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The Relationship Between Earnings and Cash Payout In Forms Of Dividend Payments And Share Repurchases

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Abstract

In the following review, the results from Fama and French (2001a) and Harry DeAngelo, Linda DeAngelo, and Douglas J. Skinner (2004) are replicated while the analysis was extended to a more recent period which included stock repurchases. I examined dividend concentration among US industrial firms over the 1985-2011 period whilst comparing the absolute changes from 2000 to 2011. I observed that the number of dividend payers increased by 16 firms from 2000 to 2011, whereas aggregate dividend substantially increased by 124% during the same period of time. Furthermore, there was seemingly a stronger positive relation between level of earnings and dividend payments in 2011 compared to that of 2000. In this recent survey, level of earnings and share repurchases were seen as positively correlated during 1978 to 2011. My observations suggest of higher concentration of cash payout via stock repurchases over 1985-2011, which indicates that firms with higher level of earnings spend more on share repurchases. Moreover, a very large proportion of share buy-back is completed by top dividend payers that distribute substantial portion of dividends. Such phenomenon has remained unchanged in the last decades.

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1. Introduction and previous researches

The main work of dividend policy provided by Miller and Modigliani (1961) initiated a wide body of literature which examined the payout policy in the US and other countries around the world. In this respect, and during dividend policy investigation, Fama and French (2001a) observations suggest that dividends had gradually disappeared with the large reduction in number of industrial firms that were paying dividends during 1978-1998 (67% of firms paid dividends in 1978 while only 21% did so in 1999).

Fama and French (2001a) demonstrated that there are two main reasons that led to changes to dividend practices policy. First, change in population of publicly traded firms and second, decreased propensity of firms with characteristics in which shareholders would have expected them to pay dividends. Unlike the observations found by Fama and French (2001a), Shoven (1986) had conceded that the nominal dividend for the corporate segment, based on data offered by the US government, had nearly doubled over 1978-1985. Such conflicting findings encouraged H. DeAngelo et al.(2004)to conduct a new investigation, whereby the results demonstrated reduction in the number of dividend paying industrial firms by more than 1000 (from 2250 to 926) over 1978-2000, and an increasing trend in aggregate dividends (224.6% in nominal and 22.7% in real terms) during the same period of time. H. DeAngelo et al.(2004) found that the main reduction in number of industrial firms occurs among those that paid the least dividends which has small impact on aggregate distribution, while at the same time largest dividend payers increased their payments. They showed that the largest 25 dividend payers paid 54.9% of aggregate supply and the 100 top payers supplied 81.8% of total dividends in 2000.

H. DeAngelo et al.(2004) have also shown that the majority of firms who have paid dividends generated a substantial level of earnings in 2000, an indication that the high dividends concentration may have been due to the increasing earnings concentration. Such outcome is consistent with Lintner's (1956) findings, which suggests that a firm's decision about dividend distribution is dependent upon the level of earning generation.

However, almost 50% of total industrial firms (2,144 firms) in 2000 reported $55 billion in losses. This finding was previously documented by Hayn(1995), Burgstahlerand Dichev(1997),Fama and French (2001b), and Ritter and Welch (2002). H. DeAngelo et al.(2004) reported a negative relationship between firms with losses and dividend payment. In this regards, they presented that most firms, mostly prominent technology firms, reported losses in 2000, and thus failed to pay dividends. This finding is in parallel with the previous observations supported by DeAngelo and DeAngelo(1990)and DeAngelo, DeAngelo, and Skinner (1992),who concede that losses have a bold role in dividend cut and deletion.

H. DeAngelo et al.(2004) also documented that the percentage of dividends paid by industrial firms are positively correlated with the level of earnings, while such relationship was slightly weaker from 1978 to 2000. For instance, 97.7% of industrial firms with the real earnings of $100 million-plus paid dividends in 1978, whereas this proportion was 71.9% in 2000. This finding correlates with the report provided by Fama and French (2001a), who indicated a lower tendency of industrial firms to pay dividends.

In yet another investigation to support the relationship between earnings and dividend payments, H. DeAngelo et al.(2004) documented that there is a two-tier structure for publicly traded firms. In the first tier, a small number of firms with very high level of earning generation dominate the aggregate dividend distribution. The second tier, though, which includes the majority of industrial firms, independently and together, make modest earning and supply a small proportion of aggregate dividend.

After 2000, the global economy has encountered two major financial and economic events. The first event, known as "burst of dot.com bubble", and which occurred in 2000, is when the share prices increased rapidly and was subsequently followed by an abrupt fall down[1] (Kindleberger, 2001). The second major event, having taken place in September 2008, is recognized as "global financial downturn ". It is a time when we observed a sudden bankrupt of major US financial

[1] [1]For example the index of NASDAQ had a substantially growth up until March 2000 and then declined suddenly in the market (By MARTIN DUFWENBERGT, 2005).

institutions and major setback of stock markets in US (V.V. Chari, October 2008). With more than a decade past since the last data De Angelo had employed, it is an appropriate time to re-examine and extend the findings of previous findings about earnings and dividend concentration of industrial firms in the US, mainly the trend of number of industrial firms paying dividends, the relationship between level of earnings and dividend distribution, and the propensity of firms to pay dividends.

Grullon and Michaely (2002) and (McLaughlin, 2011) stated that although US companies preferred to pay cash to their investors in the form of dividends rather than share repurchases for an extended period of time, the last decades have seen a substantial growth of expenditure on share repurchases. Grullon and Michaely (2002) argue whether firm managers have changed their payout policy from dividends to share repurchases and if these two theories are interchangeable or not. In this sense, John and Williams (1985), Bernheim (1991) and Allen, Bernardo, and Welch (2000) previously demonstrated that when managers intend to signal a firm's value, they pay dividends rather than buy back shares. Based on such conclusion, dividends and share repurchases are not interchangeable. On the contrary, Miller and Modigliani (1961) , Bhattacharya (1979), Easterbrook (1984), Miller and Rock (1985), and Jensen (1986) conceded that firms use payout in case of signal undervaluation or reduced agency conflict. According to this theory, dividends and share repurchases are interchangeable.

Such considerable shift in industrial firms' payout policy generates a motivation for investigators to thoroughly employ a different approach to examine firms' performance on share repurchases using previous methods implemented for dividends. In addition, H.DeAngelo et al. (2004) assumed that there should be other available sources to substantiate that the most amount of stock repurchase conducted by small set of industrial firms have the majority of real earnings. There are three observations which are consistent with such concept. First, Linda and Sharpe (1999) reported notable volume of dollar repurchases for S&P 500 firms in the late 1990s. Second, Fama and French (2001a) suggested firms that pay dividends are predisposed to repurchase stocks. Third, H.DeAngelo et al. (2004) demonstrated there is an earning

concentration among a group of firms producing the mass of industrial earnings and dividends and that these firms may also have a cash payout in terms of stock repurchases.

In this present investigation, I follow H.DeAngelo et al. (2004) by extending the analysis in two dimensions. First I analyze the corporate dividend policy similarly conducted by DeAngelo et al (2004) while extending the time period to 2011. In particular, I compare the dividend policy in 2011 versus 2000 motivated by the two events described earlier. In the second part, I examine how firms are structuring their payout policy by looking separately at share repurchases and dividend payments. To this end, I initially consider the longer trend of aggregate dividends paid by industrial firms over 1985-2011 and examine if aggregate dividends maintain its steady long-run uptrend during 2000-2011. In this context, I also re-examine whether there is earnings concentration among the small number of firms contributing in supply dividends. Moreover, the relationship between level of earnings and paying dividends by industrial firms is inspected to assess if firms with higher level of earning generation have upper level of dividend payout ratio or not.

In an attempt to assess the presumption previously documented by H.DeAngelo et al. (2004), I also analyze the existence of a potential relationship between firms' earnings and their share repurchases. In doing so, I observe the track of number of firms with share repurchases from 1978 to 2011 and moreover, I study whether small set of industrial firms with high levels of earnings are responsible for the majority of stock repurchases or not. Finally, I revise such assumption in connection to industrial firms paying dividends in order to observe the role of dividend payers and its impact on share repurchases.

This thesis is provided in 6 sections. Hypotheses are represented in section 2 following the introduction and review of previous research about industrial firms' payout approaches. Methodology and data is explained in chapter 3 before the evaluation of the related data consistent with dividends in section 4 and share repurchase in section 5.Finally, section 6 concludes findings of present investigation.

2. Hypothesis

This study is provided in two main segments. In the first section, which mainly follows the methodology previously applied by H. DeAngelo et al. (2004), the hypotheses below are examined to link between industrial firms' earnings and dividend payments over 2000-2011.

H1: There is an earnings concentration among a small number of industrial firms

H2: There is a positive relationship between the volume of dividends paid by industrial firms and the level of their earnings (There is a higher possibility that Industrial firms with higher level of earnings pay dividends). In this regard, a small number of firms with very high level of earnings distribute very large percentage of dividends. This leads to dividend concentration amongst a small number of firms with very high levels of earnings concentration.

H3: Aggregate dividends paid by industrial firms maintain its steady long-run uptrend over 1978-2011

In the second section, considering the hypotheses stated above, the performance of share repurchases completed by industrial firms will be examined. In addition, the follow hypotheses are assessed to examine industrial firms the relationship between industrial firms' earnings and expenditure on share repurchases.

H4: Since Firms that pay dividends generate a high level of real earnings, it is expected that such firms to have a main role in cash out in form of share repurchases

H5: Firms with substantial volume of earnings are responsible for very large proportion of total cash payout in both forms of dividends and share repurchases

3. Methodology and Data

In parallel with Fama and French (2001a) and H.DeAngelo et al. (2004) research studies, I utilize CRSP industrial firms with SIC codes beyond the ranges 4900–4949 (for financial firms) and 6000–6999 (for utility firms) as a sample. Nonfinancial and nonutility firms are named ‘‘industrials’’. I have placed particular emphasis on NYSE, AMEX, and NASDAQ firms with CRSP share codes 10 or 11. I consider CRSP firms with common dividends and earnings before extraordinary, namely items 21 and 18, on compustat (The CRSP/COMPUSTAT Merged Database)[2]. In order to examine the performance of industrial firms' payout policy via stock repurchase, I consider CRSP firms with PRSTKC items displaying purchase of common and preferred stock. Within such context, I examine trends over 1985-2011.

First of all, I tried to follow data analysis completed by H.DeAngelo et al. (2004) during 1978-2000. In this sense, I initially gathered all data for the time period 1978-2011. The samples used in my research study are differentiated by the number of firms found in WARDS due to the unavailability of SIC code in The CRSP/COMPUSTAT Merged Database, thus providing no alternative but to derive the codes from Stock/Security Files with monthly observation and match them with CRSP/COMPUSTAT Merged items.

Surprisingly, even though there is a massive difference between numbers of firms, namely industrial, financial and utility from 1978-1985, the results obtained for aggregate dividends, aggregate earning, aggregate losses and total earning for dividend payers are quite close (there was a steady long-run uptrend in aggregate dividends paid by industrial firms in 1978-2000). Despite continuous effort to match data before 2000 in terms of number of industrial firms paying dividends, the new results do not correspond with that of De Angelo et al (2004) before 1985. Using Consumer Price Index (CPI)[3], all real values in 2000 and 2011 are converted to value

[2] From the data source “ Wharton Research Data Servuces” (WRDS) ,https://wrds-web.wharton.upenn.edu/wrds/
[3] From U.S. Department of Labor: Bureau of Labor Statistics, http://research.stlouisfed.org/fred2/data/CPIAUCSL.txt

of 1985. In the second stage, I applied the same methodology used by De Angelo et al (2004) to obtain the trend of aggregate dividends paid by industrial firms from 2000 to 2011.

In case of stock repurchases, consistent with industrial firm's performance in paying common dividends, I initially tried to use the values of Purchase of Common Stock item. This item was unavailable for a number of industrial firms, as such firms had announced their value of share repurchases in the name of Purchase of Preferred Stock. Hence, I utilized a common item amongst all industrial firms, namely Purchase of Common and Preferred Stock (Compustat item 115).

In the remainder of this present investigation, with particular consideration, I compare the latest version of data of 2011 with that of De Angelo et al (2004) derived in 2000. In addition, I also applied the data of 1985, as the year by which new results had corresponded with De Angelo et al (2004)'s findings, in an attempt to observe a longer trend of US industrial firms in the last three decades.

4. Sampling procedure and aggregate dividends, 1985-2011

H.DeAngelo et al. (2004) found that while the number of industrial firms paying dividends decreased from 1978 to 2000, the number of financial/utilities firms paying dividends increased during the same period of time. H.DeAngelo et al. (2004) hold that such reduction is related to some core substantial changes considerably limited to industrial firms instead of managers' tendency to pay dividends. As shown in table1, the number of industrial firms paying dividends has increased slightly by 1.87%, from 855 in 2000 to 871 in 2011, whereas the number of financial/utility firms paying dividends decreased by 19% from 1451 in 2000 to 998 in 2011.

Apart from total earnings earned for industrial firms paying dividends, Figure 1 demonstrates the trend of earnings, losses, and aggregate dividends for industrial firms over 1978-2011. Such outline indicates that even though the aggregate earnings decreased between 2000-2001 and 2007-2008, aggregate dividends slightly increased and maintained its uptrend over the full period 1978-2011.

Table 2 displays that although US industrial firms experienced the highest losses in 2001 and 2008, aggregate dividends did not reduce during these respective years. In this sense, when the value of aggregate earnings of industrial firms decreased by 100% (from $302.4 billion to -$3 billion) and 50% ($577.3 billion to $289.6 billion) during 2000-2001 and 2007-2008 respectively, the value of total earnings of firms paying dividends decreased by 40% from $282.3 billion to $167.8 billion (for 2000-2001) and 21% from $425.5 billion to $336.2 billion (for 2007-2008). Additionally, the value of aggregate dividends declined by 3.6% from $102 billion in 2000 to $98.4 billion in 2001, while such value decreased by 13.3% from $222.3 to $192.7 over 2007-2008. Moreover, dividends paid in 2001 comprises of 58.6% of total earnings of dividend payers. It is greater than dividends paid in each year before 1998, despite the aggregate industrial earnings being -$3 billion in 2001. In this regard, the value of aggregate dividends in 2008 accounted for 57.3% of industrial aggregate earnings and 66.5% of total earnings of dividend payers respectively. As such, aggregate dividends in 2008 were greater than dividend payments in each year before 2007.

Table 1; Number of firms paid dividends during 1978–2011. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999.

Fiscal year	CRSP industrial firms	CRSP financial and utility firms	CRSP total	NYSE industrial	NASDAQ and AMEX industrial
1978	1584	542	2126	1030	554
1979	1544	557	2101	1006	538
1980	1508	567	2075	981	527
1981	1461	575	2036	950	511
1982	1404	618	2022	913	491
1983	1369	650	2019	875	494
1984	1332	643	1975	855	477
1985	1271	640	1911	814	457
1986	1180	664	1844	767	413
1987	1127	681	1808	738	389
1988	1104	713	1817	731	373
1989	1100	724	1824	734	366
1990	1077	714	1791	713	364
1991	1087	691	1778	723	364
1992	1131	674	1805	740	391
1993	1142	1380	2522	745	397
1994	1155	1458	2613	757	398
1995	1171	1492	2663	762	409
1996	1185	1541	2726	779	406
1997	1149	1476	2625	753	396
1998	1074	1434	2508	713	361
1999	946	1518	2464	658	288
2000	855	1451	2306	594	261
2001	785	1362	2147	562	223
2002	751	1355	2106	532	219
2003	821	1350	2171	558	263
2004	924	1294	2218	599	325
2005	962	1305	2267	615	347
2006	953	1280	2233	612	341
2007	932	1242	2174	596	336
2008	885	1198	2083	567	318
2009	820	1102	1922	525	295
2010	865	1022	1887	527	338
2011	871	998	1869	530	341
Absolute change over 1985-2000	**-416**	**811**	**395**	**-220**	**-196**
Percent change over 1985-2000	**-32.7%**	**126.7%**	**20.7%**	**-27.0%**	**-42.9%**
Absolute change over 1985-2000	**16**	**-453**	**-437**	**-64**	**80**
Percent change over 2000-2011	**1.9%**	**-31.2%**	**-19.0%**	**-10.8%**	**30.7%**

Table 2; Change in dividend and aggregate earnings over 1985-2011. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999. The sample is for firms for which Computsat has common dividends and earnings before extraordinary items (Compustat items 21 and 18).In last three columns, changing in related values is computed in terms of considering the relation between earning changes and dividend changes over 1985-2011.

Fiscal year	Industrial Aggregate earnings	Industrial Aggregate losses	Industrial Aggregate dividends	Industrial aggregate earnings for dividend payers	Change in aggregare earnings	Change in dividends	Change in earnings for dividend payers
1978	76979	-784	28901	75211			
1979	94514	-1756	32151	92076	22.8%	11.2%	22.4%
1980	96586	-5387	36439	95692	2.2%	13.3%	3.9%
1981	101274	-3351	39923	98902	4.9%	9.6%	3.4%
1982	83817	-7068	41470	84565	-17.2%	3.9%	-14.5%
1983	92150	-8798	43695	91466	9.9%	5.4%	8.2%
1984	110588	-6678	46213	107660	20.0%	5.8%	17.7%
1985	93737	-12297	47196	92025	-15.2%	2.1%	-14.5%
1986	87090	-17604	53123	90234	-7.1%	12.6%	-1.9%
1987	114239	-14782	57912	112383	31.2%	9.0%	24.5%
1988	145103	-9379	69096	138088	27.0%	19.3%	22.9%
1989	140036	-10683	64443	134256	-3.5%	-6.7%	-2.8%
1990	128445	-18677	66421	128642	-8.3%	3.1%	-4.2%
1991	92049	-32735	66909	93526	-28.3%	0.7%	-27.3%
1992	111816	-32986	70923	107887	21.5%	6.0%	15.4%
1993	127646	-33057	73281	123168	14.2%	3.3%	14.2%
1994	196710	-15835	75837	181661	54.1%	3.5%	47.5%
1995	217617	-17163	89527	195557	10.6%	18.1%	7.6%
1996	255902	-24488	91227	223744	17.6%	1.9%	14.4%
1997	265311	-35836	92977	231229	3.7%	1.9%	3.3%
1998	260767	-53192	98760	223851	-1.7%	6.2%	-3.2%
1999	304715	-49906	101205	249003	16.9%	2.5%	11.2%
2000	302483	-100114	102069	282356	-0.7%	0.9%	13.4%
2001	-2989	-294393	98405	167804	-101.0%	-3.6%	-40.6%
2002	128076	-212573	101746	227015	-4384.3%	3.4%	35.3%
2003	355514	-67640	111649	295411	177.6%	9.7%	30.1%
2004	423485	-100786	134057	340022	19.1%	20.1%	15.1%
2005	549037	-71334	183260	440565	29.6%	36.7%	29.6%
2006	666967	-62062	177877	504010	21.5%	-2.9%	14.4%
2007	577382	-149114	222373	425532	-13.4%	25.0%	-15.6%
2008	289643	-364643	192731	336235	-49.8%	-13.3%	-21.0%
2009	451643	-111443	190218	370357	55.9%	-1.3%	10.1%
2010	722591	-49301	202009	533135	60.0%	6.2%	44.0%
2011	779161	-70135	220300	615083	7.8%	9.1%	15.4%
Total	**8440085**	**-2065980**	**3324321**	**7508351**			

As displayed in Figure 1, and during the period of 1978-2011, aggregate dividends paid by industrial firms maintained its steady long-run uptrend even in 2001 and 2008.

Table 3 indicates that aggregate nominal dividends in 2011 increased by 115.8% for industrial firms from $102.1 billion in 2000 to $220.3 billion in 2011. In this sense, total real dividends increased by 65.9% from 2000 to 2011. Both the mean real dividends paid and median increased from 2000 to 2011 by 62.9% and 102.7% respectively. Row 6 shows that the percentage of all industrial firms paying dividends is 24.2% in 2000 and 30.7% in 2011 respectively, which represents a 6.5% increase over this time phase. Although the percentage of number of NYSE firms paying dividend decreased by 8.6% and their total aggregate dividends fell by 12.5% from 2000 to 2011, these firms still pays the majority of industrial dividends.

