasticities from rolling estimation of the production function. Columns $\theta_l$ and $\theta_k$ report the median estimated output elasticity with respect to each factor of production for the translog production function for all firms. Column N report the number of observations in each sector.Standard deviations (not standard errors) of the output elasticities are reported in brackets.

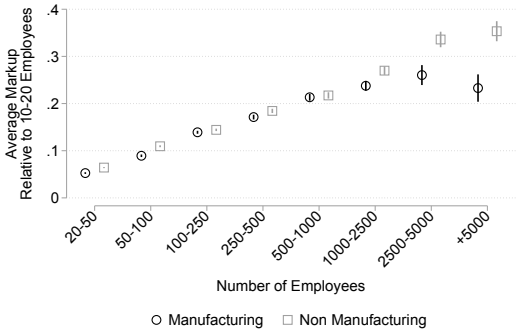
Figure C5-V – **Decomposition of Aggregate Markup in Manufacturing and non Manufacturing Industries**



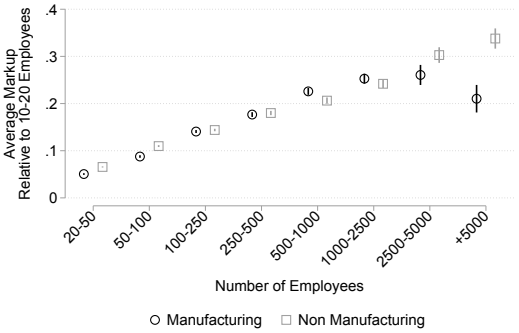

Note: This figures reports the results of decomposition of the aggregate markup described in Appendix B. Quantiles of markup are calculated each year within 3-digit industries.

Figure C5-VI – **Correlations of Markups, Labor Intensities, and Returns to Scale with Size, in Manufacturing and non Manufacturing Industries**

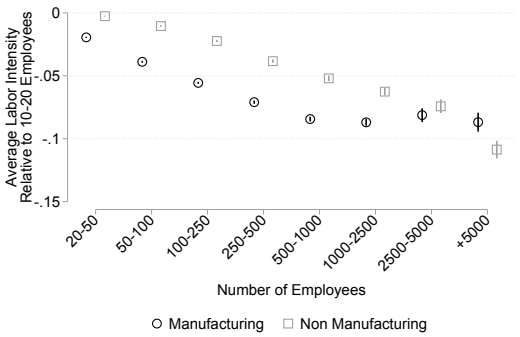
(a) Markup, Non Rolling



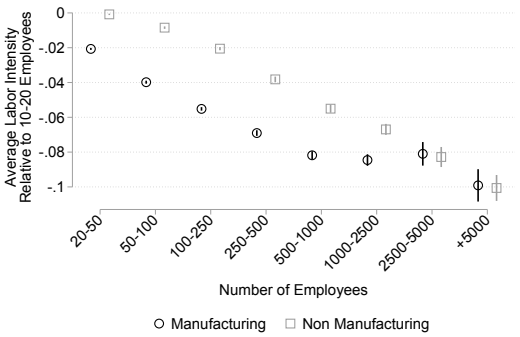

(b) Markup, Rolling



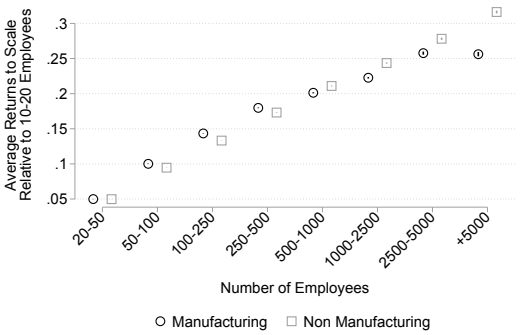

(c) Labor Intensity, Non Rolling



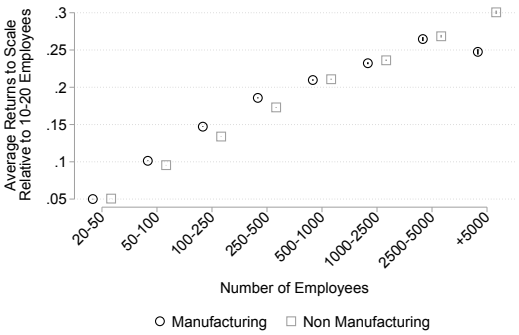

(d) Labor Intensity, Rolling




(e) Returns to Scale, Non Rolling




(f) Returns to Scale, Rolling




Note: This figure reports the conditional average markup, labor intensity and returns to scale by firm size, with 99% confidence interval. Averages are conditional on a set of flexible fixed effects constructed from the interaction of 3-digit industry codes and year.

