TOWERS PERRIN

2009 Update on U.S. Tort Cost Trends

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INTRODUCTION

The *2009 Update on U.S. Tort Cost Trends* represents the 13th study of U.S. tort costs published by Towers Perrin. The first study was completed in 1985. The most recent study, incorporating results through 2007, was published in November 2008. This update provides results from 1950 through 2008 and projections through 2011, has not been funded nor subject to pre-release approval by any outside organization and was conducted entirely by Towers Perrin.

The purpose of this study is to quantify the costs, not support any particular point of view regarding those costs. Any connotation that an increase in tort costs is undesirable is unintended.

Further, we examine only one side of the U.S. tort system — the costs. No attempt has been made to measure or quantify the benefits of the tort system, or conclude that the costs of the U.S. tort system outweigh the benefits, or vice versa.

Tort costs tabulated in this study reflect all of the various outcomes from an alleged tort. The tort claim dispute resolution process may be thought of as a continuum. An event causes one party to believe it has suffered damages as a result of the negligence of another party. From that point, the parties attempt to come to a resolution. However, the two sides often do not easily agree on either the degree of negligence or the amount of damages.

The dispute may be resolved in a number of ways:

- before a lawsuit is filed, by mutual agreement or through arbitration
- after a lawsuit is filed, but prior to a trial
- as a result of a verdict in a trial (as well as potential subsequent appeal).

Parties may elect to settle their dispute at any point along this continuum to avoid additional expense or the potential exposure they might face by taking the process to the next stage.

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EXECUTIVE SUMMARY

KEY FINDINGS

U.S. tort costs increased by 1.1% in 2008, as shown in *Table 1*. While personal tort costs increased at a rate commensurate with inflation, commercial tort costs fell slightly in 2008.

The U.S. tort system cost $254.7 billion in 2008, which translates to $838 per person, versus $836 per person in 2007.

Overall economic growth in 2008 was 3.3%. As such, the ratio of tort costs to gross domestic product (GDP) shrank in 2008, marking five consecutive years of a decline in the ratio. Since 1950, growth in tort costs has exceeded growth in GDP by an average of approximately two percentage points.

COMMENTS ON 2008

By many measures, 2008 was a tumultuous year. Here is just a sampling of significant benchmarks:

- The Dow Jones Industrial Average fell 34%.
- The S&P 500 index fell 38%.
- The Nasdaq composite fell 41%.
- The national average price of gasoline went from $3.11 a gallon in January, up to a high of $4.25 during the summer, then fell below $1.70 later in the year.
- The unemployment rate rose from 4.9% in January to 7.2% in December.
- Real GDP growth (i.e., inflation-adjusted) was negative for the first time since 1991.

Stock market indices continued to fall during the first two months of 2009, but have recovered significantly since early March. The unemployment rate continued to rise during 2009 and exceeded 10% in October 2009.

Beyond these volatile moves, there was also the takeover of Bear Stearns, the failure of Lehman Brothers and the government bailouts of Fannie Mae, Freddie Mac and AIG. Finally, late in 2008, the magnitude of the Bernard Madoff scandal became apparent.

Despite the chaos in the financial markets, the tort cost environment in the U.S., in total, was relatively benign. The increased cost of gasoline led to a decrease in miles driven, putting some downward pressure on both personal auto and commercial auto costs. Medical malpractice trends continued to be stable. While there was certainly upward pressure on directors and officers liability costs, overall, this element has been a small component of total U.S. tort costs.

TABLE 1: GROWTH OF U.S. TORT COSTS AND GDP

Years	Average Annual Increase in Tort Costs	Average Annual Increase in GDP
1951-1960	11.6%	6.0%
1961-1970	9.8	7.0
1971-1980	11.9	10.4
1981-1990	11.8	7.6
1991-2000	3.2	5.4
2001	14.7	3.2
2002	13.4	3.4
2003	5.5	4.7
2004	6.0	6.6
2005	0.4	6.3
2006	-5.6	6.1
2007	2.1	4.8
2008	1.1%	3.3%
58 Years (1951-2008)	8.9%	6.9%

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FUTURE IMPLICATIONS

We are forecasting growth in U.S. tort costs of 3.0% in 2009. The continued weakness in the economy will contain auto liability costs again in 2009. In medical malpractice, while some recent reforms have been overturned or challenged, the trends appear to be remaining modest. Costs will likely rise in directors and officers liability, particularly for financial institutions. In addition, employment practices liability (EPL) costs are expected to rise by more than inflation, as layoff activity will likely lead to an increase in allegations of improper actions by employers.

Looking longer term, we see two aspects of late 2008 activity that may have greater impacts on tort costs. The first is inflation. Spending by the U.S. government has increased dramatically, with sizable growth in the country's debt and annual deficit. While inflation remains relatively tame in 2009, we see the potential for a return to inflation levels of the 1970s in a few years. Tort costs will likely increase along with that growth. In addition, data over the last 35 years show a correlation between monetary inflation (defined as the change in the Consumer Price Index ([CPI]) and social inflation (defined as the change in the average tort cost per person, after adjusting for CPI changes), as shown in the *Table 2*.