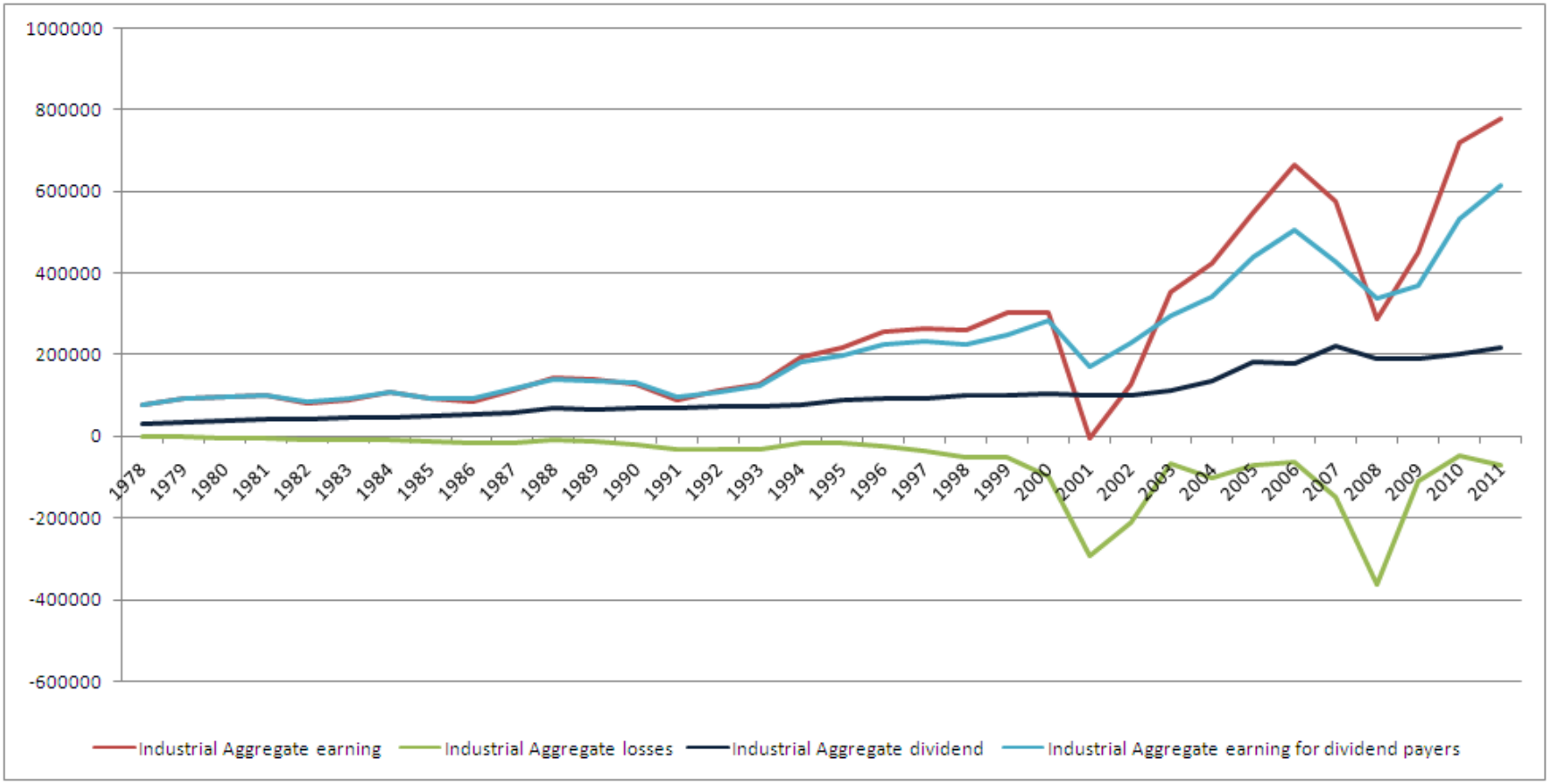

Figure 1; Aggregate dividends, aggregate earnings, aggregate losses, and total earnings for dividend payers for industrial firm during 1978-2011, whereby particular emphasis is on NYSE, NASDAQ, and AMEX firms with CRSP assigned with share codes 10 or 11. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999. The sample is for firms for which Computsat has common dividends and earnings before extraordinary items (Compustat items 21 and 18).

Table 3; Aggregate dividends of industrial firms in 1985, 2000 and 2011. The sample includes NYSE, NASDAQ, and AMEX firms on CRSP assigned with share codes 10 or 11, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Compustat reports dividends and earnings before extraordinary items (Compustat items 21 and 18) for each year. Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars.

	1985	2000	2011	Absolute % change for 2000 to 1985	Absolute% change from 2000 to 2011
1.Aggregate nominal Dividend paid by industrial firms($billions)	47.2	102.1	220.3	54.9 116.3%	118.2 115.8%
2.Total real Dividend paid by industrial firms($ billions,1985 base)	47.2	64.0	106.2	16.8 35.6%	42.2 65.9%
3.Mean real dividend ($ millions,per dividend-paying firms)	37.1	74.9	121.9	37.7 101.6%	47.1 62.9%
4.Median real dividend ($ millions,per dividend-paying firms)	4.2	6.7	13.5	2.4 57.9%	6.8 102.7%
5.Number of industrial firms paid dividend on CRSP/COMPUSTAT	1271.0	855.0	871.0	-416.0 -32.7%	16.0 1.9%
6.Percent of all industrial firms paid dividend on CRSP/COMPUSTAT	52.1%	24.2%	30.7%	-28.0%	6.5%
7.Percent of all industrial firms pay dividend that are NYSE-listed	64.0%	69.5%	60.8%	5.4%	-8.6%
8.Percent of total dollar for firms pay dividend as NYSE-listed	96.6%	96.8%	84.3%	0.2%	-12.5%

4.1. Dividends concentration and the increase therein over the last decade

In Table 4, industrial firms paying dividends by cash dividends paid in 1985, 2000 and 2011 are graded in groups of 100 firms. In general, and as in 1985 and 2000, a small number of industrial firms pay a very large quantity of dividends in 2011. For instance, the top 100 payers supplied around 83% of total dividends in 2000, while this proportion was 81.7% for the same group in 2011. However, the top 100 payers distributed $85.7 billion (to $220.3 billion in year 2011 dollars) in real dividends in 2011, which is $21.7 billion more than total dividends paid (to $64 billion in year 2011 dollars) by 855 industrial firms in 2000. There is a $32.7 billion increase in real dividends of the top 100 dividend payers from 2000 to 2011, which is threefold the $9.4 billion rise in the total increase for all grades below the top 100 firms. In sum, the concentration of dividends paid is driven by a small number of firms which are placed in the top 200 payers, where this concentration remained unchanged over 2000-2011.

Table 5 demonstrates the cross-sectional payments of dividends in 1985, 2000 and 2011, with dividend-paying firms classified by real dollar dividends paid, ranging from $500 million-plus to less than $1 million per year. It is shown that the number of industrial firms who have paid dividends over $100 million increased by 46 firms from 2000 to 2011, with an increase of $38.7 billion in dividends. The number of firms with $500 million-plus in real dividends increased by 20 firms with a $32.8 billion rise in real dividends over 2000-2011, which is 78.5% of the total increase in real dividends. On the other hand, the value of total dividends paid by industrial firms with less than $100 million increased only by $3 billion. From 2000 to 2011, although the number of firms with less than $5 million real dividends decreased by 96 firms, the total decrease in dividends for this group was $140 million, which is insignificant compared to the $38.7 billion increase of real dividends for firms placed in top categories (firms pay more than 100 billion). The top categories, firms in excess of $ 100 million, comprise more firms in 2011 compared to 2000, accounting for 87% of total dividends paid.

Table 4; Concentration of total dollar dividends paid by industrial firms in 1985, 2000 and in 2011. In descending order, the largest to smallest total dividends paid are shown. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999. The sample is for firms for which Computsat has common dividends and earnings before extraordinary items (Compustat items 21 and 18).For 2000, firms graded from 801 to 900 have 55 firms, while in 2011, there were 871 firms (shown in corresponding row).

Dividend ranking	percent of total dividends			Cumulative of total dividends			Real dividends paid by industrial firms ($millions 1985 base)		
	1985	2000	2011	1985	2000	2011	1985	2000	2011
Top 100	73.9%	82.9%	80.7%	73.9%	82.9%	80.7%	34,878	53,036	85,750
101-200	11.8%	9.7%	10.5%	85.7%	92.6%	91.2%	5,587	6,238	11,104
201-300	5.7%	3.7%	4.3%	91.5%	96.3%	95.4%	2,713	2,343	4,515
301-400	3.1%	1.8%	2.2%	94.6%	98.1%	97.6%	1,481	1,153	2,334
401-500	1.9%	0.9%	1.2%	96.5%	99.0%	98.8%	895	607	1,250
501-600	1.2%	0.5%	0.7%	97.8%	99.5%	99.5%	589	341	699
601-700	0.8%	0.3%	0.3%	98.6%	99.8%	99.8%	394	194	355
701-800	0.6%	0.1%	0.2%	99.2%	99.98%	99.97%	263	89	163
801-900	0.4%	0.02%	0.03%	99.5%	100.0%	100.0%	176	12	34
901-1000	0.2%			99.8%			112		
1001-1100	0.1%			99.92%			69		
1101-1200	0.07%			99.98%			33		
1201-1271	0.02%			100.0%			8		
Total for all firms	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**47,196**	**64,012**	**106,204**
Number of firms							**1271**	**855**	**871**

The net result is that, in the last decade, the number of firms distributing a very large percent of dividends (firms with $100 million-plus real dividend) increases. Hence, top categories have more firms, while the number of firms with very small share in paying dividends (firms with less than $5 million real dividend) decreases. Such observation correlates the fact that top end firms dominate and have a huge impact on the aggregate dividend distribution, which eventually leads to substantial increase in aggregate dividends. (Harry DeAngeloa, 2004)

Table 5; Number of firms and real dividend payments in 1985, 2000 and in 2011. The sample includes NYSE, NASDAQ, and AMEX firms on CRSP assigned with share codes 10 or 11, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Compustat reports dividends and earnings before extraordinary items (Compustat items 21 and 18) for each year. Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars.

Real dividends payment	Number of industrial firms pay dividend			Change from 2000 to 2011	Percent change % from 2000 to 2011	Real dividends paid by industrial firms			Change from 2000 to 2011	Percent change % from 2000 to 2011
	1985	2000	2011			1985	2000	2011		
$500 million or more	21	27	47	20	74.1%	20,500	36,898	69,731	32,833	89.0%
$400- 499.9 million	6	5	5	0	0.0%	2,633	2,239	2,258	19	0.8%
$300- 399.9 million	3	9	19	10	111.1%	1,087	3,186	6,484	3,298	103.5%
$200- 299.9 million	13	18	25	7	38.9%	3,150	4,511	6,197	1,686	37.4%
$100- 199.9 million	42	46	55	9	19.6%	6,144	6,732	7,611	879	13.0%
$80- 99.9 million	20	17	33	16	94.1%	1,770	1,542	2,963	1,420	92.1%
$60- 79.9 million	32	23	31	8	34.8%	2,234	1,593	2,145	552	34.7%
$40- 59.9 million	50	40	40	0	0.0%	2,443	1,986	1,942	(45)	-2.2%
$20- 39.9 million	113	81	121	40	49.4%	3,196	2,275	3,450	1,175	51.6%
$10- 19.9 million	117	99	110	11	11.1%	1,642	1,413	1,550	137	9.7%
$5- 9.9 million	165	113	107	-6	-5.3%	1,184	812	793	(19)	-2.3%
$1- 4.9 million	387	251	197	-54	-21.5%	968	646	527	(119)	-18.4%
less than $1 million	294	119	77	-42	-35.3%	131	60	39	(21)	-34.2%
Total	**1263**	**848**	**867**	**19**	**-31.4%**	**47,082**	**63,893**	**105,689**	**41,796**	**65.4%**
$100 million and above	**85**	**105**	**151**	**46**	**77.6%**	**33,514**	**53,565**	**92,280**	**38,715**	**72.3%**
Less than $100 million	**1178**	**743**	**716**	**-27**	**-39.2%**	**13,568**	**10,327**	**13,409**	**3,081**	**29.8%**
less than $5 million	**681**	**370**	**274**	**-96**	**-59.8%**	**1,098**	**706**	**566**	**(140)**	**-19.8%**

4.2. Dividends and earnings concentration and payout ratio over 2000-2011

Table 6 presents the earnings of firms paying dividends in 1985, 2000 and 2011, similar to the format applied in Table 4. Over the last decade, similar to dividends, earnings concentration has remained in a very high level among the firms paying dividends. In this sense, 74% of aggregate real earnings are made by the top 100 dividend payers, while this proportion for the same category is 74.5% in 2000. The total real earnings of the 100 largest payers in 2011 increased from $131.9 billion in 2000 to $219.2 billion in 2011. This increase exceeds the total value of real earnings in 1985, which is $92 billion. In addition, the top 200 industrial firms paying dividends generated 87.9% of dividend payers' earnings in 2011, while the equivalent value for 2000 is 86%. Overall, while the next two groups, namely 201-300 and 301-400, show the modest increase in real earnings, the remaining groups present a low increase or reduction in real earnings. In sum, the value of real earnings of dividend payers increased by 67% from $177 billion in 2000 to $296.5 billion in 2011 (to $615 billion in year 2011 dollars).

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Table 6; Earnings concentration of firms that paid dividends in 1985 , 2000 and in 2011. In descending order, the largest to smallest total dividends paid are shown. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999. The sample is for firms for which Computsat has common dividends and earnings before extraordinary items (Compustat items 21 and 18).For 2000, firms graded from 801 to 900 have 55 firms, while in 2011, there were 871 firms (shown in corresponding row).

Dividend ranking	percent of total earnings of dividend paying industrial firms(%)			Cumulative% of total earnings of dividend paying industrial firms(%)			Real earning ($ millions,1985 base)		
	1985	2000	2011	1985	2000	2011	1985	2000	2011
Top 100	69.5%	74.5%	73.9%	69.5%	74.5%	73.9%	63,964	131,957	219,222
101-200	15.1%	11.6%	14.0%	84.6%	86.1%	87.9%	13,894	20,565	41,417
201-300	4.9%	5.6%	4.4%	89.5%	91.8%	92.3%	4,497	9,996	13,155
301-400	4.4%	3.1%	3.1%	93.9%	94.8%	95.4%	4,079	5,426	9,159
401-500	1.5%	2.7%	2.0%	95.5%	97.5%	97.4%	1,407	4,768	5,906
501-600	0.7%	1.1%	1.5%	96.2%	98.6%	98.9%	654	1,909	4,348
601-700	1.5%	0.7%	0.7%	97.7%	99.3%	99.6%	1,379	1,210	2,055
701-800	0.8%	0.5%	0.4%	98.5%	99.8%	99.9%	758	965	1,111
801-900	0.4%	0.2%	0.1%	98.9%	100.0%	100.0%	358	282	151
901-1000	0.4%			99.3%			376		
1001-1100	0.4%			99.7%			344		
1101-1200	0.2%			99.9%			181		
1201-1271	0.1%			100.0%			137		
Total for all fi	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**92,025**	**177,079**	**296,524**
Number of firms							**1263**	**848**	**867**

4.3. The collective earnings distribution of dividend payers and non-payers

Table 7 is designed to sum up the combination of cross-sectional earnings distribution of dividend payers and non-payers for analyzing the earnings of all industrial firms. The table is divided in two panels. Panel A shows collected earnings distribution for 1985, 2000 and 2011, while panel B includes the collected distribution of an average of five years' earnings that ended in the mentioned years. In Panel B, the methodology of H. DeAngelo et al. (2004) study is applied, where Lintner's (1956) analysis is implemented and implies that firms with several years of earnings have a tendency to pay dividends rather than firms with only a single year of earnings. The main reason that I have used a five-year average earning is because of the huge losses that industrial firms reported in 2001 and 2008. Table 7 also demonstrates earnings concentration among relatively few firms at the top end of distribution, whereas such concentration is higher in 2000 and 2011 compared to 1985.

Panel A displays earnings concentration of firms with $500 million-plus real earnings slightly decreased in 2011 compared to that of 2000. Panel B, on the other hand, shows an increase in earnings concentration of such firms over 2000-2011. The number of firms and the value of real earnings increased for industrial firms with $50 million-plus real earnings. Such earnings decreased for firms with less than $50 million real earnings from 2000 to 2011. The combination of real earnings of dividend payers and non-payers increased from $189.7 billion in 2000 to $375.6 billion in 2011 ($779.2 billion in year 2011 dollar), while the aggregate five-year real earnings increased from $154.1 billion to $280.3 billion. Firms with more than $500 million earnings played a significant role in increasing aggregate real earnings. Moreover, 81% of aggregate earnings in 2011 is generated by firms with $500 million-plus earnings in one year, while this proportion for a five year average earnings is 83%. Panel A demonstrates a total increase of $139.9 billion in one year earnings whereas panel B shows a total increase of $123.2 billion in five year average earnings over 2000-2011. Additionally, firms with one-year positive earnings generated $409.4 billion in 2011, which is $156.9 billion more than it was in 2000, while firms with a positive average of five-year earnings generated $317.6 billion compared to that of 2000, which was $186.9 billion. 870 industrial firms with a total value of -$33.8 billion

reported losses in 2011 as against the negative earnings reported by 1282 firms in 2000, which accounted for -$62.7 billion. Such observation implies that the total loss in 2000 is almost twice as much as 2011.[4]

[4] DeAngelo and DeAngelo (1990) and DenAgelo, DeAngelo , and Skinner (1992) conclude that losses most likely bring about the elimination of dividends. Such consequence, and with the consideration of recent years' reduction in losses in industrial firms, may provide an explanation of the increasing trend of number of industrial firms paying dividends in 2011 compared to 2000.

Table 7;Cross-sectional distributions of firms' real earnings (1985 dollars) in 1985, 2000 and in 2011. Panel A presents the distributions of real earnings in 1985, 2000 and 2011. Panel B shows the distributions of five-year average real earnings ending in 1985, 2000 and in 2011. The sample is comprised of NYSE, NASDAQ, and AMEX firms on CRSP assigned with share codes 10 or 11 and SIC codes beyond the intervals 4900–4949 and 6000–6999. A firm is included only if Compustat reports dividends and earnings before extraordinary items (Compustat items 21 and 18). Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars.

Panel A. Cross-sectional distributions of real earnings in 1985,2000 or in 2011

Real earnings (1985 base	Number of firms			Real earnings (1985 base)			Real earnings as a % of total		
	1985	2000	2011	1985	2000	2011	1985	2000	2011
$ 1 billion or greater	19	52	82	38,601	137,536	259,503	41.2%	72.5%	69.1%
$500 million -$ 1 billion	22	40	64	13,915	27,382	45,371	14.8%	14.4%	12.1%
$250-500 million	42	67	102	14,977	23,921	35,369	16.0%	12.6%	9.4%
$100-250 million	111	179	212	17,108	28,034	33,643	18.3%	14.8%	9.0%
$50-100 million	106	211	253	7,484	14,906	17,918	8.0%	7.9%	4.8%
$25-50 million	158	287	262	5,563	10,331	9,418	5.9%	5.4%	2.5%
$10-25 million	290	417	357	4,654	6,886	5,904	5.0%	3.6%	1.6%
$0-10 million	1150	1004	636	3,732	3,515	2,310	4.0%	1.9%	0.6%
Negative earning	541	1282	870	(12,297)	(62,786)	(33,811)	-13.1%	-33.1%	-9.0%
Total	**2439**	**3539**	**2838**	**93,737**	**189,725**	**375,624**	**100%**	**100%**	**100%**
Total positive only	**1898**	**2257**	**1968**	**106,034**	**252,511**	**409,435**			

Panel B. Cross-sectional distributions of five-year average real earnings ending in 1985,2000 or in 2011

Real earning (1985 base	Number of firms			Real earnings (1985 base)			Real earnings as a % of total		
	1985	2000	2011	1985	2000	2011	1985	2000	2011
$ 1 billion or greater	18	37	70	36,478	88,264	201,896	37.7%	57.3%	72.0%
$500 million -$ 1 billion	17	31	45	12,124	21,459	31,074	12.5%	13.9%	11.1%
$250-500 million	40	64	76	15,028	22,030	26,791	15.5%	14.3%	9.6%
$100-250 million	107	149	181	16,373	22,196	28,632	16.9%	14.4%	10.2%
$50-100 million	106	188	195	7,455	13,215	13,690	7.7%	8.6%	4.9%
$25-50 million	168	241	219	5,985	8,807	7,881	6.2%	5.7%	2.8%
$10-25 million	267	443	317	4,208	7,157	5,137	4.3%	4.6%	1.8%
$0-10 million	1272	1127	669	3,977	3,861	2,580	4.1%	2.5%	0.9%
Negative earning	444	1259	1066	(4,817)	(32,829)	(37,363)	-5.0%	-21.3%	-13.3%
Total	**2439**	**3539**	**2838**	**96,811**	**154,159**	**280,318**	**100%**	**100%**	**100%**
Total positive only	**1995**	**2280**	**1772**	**101,628**	**186,988**	**317,682**			

4.4. Separate earnings of dividend payers and non-payers

Table 8 exhibits the collected distribution of real earnings from table 7 and is classified in dividend payers and non-payers. A positive correlation between losses and the failure to pay dividends for 2011 is observed, as were reported in 1985 and 2000. Moreover, 92.7% and 95.5% of firms who had reported losses in 2011 and 2000 respectively, failed to pay dividends. Although the number of industrial firms who had failed to pay dividends decreased from 2000 to 2011, the real earnings of such firms increased from $12.6 billion to $79.1 billion during the same period. Furthermore, the value of real earnings of dividend payers increased from $177 billion to $296.5 billion over 2000-2011. Over this time phase, real earnings of non payers in 2011 increased by 527% compared to that of 2000, while this proportion is 67% for dividend payers during the same period.