Table C5-5 – **Correlations Between Variations in Industry-Level Concentration and Markup**

| **Non-Rolling** | **Industry Markup** | | **Across Markup Quantiles** | | **Within High Markup Quantiles** | |
|---|---|---|---|---|---|---|
| Top 1% Share | 0.1754 | | 0.1205 | | 0.0143 | |
| | (0.0157) | | (0.0140) | | (0.0112) | |
| Top 5% Share | | 0.2416 | | 0.2207 | | 0.0219 |
| | | (0.0216) | | (0.0190) | | (0.0153) |
| Observations | 4,664 | 4,664 | 4,670 | 4,668 | 4,665 | 4,669 |
| R2 | 0.0607 | 0.0609 | 0.0269 | 0.0389 | 0.0346 | 0.0355 |
| 4 Largest Share | 0.1855 | | 0.1653 | | -0.0952 | |
| | (0.0190) | | (0.0170) | | (0.0135) | |
| 20 Largest Share | | 0.2008 | | 0.2288 | | -0.0823 |
| | | (0.0220) | | (0.0193) | | (0.0157) |
| Observations | 4,649 | 4,649 | 4,650 | 4,650 | 4,655 | 4,655 |
| R2 | 0.0544 | 0.0532 | 0.0328 | 0.0417 | 0.0451 | 0.0413 |
| **Rolling** | **Industry Markup** | | **Across Markup Quantiles** | | **Within High Markup Quantiles** | |
| Top 1% Share | 0.2640 | | 0.0790 | | 0.0092 | |
| | (0.0257) | | (0.0245) | | (0.0145) | |
| Top 5% Share | | 0.3577 | | 0.1460 | | 0.0400 |
| | | (0.0353) | | (0.0337) | | (0.0199) |
| Observations | 4,660 | 4,660 | 4,654 | 4,654 | 4,663 | 4,663 |
| R2 | 0.0569 | 0.0586 | 0.0120 | 0.0140 | 0.0168 | 0.0177 |
| 4 Largest Share | 0.2098 | | 0.0995 | | -0.0536 | |
| | (0.0321) | | (0.0298) | | (0.0175) | |
| 20 Largest Share | | 0.1702 | | 0.1101 | | -0.0242 |
| | | (0.0372) | | (0.0346) | | (0.0202) |
| Observations | 4,647 | 4,646 | 4,644 | 4,644 | 4,650 | 4,650 |
| R2 | 0.0482 | 0.0447 | 0.0108 | 0.0112 | 0.0172 | 0.0173 |

Note: Each estimate is the result of OLS estimation at the 3-digit industry with year fixed-effects. The dependent variable in columns "Industry Markup" is the long-term change of the industry aggregate markup. The dependant variable in columns "Across Markup Quantiles" and "Within High Markup Quantiles" are the corresponding contributions to the industry aggregate markup according to the decomposition described in Appendix B. The independent variables are the changes of the share of sales of the top 1%, top 5 %, largest 4 and largest 20 firms.

Table C5-6 – **Correlations Between Variations in Industry-Level Concentration and Markup in Manufacturing and non Manufacturing Industries, Non Rolling**