The second aspect is the change in the U.S. presidency and administration from Republican to Democrat. From 1981 to 2008, in all but two terms (1993-2000), the U.S was headed by a Republican president. While the presidency itself may not directly influence tort costs, the president's judicial appointments may have a more meaningful impact. This 28-year period reflects a shift in judicial attitudes regarding the rights of plaintiffs versus defendants in litigation. Given the recent change in administration, we envision the possibility of a new era involving an opposite pendulum shift in judicial attitudes and tort cost growth.

As a result, we are forecasting higher levels of tort cost growth in both 2010 (4%) and 2011 (6%).

TABLE 2: CPI RELATIVE TO SOCIAL INFLATION

Years	Average CPI	Average Social Inflation
1974-1983	8.4%	5.5%
1984-2008	3.1%	1.4%

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FINDINGS

2008 TORT COSTS

Towers Perrin estimates that 2008 U.S. total insured and self-insured tort costs were $254.7 billion, an increase of $2.7 billion, or 1.1%, from the estimated $252 billion in 2007 tort costs. While higher than prior-year levels, 2008 tort costs were lower than 2004 and 2005 costs ($260.3 billion and $261.4 billion, respectively).

COSTS RELATIVE TO GDP

The ratio of U.S. tort costs to GDP has increased significantly since 1950. However, as shown in *Table 3*, the ratio of tort costs to GDP* decreased substantially since 2003.

As shown in *Exhibit 1*, over the last 25 years (1984-2008), tort costs as a ratio of GDP ranged from a low of 1.7% to a high of 2.3%. The 25-year pattern appears cyclical, with rapid increases in the ratio in the mid-1980s and early 2000s offset by multiyear periods of declines in the ratio.

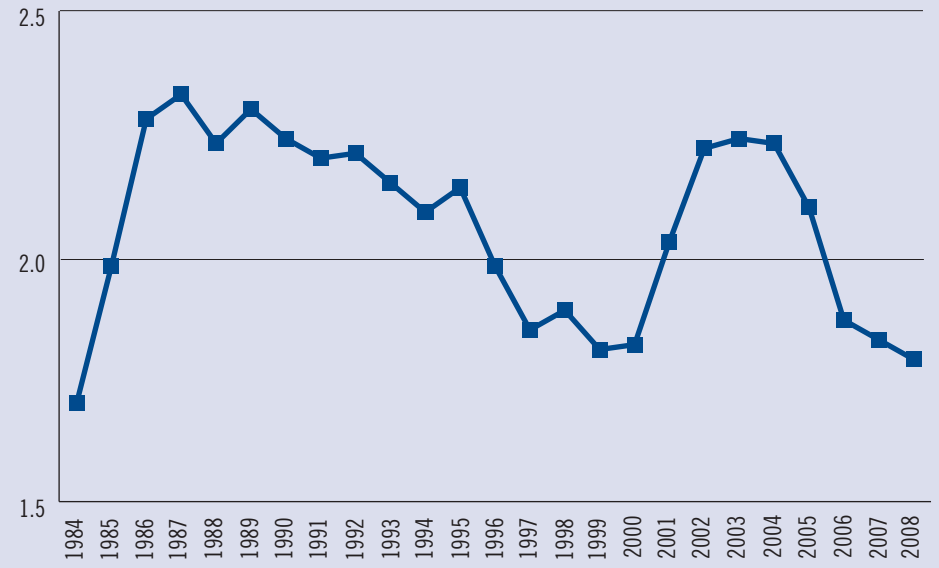
TABLE 3: TORT COSTS RELATIVE TO GDP

($billions)

Year	U.S. Tort Costs	U.S. GDP	Tort Costs as % of GDP
1950	$ 1.8	$ 294	0.62%
1960	5.4	526	1.03
1970	13.9	1,039	1.34
1980	42.7	2,790	1.53
1990	130.2	5,803	2.24
2000	179.1	9,817	1.82
2001	205.4	10,128	2.03
2002	232.9	10,470	2.22
2003	245.7	10,961	2.24
2004	260.3	11,686	2.23
2005	261.4	12,422	2.10
2006	246.9	13,178	1.87
2007	252.0	13,808	1.83
2008	$254.7	$14,265	1.79%

EXHIBIT 1

Tort Costs as Percent of GDP



*Throughout this report, unadjusted, or nominal, GDP is used. Most news releases on GDP rely on inflation-adjusted, or real, GDP.