Table 8 also shows a positive relation between the proportion of firms that pay dividends and the level of their earnings. Such relation is stronger in 2011 compared to 2000. For instance, the number of firms paying dividends with earnings of $100 million-plus increased by 40.5% from 220 in 2000 to 309 in 2011, while the number of dividend payers with earnings of $500 million-plus increased by 71.8% from 39 to 67 over 2000-2011. The number of firms with earnings of less than $100 million that failed to pay dividends decreased by 11.5% from 635 firms in 2000 to 562 firms in 2011. Overall, the number of industrial firms paying dividends in 2011 increased by 6.5%, an indication that a larger percent of firms with given level of real earnings pay dividends in 2011.This finding is in contrast with the conclusions of Fama and French's (2001a) and also DeAngelo, DeAngelo, Skinner (2004), who reported a lower propensity to pay dividends by industrial firms. As such, the increase in the number of firms paying dividends correspondingly caused an increase by $42.2 billion in aggregate real dividends in 2011 compared to 2000. In this context, the percentage of industrial dividend payers with $500 million-plus earnings in 2011 increased by 71.8%. This led to a substantial increase in the real earnings of this category from $112.1 billion in 2000 to $207.3 billion in 2011.

In sum, even though the percentage of total earnings of firms paying dividends decreased from 93.3% in 2000 to 78.9% in 2011, the number of such firms with a very large level of positive

earnings (more than $100 million) increased, whereas the number of firms with small level of earnings (less than $100 million) decreased during the same period. As such, it seems likely that the propensity of such top earners to pay dividend continues over 2000-2011. All such factors have led the aggregate real dividends to increase in 2011.

4.5. Payout ratio and tendency to pay dividend:

In this section, and consistent with Fama and French (2001a) and H.DeAngelo et al's. (2004) research study, I have examined the propensity of industrial firms to pay dividends in 2011. Table 9 shows several ratios regarding the proportion of firm's earnings they used to supply dividends. Row 1 demonstrates a slight decrease in the ratio of aggregate dividends to aggregate earning of payers and non payers combined from 1985 to 2000 and then from 2000 to 2011. From 1985 to 2000, this proportion declined from 50.2% to 33.7% and from 33.7% to 28.1% from 2000 to 2011 when one-year earnings were considered. With regards to five-year earnings, such ratio decreased from 48.6% to 41.4% from 1985 to 2000, and from 41.4% to 37.4% from 2000 to 2011. The main reason of this reduction is the notable increase in value of real earnings of non-payers, most particular in top earners. For example, the percentage of dividend payers with $1 billion-plus earnings increased by 85% from 2000 to 2011, while this ratio for non-payers with the same characteristics was 105%.

The ratio of aggregate dividends to the total earning of dividend payers and also the median of individual firms payout ratio are presented in row 2 and row 3 respectively. Rows 4.1 and 4.2, using total dividends to total earnings of these dividend payers, report the same statistics for the constant composition of 413 firms that paid dividends in both 1985 and 2011 and also 573 firms that paid dividends in both 2000 and 2011. Rows 5.1 and 5.2 consider the same constant composition of median payout ratio.

Table 8; Real earnings (1985 dollars) of industrial firms which is separated to payers and non-payers in 1985, 2000 and in 2011. Panel A presents the distributions of real earnings in 1985, 2000 and 2011. Panel B shows the distributions of five-year average real earnings ending in 1985, 2000 and in 2011. The sample is comprised of NYSE, NASDAQ, and AMEX firms on CRSP assigned with share codes 10 or 11 and SIC codes beyond the intervals 4900–4949 and 6000– 6999. A firm is included only if Compustat reports dividends and earnings before extraordinary items (Compustat items 21 and 18). Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars. The "percentage from payers" columns report the percent of total earnings that comes from dividend-paying firms.

Panel A. Cross-sectional distributions of real earnings in 1985,2000 and in 2011

	1985 Number of firms			2000 Number of firms			2011 Number of firms		
Real earning (1985 base)	Payers	Non payaers	percent of payaers from total	Payers	Non payaers	percent of payaers from total	Payers	Non payaers	percent of payaers from total
$ 1 billion or greater	19	0	100.0%	39	13	75.0%	67	15	81.7%
$500 million -$ 1 billion	21	1	95.5%	31	9	77.5%	53	11	82.8%
$250-500 million	39	3	92.9%	49	18	73.1%	67	35	65.7%
$100-250 million	106	5	95.5%	101	78	56.4%	122	90	57.5%
$50-100 million	96	10	90.6%	111	100	52.6%	122	131	48.2%
$25-50 million	141	17	89.2%	117	169	40.9%	100	162	38.2%
$10-25 million	226	64	77.9%	138	279	33.1%	114	243	31.9%
$0-10 million	481	669	41.8%	199	805	19.8%	154	482	24.2%
Negative earning	142	399	26.2%	70	1212	5.5%	72	798	8.3%
Total	**1271**	**1168**	**52%**	**855**	**2683**	**24.2%**	**871**	**1967**	**30.7%**

Panel A. Cross-sectional distributions of real earnings in 1985,2000 and in 2011

	1985 Real earning (1985 base)			2000 Real earning (1985 base)			2011 Real earning (1985 base)		
Real earning (1985 base)	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total
$ 1 billion or greater	38,601	-	100.0%	112,104	25,432	81.5%	207,311	52,192	79.9%
$500 million -$ 1 billion	13,369	546	96.1%	20,796	6,586	75.9%	38,832	6,539	85.6%
$250-500 million	13,606	1,371	90.8%	17,179	6,742	71.8%	23,630	11,739	66.8%
$100-250 million	16,340	768	95.5%	16,300	11,734	58.1%	19,528	14,114	58.0%
$50-100 million	6,804	680	90.9%	7,665	7,242	51.4%	8,608	9,310	48.0%
$25-50 million	4,954	610	89.0%	4,256	6,046	41.3%	3,515	5,903	37.3%
$10-25 million	3,708	946	79.7%	2,372	4,514	34.5%	1,851	4,053	31.4%
$0-10 million	2,025	1,706	54.3%	848	2,668	24.1%	594	1,716	25.7%
Negative earning	(7,381)	(4,916)	60.0%	(4,441)	(58,345)	7.1%	(7,344)	(26,467)	21.7%
Total	**92,025**	**1,712**	**98.2%**	**177,079**	**12,617**	**93.3%**	**296,524**	**79,100**	**78.9%**

Panel B. Cross-sectional distributions of five-year average real earnings ending in 1985,2000 and in 2011

	1985 Number of firms			2000 Number of firms			2011 Number of firms		
Real earning (1985 base)	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms
$ 1 billion or greater	18	0	100.00%	30	7	81.08%	59	11	84.29%
$500 million -$ 1 billion	17	0	100.00%	25	6	80.65%	38	7	84.44%
$250-500 million	38	2	95.00%	53	11	82.81%	55	21	72.37%
$100-250 million	103	4	96.26%	97	52	65.10%	118	63	65.19%
$50-100 million	101	5	95.28%	107	81	56.91%	103	92	52.82%
$25-50 million	151	17	89.88%	132	109	54.77%	102	117	46.58%
$10-25 million	218	49	81.65%	170	273	38.37%	115	202	36.28%
$0-10 million	580	692	45.60%	212	915	18.81%	181	488	27.06%
Negative earning	45	399	10.14%	29	1230	2.30%	100	966	9.38%
Total	**1271**	**1168**	**52.11%**	**855**	**2684**	**24.16%**	**871**	**1967**	**30.69%**

Panel B. Cross-sectional distributions of five-year average real earnings ending in 1985,2000 and in 2011

	1985 Real earning (1985 base)			2000 Real earning (1985 base)			2011 Real earning (1985 base)		
Real earning (1985 base)	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms
$ 1 billion or greater	36,478	-	100.0%	76,269	11,994	86.4%	165,547	36,350	82.0%
$500 million -$ 1 billion	12,124	-	100.0%	17,502	3,957	81.6%	25,799	5,275	83.0%
$250-500 million	14,244	784	94.8%	18,148	3,882	82.4%	19,861	6,930	74.1%
$100-250 million	15,769	604	96.3%	14,888	7,309	67.1%	19,026	9,605	66.5%
$50-100 million	7,108	347	95.3%	7,674	5,541	58.1%	7,200	6,490	52.6%
$25-50 million	5,386	599	90.0%	4,827	3,979	54.8%	3,780	4,101	48.0%
$10-25 million	3,501	707	83.2%	2,771	4,387	38.7%	1,889	3,248	36.8%
$0-10 million	2,354	1,623	59.2%	928	2,933	24.0%	730	1,850	28.3%
Negative earning	(844)	(3,973)	17.5%	(1,000)	(31,828)	3.0%	(7,565)	(29,799)	20.2%
Total	**96,119**	**692**	**99.3%**	**142,006**	**12,154**	**92.1%**	**236,267**	**44,051**	**84.3%**

Table 9; Aggregate and median dividend payout ratios for industrial firms on CRSP/Compustat, 1985, 2000 and 2011.The sample is comprised of NYSE, NASDAQ, and AMEX firms on CRSP assigned with share codes 10 or 11 and SIC codes beyond the intervals 4900–4949 and6000– 6999. A firm is included only if Compustat reports dividends and earnings before extraordinary items (Compustat items 21 and 18).

	One year real earnings			Five-year real earnings		
Payout ratio measure	1985	2000	2011	1985	2000	2011
1 Aggregate dividend/Aggregate earning(payers and non payers pooled)	50.2%	33.7%	28.1%	48.6%	41.4%	37.7%
2 Aggregate dividends/Total earnings of dividend payers	51.2%	36.1%	35.6%	49.0%	45.0%	44.7%
3 Median firms payout ratio (dividend payers)	27.9%	23.7%	27.8%	30.4%	26.9%	27.6%
4.1 constant composition of firms that paid dividends in both 1985 and 2011(total dividends/total earnings of these dividend payers)	44.9%		37.3%	43.5%		41.4%
4.2 constant composition of firms that paid dividends in both 2000 and 2011(total dividends/total earnings of these dividend payers)		30.7%	36.0%		33.3%	41.5%
5.1 constant composition of firms that paid dividends in both 1985 and 2011(median firms payout ratio)	24.7%		30.8%	26.2%		32.4%
5.2 constant composition of firms that paid dividends in both 2000 and 2011(median firms payout ratio)		11.1%	27.9%		15.9%	28.5%

On the whole, table 9 demonstrates minimal changes in ratios over the last decade. Row 2 reports that based on one-year real earnings, the ratio of aggregate dividends to total earnings of dividend payers decreased by 0.4% from 36.1% in 2000 to 35.6% in 2011, while this ratio declined by 0.3% from 45% in 2000 to 44.7% in 2011 based on a five-year average real earnings. Row 3 shows that based on single year's earnings, the median payout ratio increased by 4.1% from 23.7% in 2000 to 27.8% in 2011, and based on five-year average earnings it reduced by 0.7% from 26.9% to 27.6% over 2000-2011.The constant composition sample of firms paying dividends in 1985 and 2011 is demonstrated in row 4.1, and the constant composition sample of firms paying dividends in 2000 and 2011 is shown in row 4.2. In this regard, row 4.1 shows a reduction of 7.5% and 2.1% based on one-year and five-year average earnings respectively, whereas row 4.2 exhibits a 5.2% increase based on single year's earnings and an 8.3% increase

when considering five-year average real earnings. With regards to change in median firms payout ratios in rows 5.1 and 5.2, all ratios increased as observed. In sum, except for the significant increase in row 5.2, no substantial change (up or down) in the payout ratio of firms paying dividends was observed over the last decade.

4.6. The identity of the top payers, non-payers, and earners in 2011

Table 10 and 11 (see Appendix) show the top industrial firms that contributed in the distribution of the largest dividends and generated the majority of earnings in 2011 and 2000 respectively. Both tables demonstrate that old-line industrial firms such as AT&T, Exxon Mobil, and General Electric were the principal dividend providers in 2000 and 2011. The top 62 payers in table 10 supplied 71.1% of total industrial dividends and generated $188.3 billion in real earnings ($390.6 billion in 2011 dollar), which is 50.1% of aggregate industrial earnings. It presents a $38.5 billion increase in real dividends and $76.5 billion rise in real earnings for such dividend payers over 2000-2011. Although there is a slight decrease in these top payers' contribution in earning generation in 2011 compared to 2000, it seems their share in dividend distribution considerably increased (from 57.8% to 71.1%) over the same period. Considering the trend of 62 top dividend payers in 2011, their contribution in dividend payments has an upward trend and increased from 1985 to 2000 and then from 2000 to 2011, while their share in earning creation experienced a growth from 1985 to 2000 and then a very slight reduction over 2000-2011.

Table 11 shows the top 37 payers which as a group distributed 64.1% of aggregate industrial dividends and generated 50.5% of total aggregate real earnings in 2000. There was an increase of $21.9 billion and $57.1 billion in real dividends and real earnings respectively over 1985-2000.

Overall, a greater number of total industrial dividend payers generate the majority of real earnings in 2011 as against that of 2000, which explains the slight decrease in earnings

concentration over 2000-2011. On the other hand, 62 top dividend payers supplied 71% of total dividends in 2011, whereas in 2000, 37 top payers distributed 64% of total dividend payments.

Tables 12 and 13 demonstrate earnings concentration among top 25 non-payers for 2011 and 2000 respectively. Both tables are graded by highest earnings and report cumulative earnings as a percentage of total earnings of non-payers with positive earnings. Firms that reported $1 billion-plus real earnings in 2011 accounted for 35.4% of all positive earnings of non-payers, while this proportion was 27% in 2000. In table 12, the top 10 firms accounted for 33.3% and the top 25 firms generated 42.4% of such earnings and only 50 companies as non-payers accounted for the majority (50.2%, not reported in table 12). As for 2000, the corresponding figures are observable in table 13.

Having scanned through the identity of the top 25 non-payers, it is obvious that a group of technology firms are responsible for the majority of non-payers in 2011, as had happened in 2000. In addition to the three companies as main non-payers in 2000 – Apple, Dell, and EMC– with more than $1 billion in real earnings, there are also some other technology firms like Google, eBay, and Yahoo seen amongst non-payers of 2011. On the other hand, Microsoft, which had the highest earnings amongst non-payers in 2000, began to supply dividends in 2003 and is ranked 9th in 2011's top payers.

Table 13 also presents that the thirteen firms of 25 top non-payers in 2000 began to pay dividends during 2000-2011 and eleven of them continued to do so until 2011. Amongst non-payers that started supplying dividends in 2000, two companies, namely Sprint Nextel and Avis Budget Group, distributed dividends only during the period of 2002-2007 and 2004-2006 respectively, after which they cut their dividends. Considering the top 25 non-payers in 2000, the dividend value of four firms are unavailable in 2011 because of acquisition and eight firms have yet to start paying dividends. As a whole, 62% of top nonpayers in 2000 that existed in 2011 had dividend payments in 2011.

Table 10; Earnings for the 25 industrial firms have not paid dividend in 2011, with the highest reported earnings in 2011.Real earnings are nominal earnings in 2011 converted to 1985 dollars using the consumer price index. All earnings figures are before extraordinary items.

Company name	Real earning in 2011 (1985 base)	Nominal earning in 2011	Earning as a% of total earning of non payers with positive earning in 2011	Cumulative earning as a% of total earning of non payers with positive earning in 2011
1 APPLE INC	12,497	25,922	11.84%	11.8%
2 BERKSHIRE HATHAWAY	4,943	10,254	4.68%	16.5%
3 GOOGLE INC	4,694	9,737	4.45%	21.0%
4 GENERAL MOTORS CO	4,430	9,190	4.20%	25.2%
5 DELL INC	1,683	3,492	1.59%	26.8%
6 EBAY INC	1,557	3,229	1.47%	28.2%
7 MGM RESORTS INTERNATIONAL	1,502	3,115	1.42%	29.7%
8 GILEAD SCIENCES INC	1,352	2,804	1.28%	30.9%
9 DIRECTV	1,258	2,609	1.19%	32.1%
10 HCA HOLDINGS INC	1,188	2,465	1.13%	33.3%
11 EMC CORP/MA	1,187	2,461	1.12%	34.4%
12 NIKE INC	1,072	2,223	1.02%	35.4%
13 NAVISTAR INTERNATIONAL CORP	831	1,723	0.79%	36.2%
14 MEDCO HEALTH SOLUTIONS INC	702	1,456	0.66%	36.8%
15 CELGENE CORP	635	1,318	0.60%	37.4%
16 BIOGEN IDEC INC	595	1,234	0.56%	38.0%
17 SYMANTEC CORP	565	1,172	0.54%	38.5%
18 TRW AUTOMOTIVE HOLDINGS CORP	558	1,157	0.53%	39.1%
19 DISCOVERY COMMUNICATIONS INC	546	1,133	0.52%	39.6%
20 PRICELINE.COM INC	509	1,056	0.48%	40.1%
21 YAHOO INC	506	1,049	0.48%	40.6%
22 THERMO FISHER SCIENTIFIC INC	492	1,020	0.47%	41.0%
23 AGILENT TECHNOLOGIES INC	488	1,012	0.46%	41.5%
24 BED BATH & BEYOND INC	477	990	0.45%	41.9%
25 SANDISK CORP	476	987	0.45%	42.4%
Total	**44,741**	**92,808**		**42.4%**

Table 11; Earnings for the 25 industrial firms have not paid dividend in 2011, with the highest reported earnings in 2011.Real earnings are nominal earnings in 2011 converted to 1985 dollars using the consumer price index. All earnings figures are before extraordinary items. The last two columns report the situation of these top non-payers in terms of their dividend in 2011.In fifth column , the numbers which are highlighted by red colors shows the year of cut dividend with related companies (Sprint Nextel and Avis Budget Group).All earnings figures are before extraordinary items.

Company name	Real earning in 2000(1985 base)	Nominal earning in 2000	Earning as a% of total earning of non payers with positive earning in 2000	Cumulative earning as a% of total earning of non payers with positive earning in 2000	Year of beginning to pay dividend	Real dividend paid in 2011
1 MICROSOFT CORP	5,908	9,421	8.3%	8.3%	2003	2,600
2 BERKSHIRE HATHAWAY	2,087	3,328	2.9%	11.3%	-	-
3 CISCO SYSTEMS INC	1,673	2,668	2.4%	13.6%	2011	317
4 MCI INC	1,636	2,609	2.3%	15.9%	-	Acquired
5 ORACLE CORP	1,606	2,561	2.3%	18.2%	2008	581
6 DELL INC	1,402	2,236	2.0%	20.2%	-	-
7 APPLIED MATERIALS INC	1,294	2,064	1.8%	22.0%	2005	197
8 COMCAST CORP	1,283	2,045	1.8%	23.8%	2008	594
9 SUN MICROSYSTEMS INC	1,163	1,854	1.6%	25.4%	-	Acquired
10 EMC CORP/MA	1,118	1,782	1.6%	27.0%	-	-
11 MICRON TECHNOLOGY INC	943	1,504	1.3%	28.3%	-	-
12 LIBERTY MEDIA CORP	933	1,488	1.3%	29.7%	-	-
13 SPRINT NEXTEL CORP	810	1,292	1.1%	30.8%	2002-2007	-
14 TIME WARNER INC	773	1,232	1.1%	31.9%	2005	481
15 AMGEN INC	714	1,139	1.0%	32.9%	2011	379
16 SAFEWAY INC	685	1,092	1.0%	33.9%	2005	90
17 ADVANCED MICRO DEVICES	631	1,006	0.9%	34.8%	-	-
18 KROGER CO	552	880	0.8%	35.5%	2006	123
19 ADC TELECOMMUNICATIONS INC	544	868	0.8%	36.3%	-	Acquired
20 APPLE INC	493	786	0.7%	37.0%	-	-
21 TELLABS INC	477	760	0.7%	37.7%	2010	14
22 TENET HEALTHCARE CORP	425	678	0.6%	38.3%	-	-
23 BURLINGTON RESOURCES INC	423	675	0.6%	38.9%	-	Acquired
24 QUALCOMM INC	420	670	0.6%	39.4%	2004	656
25 AVIS BUDGET GROUP INC	414	660	0.6%	40.0%	2004-2006	-
Total	**28,408**	**45,298**		**40.0%**		

Table 14 (see Appendix) exhibits the 76 firms, including both dividend payers and non-payers, that generated more than $1 billion real earnings in 2011. The combination of these 76 firms accounted for 64% of aggregate industrial earnings in 2011 and amongst such firms, 65 of them as dividend payers paid 68.4% of total dividends. Table 15 (see Appendix) reports that 49 companies in 2000 with the same level of real earnings generated 69.2% of aggregate industrial real earnings and 39 of them supplied 60.2% of real dividends. It shows that over 2000-2011, despite of the substantial increase in the number of industrial firms with more than $1 billion in real earnings (from 49 to 76), these firms had slightly less share in earnings generation but more contribution in dividend distribution.