| **Manufacturing** | **Industry Markup** | | **Across Markup Quantiles** | | **Within High Markup Quantiles** | |
|---|---|---|---|---|---|---|
| Top 1% Share | 0.1759 | | 0.1480 | | -0.0111 | |
| | (0.0242) | | (0.0202) | | (0.0174) | |
| Top 5% Share | | 0.3109 | | 0.2818 | | -0.0177 |
| | | (0.0329) | | (0.0274) | | (0.0237) |
| Observations | 2,122 | 2,131 | 2,129 | 2,138 | 2,125 | 2,136 |
| R2 | 0.0893 | 0.0985 | 0.0543 | 0.0768 | 0.0536 | 0.0573 |
| 4 Largest Share | 0.2511 | | 0.2081 | | -0.0788 | |
| | (0.0303) | | (0.0258) | | (0.0219) | |
| 20 Largest Share | | 0.3305 | | 0.3267 | | -0.0433 |
| | | (0.0371) | | (0.0314) | | (0.0268) |
| Observations | 2,112 | 2,138 | 2,118 | 2,144 | 2,113 | 2,139 |
| R2 | 0.0918 | 0.0944 | 0.0628 | 0.0787 | 0.0580 | 0.0546 |
| **Non-Manufacturing** | **Industry Markup** | | **Across Markup Quantiles** | | **Within High Markup Quantiles** | |
| Top 1% Share | 0.2438 | | 0.1465 | | 0.0534 | |
| | (0.0207) | | (0.0201) | | (0.0152) | |
| Top 5% Share | | 0.2679 | | 0.2296 | | 0.0782 |
| | | (0.0294) | | (0.0281) | | (0.0210) |
| Observations | 2,218 | 2,213 | 2,211 | 2,205 | 2,215 | 2,212 |
| R2 | 0.0809 | 0.0628 | 0.0311 | 0.0367 | 0.0490 | 0.0499 |
| 4 Largest Share | 0.1671 | | 0.1565 | | -0.0541 | |
| | (0.0241) | | (0.0230) | | (0.0175) | |
| 20 Largest Share | | 0.1891 | | 0.2202 | | -0.0643 |
| | | (0.0267) | | (0.0251) | | (0.0194) |
| Observations | 2,191 | 2,165 | 2,185 | 2,159 | 2,191 | 2,165 |
| R2 | 0.0443 | 0.0482 | 0.0286 | 0.0424 | 0.0495 | 0.0507 |

Note: Each estimate is the result of OLS estimation at the 3-digit industry with year fixed-effects. The dependent variable in columns "Industry Markup" is the long-term change of the industry aggregate markup. The dependant variable in columns "Across Markup Quantiles" and "Within High Markup Quantiles" are the corresponding contributions to the industry aggregate markup according to the decomposition described in Appendix B. The independent variables are the changes of the share of sales of the top 1%, top 5 %, largest 4 and largest 20 firms.

Table C5-7 – **Correlations Between Variations in Industry-Level Concentration and Markup in Manufacturing and non Manufacturing Industries, Rolling**

| **Manufacturing** | **Industry Markup** | | **Across Markup Quantiles** | | **Within High Markup Quantiles** | |
|---|---|---|---|---|---|---|
| Top 1% Share | 0.2142 | | 0.1339 | | -0.0136 | |
| | (0.0340) | | (0.0299) | | (0.0217) | |
| Top 5% Share | | 0.3852 | | 0.2882 | | 0.0279 |
| | | (0.0471) | | (0.0417) | | (0.0297) |
| Observations | 2,135 | 2,146 | 2,135 | 2,145 | 2,131 | 2,142 |
| R2 | 0.0959 | 0.1068 | 0.0697 | 0.0755 | 0.0704 | 0.0675 |
| 4 Largest Share | 0.2977 | | 0.1667 | | -0.0237 | |
| | (0.0435) | | (0.0390) | | (0.0274) | |
| 20 Largest Share | | 0.4232 | | 0.2449 | | 0.0518 |
| | | (0.0531) | | (0.0476) | | (0.0334) |
| Observations | 2,126 | 2,152 | 2,126 | 2,152 | 2,117 | 2,143 |
| R2 | 0.1004 | 0.1067 | 0.0636 | 0.0672 | 0.0632 | 0.0665 |
| **Non-Manufacturing** | **Industry Markup** | | **Across Markup Quantiles** | | **Within High Markup Quantiles** | |
| Top 1% Share | 0.3458 | | 0.0906 | | 0.0804 | |
| | (0.0403) | | (0.0381) | | (0.0192) | |
| Top 5% Share | | 0.3685 | | 0.0591 | | 0.0729 |
| | | (0.0570) | | (0.0535) | | (0.0270) |
| Observations | 2,199 | 2,194 | 2,183 | 2,178 | 2,198 | 2,193 |
| R2 | 0.0515 | 0.0393 | 0.0406 | 0.0370 | 0.0267 | 0.0216 |
| 4 Largest Share | 0.1344 | | 0.1047 | | -0.0756 | |
| | (0.0475) | | (0.0432) | | (0.0223) | |
| 20 Largest Share | | 0.0327 | | 0.0968 | | -0.1055 |
| | | (0.0533) | | (0.0484) | | (0.0248) |
| Observations | 2,174 | 2,147 | 2,156 | 2,130 | 2,175 | 2,149 |
| R2 | 0.0248 | 0.0222 | 0.0422 | 0.0411 | 0.0259 | 0.0278 |