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COSTS RELATIVE TO POPULATION

Growth in U.S. tort costs since 1950 has far exceeded U.S. population growth, as indicated in *Table 4*. Even after adjusting for inflation, tort costs per capita have risen by a factor of nearly eight between 1950 and 2008. However, inflation-adjusted tort costs per capita were lower in 2008 than in the prior seven years.

SPLIT TO PERSONAL VERSUS COMMERCIAL

Table 5 shows our estimate of personal and commercial U.S. torts since 1990. "Commercial" reflects torts alleged against businesses and includes all medical malpractice tort costs. "Personal" tort costs include torts alleged against individuals, excluding medical malpractice. Personal tort costs stem from automobile accidents.

As the table data indicate, the increase in commercial tort costs since 1990 exceeded the increase in personal tort costs. The difference is even greater when measured since 2000. However, commercial tort costs decreased from 2004 to 2008, while personal tort costs increased 8.5%.

TABLE 4: TORT COSTS RELATIVE TO POPULATION

Year	U.S. Population (millions)	U.S. Tort Costs ($billions)	Tort Cost per Capita	Inflation-Adjusted* Tort Cost per Capita
1950	152	$ 1.8	$ 12	$ 106
1960	181	5.4	30	219
1970	205	13.9	68	375
1980	228	42.7	187	490
1990	249	130.2	522	860
2000	281	179.1	636	796
2004	293	260.3	888	1,013
2005	296	261.4	884	975
2006	298	246.9	828	884
2007	301	252.0	836	868
2008	304	$254.7	$838	$ 838

***Restated in year 2008 dollars, based on the Consumer Price Index**

The fairly modest growth in personal tort costs since 1990 is due in some part to a long-term reduction in auto accident frequency. *Table 6* shows an index of accident frequency and claims per vehicle for property damage auto liability since 1991, based on industry trend data. Counter to the long-term trend, the index increased in 2007, marking the first increase since 1999. However, the index resumed its decline in 2008.

Total tort costs from commercial lines decreased by 0.4% from 2007 to 2008. At $160.5 billion, 2008 commercial tort costs were 7.3% lower than average commercial tort costs in peak years 2004 and 2005. Lower costs in recent years appear to be due to a reduced number of claims. Insurance industry data show fewer claims reported as of year-end from coverage provided in 2008 than in 2003-2005 for the commercial auto liability, other liability-occurrence and products liability lines. In contrast, the other liability-claims-made line (which includes directors and officers liability) saw a sizable increase in reported claims in 2008. In medical malpractice, there has been a multiyear period of declining claim reporting, which in recent years has generally been offset by only modest increases in the average cost per claim.

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TABLE 5: PERSONAL VERSUS COMMERCIAL TORT COSTS

($billions)

Year	Personal Tort Costs	Commercial Tort Costs
1990	$52.0	$ 78.2
1991	53.4	78.2
1992	56.4	83.8
1993	57.3	85.9
1994	60.1	87.8
1995	61.5	96.9
1996	62.7	91.9
1997	63.4	90.4
1998	66.3	98.9
1999	68.2	99.9
2000	72.3	106.8
2001	76.8	128.6
2002	80.0	152.9
2003	84.2	161.5
2004	86.8	173.5
2005	88.5	172.9
2006	87.4	159.5
2007	90.8	161.2
2008	$94.2	$160.5
Average Annual Change		
Since 1990	3.4%	4.1%
Since 2000	3.4%	5.2%
Since 2004	2.1%	-1.9%

TABLE 6: PROPERTY DAMAGE FREQUENCY INDEX

(1991=1.000)

1991	1.000
1992	0.968
1993	0.984
1994	1.016
1995	1.013
1996	1.041
1997	1.021
1998	1.007
1999	1.016
2000	1.002
2001	1.001
2002	0.983
2003	0.960
2004	0.938
2005	0.923
2006	0.891
2007	0.898
2008	0.867

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METHODOLOGY AND APPROACH

COMPONENTS OF TORT COSTS

The methodology used to develop estimates of tort costs in this study is similar to the methodology used in prior Towers Perrin studies of U.S. tort costs. This study incorporates three cost components:

- benefits paid or expected to be paid to third parties (hereafter referred to as "losses")
- defense costs
- administrative expenses.

It is important to note that we have measured losses on an incurred basis, reflecting both payments as well as the collective change in reserves on incurred claims. We believe it is more appropriate to measure costs on an incurred basis than on a paid basis because of the greater time difference between an event and the payment of the claim than between the event and the estimate of the cost of that event. However, we recognize that more estimates of costs must be used when measuring on an incurred versus paid basis.

Our use of incurred losses instead of paid losses has resulted in higher increases in tort costs in recent years. Had paid losses been used, the costs of asbestos-related claims included in the study would have been lower. However, use of incurred losses does not overstate tort costs. To argue this, one would have to hypothesize that insurers knowingly set reserves too high. We do not believe this is the case.