On the whole, as DeAngelo et al. (2004) argued, there are two-tier structures based on earnings in 2011. As such, few industrial firms generated the majority of real earnings and distributed the most dividends, while a small portion of earnings and dividends is distributed jointly by a large number of firms.

Table 16 documents the relationship between the level of real earnings and dividend payments by industrial firms and also shows that dividends is more concentrated in 2011 compared to 2000. Cumulatively, firms with more than $500 million-plus real earnings supplied 79.5% of total dividends in 2011 as against 69.5% obtained in 2000.

With regards to earnings concentration, 62 industrial firms (around 2% of all industrial firms) generated the majority of real earnings and distributed 71.1% of total dividends in 2011, while 37 firms (1% of all industrial firms), which generated the largest part of real earnings in 2000, supplied 64.1% of total dividends. As displayed in table 7, 1506 firms, or 53.1% of all industrial firms, earned less than or equal to $10 billion in 2011. Such firms, as exhibited in table 15, paid $2.5 billion or 2.4% of total industrial dividends, while more than half of this amount is distributed by six firms that had sustained losses in 2011 (including Anadarko Petroleum, Best Buy, Donnelley (RR) & Sons, Huntington Ingalls, Sycamore Networks, and Vanguard Health System). Additionally, the top 62 industrial dividend payers supplied $75.5 billion of total dividends in 2011, which is 30 times larger than that paid by small earners (firms with less than or equal to $10 million in real earnings). Compared to 2000, there are some differences in

numbers of industrial firms and dividend payments. In this context, only 1% of total industrial firms (37 in number) that generated the majority of real earnings (50.5%) paid $41 billion or 64.1% of total dividends in 2000. Table 7 also reports that 64.6% of total number of industrial firms (2286 in number) with $10 billion or less in real earnings paid $3.2 billion or 5% of total dividends. It is worth noting that only five firms, namely Wyeth, Penney, Xerox, and Qwest Communication, and Lanier Worldwide, distributed 52.8% of total dividends paid by small earners (firms with less than or equal to $10 million in real earnings).

Table16; Real earnings (1985 dollars) and dividend paid for industrial firms in 1985, 2000 and in 2011: Sample of dividend payers

The distribution of real earnings in 1985, 2000 and in 2011 is reported. The sample is comprised of NYSE, NASDAQ, and AMEX firms on CRSP assigned with share codes 10 or 11 and SIC codes beyond the intervals 4900–4949 and 6000– 6999. A firm is included only if Compustat reports dividends and earnings before extraordinary items (Compustat items 21 and 18). Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars.

Real earning (1985 base)	Number of industrial firms pay dividend			Dividend paid by industrial firms			% as total dividend paid			Cumulative of total dividend(%)		
	1985	2000	2011	1985	2000	2011	1985	2000	2011	1985	2000	2011
$ 1 billion or greater	18	30	59	18,082	38,529	73,625	38.3%	60.2%	69.3%	38.3%	60.2%	69.3%
$500 million -$ 1 billion	17	25	38	6,436	5,941	10,848	13.6%	9.3%	10.2%	51.9%	69.5%	79.5%
$250-500 million	38	53	55	6,303	6,611	8,264	13.4%	10.3%	7.8%	65.3%	79.8%	87.3%
$100-250 million	103	97	118	6,320	4,984	5,495	13.4%	7.8%	5.2%	78.7%	87.6%	92.5%
$50-100 million	101	107	103	2,875	2,623	3,313	6.1%	4.1%	3.1%	84.8%	91.7%	95.6%
$25-50 million	151	132	102	1,976	1,293	1,186	4.2%	2.0%	1.1%	89.0%	93.7%	96.7%
$10-25 million	218	170	115	1,489	822	925	3.2%	1.3%	0.9%	92.1%	95.0%	97.6%
$0-10 million	580	212	181	921	855	411	2.0%	1.3%	0.4%	94.1%	96.3%	98.0%
Negative earning	45	29	100	2,794	2,355	2,134	5.9%	3.7%	2.0%	100.0%	100.0%	100.0%
Total	**1271**	**855**	**871**	**47,196**	**64,012**	**106,204**	**100.0%**	**100.0%**	**100.0%**			
Total positive only												

5. Sampling procedure and aggregate share repurchases, 1978-2011

Table 17 shows that there is a large increase in the number of firms with share repurchase from 1985 to 2011 for both industrial firms by 63.5% and financial/utility firms by 146.2%. It should be noted that industrial firms had already reached their highest rise by 94.9% from 824 firms in 1985 to 1606 firms in 1999, while financial/utility firms arrived at their peak by 228.3% from 184 firms in 1985 to 604 in 2007. Unlike table 1 that shows a total decrease in number of industrial firms and an increase for financial/utility firms paying dividends over 1985-2011, table 17 displays that there is a total increase for both industrial and financial/utility firms that have cash out in forms of share repurchases and dividends together during the same period.

The main reason of this considerable growth is not clear. Yet, findings of Young (1969) and Wansley, and Lane and Sarkar (1989) concede that a company can have 29 different reasons executing the buy-back of its stocks, some important of which are documented as a signal by management of future confidence, an increase in the firm's leverage, excess cash, the providing of shares for employee bonus/retirement plans, a substitute for cash dividends, part of a defensive strategy to avoid a takeover, and lack of sufficient investment opportunities.

Table 17; Number of firms paid have cash payout via stock repurchase over 1978–2011. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999.

Fiscal year	CRSP industrial firms with share repurchase	CRSP financial and utility firms with share repurchase	CRSP Total with share repurchase	CRSP industrial firms with share repurchase and dividend	CRSP financial and utility firms with share repurchase	CRSP Total with share repurchase and dividend
1978	609	93	702	502	89	591
1979	606	104	710	495	99	594
1980	577	116	693	463	109	572
1981	600	123	723	463	113	576
1982	670	131	801	488	118	606
1983	661	141	802	437	120	557
1984	804	183	987	535	151	686
1985	824	184	1008	529	152	681
1986	843	182	1025	515	151	666
1987	1100	235	1335	641	193	834
1988	985	222	1207	584	193	777
1989	868	213	1081	541	188	729
1990	976	230	1206	588	194	782
1991	839	202	1041	483	172	655
1992	817	202	1019	446	163	609
1993	891	221	1112	445	182	627
1994	960	248	1208	502	208	710
1995	1079	226	1305	562	187	749
1996	1226	254	1480	611	206	817
1997	1341	241	1582	653	187	840
1998	1607	272	1879	698	207	905
1999	1606	278	1884	635	205	840
2000	1501	266	1767	612	185	797
2001	1372	224	1596	474	142	616
2002	1267	205	1472	405	128	533
2003	1183	199	1382	461	133	594
2004	1093	504	1597	502	425	927
2005	1193	506	1699	573	433	1006
2006	1286	521	1807	602	435	1037
2007	1382	604	1986	642	500	1142
2008	1542	532	2074	622	418	1040
2009	1169	427	1596	428	311	739
2010	1227	401	1628	512	288	800
2011	1347	453	1800	569	328	897
Absolute change over 1985-2011	**523**	**269**	**792**	**40**	**176**	**216**
Percent change over 1985-2011	**63.5%**	**146.2%**	**78.6%**	**7.6%**	**115.8%**	**31.7%**

Moreover, Fenn and Liang (2001) found that there is a positive relation between stock buyback and management stock options, while such relation in terms of dividend payments, as suggested by Lambert (1989), is negative.

Figure 2 demonstrates aggregate cash payout via stock repurchases, aggregate earnings, aggregate losses, and aggregate earnings of industrial firms with share repurchase for industrial firms of CRSP/Compustat over 1978-2011. It is shown that except for 2001 and 2008, aggregate stock repurchases perform exactly as a function of aggregate earnings. Hence, when the earnings is increasing over the years, stock repurchases also rises and vice versa. In 2001, the aggregate earnings is -$2.98 billion, while the value of share buyback is $124.9 billion. The corresponding values for 2008, though, are $289.6 billion and $371.7 billion for aggregate earnings and share buyback respectively.

It also displayed that even though aggregate real earnings and total stock repurchase moved in a parallel rout, the gap between their absolute changes over 1978-2011 has increased substantially. In this context, the value of stock repurchases is $73.3 billion, less than aggregate earnings in 1978, while in 2011, it was $361.4 billion. On the other hand, while the value of total share repurchases is only 4.7% of aggregate real earnings in 1978, this proportion is 53.6% in 2011. This observation indicates that, although the absolute space between stock buyback and aggregate earnings increased over the last three decades, the proportion of aggregate share repurchases to aggregate earnings increased significantly from 1978 to 2011.

5.1. Share repurchases versus dividends

In the context of this section, I compare the performance of industrial firms in terms of share repurchases in 1985 and 2011, since the former is consistent with the beginning date of my observations while the latter includes the latest data.

As figure 2 demonstrates, aggregate cash payout via share repurchases for industrial firms had experienced a slight increase before 2000. From 2000 onwards, there was a substantial growth in aggregate cash payout by 181.1%, from $148.6 billion to $417.7 billion, in 2011 compared to that of 2000. It had reached its peak in 2007 with $544.1 billion.

Figure 3 follows a path of industrial share repurchases and total share repurchases of dividend payers over 1978-2011. It demonstrates that a majority of share repurchases is completed by dividend payers. Although a huge majority of aggregate share repurchases is paid by dividend payers over 1985-2011, as reported in table 18, this proportion decreased slightly from 96.8% in 1985 to 79.8% in 2011.

Table 18 documents that from 1997 to 2011, except for 2009, the value of share repurchases is more than dividends. Such result seemingly supports the fact that US industrial firms have more propensity to return cash to their shareholders in form of stock repurchase rather than dividends (Fama and Frencha (2001); Grullon and Michaely (2002), Skinner (2008)). It also shows that whenever industrial firms sustained huge aggregate losses, dividend payers paid cash in form of dividends rather than share repurchases. For example, following a massive loss of -$294.3 billion in 2001, the value of dividends grew more than share repurchases over 2001-2003. In addition, and in 2008, when the total loss was -$364.6 billion, the value of dividends was greater than that of share repurchases in 2009.

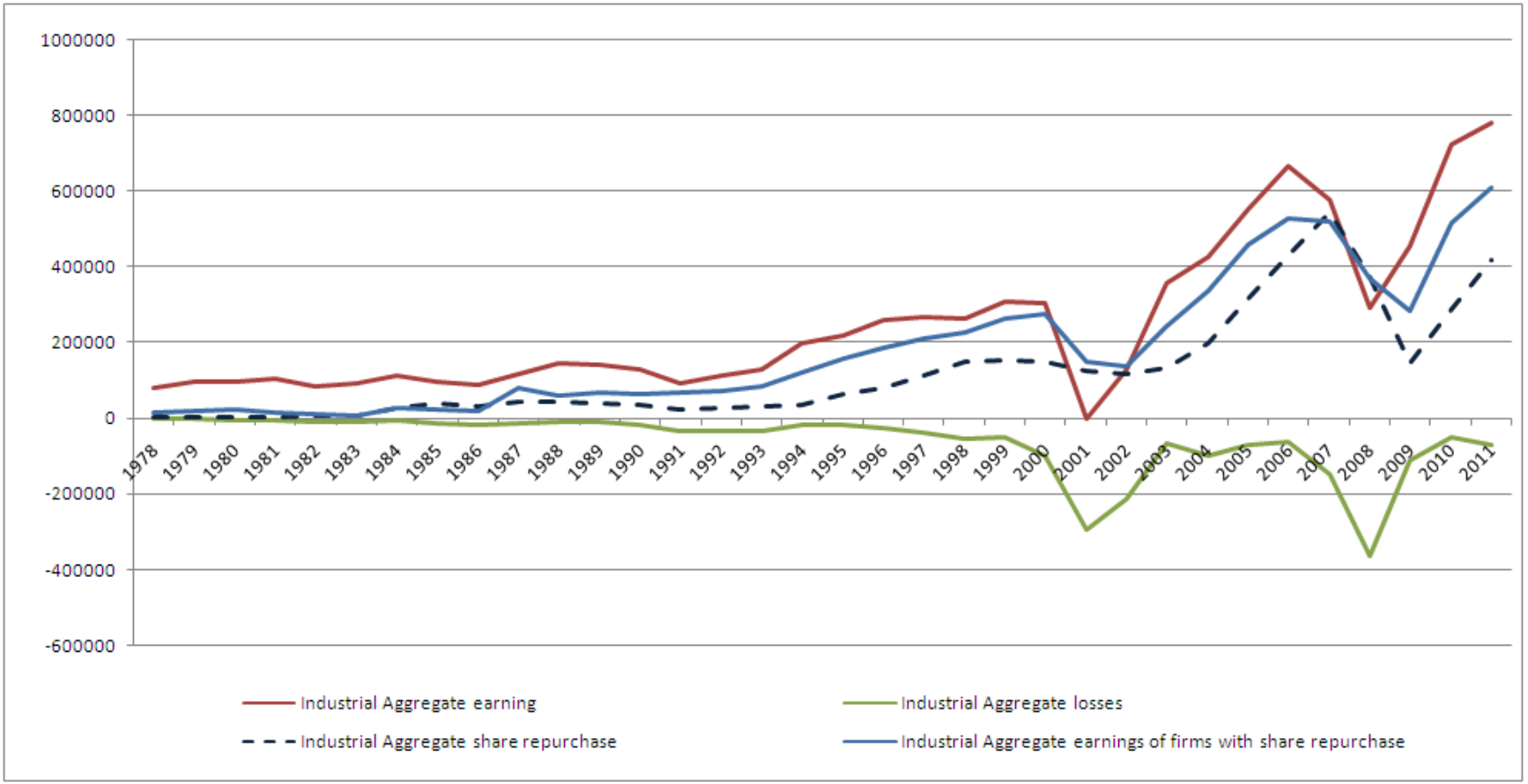

Figure 2; Aggregate share repurchases, aggregate earnings, aggregate losses, and total earnings for dividend payers for industrial firm during 1978-2011, whereby particular emphasis is on NYSE, NASDAQ, and AMEX firms with CRSP assigned with share codes 10 or 11. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18).

Table 128; Comparing dividends and share repurchases over 1978-2011.The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). In last two columns indicates whether the value of dividend is bigger that of share repurchase for total industrial firms and also dividend payers respectively over 1985-2011.

Fiscal year	Industrial Aggregate earning	Industrial Aggregate losses	Industrial Aggregate dividend	Industrial Aggregate share repurchase	Total share repurchase by dividend payers	Sum of share repurchase and dividend by dividend payers	% of share repurchase completed by dividend payers to total share repurchase	If aggregate dividend is bigger than total share repurchase	If dividend is bigger than total share repurchase for dividend payers	If share repurchase is bigger than aggregate earning
1978	76979	-784	28901	3651	3283	32184	89.9%	yes	yes	FALSE
1979	94514	-1756	32151	4630	4410	36561	95.2%	yes	yes	FALSE
1980	96586	-5387	36439	5344	4638	41076	86.8%	yes	yes	FALSE
1981	101274	-3351	39923	5111	4763	44686	93.2%	yes	yes	FALSE
1982	83817	-7068	41470	9030	8205	49675	90.9%	yes	yes	FALSE
1983	92150	-8798	43695	8482	7521	51216	88.7%	yes	yes	FALSE
1984	110588	-6678	46213	26176	22684	68897	86.7%	yes	yes	FALSE
1985	93737	-12297	47196	41235	39926	87122	96.8%	yes	yes	FALSE
1986	87090	-17604	53123	32897	31165	84287	94.7%	yes	yes	FALSE
1987	114239	-14782	57912	45518	40792	98704	89.6%	yes	yes	FALSE
1988	145103	-9379	69096	45900	39163	108260	85.3%	yes	yes	FALSE
1989	140036	-10683	64443	41934	39389	103832	93.9%	yes	yes	FALSE
1990	128445	-18677	66421	35941	33638	100059	93.6%	yes	yes	FALSE
1991	92049	-32735	66909	22688	20562	87471	90.6%	yes	yes	FALSE
1992	111816	-32986	70923	28218	24685	95608	87.5%	yes	yes	FALSE
1993	127646	-33057	73281	32248	28543	101824	88.5%	yes	yes	FALSE
1994	196710	-15835	75837	37043	32911	108748	88.8%	yes	yes	FALSE
1995	217617	-17163	89527	65943	61237	150764	92.9%	yes	yes	FALSE
1996	255902	-24488	91227	78879	66805	158033	84.7%	yes	yes	FALSE
1997	265311	-35836	92977	113257	93911	186889	82.9%	FALSE	FALSE	FALSE
1998	260767	-53192	98760	150160	120161	218922	80.0%	FALSE	FALSE	FALSE
1999	304715	-49906	101205	153097	113079	214284	73.9%	FALSE	FALSE	FALSE
2000	302483	-100114	102069	148600	105160	207229	70.8%	FALSE	FALSE	FALSE
2001	-2989	-294393	98405	124895	85854	184259	68.7%	FALSE	yes	yes
2002	128076	-212573	101746	118779	77602	179347	65.3%	FALSE	yes	FALSE
2003	355514	-67640	111649	132287	92125	203774	69.6%	FALSE	yes	FALSE
2004	423485	-100786	134057	200424	145088	279145	72.4%	FALSE	FALSE	FALSE
2005	549037	-71334	183260	314724	234897	418157	74.6%	FALSE	FALSE	FALSE
2006	666967	-62062	177877	429802	323629	501505	75.3%	FALSE	FALSE	FALSE
2007	577382	-149114	222373	544114	421761	644134	77.5%	FALSE	FALSE	FALSE
2008	289643	-364643	192731	371766	276575	469306	74.4%	FALSE	FALSE	yes
2009	451643	-111443	190218	146953	110977	301194	75.5%	yes	yes	FALSE
2010	722591	-49301	202009	286868	209373	411382	73.0%	FALSE	FALSE	FALSE
2011	779161	-70135	220300	417745	329252	549552	78.8%	FALSE	FALSE	FALSE
Total	**8440085**	**-2065980**	**3324321**	**4224341**	**3253765**	**6578087**				

Figure 4 demonstrates industrial aggregate dividends, industrial aggregate earnings for dividend payers, aggregate share repurchases completed by dividend payers, and sum of share repurchases and dividends completed by dividend payers. It illustrates the situation of total cash payout in both forms of dividends and share repurchases by dividend payers. It is seen that total cash payout distributed by dividend payers in both forms of dividends and share repurchasse increased substantially from $87.1 billion to $546.5 billion over 1985-2011. Sixty percent of 2011's total cash out value comprises share repurchases while such value for 1985 is 46%. Such observation seemingly suggests an increased propensity of industrial firms to share repurchases rather than dividend payments over 1985-2011.

In sum, figure 2, 3 and 4 and table 17 demonstrate (1) total share repurchases performs as a function of aggregate earnings over 1978-2011, except for 2001 and 2008, (2) the massive amount of industrial earnings is generated by the firms that pay cash via stock repurchases (3) dividend payers account for the huge volume of industrial total share repurchases in all years, although this volume somewhat decreased over 1978-2011 and (4) industrial firms with no payment in dividends may have a returning cash in form of share repurchases.

Table 19 and table 20 illustrate the performance of industrial firms in paying cash via share repurchases for all industrial firms and also industrial dividend payers over 1985-2011 respectively. Row 1 in table 19 reports that aggregate nominal stock repurchases in 2011 increased by more than 9 times (913.1%) for CRSP/Compustat industrial firms, from $41 billion in 1985 to $418 in 2011, and aggregate real value of share repurchases, shown in row 2, increased by 388.4% from 1985 to 2011. Row 3 and row 4 show that the mean real cash payout on stock repurchases rose from $50 million in 1985 to $149.5 million in 2011, while the median increased from $1.2 million to $10.1 million in the given years respectively. The difference between median and mean and also the huge extension of this difference over 1985-2011 seemingly indicates a considerable concentration in terms of share repurchases amongst industrial firms.