Note: Each estimate is the result of OLS estimation at the 3-digit industry with year fixed-effects. The dependent variable in columns "Industry Markup" is the long-term change of the industry aggregate markup. The dependant variable in columns "Across Markup Quantiles" and "Within High Markup Quantiles" are the corresponding contributions to the industry aggregate markup according to the decomposition described in Appendix B. The independent variables are the changes of the share of sales of the top 1%, top 5 %, largest 4 and largest 20 firms.

Tables C5-8, C5-9, and C5-10 report the results of regressions of labor shares on markup, similar to those reported in Table 5 in the main text, but with non rolling markups, and/or for firms in manufacturing or non-manufacturing industries separately. In all cases, we find a negative correlation.

Table C5-8 – **Correlation between Labor Share and Markup, Non Rolling**

| | **No Size Threshold** | | | **More than 50 Employees** | | |
|---|---|---|---|---|---|---|
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.3487 | -0.3713 | -0.3575 | -0.4202 | -0.4460 | -0.4989 |
| | (0.0037) | (0.0024) | (0.0027) | (0.0039) | (0.0034) | (0.0043) |
| Observations | 25,554,561 | 25,554,533 | 25,092,587 | 808,003 | 807,805 | 789,488 |
| R2 | 0.449 | 0.518 | 0.772 | 0.519 | 0.602 | 0.816 |
| | **More than 100 Employees** | | | **More than 1000 Employees** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.3991 | -0.4268 | -0.4754 | -0.3320 | -0.3633 | -0.4129 |
| | (0.0033) | (0.0039) | (0.0051) | (0.0079) | (0.0077) | (0.0106) |
| Observations | 398,301 | 398,018 | 390,768 | 26,684 | 25,305 | 24,839 |
| R2 | 0.513 | 0.614 | 0.825 | 0.502 | 0.721 | 0.900 |

Note: Each estimate is the result of OLS estimation of firm level labor share on markups, for four samples: all firms, firms with more than 50 employees, 100 employees, and 1000 employees. All columns include year fixed effects. Columns "No FE" include no industry nor firm fixed effect. Columns "Industry FE" include 3-digit industry-level fixed effects. Columns "Firm FE" include firm-level fixed effects. Standard errors are clustered at the 3-digit x year industry level.

Table C5-9 – **Correlation between Labor Share and Markup in Manufacturing and non Manufacturing Industries, Non Rolling**