Defense costs reflect costs directly incurred in the defense and investigation of a claim, as well as general claim-handling costs. The former is known as allocated loss adjustment expenses (ALAE), while the latter is often referred to as unallocated loss adjustment expenses (ULAE).

Administrative expenses reflect expenses, other than defense costs, incurred by either the insurance company or self-insured entity in the administration of tort claims. We take no position on the efficiency of the insurance industry's administrative expenses. However, we note the following:

- The relative share of total insured tort costs (as defined below) attributable to administrative expenses generally declined during the 1950s, 1960s and 1970s. However, the portion has increased slightly since 1980.
- The U.S. insurance industry is not a monopoly or a cartel. Insurers have an incentive to be as efficient as possible to either strengthen their competitive positions or maximize their profits. The industry is subject to the same cost and competitive pressures that most industries face.
- We believe administrative expenses are a real cost of the tort system. Their inclusion undoubtedly increases the absolute levels of estimated tort costs, but has a minimal impact on recent tort cost trends.

As detailed in Appendix 3, *Table 7* shows the average administrative expense portion of insured tort costs by decade.

TABLE 7: TORT COSTS — ADMINISTRATIVE EXPENSE PORTION

Time Period	Insured Tort Costs — Administrative Expense Portion
1950-1959	32.2%
1960-1969	29.0
1970-1979	26.0
1980-1989	22.0
1990-1999	23.0
2000-2008	23.8%

CATEGORIES OF TORT COSTS

Towers Perrin computed tort costs in the following three categories:

- insured costs (excluding medical malpractice)
- self-insured costs (excluding medical malpractice)
- medical malpractice costs.

We derived insured costs from composite financial data for the U.S. insurance industry, as tabulated by A.M. Best. These data are considered highly reliable because they are subject to audit and are reviewed by state regulatory agencies. Moreover, while certain product lines have changed over time, the data are available as far back as 1950 and, in some cases, even earlier.

The statutory lines of business we include in the insured category are as follows:

- private passenger auto liability
- homeowners multiperil
- farmowners multiperil

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- commercial auto liability
- commercial multiperil
- other liability
- products liability.

The following should be noted regarding the lines of business included:

- For both personal auto liability and commercial auto liability, costs associated with personal injury protection (PIP, also known as no-fault) are excluded. PIP costs are excluded since PIP is, in theory, a first-party coverage, not a liability coverage. This exclusion has only a minor impact on commercial auto costs but is material for personal auto liability.
- Homeowners and farmowners multiperil are largely first-party property coverages that have a liability (or tort) element. We excluded 92% of the costs for these lines (91% prior to 2008). Our estimate that 8% of the costs for these lines are tort-related is based on our experience with these coverages.
- Commercial multiperil (CMP) also includes both property and liability. However, since 1992, insurance data have been split into liability and property components. Prior to 1992, up to 50% of total CMP costs are included in this study.
- Costs from workers compensation (in theory, a first-party coverage), aviation and ocean marine are not included in this study. The latter two coverages do have a liability component; however, given their size and a limited foundation for estimating the liability portion, they were excluded.

The insured tort costs are the sum of the three components of losses: losses, loss adjustment expenses and administrative expenses. The last component includes the following statutory expense categories:

- commissions and brokerage
- other acquisition expenses
- general expenses
- taxes, licenses and fees.

Total tort costs from the A.M. Best data are reduced slightly to reflect an estimate of non-U.S. business in the data. The reduction varies by line of business and is approximately 2%.

Earned premiums are displayed in Appendix 3. The actual premiums are not considered in total tort costs shown in column (6). (The arithmetic in the appendix multiplies premiums by ratios in which earned premium is the denominator, effectively eliminating premiums from the resulting product.) As such, any increase in insurance premiums without a corresponding increase in costs has no impact on estimated tort costs in this study.

As shown in Appendix 3, total 2008 insured tort costs are an estimated $178.4 billion.

The second category of tort costs is self-insured costs, excluding medical malpractice. Appendix 4 outlines the estimated costs for this category.

As shown in the appendix, we estimate 2% of personal tort costs to be in this category. This is not to say that 2% of the auto-driving population is uninsured or that 2% of auto accidents involve an uninsured driver. (Actual figures for these items would likely be far higher than 2%.) Rather, the 2% provision reflects our estimate of the *additional* tort costs not included in the insured data. Many personal auto insurance policies include coverage for uninsured motorists, whereby the insured is compensated if injured in an auto accident caused by an uninsured or underinsured driver. As such, the "insured" tort costs described previously already include costs associated with many auto accidents involving uninsured drivers. The 2% provision adds $1.9 billion to our estimate of 2008 personal tort costs.

Our estimate of self-insured tort costs is approximately $44.6 billion for commercial risks in 2008. This estimate includes tort costs paid by various forms of self-insurance such as large deductibles and captive insurance programs. The estimate also considers insurance purchased directly from non-U.S. insurance companies, since such insured costs are not captured in the A.M. Best data used to estimate the insured cost category.