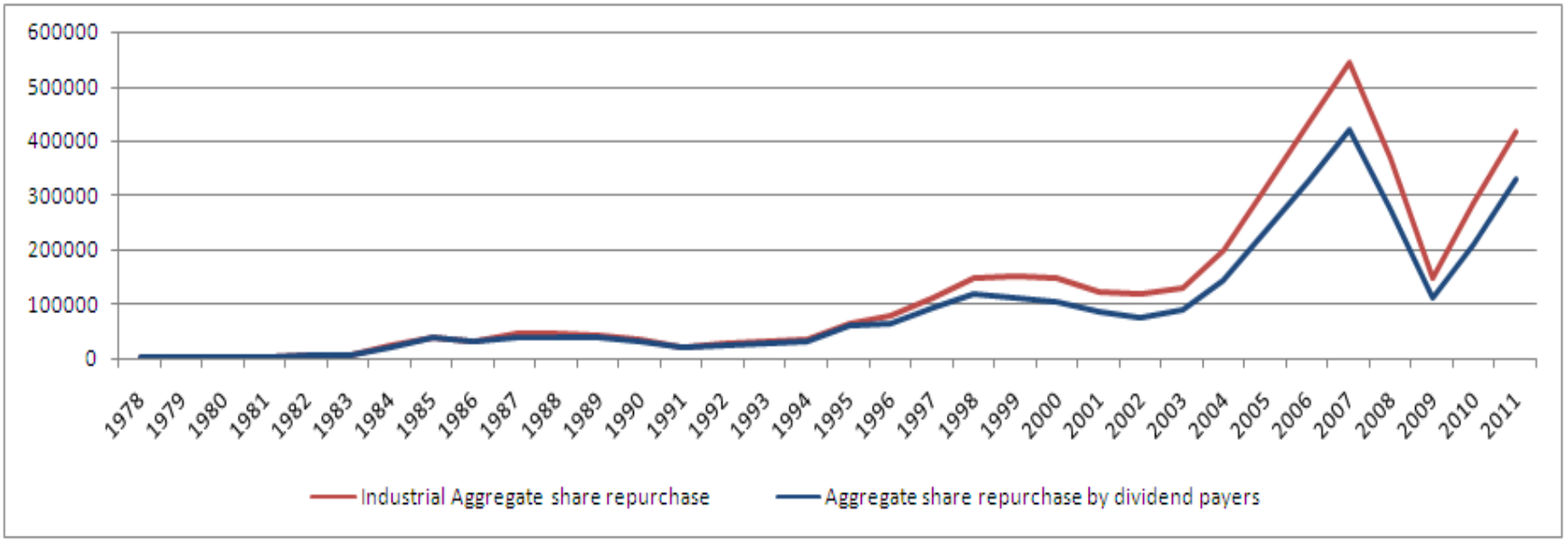

Figure 3; Aggregate share repurchase and aggregate share repurchase completed by dividend payers whereby particular emphasis is on NYSE, NASDAQ, and AMEX firms with CRSP assigned with share codes 10 or 11. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18).

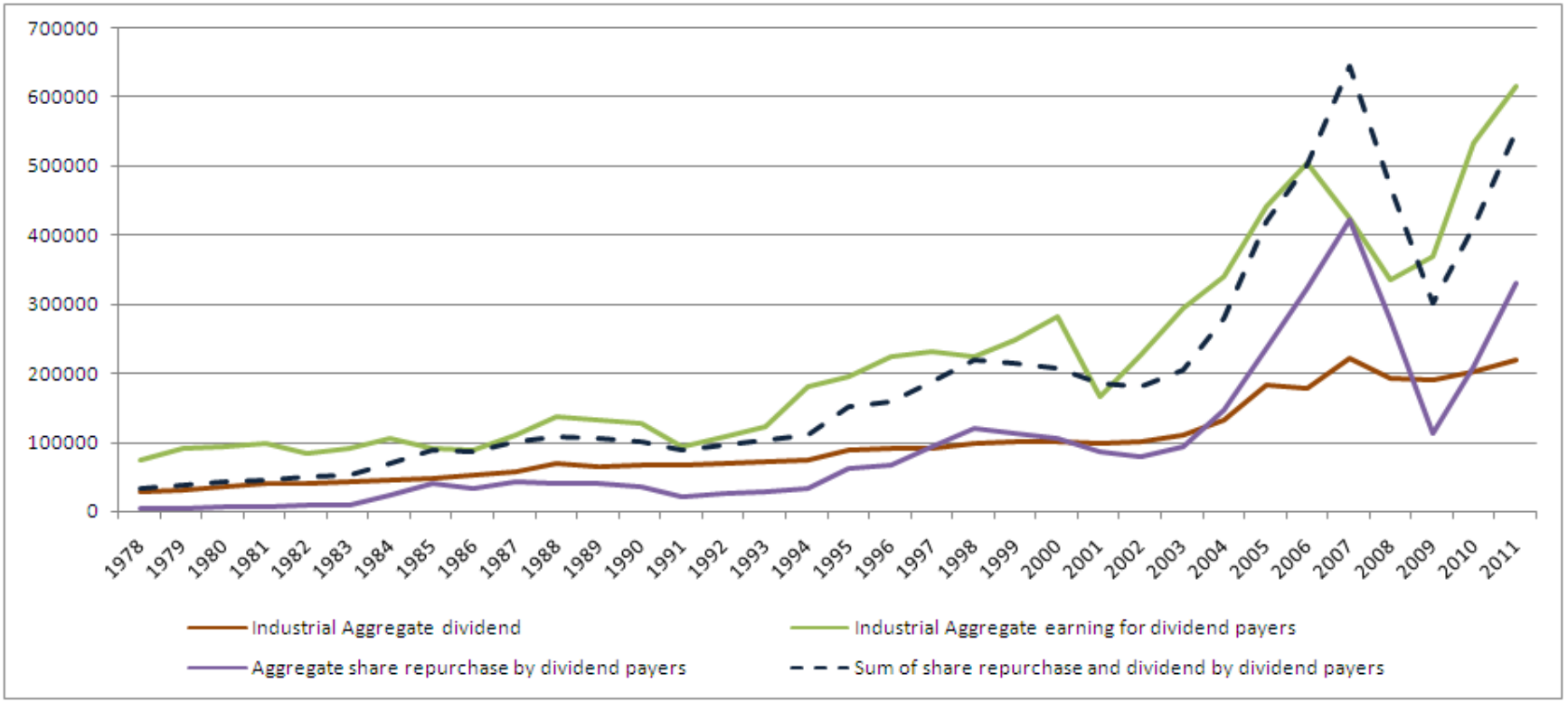

Figure 4; **Aggregate share repurchase, aggregate share repurchase by dividend payers, sum of share repurchase and dividend (total cash out) by dividend payers and total earnings for dividend payers, whereby particular emphasis is on NYSE, NASDAQ, and AMEX firms with CRSP assigned with share codes 10 or 11. Industrial firms are defined as those with SIC codes beyond the ranges 4900–4949 whereas financial and utility companies present the ranges 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18).**

As shown in row 7 and row 8, NYSE firms accounted for 53.5% of all industrial firms with share repurchases and 95% of dollar value of such firms in 1985, while such proportions decreased to 46.8% and 68.8% in 2011 respectively. This reduction likely demonstrates more firms that list and trade their shares in NASDAQ and AMEX have a tendency now to buy back their shares. However, as already reported in table 3, the contribution of NYSE industrial firms have reduced in both forms of cash out including dividends and share repurchases over the last decade. This may suggest the probability that industrial firms who have become older and more stable in NASDAQ and AMEX in recent years have generated a higher level of earnings and greater value of share repurchases.

As regards the proportion of share repurchases completed by dividend payers, 96.8% and 78.8% were accounted for in 1985 and 2011 respectively (Table 20).This reduction is consistent with the decrease in proportions displayed in row 4, from 64.2% in 1985 to 42.2% in 1985. On the other hand, row 5 shows that the proportion of dividend payers with share repurchases to total industrial dividend payers increased in number by 23.7% (from 41.6% to 65.3%). Accordingly, row 6 demonstrates that the proportion of aggregate share repurchases to total cash payout of dividend payers increased by 14.1% (from 45.8% to 59.9%) from 1985 to 2011.

In sum, the number of firms that have a tendency to expend on share repurchases increased over 1985-2011. Correspondingly, although the proportion of dividend payers that also repurchased shares to all industrial firms with share buy-back has decreased in terms of number and dollars in 2011 compared to 1985, the proportion of such dividend payers to all industrial dividend payers increased in the same period. These observations may likely suggest that in 2011, not only did considerable number of firms prefer to pay cash via stock repurchases rather than dividend payments, but the majority (65.3%) of dividend payers also contributed in share repurchasing. In this regard, 59.9% of total cash payouts, including dividends and share repurchases together was spent on share buyback in 2011, while such amount was 45.8% in 2000.

Table 19; Aggregate share repurchase in 1985 and 2000. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars.

	1985	2011	Absolute% change for 1985 to 2011
1.Aggregate nominal cash payout via stock repurchase by industrial firms($billions)	41	418	377 913.1%
2.Total real cash payout via stock repurchase by industrial firms($ billions,1985 base)	41	201	160 388.4%
3.Mean real stock repurchase ($ millions,stock repurchase-paying firms)	50.0	149.5	99 198.8%
4.Median real stock repurchase ($ millions,stock repurchase-paying firms)	1.2	10.1	9 754.3%
5.Number of industrial firms paid for stock repurchase on CRSP/COMPUSTAT	824	1347	523 63.5%
6.Percent of all industrial firms paid for stock repurchase on CRSP/COMPUSTAT	33.8%	47.5%	13.7%
7.Percent of all industrial firms pay for stock repurchase that are NYSE-listed	53.5%	46.8%	-6.7%
8.Percent of total dollar for firms pay for stock repurchase as NYSE-listed	95.0%	68.8%	-26.1%

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Table 20; Aggregate share repurchase for dividend payers in 1985 and 2000. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars.

	1985	2011	Absolute% change for 1985 to 2011
1.Aggregate nominal cash payout via stock repurchase by dividend payers($billions)	40	329	289
2.Total real cash payout via stock repurchase by dividend payers($ billions,1985 base)	40	159	119
3.Number of dividend payers paid for stock repurchase on CRSP/COMPUSTAT	529	569	40
4.Percent of all industrial firms paid via stock repurchase on CRSP/COMPUSTAT	64.2%	42.2%	-22.0%
5.Percent of all dividend payers paid for stock repurchase on CRSP/COMPUSTAT	41.6%	65.3%	23.7%
6.Percent of total dollar paid on stock repurchase by dividend payers	96.8%	78.8%	-18.0%
7.Percent of total dollar paid on share repurchase to total cash including dividend+share repurchase	45.8%	59.9%	14.1%

5.2. Share repurchases concentration and the decrease therein over the last three decades

Table 21 ranks industrial firms with expenditure on share repurchase in 1985 and 2011 in group of 100 firms. For each group ranked in each year, the first four columns report the percentage of total cash payout on stock repurchase, the middle four columns demonstrate the cumulative percentage and the last four columns report total value of real share repurchases. In each group, both the role of total industrial firms and dividend payers are examined. Although a minority of industrial firms relatively paid on the majority of share repurchases, this concentration gradually decreased over 1985-2011. The main reason may be attributed to the increase of total number of industrial firms that paid cash on share repurchases.

Table 21; Concentration of total dollar share repurchases completed by industrial firms in 1985 and in 2011Firms are ranked from the largest to smallest total dollar share repurchases. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). For 1985, firms graded from 801 to 900 have 24 firms.

Stock repurchase ranking	percent of total stock repurchase(%)				Cumulative of total stock repurchase(%)				Real value of stock repurchase paid by industrial firms ($millions 1985 base)			
	Total industrial firms		Only dividend Payers		Total industrial firms		Only dividend Payers		Total industrial firms		Only dividend Payers	
	1985	2011	1985	2011	1985	2011	1985	2011	1985	2011	1985	2011
Top 100	92.66%	70.8%	71.43%	57.36%	92.66%	70.79%	71.43%	57.36%	38,207	142,560	29,452	115,514
101-200	5.00%	14.1%	13.76%	12.08%	97.66%	84.93%	85.19%	69.43%	2,062	28,489	5,674	24,318
201-300	1.45%	6.9%	4.42%	4.39%	99.11%	91.82%	89.61%	73.82%	598	13,859	1,822	8,841
301-400	0.58%	3.8%	1.70%	2.24%	99.68%	95.66%	91.30%	76.06%	238	7,738	699	4,507
401-500	0.20%	2.0%	3.31%	1.15%	99.88%	97.66%	94.62%	77.21%	82	4,037	1,366	2,311
501-600	0.08%	1.1%	0.64%	1.08%	99.96%	98.78%	95.26%	78.29%	33	2,245	264	2,184
601-700	0.03%	0.6%	0.32%	0.37%	99.99%	99.38%	95.58%	78.67%	13	1,211	132	752
701-800	0.01%	0.3%	0.32%	0.12%	99.9999%	99.70%	95.90%	78.78%	3	639	134	232
801-900	0.0001%	0.2%	0.38%	0.03%	100.0%	99.86%	96.29%	78.82%	0.1	334	158	70
901-1000		0.1%	0.25%			99.94%	96.54%			162	104	
1001-1100		0.04%	0.19%			99.98%	96.73%			77	77	
1101-1200		0.01%	0.08%			99.9956%	96.81%			29	33	
1201-1300		0.004%	0.02%			99.9998%	96.83%			8	8	
1301-1347		0.0002%				100.0%				0.5		
Total for all firms	**100.0%**	**100.0%**	**96.8%**	**78.82%**	**100.0%**	**100.0%**	**96.8%**	**78.82%**	**41,235**	**201,390**	**39,924**	**158,729**
Number of firms									**824**	**1347**	**529**	**569**

For instance, the top 100 industrial firms accounted for 92.6% of total share repurchases in 1985, while this amount for top 100 payers dropped to 70.8% in 2011. However, the top 100 firms paid $142.5 billion (to $295.7 billion in year 2011 dollars) on share repurchases in 2011, which exceeds the $41.2 billion stock repurchases completed by all 824 industrial firms in 1985. It is observed that after three decades there may be a tangible concentration in number of firms with share repurchases, as 85% of total value of real stock repurchases is driven by the top 200 industrial firms in 2011. Furthermore, while dividend payers repurchased 96.8% of total shares in 1985, this percentage decreased to 78.8% in 2011. Correspondingly, the cash payout distributed by the top 200 dividend payers in form of share repurchase decreased from 85.2% in 1985 to 69.4% in 2011. Overall, although the share repurchase concentration among dividend payers decreased over 1985-2011, the majority of share repurchases are still being completed by firms paying dividends. In terms of expenditure on share repurchases, though, 569 firms as dividend payers spent $158.7 billion in 2011 as against $39.9 billion paid by 529 dividend payers in 1985.

Table 22 demonstrates the cross-sectional of share repurchases in 1985 and 2011. Firms with stock repurchases are classified by real dollar cash payout, which ranges from $500 million-plus to less than $1 million per year in two panels. Panel A documents that the number of firms with share repurchases increased by 517 from 822 to 1339 over 1985-2011, while the value of total share repurchases increased by $160.1 billion from $41.1 billion in 1985 to $201.3 billion in 2011. Correspondingly, the number of firms with share repurchase of $100 million-plus increased by 239 and the value of share repurchases of such firms increased by $149.3 billion over 1985-2011. The number of firms with less than $100 million increased by 278, whereas the value of share repurchases increased by $10.8 billion during the same period of time. Additionally, the number of firms with less than $5 million decreased by three companies over 1985-2011, while the total outflow on share buy-back for such firms increased by $179 million.

Overall, 92% of share repurchases in 2011 is completed by firms with $100 million-plus expenditure on stock buy-back and this value increased by 5.1% compared to 1985. On the other hand, the contribution of firms with less than $100 million in share repurchases

decreased by 5.1% over 1985-2011. These observations may imply that share repurchases are more concentrated amongst firms with high level of cash payout on share buyback rather than those with lower levels of cash out.

Panel B demonstrates the main role of top dividend payers in cash payout via stock repurchases. It reports that the number of firms with $500 million-plus dividends that also contributed in share repurchases increased by 27 companies over 1985-2011. Also, the number of dividend payers with more than $100 million dividends that contributed in share repurchases increased by 73 firms. On the other hand, the number of firms with less than $100 million real dividends and those with less than $5 million real dividends reduced by 25 and 175 respectively. Accordingly, the real share repurchases for very top dividend payers, with more than $500 million real dividends, increased by more than eight times from $8.4 billion in 1985 to $76.5 billion in 2011. All in all, firms with $100 million-plus real dividends increased by 378.5% in share repurchases during 1985-2011, while the remainder of dividend payers had an increase of 95% in share repurchases.

In sum, we can observe that the number of firms with stock repurchases increased in all categories, especially in very top categories with $500 million-plus. These firms now pay substantially more cash on share buyback. With regards to dividend payers contributing in share repurchases, the top dividend payers (with more than $100 million dividend) have the most significant role in share buy-back, having repurchased 66% and 65% of total shares in 1985 and 2011 respectively. These observations may suggest that a very large portion of share buy-back is completed by top dividend payers and the firms with high level of earnings that distributed a substantial portion of dividends also have a significant role in share repurchases. Additionally, and consistent with the reduction in number of industrial firms with less than $100 million dividends over 1985-2011, the proportion of share repurchase of such firms to total share buy-back decreased from 30.8% to 14% during the same period .

5.3. Stock repurchases and earnings concentration and payout ratios

In this segment, I examine the relation between earnings concentration and share repurchases concentration. Similar to the format of table3, table 23 grades the firms with stock repurchases by their earnings in 1985 and 2011. The 100 top firms that paid cash in form of stock repurchases generated 77% earnings of all payers in 1985, while the top 200 firms cumulatively accounted for 88%. In 2011, though, the top 100 firms produced 66.1% earnings of all payers, whereas the top 200 firms collectively combined for 75.6% earnings. Earnings of top 100 largest payers increased substantially by $156.3 billion from $38.5 billion in 1985 to $194.8 billion in 2011. All remaining groups also show a growth in real earnings in 2011. Although there is a high earning concentration in both 1985 and 2011, this concentration decreased in 2011 compared to 1985. This suggests that in recent years, more firms have the propensity to repurchase their shares even those with low earnings. Overall, aggregate real earnings of firms who paid on stock repurchases considerably increased by 488% from $50.1 billion in 1985 to $294.9 billion in 2011 (to $611.7 billion in year 2000 dollars).

Table 22; Panel A reports real payment via stock repurchase by total industrial firms. Panel B reports real payment via stock repurchase by dividend payers. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars.