| **No Size Threshold** | **Manufacturing** | | | **Non-Manufacturing** | | |
|---|---|---|---|---|---|---|
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.3766 | -0.3768 | -0.3614 | -0.3435 | -0.3703 | -0.3567 |
| | (0.0099) | (0.0066) | (0.0087) | (0.0031) | (0.0025) | (0.0028) |
| Observations | 4,189,494 | 4,189,478 | 4,133,837 | 21,365,067 | 21,365,055 | 20,958,750 |
| R2 | 0.568 | 0.590 | 0.774 | 0.429 | 0.506 | 0.772 |
| **More than 50 Employees** | **Manufacturing** | | | **Non-Manufacturing** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.4789 | -0.5017 | -0.5483 | -0.4019 | -0.4180 | -0.4678 |
| | (0.0045) | (0.0051) | (0.0060) | (0.0041) | (0.0039) | (0.0054) |
| Observations | 296,014 | 295,922 | 291,562 | 511,989 | 511,883 | 497,926 |
| R2 | 0.566 | 0.640 | 0.806 | 0.523 | 0.578 | 0.822 |
| **More than 100 Employees** | **Manufacturing** | | | **Non-Manufacturing** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.4490 | -0.4765 | -0.5204 | -0.3823 | -0.3988 | -0.4420 |
| | (0.0040) | (0.0058) | (0.0071) | (0.0037) | (0.0047) | (0.0066) |
| Observations | 157,602 | 157,514 | 155,793 | 240,699 | 240,504 | 234,975 |
| R2 | 0.551 | 0.644 | 0.809 | 0.527 | 0.587 | 0.833 |
| **More than 1000 Employees** | **Manufacturing** | | | **Non-Manufacturing** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.3782 | -0.4376 | -0.4396 | -0.3241 | -0.3387 | -0.3949 |
| | (0.0125) | (0.0148) | (0.0168) | (0.0122) | (0.0084) | (0.0135) |
| Observations | 10,154 | 9,347 | 9,238 | 16,530 | 15,958 | 15,601 |
| R2 | 0.504 | 0.739 | 0.871 | 0.556 | 0.706 | 0.911 |

Note: Each estimate is the result of OLS estimation of firm level labor share on markups, for four samples: all firms, firms with more than 50 employees, 100 employees, and 1000 employees; and two panels: manufacturing and non manufacturing firms. All columns include year fixed effects. Columns "No FE" include no industry nor firm fixed effect. Columns "Industry FE" include 3-digit industry-level fixed effects. Columns "Firm FE" include firm-level fixed effects. Standard errors are clustered at the 3-digit x year industry level.

The left panel of Figure C5-VII presents the results of the decomposition for the representative firm. The total variation of the aggregate labor share from 1984 to 2016 is small and positive, and ignoring the role of reallocation, aggregate markups have contributed positively to the aggregate labor share according to the non-rolling estimates. This is consistent with evidence above that the conclusions in terms of the variations of the aggregate markup are not the same in both sets of estimates. The contribution

Table C5-10 – **Correlation between Labor Share and Markup in Manufacturing and non Manufacturing Industries, Rolling**

| **No Size Threshold** | **Manufacturing** | | | **Non-Manufacturing** | | |
|---|---|---|---|---|---|---|
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.3625 | -0.3719 | -0.3566 | -0.3100 | -0.3485 | -0.3338 |
| | (0.0090) | (0.0061) | (0.0081) | (0.0035) | (0.0024) | (0.0029) |
| Observations | 4,189,494 | 4,189,478 | 4,133,837 | 21,365,067 | 21,365,055 | 20,958,750 |
| R2 | 0.532 | 0.567 | 0.767 | 0.387 | 0.475 | 0.760 |
| **More than 50 Employees** | **Manufacturing** | | | **Non-Manufacturing** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.4354 | -0.4727 | -0.5062 | -0.4013 | -0.4153 | -0.4617 |
| | (0.0102) | (0.0061) | (0.0071) | (0.0038) | (0.0041) | (0.0054) |
| Observations | 296,014 | 295,922 | 291,562 | 511,989 | 511,883 | 497,926 |
| R2 | 0.506 | 0.600 | 0.783 | 0.511 | 0.567 | 0.817 |
| **More than 100 Employees** | **Manufacturing** | | | **Non-Manufacturing** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.4004 | -0.4463 | -0.4754 | -0.3818 | -0.3981 | -0.4390 |
| | (0.0074) | (0.0067) | (0.0083) | (0.0047) | (0.0050) | (0.0067) |
| Observations | 157,602 | 157,514 | 155,793 | 240,699 | 240,504 | 234,975 |
| R2 | 0.486 | 0.604 | 0.786 | 0.511 | 0.577 | 0.829 |
| **More than 1000 Employees** | **Manufacturing** | | | **Non-Manufacturing** | | |
| | No FE | Industry FE | Firm FE | No FE | Industry FE | Firm FE |
| Markup | -0.3053 | -0.3912 | -0.3805 | -0.3439 | -0.3624 | -0.4000 |
| | (0.0138) | (0.0188) | (0.0214) | (0.0065) | (0.0077) | (0.0141) |
| Observations | 10,154 | 9,347 | 9,238 | 16,530 | 15,958 | 15,601 |
| R2 | 0.409 | 0.691 | 0.852 | 0.543 | 0.707 | 0.909 |