To our knowledge, no source of data exists that tabulates the losses incurred by all self-insured entities. However, various organizations have estimated the size of this market. We have relied on the various estimates available, as well as Towers Perrin's experience in this field, in developing the costs for

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this category. We have assumed that the administrative expense component in this category is 10% lower than the insured category.

Our estimate of commercial self-insured costs does not capture certain extraordinary costs. For example, costs resulting from the 1998 settlement between tobacco manufacturers and various state attorneys general are not explicitly included in this study.

As can be seen in Appendix 4, our estimates of commercial self-insured costs show a long-term increase in the portion of commercial tort costs that are self-insured.

The third category of tort costs is medical malpractice, both insured and self-insured. Appendix 5 shows the estimated medical malpractice tort costs since 1975. A.M. Best data started segregating medical malpractice costs beginning in 1975; the portion of these costs that are insured has fluctuated significantly since then.

Our estimate of medical malpractice costs is based on Towers Perrin's internal estimates of state-by-state medical malpractice costs. The state costs per physician and per occupied hospital bed are multiplied by the number of practicing physicians and occupied beds by year to develop the estimated medical malpractice losses and loss adjusted expenses (LAE). Administrative expenses are included. As with the self-insured estimate, we assume a 10% lower administrative cost than insurance data indicate.

As shown in Appendix 5, our estimate of 2008 medical malpractice costs is approximately $29.8 billion. Our analysis suggests that, since 1975, medical malpractice costs have increased at an annual rate of 10.3%, versus 7.8% for all other tort costs.

EXCLUDED COSTS

Our definition of tort cost is largely governed by traditional liability insurance coverages. We previously noted the exclusion of tobacco settlements. For gray areas where awards and settlements are typically (but not always) excluded, such as punitive damages (which are included in the insurance contract in certain states) and certain types of contract and shareholder litigation, the costs reflected in this study are consistent with those reported by insurance companies. Therefore, while certain of these costs may be included in the tort cost totals, we are unable to separately account for them.

We have *not* included costs incurred by federal and state court systems in administering actual suits. We do not believe the omission of these costs significantly understates our cost index or in any material way distorts long-term trends.

Certain indirect costs are also omitted, such as those associated with litigation avoidance. These costs range from potentially unnecessary and duplicative medical tests ordered by doctors as a defense against possible malpractice allegations, to the disappearance of certain products or whole industries from the marketplace because of high product liability cost.

As noted previously, this study does not attempt to quantify the benefits of the tort system. Such benefits include a systematic resolution of disputes, thereby reducing conflict, possibly including violence. Another indirect benefit is that the tort system may act as a deterrent to unsafe practices and products. From this perspective, compensation for pain and suffering is seen as beneficial to society as a whole.

CHANGES FROM THE 2008 STUDY

There have been modest 2005-2007 U.S. population changes since our 2008 study. These changes result in different estimates of tort costs per capita from the prior study. In addition, the 2008 medical malpractice costs reflect new research by Towers Perrin, as well as data on hospital and physician exposures. The net effect of this new information is a shift in costs from physicians to hospitals (the latter also includes physicians employed by hospitals). However, the impact of this shift on total medical malpractice costs was minimal.

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LOOKING AHEAD

Tort costs grew by 1.1% in 2008. The 2008 increase was less than general U.S. inflation and well below the growth rates seen early in the decade. The lower growth rate is largely due to commercial lines, as shown in *Table 8*.

In 2009, we expect 3% tort cost growth, higher than in each of the previous four years but well below longer-term averages, partly due to anticipated increases in employment practices and directors and officers liability. In addition, litigation related to professional services errors and omissions will likely rise after the near-meltdown in financial and credit markets in 2008. However, we expect only inflationary-type increases (possibly less) in many other areas, such as auto liability (both personal and commercial), products liability and medical malpractice.

The Congressional Budget Office (CBO) anticipates a 1.5% decrease in GDP in 2009. Combining this level of GDP change with our tort costs forecast yields a 1.87% ratio of tort costs to GDP in 2009, an increase from the 2008 ratio. If this holds, it will be the first increase in this ratio since 2003.

Looking ahead, we anticipate growth in U.S. tort costs to range from 2% to 6% in 2010, with a midpoint of 4.0%. We expect a similar increase in 2011, with a midpoint of 6%. The CBO forecasts call for 3.8% GDP growth for 2010 and 4.5% in 2011. These assumptions yield projected tort costs, GDP and tort-to-GDP ratios as shown in *Table 9*.