Panel A: Number of firms and real share repurchase in 1985 and 2011 for samples of industrial firms that paid given amounts of real Purchase of Common and Preferred Stock ($ millions, 1985 dollars)

Real payment via stock repurchase by industrial firms(1985 dollar)	Number of firms 1985	Number of firms 2011	Change from 1985 to 2011	Percent change from 1985 to 2011(%)	Real share repurchase 1985	Real share repurchase 2011	Change from 1985 to 2011	Percent change from 1985 to 2011
$500 million or more	16	85	69	431.3%	25,520	135,490	109,970	430.9%
$400- 499.9 million	5	26	21	420.0%	2,208	11,709	9,501	430.3%
$300- 399.9 million	7	31	24	342.9%	2,459	10,482	8,023	326.3%
$200- 299.9 million	8	45	37	462.5%	1,927	10,863	8,936	463.6%
$100- 199.9 million	26	114	88	338.5%	3,590	16,464	12,874	358.6%
$80- 99.9 million	10	42	32	320.0%	906	3,800	2,894	319.4%
$60- 79.9 million	8	45	37	462.5%	568	3,141	2,573	452.7%
$40- 59.9 million	20	59	39	195.0%	988	2,942	1,955	197.9%
$20- 39.9 million	45	123	78	173.3%	1,260	3,488	2,227	176.7%
$10- 19.9 million	51	103	52	102.0%	732	1,485	753	102.8%
$5- 9.9 million	66	103	37	56.1%	465	759	294	63.3%
$1- 4.9 million	161	231	70	43.5%	407	588	181	44.6%
less than $1 million	399	332	-67	-16.8%	101	99	-2.7	-2.7%
Total	**822**	**1339**	**517**	**62.9%**	**41,132**	**201,310**	**160,178**	**389.4%**
$100 million and above	**62**	**301**	**239**	**385.5%**	**35,704**	**185,008**	**149,304**	**418.2%**
as % of total					**86.8%**	**91.9%**	**5.1%**	
Less than $100 million	**760**	**1038**	**278**	**36.6%**	**5,428**	**16,302**	**10,874**	**176.5%**
as % of total					**13.2%**	**8.1%**	**-5.1%**	
less than $5 million	**560**	**563**	**3**	**0.5%**	**508**	**687**	**179**	**35.2%**

Panel B: Number of firms and real share repurchase in 1985 and 2011 for samples of industrial firms that paid given amounts of real dividend and real Purchase of Common and Preferred Stock simultaneously ($ millions, 1985 dollars)

Real dividends payment (1985 dollar base)	Number of dividend payers with share repurchase 1985	Number of dividend payers with share repurchase 2011	Change from 1985 to 2011	Percent change from 1985 to 2011	Real share repurchase 1985	Real share repurchase 2011	Change from 1985 to 2011	Percent change from 1985 to 2011
$500 million or more	9	38	29	322.2%	8,415	76,541	68,127	809.6%
$400- 499.9 million	5	4	-1	-20.0%	872	8,478	7,606	872.3%
$300- 399.9 million	7	18	11	157.1%	866	20,983	20,117	2323.1%
$200- 299.9 million	8	18	10	125.0%	7,530	9,273	1,743	23.1%
$100- 199.9 million	24	48	24	100.0%	9,585	15,196	5,611	58.5%
$80- 99.9 million	9	26	17	188.9%	2,291	7,997	5,706	249.0%
$60- 79.9 million	8	21	13	162.5%	2,930	3,391	460	15.7%
$40- 59.9 million	14	28	14	100.0%	2,344	2,905	561	23.9%
$20- 39.9 million	41	87	46	112.2%	2,189	7,931	5,742	262.3%
$10- 19.9 million	39	74	35	89.7%	766	2,521	1,755	229.1%
$5- 9.9 million	44	69	25	56.8%	1,466	2,040	574	39.2%
$1- 4.9 million	99	102	3	3.0%	519	1,366	847	163.4%
less than $1 million	212	34	-178	-84.0%	149	71	-78	-52.3%
Total	519	567	48	9.2%	39,922	158,692	118,771	297.5%
$100 million and above	**53**	**126**	**73**	**137.7%**	**27,267**	**130,471**	**103,204**	**378.5%**
as % of total					**66.3%**	**64.8%**		
Less than $100 million	**466**	**441**	**-25**	**-5.4%**	**12,655**	**28,221**	**15,566**	**95.1%**
as % of total					**30.8%**	**14.0%**		
less than $5 million	**311**	**136**	**-175**	**-56.3%**	**667**	**1,437**	**769**	**115.2%**

Table 23; Concentration of earnings of industrial firms that paid cash in form of stock repurchase in 1985 and in 2011.Firms are ranked from the largest to smallest total dollar paid for share repurchase. The table includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars. For 1985, firms graded from 801 to 900 have 24 firms.

stock-repurchase ranking	percent of total earnings of industrial firms with stock-repurchase		Cumulative% of total earnings of industrial firms with stock-repurchase		Real earning ($ millions,1985 base)	
	1985	2011	1985	2011	1985	2011
Top 100	76.9%	66.1%	76.9%	66.1%	38,575	194,864
101-200	11.0%	9.5%	88.0%	75.6%	5,541	28,154
201-300	3.7%	8.2%	91.7%	83.8%	1,857	24,286
301-400	1.9%	4.5%	93.5%	88.3%	940	13,174
401-500	2.7%	3.1%	96.2%	91.4%	1,344	9,047
501-600	2.1%	2.1%	98.3%	93.5%	1,054	6,154
601-700	0.7%	1.7%	99.0%	95.2%	330	5,138
701-800	1.0%	1.0%	100.0%	96.3%	496	3,091
801-900	0.03%	2.8%	100.0%	99.0%	14	8,157
901-1000		0.5%		99.5%		1,362
1001-1100		0.3%		99.8%		801
1101-1200		0.2%		100.0%		682
1201-1300		-0.1%		99.9%		-222
1301-1347		0.1%		100.0%		250
Total for all firms	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**50,151**	**294,937**
Number of firms					**822**	**1339**

5.4. Separate earnings of the firms paying stock repurchase and those not paying

As implemented in table 8, table 24 estimates the combination of cross-sectional earnings distribution of firms paying on share repurchase and those that do not pay. This table is separated in two panels. Panel A demonstrates collected earnings distribution for 1985 and 2011, while panel B includes the collected distribution of an average of five years earnings that ended in the mentioned years. Panel A documents that, the number of payers with more than $500 millions of real earnings increased by 4 times from 23 firms in 1985 to 116 firms and the earnings of such firms expanded from $27.2 billion in 1985 to $228.5 billion in 2011. Panel B, accordingly, demonstrates that number of payers in excess of $500 millions in earnings more than tripled from 1985 to 2011, while the value of share repurchases increased by $151.9 billion over the same period of time. A positive relationship between the level of earnings and the percentage of firms that have cash payout via stock repurchase is documented in panels A and B. It seems that in both panels, this relationship is stronger in 2011 compared to what it was in 1985. For instance, only 26% of industrial firms with more than $100 million real earnings failed to have share repurchases in 2011, while in 1985, 80% of such firms were unsuccessful in having share repurchases. Moreover, the value of real earnings of payers in 2011 is more than five times greater than it was in 1985 (from $50.1 billion to $295 billion), while such value for non-payers just increased by 180% over the same period (from$43.6 billion to $80.7 billion). In addition, aggregate share repurchases increased by $160 billion over 1985-2011. All these observations are consistent with the findings of Grullon and Michaely (2002), and that industrial firms show a higher propensity now to pay cash out via share repurchase. In this sense, the main responsible factor may be attributed to the substantial increase in real earnings of industrial firms spent on share repurchases over 1985-2011.

With regards to the relation between earnings and share repurchase, Table 25 presents that industrial firms with more than $500 million real earnings substantially increased their share repurchases from $14.4 billion to $137 billion over 1985-2011, which is almost three times greater than total share repurchases in 1985. In short, industrial firms with $500 million-plus

real earnings completed 68% of total share repurchases in 2011, while such proportion was 35% in 1985.

Overall, industrial firms with higher level of earnings ($500 million-plus) spent on the majority of share buy-back. Such observation may imply higher concentration of share repurchases over 1985-2000. It is also observed that all categories with positive real earnings have higher propensity to share repurchase over 1985-2011, particularly top earners who have more tendency to stock repurchase. This may have ultimately led to a substantial increase in number of firms and value of share repurchases from 1985 to 2011.

Table 24; Real earnings (1985 dollars) for industrial firms in 1985 and in 2011: Sample partitioned into the firms pay cash for share repurchase and those don't pay for that.Panel A reports the distribution of real earnings for payers and nonpayers in 1985 and in 2011. Panel B reports the distribution of average real earnings over the five-year period The sample includes NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars.

Panel A. Cross-sectional distributions of real earnings in 1985 and 2011

	1985 Number of firms			2011 Number of firms			1985 Real earning (1985 base)			2011 Real earning (1985 base)		
Real earning (1985 base)	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms
$ 1 billion or greater	10	9	52.6%	62	20	75.6%	19,294	19,307	50.0%	190,873	68,630	73.6%
$500 million -$ 1 billion	13	9	59.1%	54	10	84.4%	7,910	6,005	56.8%	37,690	7,681	83.1%
$250-500 million	23	19	54.8%	87	15	85.3%	8,544	6,434	57.0%	30,446	4,923	86.1%
$100-250 million	61	49	55.5%	163	49	76.9%	9,473	7,635	55.4%	26,085	7,557	77.5%
$50-100 million	45	61	42.5%	169	84	66.8%	3,194	4,291	42.7%	11,962	5,956	66.8%
$25-50 million	65	93	41.1%	157	105	59.9%	2,318	3,246	41.7%	5,722	3,696	60.8%
$10-25 million	128	162	44.1%	174	183	48.7%	2,085	2,569	44.8%	2,947	2,957	49.9%
$0-10 million	346	804	30.1%	271	364	42.7%	1,225	2,507	32.8%	1,050	1,254	45.6%
Negative earning	133	408	24.6%	210	659	24.2%	3,890-	8,407-	31.6%	11,839-	21,964-	35.0%
Total positive earning only							**54,041**	**51,993**		**306,776**	**102,654**	
Total	**824**	**1614**	**33.8%**	**1347**	**1489**	**47.5%**	**50,151**	**43,586**	**53.5%**	**294,937**	**80,690**	**78.5%**

Panel B. Cross-sectional distributions of five-year average real earnings ending in 1985 and in 2011

	1985 Number of firms			2011 Number of firms			1985 Real earning (1985 base)			2011 Real earning (1985 base)		
Real earning (1985 base)	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms	Payers	Non payaers	percent of payaers from total firms
$ 1 billion or greater	9	9	50.0%	51	18	73.9%	16,455	20,024	45.1%	150,151	46,933	76.2%
$500 million -$ 1 billion	11	6	64.7%	37	7	84.1%	7,638	4,485	63.0%	25,805	5,026	83.7%
$250-500 million	26	15	63.4%	68	10	87.2%	9,595	5,921	61.8%	23,527	3,774	86.2%
$100-250 million	59	48	55.1%	140	38	78.7%	9,043	7,330	55.2%	22,336	5,631	79.9%
$50-100 million	47	59	44.3%	151	49	75.5%	3,325	4,129	44.6%	10,630	3,452	75.5%
$25-50 million	67	101	39.9%	131	83	61.2%	2,362	3,623	39.5%	4,879	2,886	62.8%
$10-25 million	117	150	43.8%	175	144	54.9%	1,883	2,325	44.7%	2,912	2,296	55.9%
$0-10 million	398	874	31.3%	297	377	44.1%	1,409	2,568	35.4%	1,245	1,361	47.8%
Negative earning	90	353	20.3%	297	765	28.0%	1,336-	3,480-	27.7%	14,373-	22,197-	39.3%
Total positive earning only							**51,712**	**50,405**		**241,485**	**71,360**	
Total	**824**	**1615**	**33.8%**	**1347**	**1491**	**47.5%**	**50,376**	**46,926**	**51.8%**	**227,112**	**49,163**	**82.2%**

Table 25; Real earnings (1985 dollars) and expenditure on share repurchases by industrial firms in 1985 and in 2011.The samples consists of NYSE, NASDAQ, and AMEX firms on CRSP that have CRSP share codes 10 or 11 allocated for each year, and SIC codes beyond the ranges 4900–4949 and 6000–6999. The sample is for firms for which Computsat have common dividends, Purchase of Common and Preferred Stock, and earnings before extraordinary items (Compustat items 21, 115 and 18). Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars

Real earning (1985 base)	Number of industrial firms with share repurchase		Cash payout by industrial firms		% as total cash out		Cumulative of total cash out(%)	
	1985	2011	1985	2011	1985	2011	1985	2011
$ 1 billion or greater	10	62	6,596	111,929	16.0%	55.6%	16.0%	55.6%
$500 million -$ 1 billion	13	54	7,848	25,088	19.0%	12.5%	35.0%	68.0%
$250-500 million	23	87	13,336	20,840	32.3%	10.3%	67.4%	78.4%
$100-250 million	61	163	7,866	18,931	19.1%	9.4%	86.4%	87.8%
$50-100 million	45	169	1,068	10,629	2.6%	5.3%	89.0%	93.1%
$25-50 million	65	157	721	4,669	1.7%	2.3%	90.8%	95.4%
$10-25 million	128	174	1,701	2,081	4.1%	1.0%	94.9%	96.4%
$0-10 million	346	271	827	1,487	2.0%	0.7%	96.9%	97.2%
Negative earning	133	210	1,271	5,736	3.1%	2.8%	100.0%	100.0%
Total	**824**	**1347**	**41,235**	**201,390**	**100.0%**	**100.0%**		
Total positive only	**691**	**1137**	**39,964**	**195,654**				

5.5. The identity of the top payers in 2011 in terms of stock repurchases

Table 26, which is ranked in descending order of share repurchases value, exhibits the 38 industrial firms that paid the biggest amount of cash payout via stock repurchase in 2011. Amongst such firms, there are some well-established examples such as Exxon Mobil and General Electric, and also well-known technology companies, namely Microsoft and Dell. These 38 firms supplied the majority of total cash payout (50.8%) in form of stock repurchases in 2011, and their $91.7 billion increase in real value of share repurchases over 1985-2011 accounted for 57.2% of total increase in share repurchases of all industrial firms. In addition to their dominance in aggregate share repurchases, these 38 firms also generated the majority of industrial real earnings with $147 billion in 2011 ($302.9 billion in 2011 dollars), which is 50.4% of aggregate industrial real earnings. They expanded their real earnings by $124.5 billion over 1985-2011. Thirty three of the top 37 firms which paid the majority of stock repurchases in

2011 had more than $1 billion in real earnings. This may suggest that firms creating the high value of real earnings have the most shares in stock repurchasing.

With regards to earnings concentration, not only is it present amongst firms with share repurchases, but also it is considerable amongst those with no share buyback. In this sense, table 27 records the 16 industrial firms that had no share repurchases with the highest earnings in 2011, listed in descending order. All these 16 firms generated more than $1 billion industrial real earnings in 2011 and accounted for the majority of all positive real earnings of non-payers. There are some firms such as Ford Motor, Lilly, and AT&T amongst these top non-payers that although they did not have any cash out on share repurchases, they paid $12.8 billion as dividends in 2011. In this regard, a number of firms like Apple, Berkshire Hathaway and also General Motors with very high level of real earnings did not pay dividends nor repurchase any share.

Table 28 (See Appendix) demonstrates the 76 firms that generated more than $1 billion real earnings in 2011 without considering whether or not they paid cash on share repurchases. Sixty of these firms that paid 54% of aggregate stock repurchases in 2011 generated the majority (slightly more than 50%) of aggregate real industrial earnings the same year.

Overall, these findings partially support the fact previously observed for level of earnings and paying dividends by DeAngelo et al. (2004). I observed that only a small number of industrial firms, 38 firms (about 1.4% of all industrial firms), paid a significant amount of cash payout via stock repurchases in 2011, having generated 50.4% of aggregate industrial real earnings. In terms of non-payers, although there are 16 firms with $1 billion-plus in real earnings, the total non-payers only supplied 22.1% of such earnings. However these top non-payers distributed 12.1% of aggregate dividends in 2011.

Table 26; Share repurchase and earnings in 1985 and in 2011 for the 38 industrial firms that paid for the largest values of share repurchase in 2011.Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars

		Real share repurchasing ($ million 1985 base)			Real earning ($ million 1985 base)			Nominal share repurchase and earning ($ million)	
		1985	2011	change	1985	2011	change	2011	2011
1	EXXON MOBIL CORP	2687	10632	7945	4870	19795	14925	22055	41060
2	INTL BUSINESS MACHINES CORP	0	7253	7253	6555	7644	1089	15046	15855
3	INTEL CORP	0	6913	6913	1.57	6239	6238	14340	12942
4	MICROSOFT CORP	-	5571	5571	-	11160	11160	11555	23150
5	CONOCOPHILLIPS	4972	5362	390	596	5995	5399	11123	12436
6	HEWLETT-PACKARD CO	240	4877	4637	489	3410	2921	10117	7074
7	PFIZER INC	66	4339	4273	579.7	4193	3613	9000	8697
8	AMGEN INC	0	4009	4009	0.548	1776	1775	8315	3683
9	PROCTER & GAMBLE CO	0	3393	3393	635	5687	5052	7039	11797
10	CISCO SYSTEMS INC	-	3324	3324	-	3129	3129	6896	6490
11	WAL-MART STORES INC	1	3036	3035	327.473	7601	7273	6298	15766
12	ORACLE CORP	3	2823	2820	5.896	4812	4806	5856	9981
13	DIRECTV	-	2650	2650	-	1258	1258	5496	2609
14	PHILIP MORRIS INTERNATIONAL	-	2590	2590	-	4142	4142	5372	8591
15	DISNEY (WALT) CO	114	2407	2293	173.491	2317	2144	4993	4807
16	GENERAL ELECTRIC CO	283	2293	2010	2336	6785	4449	4756	14074
17	TIME WARNER INC	-	2223	2223	-	1391	1391	4611	2886
18	COCA-COLA CO	380	2176	1796	677.566	4132	3455	4513	8572
19	HOME DEPOT INC	0	1673	1673	8.219	1872	1864	3470	3883
20	MCDONALD'S CORP	166	1621	1455	433.039	2653	2220	3363	5503
21	CHEVRON CORP	0	1539	1539	1547	12966	11419	3193	26895
22	CVS CAREMARK CORP	0	1447	1447	219.812	1683	1464	3001	3492

		Real share repurchasing ($ million 1985 base)			Real earning ($ million 1985 base)			Nominal share repurchase and earning ($ million)	
		1985	2011	change	1985	2011	change	2011	2011
23	LOWE'S COMPANIES INC	0	1416	1416	59.714	887	827	2937	1839
24	DELL INC	-	1310	1310	-	1683	1683	2717	3492
25	3M CO	0	1302	1302	664	2065	1401	2701	4283
26	UNITED PARCEL SERVICE INC	-	1285	1285	-	1834	1834	2665	3804
27	TIME WARNER CABLE INC	-	1281	1281	-	803	803	2657	1665
28	JOHNSON & JOHNSON	123	1217	1095	613.7	4663	4049	2525	9672
29	PEPSICO INC	458	1203	745	420.081	3106	2686	2496	6443
30	LOCKHEED MARTIN CORP	0	1188	1188	401	1286	885	2465	2667
31	VIACOM INC	-	1181	1181	-	1035	1035	2450	2146
32	GILEAD SCIENCES INC	-	1149	1149	-	1352	1352	2450	2146
33	DEVON ENERGY CORP	-	1124	1124	-	1029	1029	2383	2804
34	KOHL'S CORP	-	1114	1114	-	563	563	2332	2134
35	NORTHROP GRUMMAN CORP	0	1106	1106	214.4	1006	791	2311	1167
36	CELGENE CORP	-	1071	1071	-	635	635	2295	2086
37	UNITED TECHNOLOGIES CORP	0	1049	1049	636.399	2400	1764	2221	1318
38	COMCAST CORP	-	1032	1032	-	2005	2005	2175	4979
	Total of 38 firms	**9,493**	**101,180**	**91,687**	**22,465**	**146,990**	**124,525**	**210,188**	**302,888**
	Total as a % of aggregate for all ind	**23.0%**	**50.8%**		**24.0%**	**50.4%**		**50.8%**	**50.4%**

Table 27; 2011 earnings for the 16 industrial firms had no share repurchase with the highest reported earnings. Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars

		Real earning in ($millions, 1985	Nominal earning in ($millions, 1985 base)	Cumulative earnings as a	Real dividend Paid in 2011	Cumulative real dividend as a
1	APPLE INC	12497	25922	12.2%	0	0.0%
2	FORD MOTOR CO	9744	20213	21.7%	916	0.9%
3	BERKSHIRE HATHAWAY	4943	10254	26.5%	0	0.9%
4	GENERAL MOTORS CO	4430	9190	30.8%	0	0.9%
5	CATERPILLAR INC	2376	4928	33.1%	567	1.4%
6	APACHE CORP	2210	4584	35.3%	111	1.5%
7	FREEPORT-MCMORAN COP&GOLD	2198	4560	37.4%	686	2.1%
8	LILLY (ELI) & CO	2096	4348	39.4%	1052	3.1%
9	BOEING CO	1934	4011	41.3%	609	3.7%
10	AT&T INC	1901	3944	43.2%	4939	8.4%
11	KRAFT FOODS INC	1700	3527	44.8%	987	9.3%
12	MGM RESORTS INTERNATIONAL	1502	3115	46.3%	0	9.3%
13	NEWS CORP	1443	2993	47.7%	191	9.5%
14	VERIZON COMMUNICATIONS INC	1159	2404	48.8%	2696	12.0%
15	MARATHON PETROLEUM CORP	1152	2389	50.0%	77	12.1%
16	NIKE INC	1072	2223	51.0%	0	12.1%
	Total for 16 firms	**52357**	**108604**	**51.0%**	**12832**	**12.1%**

6. Conclusion

This research study presents evidence that, despite of previous findings demonstrating a reduction in number of industrial firms paying dividends after 1978 until up to 2000, the number of industrial dividend payers increased slightly by 1.87% from 855 in 2000 to 871 in 2011. I observed that even though the aggregate earnings decreased dramatically between 2000-2001 and also 2007-2008, aggregate dividends paid by industrial firms maintained a steady long-run uptrend in 2001 and 2008. In this sense, the total value of dividends paid in 2001 was larger than dividends paid in each year before 1998, and the value of aggregate dividends in 2008 was greater than dividends supplied in each year before 2007.

Dividends distributed by industrial firms is highly concentrated in 2011, as the top 200 dividend payers supplied 91.2% of total dividends. Though, this concentration slightly decreased by 1.4% compared to 2000, which reflected a negligible increase in the number of industrial dividend payers over 2000-2011. In this sense, the number of firms distributing a very large percent of dividends (firms with $100 million-plus real dividend) in the last decade has increased. Hence, top categories account for more firms. On the other hand, the number of firms with very small share in paying dividends (firms with less than $5 million real dividends) has decreased.

In terms of the positive relation between the number of firms paying dividends and the level of their earnings, this relation seems stronger in 2011 than it was in 2000, as most firms with high levels of earnings contributed in dividend distribution. In this regard, the number of firms paying dividends with $500 million-plus and $100 million-plus in real earnings increased by 28 and 89 firms respectively. The combination of these findings may explain the increase in number of industrial firms that pay dividends and substantial increase in aggregate dividends over 2000-2011.