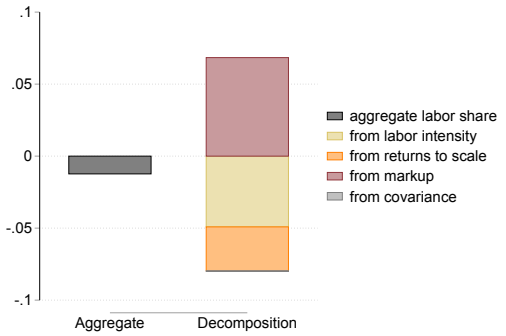
Note: Each estimate is the result of OLS estimation of firm level labor share on markups, for four samples: all firms, firms with more than 50 employees, 100 employees, and 1000 employees; and two panels: manufacturing and non manufacturing firms. All columns include year fixed effects. Columns "No FE" include no industry nor firm fixed effect. Columns "Industry FE" include 3-digit industry-level fixed effects. Columns "Firm FE" include firm-level fixed effects. Standard errors are clustered at the 3-digit x year industry level.

of weighted average output elasticity of labor, is negative according to non-rolling estimates. Taking reallocation into account, results with non rolling estimates are similar to results with rolling estimates reporter in Figure VIII in the main text, namely that reallocation contributed negatively and markups positively.

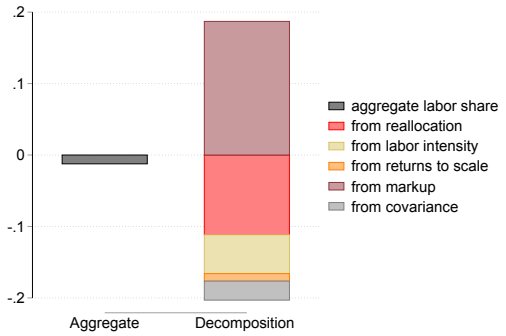
Figures C5-VIII and C5-IX show that these results hold in both the manufacturing and non-manufacturing sectors, with the exception of rolling estimation in the manufacturing sector where markup seem to have contributed negatively to the manufacturing labor share, but the contribution is small.

Figure C5-VII – **Contributions to the Evolution of the Aggregate Labor Share, Non Rolling**

(a) Representative firm



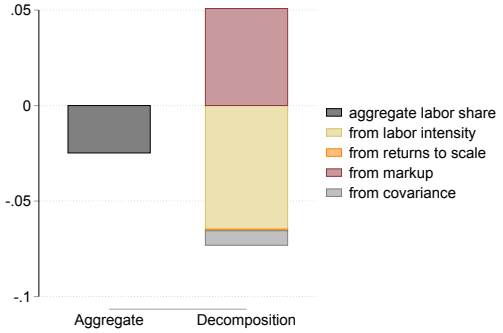

(b) With Reallocation



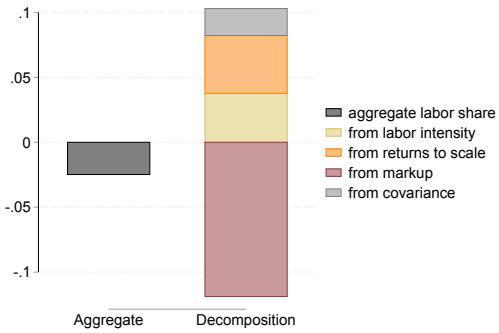

Note: This figure reports the decomposition of the variation of the aggregate labor share from 1984 to 2016, including the reallocation term, based on translog non-rolling and rolling value-added estimation of the production function. See section 6 for detail.