TABLE 8: ONE-YEAR GROWTH IN TORT COSTS

Year	Personal	Commercial	Total
2001	6.2%	20.4%	14.7%
2002	4.2	18.9	13.4
2003	5.3	5.6	5.5
2004	3.1	7.5	6.0
2005	1.9	-0.4	0.4
2006	-1.3	-7.8	-5.6
2007	3.9	1.0	2.1
2008	3.7%	-0.4%	1.1%

TABLE 9: TORT COSTS RELATIVE TO GDP

($billions)

Year	Tort Costs	GDP	Tort Costs as % of GDP
2007	$252.0	$13,808	1.83%
2008	254.7	14,265	1.79
2009 (est.)	262.3	14,051	1.87
2010 (est.)	272.8	14,585	1.87
2011 (est.)	$289.2	$15,241	1.90%

Beyond 2009 and likely 2010, we anticipate general inflation and judicial attitudes to be potential catalysts for higher tort cost growth. In this regard, medical malpractice is very susceptible to a quick change in costs. Given the long time period needed to resolve many malpractice claims, coupled with heavy use of the court system, this area of tort costs could see a return to growth rates of the mid-1970s, mid-1980s and a brief period early in this decade.

Medical malpractice costs per capita have come down each of the last four years in inflation-adjusted dollars. While this may continue in 2009, it would come as little surprise if these costs show material escalation in a few years. Although health care reform legislation is currently being debated in Washington, with some discussions about medical malpractice reform on a national level, we anticipate minimal likelihood of national reform. Any reforms, or repeal/overturn of recent reforms, will in all likelihood continue to be debated and decided at the state level.

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Appendices

Cost of the U.S. Tort System — 1950-2008 ..... Appendix 1A

Cost of the U.S. Tort System — 1950-2008 —
Average Annual Changes by Groups of Years ..... Appendix 1B

Summary of All Tort System Costs ..... Appendix 2

Insured Tort Costs ..... Appendix 3

Cost of the U.S. Tort System — Comparisons of Personal Lines
to Commercial Lines Costs and Impact of Self-Insurance ..... Appendix 4

Medical Malpractice Tort Costs ..... Appendix 5

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Cost of the U.S. Tort System — 1950-2008

Appendix 1A

Year	U.S. Population (millions)	CPI (all items)	CPI (medical care)	Gross Domestic Product ($billions)	Tort System Costs ($billions)	Tort Costs as % of GDP
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1950	152	0.241	0.151	$ 294	$ 1.8	0.62%
1951	155	0.260	0.159	339	2.3	0.67
1952	158	0.265	0.167	358	2.7	0.75
1953	160	0.267	0.173	379	3.0	0.78
1954	163	0.269	0.178	380	3.1	0.81
1955	166	0.268	0.182	415	3.4	0.82
1956	169	0.272	0.189	437	3.9	0.89
1957	172	0.281	0.197	461	4.5	0.98
1958	175	0.289	0.206	467	4.9	1.04
1959	178	0.291	0.215	507	5.2	1.03
1960	181	0.296	0.223	526	5.4	1.03
1961	184	0.299	0.229	545	5.7	1.04
1962	187	0.302	0.235	586	6.0	1.02
1963	189	0.306	0.241	618	6.6	1.07
1964	192	0.310	0.246	664	7.3	1.10
1965	194	0.315	0.252	719	7.9	1.11
1966	197	0.324	0.263	788	8.7	1.11
1967	199	0.334	0.282	833	9.6	1.15
1968	201	0.348	0.299	910	10.6	1.17
1969	203	0.367	0.319	985	12.0	1.22
1970	205	0.388	0.340	1,039	13.9	1.34
1971	208	0.405	0.361	1,127	15.0	1.33
1972	210	0.418	0.373	1,238	15.7	1.27
1973	212	0.444	0.388	1,383	15.2	1.10
1974	214	0.493	0.424	1,500	16.5	1.10
1975	216	0.538	0.475	1,638	20.0	1.22
1976	218	0.569	0.520	1,825	23.4	1.28
1977	220	0.606	0.570	2,031	28.0	1.38
1978	223	0.652	0.618	2,295	32.7	1.42
1979	225	0.726	0.675	2,563	37.0	1.44
1980	228	0.824	0.749	2,790	42.7	1.53
1981	230	0.909	0.829	3,128	49.2	1.57
1982	232	0.965	0.925	3,255	56.7	1.74
1983	234	0.996	1.006	3,537	64.4	1.82
1984	236	1.039	1.068	3,933	66.9	1.70
1985	239	1.076	1.135	4,220	83.7	1.98
1986	241	1.096	1.220	4,463	101.7	2.28
1987	243	1.136	1.301	4,739	110.5	2.33
1988	245	1.183	1.386	5,104	114.0	2.23
1989	247	1.240	1.493	5,484	126.2	2.30
1990	249	1.307	1.628	5,803	130.2	2.24
1991	252	1.362	1.770	5,996	131.6	2.20
1992	255	1.403	1.901	6,338	140.2	2.21
1993	258	1.445	2.014	6,657	143.2	2.15
1994	260	1.482	2.110	7,072	147.8	2.09
1995	263	1.524	2.205	7,398	158.4	2.14
1996	265	1.569	2.282	7,817	154.5	1.98
1997	268	1.605	2.346	8,304	153.8	1.85
1998	270	1.630	2.421	8,747	165.2	1.89
1999	273	1.666	2.506	9,268	168.1	1.81
2000	281	1.722	2.608	9,817	179.1	1.82
2001	285	1.771	2.728	10,128	205.4	2.03
2002	288	1.799	2.856	10,470	232.9	2.22
2003	290	1.840	2.971	10,961	245.7	2.24
2004	293	1.889	3.101	11,686	260.3	2.23
2005	296	1.953	3.232	12,422	261.4	2.10
2006	298	2.016	3.362	13,178	246.9	1.87
2007	301	2.073	3.511	13,808	252.0	1.83
2008	304	2.153	3.641	$14,265	$254.7	1.79%