In 2011, 76 firms generated $1 billion or more in real earnings, which accounted for 64% of aggregate industrial earnings. Amongst such firms, 65 of them as dividend payers paid 68.4% of total dividends, whereas 49 companies in 2000 with the same level of real earnings generated 69.2% of aggregate industrial real earnings. Moreover, 39 of these firms supplied 60.2% of real

dividends. Despite of the substantial increase in number of industrial firms with more than $1 billion in real earnings (from 49 to 76) over 2000-2011, such firms had slightly less share in earnings generation, yet contributed more in dividend distribution.

The following review acknowledges that a large majority of aggregate share repurchases are paid by dividend payers over 1985-2011. As such, the proportion of dividend payers paying on share repurchases to total industrial firms with share repurchases decreased, while its proportion to total dividend payers increased over 1985-2011. These observations may suggest that not only did considerable number of firms prefer to pay cash via stock repurchase rather than pay dividends, but also the majority (65.3%) of dividend payers contributed in share repurchasing. In this regard, 59.9% of total cash payout, including dividends and share repurchases together, is spent on share buyback in 2011 compared to 45.8% in 2000.

Considering the industrial firms with expenditure on share repurchases in 1985 and 2011 in group of 100 firms, more concentration was observed in share repurchases amongst firms with high level of cash payout and less concentration for those with lower levels of paying cash. With regards to dividend payers contributing in share repurchases, the top dividend payers (with more than $100 million dividends) have the most significant role in share buy-back. Such firms repurchased 66% and 65% of total shares in 1985 and 2011 respectively. These observations imply that a very large portion of share buy-back is completed by top dividend payers. Accordingly, firms with high level of earnings that distributed a substantial portion of dividends also have a considerable performance in share repurchases. These findings are consistent with Grullon and Michaely (2002)'s findings, who documented that not only do young firms have more tendency to pay cash in form of stock repurchases, but also well-known and large firms paying dividends have a high propensity to spend cash on share repurchases.

Ultimately, a positive relation between real earnings and stock repurchase was observed in this study. The increase in propensity of industrial firms in order to pay cash in form of share buyback over 1985-2011 is consistent with considerable growth in aggregate value of real share buyback over the same period by $160 billion. This may be due to the substantial increase in real earnings of industrial firms with share repurchases over 1985-2011.

Overall, my observations suggest of a higher concentration of cash payout via stock repurchases over 1985-2011. They also indicate that firms with higher level of earnings ($500 million-plus) had a substantial share buy-back. All categories with higher levels of real earnings have a higher propensity to buy back the shares over 1985-2011. As a consequence, there was a substantial increase in number of firms and value of share repurchases from 1985 to 2011.

A significant drawback observed in the present study is the availability of data. Due to the unavailability of some proportions of the data, it was required to apply data taken from different sources, thus making the process of data gathering all the more difficult and time-consuming. Furthermore, in terms of share repurchases, I had planned to use data related to common share repurchases, but since companies have announced their report in preferred share repurchases, I had no alternative but to apply data for common and preferred share repurchases. This in turn may have influenced the reliability of findings.

There are certain issues of research directions that may be worthy of future investigation. The present investigation solely examined the performance of US industrial firms in dividend payments and share repurchases. Hence, it would be worthwhile examining how other powerful nations may contribute in paying dividends and share repurchases. This may provide us with an appreciation of whether, from a worldwide standpoint, concentration of industrial firms is positively correlated with dividends concentration and share repurchases concentration or not.

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Appendixes:

Table 13; Dividends and earnings in 1985, 2000 and in 2000 for the 62 industrial firms that paid the largest dividends in 2011. The table lists the 62 industrial firms that paid the largest total dividends in 2011. Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars.

	Company name	Real dividend based on 1985					Real earning based on 1985					Nominal dividends	Nominal earning	Nominal share repurchas	Real share repurchase	Share repurchase/ Dividend	Total payout/earning
		1985	2000	2011	Change from 1985 to 2000	Change from 2000 to 2011	1985	2000	2011	Change from 1985 to 2000	Change from 2000 to 2011	2011	2011	2011	2011	2011	2011
1	AT&T INC	598	2,159	4,939	1,561	2,779	996	4,996	1,901	4,000	(3,095)	10,244	3,944	-	-	0.0%	259.7%
2	EXXON MOBIL CORP	2,607	3,840	4,348	1,233	508	4,870	10,028	19,795	5,158	9,766	9,020	41,060	22,055	10,632	244.5%	75.7%
3	GENERAL ELECTRIC CO	1,020	3,542	3,615	2,522	73	2,336	7,987	6,785	5,651	(1,202)	7,498	14,074	4,756	2,293	63.4%	87.1%
4	PFIZER INC	241	1,611	3,139	1,370	1,528	580	2,332	4,193	1,752	1,861	6,512	8,697	9,000	4,339	138.2%	178.4%
5	JOHNSON & JOHNSON	233	1,081	2,968	848	1,887	614	3,010	4,663	2,397	1,652	6,156	9,672	2,525	1,217	41.0%	89.8%
6	CHEVRON CORP	818	1,059	2,960	241	1,901	1,547	3,252	12,966	1,705	9,714	6,139	26,895	3,193	1,539	52.0%	34.7%
7	VERIZON COMMUNICATIONS INC	679	2,769	2,696	2,091	(73)	1,093	6,779	1,159	5,687	(5,621)	5,593	2,404	-	-	0.0%	232.7%
8	PROCTER & GAMBLE CO	435	1,054	2,668	619	1,614	635	2,221	5,687	1,586	3,466	5,534	11,797	7,039	3,393	127.2%	106.6%
9	MICROSOFT CORP	-	-	2,600	-	2,600	-	5,908	11,160	5,908	5,252	5,394	23,150	11,555	5,571	214.2%	73.2%
10	WAL-MART STORES INC	39	671	2,434	632	1,763	327	3,948	7,601	3,620	3,653	5,048	15,766	6,298	3,036	124.8%	72.0%
11	PHILIP MORRIS INTERNATIONAL	-	-	2,395	-	2,395	-	-	4,142	-	4,142	4,967	8,591	5,372	2,590	108.2%	120.3%
12	MERCK & CO	235	1,822	2,323	1,587	500	540	4,278	3,024	3,738	(1,255)	4,818	6,272	1,921	926	39.9%	107.4%
13	COCA-COLA CO	389	1,057	2,073	668	1,016	678	1,365	4,132	688	2,767	4,300	8,572	4,513	2,176	105.0%	102.8%
14	INTEL CORP	-	295	1,990	295	1,695	2	6,607	6,239	6,605	(368)	4,127	12,942	14,340	6,913	347.5%	142.7%
15	CONOCOPHILLIPS	261	217	1,751	(44)	1,534	596	1,168	5,995	572	4,827	3,632	12,436	11,123	5,362	306.3%	118.6%
16	INTL BUSINESS MACHINES CORP	2,703	570	1,674	(2,133)	1,104	6,555	5,076	7,644	(1,479)	2,568	3,473	15,855	15,046	7,253	433.2%	116.8%
17	ALTRIA GROUP INC	479	2,852	1,574	2,373	(1,278)	1,255	5,337	1,634	4,082	(3,703)	3,266	3,390	1,327	640	40.6%	135.5%
18	PEPSICO INC	161	502	1,539	341	1,036	420	1,369	3,106	949	1,737	3,192	6,443	2,496	1,203	78.2%	88.3%
19	ABBOTT LABORATORIES	168	738	1,452	570	714	465	1,747	2,280	1,282	532	3,012	4,728	77	37	2.6%	65.3%
20	MCDONALD'S CORP	76	176	1,258	100	1,082	433	1,240	2,653	807	1,413	2,610	5,503	3,363	1,621	128.9%	108.5%

21	BRISTOL-MYERS SQUIBB CO	249	1,210	1,097	961	(113)	531	2,569	1,788	2,037	(781)	2,276	3,709	1,221	589	53.6%	94.3%
22	LILLY (ELI) & CO	230	726	1,052	496	326	518	1,918	2,096	1,400	178	2,183	4,348	-	-	0.0%	50.2%
23	UNITED PARCEL SERVICE INC	-	493	1,006	493	513	-	1,840	1,834	1,840	(6)	2,086	3,804	2,665	1,285	127.8%	124.9%
24	SOUTHERN COPPER CORP	-	17	1,003	17	986	-	58	1,126	58	1,068	2,080	2,336	274	132	13.2%	100.8%
25	KRAFT FOODS INC	-	-	987	-	987	-	-	1,700	-	1,700	2,048	3,527	-	-	0.0%	58.1%
26	FORD MOTOR CO	443	1,716	916	1,273	(800)	2,515	3,393	9,744	877	6,352	1,900	20,213	-	-	0.0%	9.4%
27	HOME DEPOT INC	-	233	787	233	554	8	1,619	1,872	1,610	253	1,632	3,883	3,470	1,673	212.6%	131.4%
28	UNITED TECHNOLOGIES CORP	172	243	772	71	530	636	1,134	2,400	497	1,266	1,602	4,979	2,175	1,049	135.8%	75.9%
29	CENTURYLINK INC	8	17	750	9	734	16	145	276	130	131	1,556	573	31	15	2.0%	277.0%
30	3M CO	403	576	750	173	174	664	1,165	2,065	501	900	1,555	4,283	2,701	1,302	173.7%	99.4%
31	DU PONT (E I) DE NEMOURS	721	913	738	192	(174)	1,118	1,451	1,675	333	224	1,531	3,474	672	324	43.9%	63.4%
32	OCCIDENTAL PETROLEUM CORP	258	231	722	(27)	490	455	984	3,201	529	2,217	1,497	6,640	274	132	18.3%	26.7%
33	HUNTINGTON INGALLS IND INC	-	-	689	-	689	-	-	(45)	-	(45)	1,429	(94)	-	-	0.0%	-
34	FREEPORT-MCMORAN COP&GOLD	-	-	686	-	686	-	48	2,198	48	2,150	1,424	4,560	-	-	0.0%	31.2%
35	QUALCOMM INC	-	-	656	-	656	-	420	2,205	420	1,784	1,361	4,573	142	68	10.4%	32.9%
36	BOEING CO	157	329	609	172	280	566	1,335	1,934	769	599	1,263	4,011	-	-	0.0%	31.5%
37	REYNOLDS AMERICAN INC	-	199	607	199	408	-	221	678	221	457	1,259	1,406	282	136	22.4%	109.6%
38	COMCAST CORP	-	-	594	-	594	-	-	2,005	-	2,005	1,233	4,160	2,141	1,032	173.6%	81.1%
39	ORACLE CORP	-	-	581	-	581	6	1,606	4,812	1,600	3,206	1,205	9,981	2,141	1,032	177.7%	33.5%
40	CATERPILLAR INC	49	292	567	243	275	198	660	2,376	462	1,715	1,176	4,928	5,856	2,823	498.0%	142.7%
41	LIMITED BRANDS INC	19	80	552	61	472	145	268	410	123	141	1,144	850	-	-	0.0%	134.6%
42	COLGATE-PALMOLIVE CO	101	227	536	126	309	168	667	1,172	499	505	1,111	2,431	1,190	574	107.1%	94.7%
43	KIMBERLY-CLARK CORP	106	366	534	260	168	267	1,129	767	862	(362)	1,107	1,591	1,806	871	163.1%	183.1%
44	LOCKHEED MARTIN CORP	49	115	529	66	415	401	(266)	1,286	(667)	1,552	1,098	2,667	1,246	601	113.5%	87.9%
45	HONEYWELL INTERNATIONAL INC	198	376	521	178	145	(279)	1,040	896	1,319	(145)	1,081	1,858	2,465	1,188	228.0%	190.9%
46	EMERSON ELECTRIC CO	190	385	501	195	116	401	892	1,183	491	291	1,039	2,454	1,085	523	104.4%	86.6%
47	DOW CHEMICAL	341	492	500	151	8	58	949	1,322	891	373	1,037	2,742	935	451	90.2%	71.9%
48	MEDTRONIC INC	12	151	492	139	341	67	656	1,646	589	990	1,021	3,415	19	9	1.9%	30.5%
49	TIME WARNER INC	-	-	481	-	481	-	773	1,391	773	619	997	2,886	1,440	694	144.4%	84.4%
50	UNION PACIFIC CORP	199	123	452	(76)	329	501	528	1,587	27	1,059	938	3,292	4,611	2,223	491.6%	168.6%

51 DISH NETWORK CORP	-	-	431	-	431	-	(390)	731	(390)	1,120	893	1,516	1,418	684	158.7%	152.5%
52 HEWLETT-PACKARD CO	57	400	402	343	2	489	2,233	3,410	1,744	1,177	834	7,074	-	-	0.0%	11.8%
53 WYNN RESORTS LTD	-	-	392	-	392	-	-	296	-	296	813	613	10,117	4,877	1244.7%	1781.9%
54 GENERAL MILLS INC	101	195	386	94	190	184	417	756	234	338	800	1,567	8	4	1.0%	51.5%
55 AMGEN INC	-	-	379	-	379	1	714	1,776	713	1,062	787	3,683	313	151	39.8%	29.9%
56 TARGET CORP	76	122	375	45	253	284	793	1,412	509	619	777	2,929	8,315	4,009	1070.1%	310.4%
57 DISNEY (WALT) CO	40	272	369	232	97	173	577	2,317	403	1,740	766	4,807	1,842	888	240.5%	54.3%
58 FRONTIER COMMUNICATIONS CORP	-	-	360	-	360	-	(25)	72	(25)	97	746	150	4,993	2,407	669.0%	3836.1%
59 LORILLARD INC	-	-	349	-	349	-	-	538	-	538	723	1,116	-	-	0.0%	64.8%
60 BAXTER INTERNATIONAL INC	60	214	347	154	133	137	463	1,072	326	609	719	2,224	1,586	765	220.6%	103.6%
61 AUTOMATIC DATA PROCESSING	23	133	339	111	205	88	527	605	439	77	702	1,254	1,583	763	225.4%	182.2%
62 ILLINOIS TOOL WORKS	17	144	330	127	186	32	601	972	569	372	685	2,017	733	353	107.0%	70.3%
Total for 62 firms	**15,420**	**37,004**	**75,519**	**21,584**	**38,515**	**34,289**	**111,762**	**188,314**	**77,473**	**76,552**	**156,649**	**390,622**	**195,748**	**94,368**	**125.0%**	**90.2%**
Total as a% of aggregate for all industr	**32.7%**	**57.8%**	**71.1%**			**36.6%**	**58.9%**	**50.1%**			**71.1%**	**50.1%**				

Table11; Dividends and earnings in 1985 and 2000 for the 37 industrial firms that paid the largest dividends in 2000.The table lists the 37 industrial firms that paid the largest total dividends in 2011. Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars.

Company name	Real dividend based on 1985			Real earning based on 1985			Nominal dividends	Nominal earning
	1985	2000	change from 1985 to 2000	1985	2000	change from 1985 to 2000	2000	2000
1 EXXON MOBIL CORP	2,607	3,840	1,233	4,870	10,028	5,158	6,123	15,990
2 GENERAL ELECTRIC CO	1,020	3,542	2,522	2,336	7,987	5,651	5,647	12,735
3 ALTRIA GROUP INC	479	2,852	2,373	1,255	5,337	4,082	4,548	8,510
4 VERIZON COMMUNICATIONS INC	679	2,769	2,091	1,093	6,779	5,687	4,416	10,810
5 AT&T INC	598	2,159	1,561	996	4,996	4,000	3,443	7,967
6 MERCK & CO	235	1,822	1,587	540	4,278	3,738	2,906	6,822
7 FORD MOTOR CO	443	1,716	1,273	2,515	3,393	877	2,736	5,410
8 PFIZER INC	241	1,611	1,370	580	2,332	1,752	2,569	3,718
9 AT&T CORP	1,273	1,558	285	1,557	2,928	1,371	2,485	4,669
10 AGILENT TECHNOLOGIES INC	-	1,297	1,297	-	475	475	2,068	757
11 BRISTOL-MYERS SQUIBB CO	249	1,210	961	531	2,569	2,037	1,930	4,096
12 JOHNSON & JOHNSON	233	1,081	848	614	3,010	2,397	1,724	4,800
13 CHEVRON CORP	818	1,059	241	1,547	3,252	1,705	1,688	5,185
14 COCA-COLA CO	389	1,057	668	678	1,365	688	1,685	2,177
15 PROCTER & GAMBLE CO	435	1,054	619	635	2,221	1,586	1,681	3,542
16 DU PONT (E I) DE NEMOURS	721	913	192	1,118	1,451	333	1,455	2,314
17 BELLSOUTH CORP	847	893	46	1,418	2,647	1,229	1,424	4,220
18 GENERAL MOTORS CO	1,605	812	(794)	3,999	2,792	(1,207)	1,294	4,452
19 WYETH	442	753	312	717	(565)	(1,282)	1,201	(901)
20 ABBOTT LABORATORIES	168	738	570	465	1,747	1,282	1,177	2,786
21 LILLY (ELI) & CO	230	726	496	518	1,918	1,400	1,158	3,058
22 WAL-MART STORES INC	39	671	632	327	3,948	3,620	1,070	6,295
23 TEXACO INC	714	612	(102)	1,233	1,594	361	976	2,542
24 3M CO	403	576	173	664	1,165	501	918	1,857
25 INTL BUSINESS MACHINES CORP	2,703	570	(2,133)	6,555	5,076	(1,479)	909	8,093
26 SCHERING-PLOUGH	86	503	417	193	1,520	1,327	802	2,423
27 PEPSICO INC	161	502	341	420	1,369	949	801	2,183
28 UNITED PARCEL SERVICE INC	-	493	493	-	1,840	1,840	786	2,934
29 DOW CHEMICAL	341	492	151	58	949	891	785	1,513
30 GILLETTE CO	80	430	350	160	515	355	686	821
31 SABRE HOLDINGS CORP -CL A	-	423	423	-	90	90	675	144
32 HEWLETT-PACKARD CO	57	400	343	489	2,233	1,744	638	3,561
33 PHARMACIA CORP	188	388	200	(128)	617	745	619	984
34 EMERSON ELECTRIC CO	190	385	195	401	892	491	613	1,422
35 HONEYWELL INTERNATIONAL INC	198	376	178	(279)	1,040	1,319	599	1,659
36 KIMBERLY-CLARK CORP	106	366	260	267	1,129	862	583	1,801
37 ANHEUSER-BUSCH COS INC	103	358	255	444	973	529	571	1,552
	19,082	**41,009**	**21,927**	**38,785**	**95,891**	**57,106**	**65,390**	**152,900**
	40.4%	**64.1%**		**41.4%**	**50.5%**		**64.1%**	**50.5%**

Table 14; Dividends and earnings in 1985, 2000 and in 2011 for the 76 industrial firms with at least $1 billion in real earnings in 2011.The table lists the 76 industrial firms that report at least $1 billion in real earnings in 2011. Using consumer price index to estimate real dividends in 2000 and 2011, nominal dividends have been converted to 1985 dollars.