Figure C5-VIII – **Contributions to the Evolution of the Aggregate Labor Share, Representative Firm**

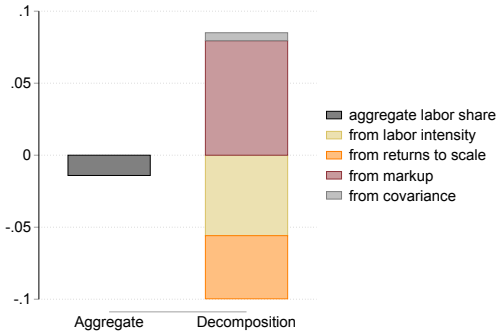
(a) Manufacturing, Non Rolling



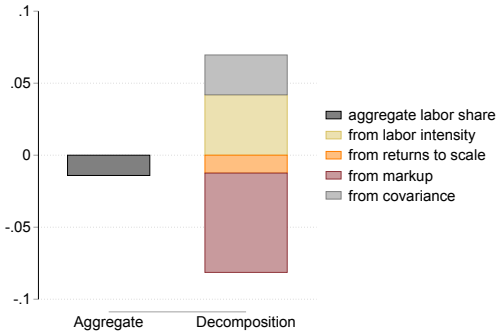

(b) Manufacturing, Rolling




(c) Non Manufacturing, Non Rolling



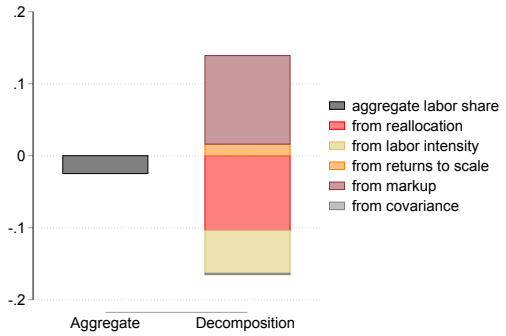

(d) Non Manufacturing, Rolling



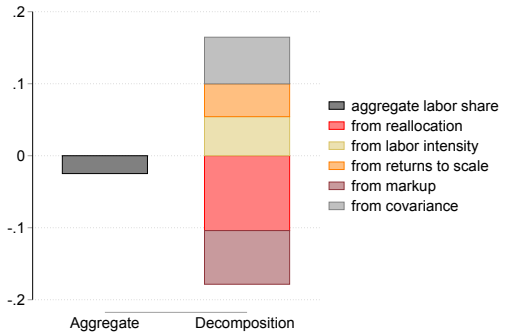

Note: This figure reports the decomposition of the variation of the aggregate labor share of the representative firm from 1984 to 2016, based on translog non-rolling and rolling value-added estimation of the production function. See section 6 for detail.

Figure C5-IX – **Contributions to the Evolution of the Aggregate Labor Share, With Reallocation**

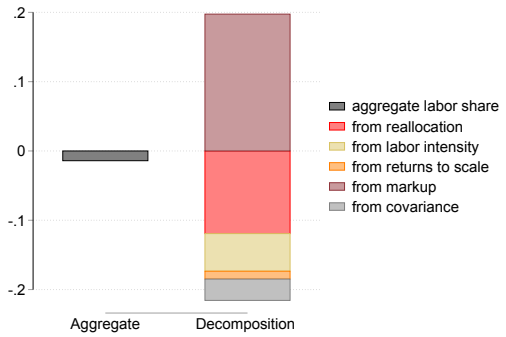
(a) Manufacturing, Non Rolling



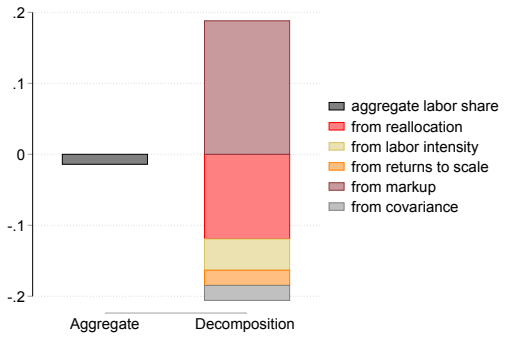

(b) Manufacturing, Rolling




(c) Non Manufacturing, Non Rolling




(d) Non Manufacturing, Rolling




Note: This figure reports the decomposition of the variation of the aggregate labor share from 1984 to 2016, including the reallocation term, based on translog non-rolling and rolling value-added estimation of the production function. See section 6 for detail.

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