Notes: (2) From U.S. Census Bureau
(3), (4) From U.S. Department of Labor, Bureau of Labor Statistics
(5) From U.S. Department of Commerce, Bureau of Economic Analysis
(6) From Appendix 2, column (5)
(7) = (6) / (5)

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Cost of the U.S. Tort System — 1950-2008

Appendix 1B

Average Annual Changes by Groups of Years

Years	U.S. Population	CPI (all items)	CPI (medical care)	Gross Domestic Product ($billions)	Tort System Costs ($billions)	Tort Costs as % of GDP
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1951-2008	1.2%	3.8%	5.6%	6.9%	8.9%	1.9%
1951-1960	1.7	2.1	4.0	6.0	11.6	5.3
1961-1970	1.3	2.7	4.3	7.0	9.8	2.6
1971-1980	1.1	7.8	8.2	10.4	11.9	1.4
1981-1990	0.9	4.7	8.1	7.6	11.8	3.9
1991-2000	1.2	2.8	4.8	5.4	3.2	-2.0
2001	1.3	2.8	4.6	3.2	14.7	11.2
2002	0.9	1.6	4.7	3.4	13.4	9.7
2003	0.9	2.3	4.0	4.7	5.5	0.8
2004	0.9	2.7	4.4	6.6	6.0	-0.6
2005	0.9	3.4	4.2	6.3	0.4	-5.5
2006	0.9	3.2	4.0	6.1	-5.6	-11.0
2007	1.0	2.8	4.4	4.8	2.1	-2.6
2008	0.9	3.8	3.7	3.3	1.1	-2.2
1951-2000	1.2	4.0	5.9	7.3	9.6	2.2
2001-2008	1.0%	2.8%	4.3%	4.8%	4.5%	-0.3%

Note: Based on figures in Appendix 1A

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Summary of All Tort System Costs

Appendix 2

Year	Liability Insured Cost	Medical Malpractice	Self- (Un) Insured	Total Cost
(1)	(2)	(3)	(4)	(5)
1950	$ 1,723,059	$ N/A	$ 86,153	$ 1,809,212
1951	2,177,633	N/A	108,882	2,286,515
1952	2,557,353	N/A	127,868	2,685,221
1953	2,828,158	N/A	141,408	2,969,566
1954	2,950,051	N/A	147,503	3,097,553
1955	3,250,829	N/A	162,541	3,413,370
1956	3,719,824	N/A	185,991	3,905,815
1957	4,293,067	N/A	214,653	4,507,720
1958	4,624,008	N/A	231,200	4,855,208
1959	4,971,526	N/A	248,576	5,220,102
1960	5,186,101	N/A	259,305	5,445,407
1961	5,394,567	N/A	269,728	5,664,295
1962	5,704,594	N/A	285,230	5,989,824
1963	6,299,547	N/A	314,977	6,614,525
1964	6,924,227	N/A	346,211	7,270,438
1965	7,570,265	N/A	378,513	7,948,778
1966	8,322,529	N/A	416,126	8,738,655
1967	9,150,869	N/A	457,543	9,608,413
1968	10,102,273	N/A	505,114	10,607,387
1969	11,413,351	N/A	570,668	11,984,019
1970	13,208,732	N/A	660,437	13,869,169
1971	14,304,768	N/A	715,238	15,020,007
1972	14,933,112	N/A	746,656	15,679,768
1973	14,621,296	N/A	563,240	15,184,535
1974	15,837,813	N/A	623,535	16,461,347
1975	17,914,909	1,158,476	960,444	20,033,829
1976	20,687,521	1,420,786	1,245,574	23,353,881
1977	24,073,405	1,811,894	2,081,899	27,967,198
1978	27,616,588	2,241,760	2,814,504	32,672,853
1979	30,934,883	2,745,213	3,358,083	37,038,178
1980	34,057,943	3,376,381	5,235,693	42,670,017
1981	38,929,780	4,065,717	6,245,906	49,241,403
1982	44,438,093	4,845,214	7,432,699	56,716,006
1983	49,946,629	5,802,016	8,676,935	64,425,580
1984	51,208,738	6,768,896	8,966,786	66,944,420
1985	64,455,656	6,740,227	12,484,152	83,680,035
1986	78,167,587	6,892,127	16,627,514	101,687,229
1987	85,112,183	7,314,182	18,087,846	110,514,210
1988	88,462,814	7,622,786	17,925,304	114,010,903
1989	97,030,370	8,498,791	20,639,237	126,168,398
1990	100,602,676	9,202,873	20,357,363	130,162,912
1991	101,016,143	10,077,004	20,522,153	131,615,300
1992	106,652,899	10,599,730	22,915,896	140,168,525
1993	108,560,517	11,511,556	23,127,472	143,199,545
1994	112,042,831	12,484,159	23,307,639	147,834,629
1995	118,478,058	13,285,645	26,602,720	158,366,422
1996	115,362,594	14,106,400	25,068,233	154,537,227
1997	113,561,713	15,474,060	24,767,144	153,802,916
1998	121,428,366	16,429,936	27,374,427	165,232,729
1999	122,863,786	17,898,229	27,339,281	168,101,297
2000	129,528,854	19,596,842	29,955,242	179,080,939
2001	146,177,700	21,723,960	37,453,893	205,355,553
2002	165,841,657	24,152,742	42,924,460	232,918,858
2003	173,873,885	26,484,564	45,333,244	245,691,693
2004	181,954,952	28,189,883	50,197,025	260,341,861
2005	181,971,396	29,391,286	50,057,650	261,420,332
2006	171,228,466	30,143,829	45,529,106	246,901,402
2007	174,732,090	30,409,030	46,848,019	251,989,138
2008	$178,408,164	$29,768,202	$46,521,278	$254,697,644