Company name	Real dividend (1985 base)					Real earning (1985 base)					Nominal dividend in 2011	Nominal earning in 2011
	1985	2000	2011	Change from 1985 to 2000	Change from 2000 to 2011	1985	2000	2011	Change from 1985 to 2000	Change from 2000 to 2011		
1 EXXON MOBIL CORP	2,607	3,840	4,348	1,233	508	4,870	10,028	19,795	5,158	9,766	9,020	41,060
2 CHEVRON CORP	818	1,059	2,960	241	1,901	1,547	3,252	12,966	1,705	9,714	6,139	26,895
3 APPLE INC	-	-	-	-	-	61	493	12,497	432	12,004	-	25,922
4 MICROSOFT CORP	-	-	2,600	-	2,600	-	5,908	11,160	5,908	5,252	5,394	23,150
5 FORD MOTOR CO	443	1,716	916	1,273	(800)	2,515	3,393	9,744	877	6,352	1,900	20,213
6 INTL BUSINESS MACHINES CORP	2,703	570	1,674	(2,133)	1,104	6,555	5,076	7,644	(1,479)	2,568	3,473	15,855
7 WAL-MART STORES INC	39	671	2,434	632	1,763	327	3,948	7,601	3,620	3,653	5,048	15,766
8 GENERAL ELECTRIC CO	1,020	3,542	3,615	2,522	73	2,336	7,987	6,785	5,651	(1,202)	7,498	14,074
9 INTEL CORP	-	295	1,990	295	1,695	2	6,607	6,239	6,605	(368)	4,127	12,942
10 CONOCOPHILLIPS	261	217	1,751	(44)	1,534	596	1,168	5,995	572	4,827	3,632	12,436
11 PROCTER & GAMBLE CO	435	1,054	2,668	619	1,614	635	2,221	5,687	1,586	3,466	5,534	11,797
12 BERKSHIRE HATHAWAY	-	-	-	-	-	93	2,087	4,943	1,994	2,856	-	10,254
13 ORACLE CORP	-	-	581	-	581	6	1,606	4,812	1,600	3,206	1,205	9,981
14 GOOGLE INC	-	-	-	-	-	-	-	4,694	-	4,694	-	9,737
15 JOHNSON & JOHNSON	233	1,081	2,968	848	1,887	614	3,010	4,663	2,397	1,652	6,156	9,672
16 GENERAL MOTORS CO	-	-	-	-	-	-	-	4,430	-	4,430	-	9,190
17 PFIZER INC	241	1,611	3,139	1,370	1,528	580	2,332	4,193	1,752	1,861	6,512	8,697
18 PHILIP MORRIS INTERNATIONAL	-	-	2,395	-	2,395	-	-	4,142	-	4,142	4,967	8,591
19 COCA-COLA CO	389	1,057	2,073	668	1,016	678	1,365	4,132	688	2,767	4,300	8,572
20 HEWLETT-PACKARD CO	57	400	402	343	2	489	2,233	3,410	1,744	1,177	834	7,074

21 OCCIDENTAL PETROLEUM CORP	258	231	722	(27)	490	455	984	3,201	529	2,217	1,497	6,640
22 CISCO SYSTEMS INC	-	-	317	-	317	-	1,673	3,129	1,673	1,456	658	6,490
23 PEPSICO INC	161	502	1,539	341	1,036	420	1,369	3,106	949	1,737	3,192	6,443
24 MERCK & CO	235	1,822	2,323	1,587	500	540	4,278	3,024	3,738	(1,255)	4,818	6,272
25 MCDONALD'S CORP	76	176	1,258	100	1,082	433	1,240	2,653	807	1,413	2,610	5,503
26 UNITED TECHNOLOGIES CORP	172	243	772	71	530	636	1,134	2,400	497	1,266	1,602	4,979
27 CATERPILLAR INC	49	292	567	243	275	198	660	2,376	462	1,715	1,176	4,928
28 DISNEY (WALT) CO	40	272	369	232	97	173	577	2,317	403	1,740	766	4,807
29 ABBOTT LABORATORIES	168	738	1,452	570	714	465	1,747	2,280	1,282	532	3,012	4,728
30 APACHE CORP	6	16	111	10	96	9	452	2,210	443	1,758	231	4,584
31 QUALCOMM INC	-	-	656	-	656	-	420	2,205	420	1,784	1,361	4,573
32 FREEPORT-MCMORAN COP&GOLD	-	-	686	-	686	-	48	2,198	48	2,150	1,424	4,560
33 LILLY (ELI) & CO	230	726	1,052	496	326	518	1,918	2,096	1,400	178	2,183	4,348
34 3M CO	403	576	750	173	174	664	1,165	2,065	501	900	1,555	4,283
35 COMCAST CORP	-	-	594	-	594	-	-	2,005	-	2,005	1,233	4,160
36 BOEING CO	157	329	609	172	280	566	1,335	1,934	769	599	1,263	4,011
37 AT&T INC	598	2,159	4,939	1,561	2,779	996	4,996	1,901	4,000	(3,095)	10,244	3,944
38 HOME DEPOT INC	-	233	787	233	554	8	1,619	1,872	1,610	253	1,632	3,883
39 UNITED PARCEL SERVICE INC	-	493	1,006	493	513	-	1,840	1,834	1,840	(6)	2,086	3,804
40 BRISTOL-MYERS SQUIBB CO	249	1,210	1,097	961	(113)	531	2,569	1,788	2,037	(781)	2,276	3,709
41 AMGEN INC	-	-	379	-	379	1	714	1,776	713	1,062	787	3,683
42 KRAFT FOODS INC	-	-	987	-	987	-	-	1,700	-	1,700	2,048	3,527
43 CVS CAREMARK CORP	77	57	325	(20)	268	220	468	1,683	248	1,216	674	3,492
44 DELL INC	-	-	-	-	-	-	1,402	1,683	1,402	281	-	3,492
45 DU PONT (E I) DE NEMOURS	721	913	738	192	(174)	1,118	1,451	1,675	333	224	1,531	3,474
46 MEDTRONIC INC	12	151	492	139	341	67	656	1,646	589	990	1,021	3,415
47 ALTRIA GROUP INC	479	2,852	1,574	2,373	(1,278)	1,255	5,337	1,634	4,082	(3,703)	3,266	3,390
48 UNION PACIFIC CORP	199	123	452	(76)	329	501	528	1,587	27	1,059	938	3,292
49 EBAY INC	-	-	-	-	-	-	30	1,557	30	1,527	-	3,229
50 MGM RESORTS INTERNATIONAL	-	-	-	-	-	-	104	1,502	104	1,397	-	3,115

51 HALLIBURTON CO	196	139	159	(57)	20	29	118	1,449	89	1,331	330	3,005
52 NEWS CORP	-	-	191	-	191	-	-	1,443	-	1,443	396	2,993
53 TARGET CORP	76	122	375	45	253	284	793	1,412	509	619	777	2,929
54 TIME WARNER INC	-	-	481	-	481	-	773	1,391	773	619	997	2,886
55 CORNING INC	56	133	171	77	38	108	257	1,352	149	1,095	354	2,805
56 GILEAD SCIENCES INC	-	-	-	-	-	-	(27)	1,352	(27)	1,379	-	2,804
57 DEERE & CO	68	129	305	61	177	31	304	1,350	274	1,045	634	2,800
58 DOW CHEMICAL	341	492	500	151	8	58	949	1,322	891	373	1,037	2,742
59 WALGREEN CO	27	85	330	58	245	94	487	1,308	393	821	685	2,714
60 LOCKHEED MARTIN CORP	49	115	529	66	415	401	(266)	1,286	(667)	1,552	1,098	2,667
61 DIRECTV	-	-	-	-	-	-	-	1,258	-	1,258	-	2,609
62 GENERAL DYNAMICS CORP	42	129	330	86	202	373	565	1,230	193	665	685	2,552
63 HCA HOLDINGS INC	-	-	-	-	-	-	-	1,188	-	1,188	-	2,465
64 EMC CORP/MA	-	-	-	-	-	-	1,118	1,187	1,118	69	-	2,461
65 EMERSON ELECTRIC CO	190	385	501	195	116	401	892	1,183	491	291	1,039	2,454
66 COLGATE-PALMOLIVE CO	101	227	536	126	309	168	667	1,172	499	505	1,111	2,431
67 VERIZON COMMUNICATIONS INC	679	2,769	2,696	2,091	(73)	1,093	6,779	1,159	5,687	(5,621)	5,593	2,404
68 MARATHON PETROLEUM CORP	-	-	77	-	77	-	-	1,152	-	1,152	160	2,389
69 SOUTHERN COPPER CORP	-	17	1,003	17	986	-	58	1,126	58	1,068	2,080	2,336
70 TEXAS INSTRUMENTS INC	50	88	310	38	222	(119)	1,936	1,078	2,055	(858)	644	2,236
71 BAXTER INTERNATIONAL INC	60	214	347	154	133	137	463	1,072	326	609	719	2,224
72 NIKE INC	15	81	-	66	(81)	59	370	1,072	311	702	-	2,223
73 VIACOM INC	-	-	227	-	227	-	-	1,035	-	1,035	471	2,146
74 DEVON ENERGY CORP	-	14	134	14	120	-	458	1,029	458	571	278	2,134
75 VALERO ENERGY CORP	-	9	81	9	73	-	213	1,011	213	798	169	2,097
76 NORTHROP GRUMMAN CORP	56	71	262	16	190	214	392	1,006	178	614	543	2,086
Total	**15,541**	**36,445**	**72,613**	**20,904**	**36,168**	**35,009**	**120,728**	**240,190**	**85,719**	**119,462**	**150,622**	**498,229**
Total as a % of aggregate	**32.93%**	**56.93%**	**68.37%**			**37.35%**	**63.63%**	**63.94%**			**68.37%**	**63.94%**

Table 15; Dividends and earnings in 1985, 2000 and in 2011 for the 49 industrial firms with at least $1 billion in real earnings in 2000.The table lists the 49 industrial firms that report at least $1 billion in real earnings in 2011. Using consumer price index to estimate real dividends in 2000, nominal dividends have been converted to 1985 dollars.

Company name	Real dividend based on 1985			Real earning based on 1985			Nominal dividend in 2000	Nominal earning in 2000
	1985	2000	Change from 1985 to 2000	1985	2000	Change from 1985 to 2000		
1 EXXON MOBIL CORP	2,607	3,840	1,233	4,870	10,028	5,158	6,123	15,990
2 GENERAL ELECTRIC CO	1,020	3,542	2,522	2,336	7,987	5,651	5,647	12,735
3 VERIZON COMMUNICATIONS INC	679	2,769	2,091	1,093	6,779	5,687	4,416	10,810
4 INTEL CORP	-	295	295	2	6,607	6,605	470	10,535
5 MICROSOFT CORP	-	-	-	-	5,908	5,908	-	9,421
6 ALTRIA GROUP INC	479	2,852	2,373	1,255	5,337	4,082	4,548	8,510
7 INTL BUSINESS MACHINES CORP	2,703	570	(2,133)	6,555	5,076	(1,479)	909	8,093
8 AT&T INC	598	2,159	1,561	996	4,996	4,000	3,443	7,967
9 MERCK & CO	235	1,822	1,587	540	4,278	3,738	2,906	6,822
10 WAL-MART STORES INC	39	671	632	327	3,948	3,620	1,070	6,295
11 FORD MOTOR CO	443	1,716	1,273	2,515	3,393	877	2,736	5,410
12 CHEVRON CORP	818	1,059	241	1,547	3,252	1,705	1,688	5,185
13 JOHNSON & JOHNSON	233	1,081	848	614	3,010	2,397	1,724	4,800
14 AT&T CORP	1,273	1,558	285	1,557	2,928	1,371	2,485	4,669
15 TYCO INTERNATIONAL LTD	7	53	46	35	2,835	2,800	85	4,520
16 GENERAL MOTORS CO	1,605	812	(794)	3,999	2,792	(1,207)	1,294	4,452
17 BELLSOUTH CORP	847	893	46	1,418	2,647	1,229	1,424	4,220
18 BRISTOL-MYERS SQUIBB CO	249	1,210	961	531	2,569	2,037	1,930	4,096
19 PFIZER INC	241	1,611	1,370	580	2,332	1,752	2,569	3,718
20 HEWLETT-PACKARD CO	57	400	343	489	2,233	1,744	638	3,561
21 PROCTER & GAMBLE CO	435	1,054	619	635	2,221	1,586	1,681	3,542
22 BERKSHIRE HATHAWAY	-	-	-	-	2,087	2,087	-	3,328
23 TEXAS INSTRUMENTS INC	50	88	38	(119)	1,936	2,055	141	3,087
24 LILLY (ELI) & CO	230	726	496	518	1,918	1,400	1,158	3,058
25 UNITED PARCEL SERVICE INC	-	493	493	-	1,840	1,840	786	2,934
26 ABBOTT LABORATORIES	168	738	570	465	1,747	1,282	1,177	2,786
27 CISCO SYSTEMS INC	-	-	-	-	1,673	1,673	-	2,668
28 MCI INC	-	-	-	(0)	1,636	1,637	-	2,609
29 HOME DEPOT INC	-	233	233	8	1,619	1,610	371	2,581
30 ORACLE CORP	-	-	-	6	1,606	1,600	-	2,561
31 TEXACO INC	714	612	(102)	1,233	1,594	361	976	2,542
32 SCHERING-PLOUGH	86	503	417	193	1,520	1,327	802	2,423
33 DU PONT (E I) DE NEMOURS	721	913	192	1,118	1,451	333	1,455	2,314
34 DELL INC	-	-	-	-	1,402	1,402	-	2,236
35 PEPSICO INC	161	502	341	420	1,369	949	801	2,183

36 COCA-COLA CO	389	1,057	668	678	1,365	688	1,685	2,177
37 BOEING CO	157	329	172	566	1,335	769	525	2,128
38 APPLIED MATERIALS INC	-	-	-	9	1,294	1,285	-	2,064
39 COMCAST CORP	-	-	-	-	1,283	1,283	-	2,045
40 MCDONALD'S CORP	76	176	100	433	1,240	807	281	1,977
41 ALLTEL CORP	37	254	216	70	1,233	1,162	404	1,965
42 CONOCOPHILLIPS	261	217	(44)	596	1,168	572	346	1,862
43 3M CO	403	576	173	664	1,165	501	918	1,857
44 SUN MICROSYSTEMS INC	-	-	-	-	1,163	1,163	-	1,854
45 UNITED TECHNOLOGIES CORP	172	243	71	636	1,134	497	387	1,808
46 KIMBERLY-CLARK CORP	106	366	260	267	1,129	862	583	1,801
47 EMC CORP/MA	-	-	-	-	1,118	1,118	-	1,782
48 LUCENT TECHNOLOGIES INC	-	159	159	-	1,054	1,054	254	1,681
49 HONEYWELL INTERNATIONAL INC	198	376	178	(279)	1,040	1,319	599	1,659
Total for 49 firms	**18,499**	**38,529**	**20,030**	**39,376**	**131,275**	**91,899**	**61,435**	**209,321**
Total as a % of aggregate for all industrials	**39.2%**	**60.2%**		**42.0%**	**69.2%**		**60.2%**	**69.2%**

Table 16; Share repurchase and earnings in 1985,2000 and in 2011 for the 76 industrial firms with at least $1 billion in real earnings in 2011. Using consumer price index to estimate real share repurchases in 2011, nominal share repurchases have been converted to 1985 dollars

	Real share repurchasing ($ million 1985 base)			Real earning ($ million 1985 base)			Nominal share repurchase and earning ($ million)	
	1985	2011	change	1985	2011	change	2011	2011
1 EXXON MOBIL CORP	2,687	10,632	7,945	4,870	19,795	14,925	22,055	41,060
2 CHEVRON CORP	-	1,539	1,539	1,547	12,966	11,419	3,193	26,895
3 APPLE INC	-	-	-	61	12,497	12,435	-	25,922
4 MICROSOFT CORP	-	5,571	5,571	-	11,160	11,160	11,555	23,150
5 FORD MOTOR CO	449	-	449-	2,515	9,744	7,229	-	20,213
6 INTL BUSINESS MACHINES CORP	-	7,253	7,253	6,555	7,644	1,089	15,046	15,855
7 WAL-MART STORES INC	1	3,036	3,035	327	7,601	7,273	6,298	15,766
8 GENERAL ELECTRIC CO	283	2,293	2,010	2,336	6,785	4,449	4,756	14,074
9 INTEL CORP	-	6,913	6,913	2	6,239	6,238	14,340	12,942
10 CONOCOPHILLIPS	4,972	5,362	390	596	5,995	5,399	11,123	12,436
11 PROCTER & GAMBLE CO	-	3,393	3,393	635	5,687	5,052	7,039	11,797
12 BERKSHIRE HATHAWAY	-	-	-	93	4,943	4,850	-	10,254
13 ORACLE CORP	3	2,823	2,820	6	4,812	4,806	5,856	9,981
14 GOOGLE INC	-	2	2	-	4,694	4,694	5	9,737
15 JOHNSON & JOHNSON	123	1,217	1,095	614	4,663	4,049	2,525	9,672
16 GENERAL MOTORS CO	-	-	-	-	4,430	4,430	-	9,190
17 PFIZER INC	66	4,339	4,273	580	4,193	3,613	9,000	8,697
18 PHILIP MORRIS INTERNATIONAL	-	2,590	2,590	-	4,142	4,142	5,372	8,591
19 COCA-COLA CO	380	2,176	1,796	678	4,132	3,455	4,513	8,572
20 HEWLETT-PACKARD CO	240	4,877	4,637	489	3,410	2,921	10,117	7,074
21 OCCIDENTAL PETROLEUM CORP	1,389	132	1,257-	455	3,201	2,746	274	6,640
22 CISCO SYSTEMS INC	-	3,324	3,324	-	3,129	3,129	6,896	6,490
23 PEPSICO INC	458	1,203	745	420	3,106	2,686	2,496	6,443
24 MERCK & CO	242	926	684	540	3,024	2,484	1,921	6,272
25 MCDONALD'S CORP	166	1,621	1,455	433	2,653	2,220	3,363	5,503
26 UNITED TECHNOLOGIES CORP	-	1,049	1,049	636	2,400	1,764	2,175	4,979
27 CATERPILLAR INC	-	-	-	198	2,376	2,178	-	4,928
28 DISNEY (WALT) CO	114	2,407	2,293	173	2,317	2,144	4,993	4,807
29 ABBOTT LABORATORIES	76	37	39-	465	2,280	1,814	77	4,728
30 APACHE CORP	4	-	4-	9	2,210	2,201	-	4,584
31 QUALCOMM INC	-	68	68	-	2,205	2,205	142	4,573
32 FREEPORT-MCMORAN COP&GOLD	-	-	-	-	2,198	2,198	-	4,560
33 LILLY (ELI) & CO	197	-	197-	518	2,096	1,578	-	4,348
34 3M CO	-	1,302	1,302	664	2,065	1,401	2,701	4,283
35 COMCAST CORP	-	1,032	1,032	-	2,005	2,005	2,141	4,160

36 BOEING CO	-	-	-	566	1,934	1,368	-	4,011
37 AT&T INC	-	-	-	996	1,901	905	-	3,944
38 HOME DEPOT INC	-	1,673	1,673	8	1,872	1,864	3,470	3,883
39 UNITED PARCEL SERVICE INC	-	1,285	1,285	-	1,834	1,834	2,665	3,804
40 BRISTOL-MYERS SQUIBB CO	-	589	589	531	1,788	1,257	1,221	3,709
41 AMGEN INC	-	4,009	4,009	1	1,776	1,775	8,315	3,683
42 KRAFT FOODS INC	-	-	-	-	1,700	1,700	-	3,527
43 CVS CAREMARK CORP	0	1,447	1,447	220	1,683	1,464	3,001	3,492
44 DELL INC	-	1,310	1,310	-	1,683	1,683	2,717	3,492
45 DU PONT (E I) DE NEMOURS	-	324	324	1,118	1,675	557	672	3,474
46 MEDTRONIC INC	33	694	661	67	1,646	1,579	1,440	3,415
47 ALTRIA GROUP INC	216	640	424	1,255	1,634	379	1,327	3,390
48 UNION PACIFIC CORP	153	684	531	501	1,587	1,086	1,418	3,292
49 EBAY INC	-	513	513	-	1,557	1,557	1,064	3,229
50 MGM RESORTS INTERNATIONAL	-	-	-	-	1,502	1,502	-	3,115
51 HALLIBURTON CO	0	21	20	29	1,449	1,420	43	3,005
52 NEWS CORP	-	-	-	-	1,443	1,443	-	2,993
53 TARGET CORP	-	888	888	284	1,412	1,128	1,842	2,929
54 TIME WARNER INC	-	2,223	2,223	-	1,391	1,391	4,611	2,886
55 CORNING INC	-	376	376	108	1,352	1,245	780	2,805
56 GILEAD SCIENCES INC	-	1,149	1,149	-	1,352	1,352	2,383	2,804
57 DEERE & CO	-	804	804	31	1,350	1,319	1,667	2,800
58 DOW CHEMICAL	83	9	74-	58	1,322	1,264	19	2,742
59 WALGREEN CO	-	978	978	94	1,308	1,214	2,028	2,714
60 LOCKHEED MARTIN CORP	-	1,188	1,188	401	1,286	885	2,465	2,667
61 DIRECTV	-	2,650	2,650	-	1,258	1,258	5,496	2,609
62 GENERAL DYNAMICS CORP	91	708	617	373	1,230	858	1,468	2,552
63 HCA HOLDINGS INC	-	725	725	-	1,188	1,188	1,503	2,465
64 EMC CORP/MA	-	964	964	-	1,187	1,187	2,000	2,461
65 EMERSON ELECTRIC CO	5	451	446	401	1,183	782	935	2,454
66 COLGATE-PALMOLIVE CO	371	871	499	168	1,172	1,004	1,806	2,431
67 VERIZON COMMUNICATIONS INC	-	-	-	1,093	1,159	66	-	2,404
68 MARATHON PETROLEUM CORP	-	-	-	-	1,152	1,152	-	2,389
69 SOUTHERN COPPER CORP	-	132	132	-	1,126	1,126	274	2,336
70 TEXAS INSTRUMENTS INC	-	951	951	119-	1,078	1,197	1,973	2,236
71 BAXTER INTERNATIONAL INC	26	763	737	137	1,072	935	1,583	2,224
72 NIKE INC	-	-	-	59	1,072	1,012	-	2,223
73 VIACOM INC	-	1,181	1,181	-	1,035	1,035	2,450	2,146
74 DEVON ENERGY CORP	-	1,124	1,124	-	1,029	1,029	2,332	2,134
75 VALERO ENERGY CORP	-	168	168	-	1,011	1,011	349	2,097
76 NORTHROP GRUMMAN CORP	-	1,106	1,106	214	1,006	791	2,295	2,086
Total of 76 firms	**12,827**	**109,715**	**96,888**	**35,009**	**240,190**	**205,181**	**227,584**	**498,229**