Notes: All dollar amounts are in $000s.
(2) From Appendix 3 [1975-2008 excludes medical malpractice]
(3) From Appendix 5
(4) From Appendix 4 [Prior to 1973, .05 x (2)]

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Insured Tort Costs

Appendix 3

Year	Earned Premium	Loss & LAE Ratio	Expense Ratio	Combined Ratio	Insured Tort Costs
(1)	(2)	(3)	(4)	(5)	(6)
1950	$ 1,752,857	64.3%	34.0%	98.3%	$ 1,723,059
1951	2,083,720	71.1	33.4	104.5	2,177,633
1952	2,515,153	69.3	32.4	101.7	2,557,353
1953	2,981,588	63.2	31.6	94.9	2,828,158
1954	3,155,435	61.4	32.1	93.5	2,950,051
1955	3,337,773	64.9	32.5	97.4	3,250,829
1956	3,619,255	70.1	32.7	102.8	3,719,824
1957	4,035,199	74.0	32.4	106.4	4,293,067
1958	4,442,849	72.6	31.4	104.1	4,624,008
1959	4,951,128	69.9	30.6	100.4	4,971,526
1960	5,276,984	67.7	30.6	98.3	5,186,101
1961	5,504,507	67.1	30.9	98.0	5,394,567
1962	5,819,378	67.3	30.8	98.0	5,704,594
1963	6,224,657	70.5	30.7	101.2	6,299,547
1964	6,688,473	73.4	30.1	103.5	6,924,227
1965	7,379,531	73.5	29.1	102.6	7,570,265
1966	8,187,339	73.4	28.3	101.7	8,322,529
1967	8,947,529	74.1	28.1	102.3	9,150,869
1968	9,768,188	75.6	27.8	103.4	10,102,273
1969	10,957,402	76.9	27.2	104.2	11,413,351
1970	12,715,930	77.5	26.4	103.9	13,208,732
1971	14,273,904	74.1	26.1	100.2	14,304,768
1972	15,144,973	71.8	26.8	98.6	14,933,112
1973	14,360,195	74.8	27.0	101.8	14,621,296
1974	14,908,953	78.5	27.7	106.2	15,837,813
1975	16,500,824	81.5	27.0	108.6	17,914,909
1976	20,090,047	77.3	25.7	103.0	20,687,521
1977	24,973,118	71.4	25.0	96.4	24,073,405
1978	28,692,720	70.5	25.8	96.2	27,616,588
1979	31,088,697	73.1	26.4	99.5	30,934,883
1980	32,194,946	78.7	27.1	105.8	34,057,943
1981	32,838,195	90.7	27.8	118.6	38,929,780
1982	34,170,095	101.5	28.6	130.0	44,438,093
1983	36,235,619	109.2	28.6	137.8	49,946,629
1984	39,843,449	101.1	27.4	128.5	51,208,738
1985	50,372,373	102.9	25.1	128.0	64,455,656
1986	68,516,069	90.7	23.3	114.1	78,167,587
1987	78,337,490	84.8	23.9	108.6	85,112,183
1988	81,771,490	83.7	24.5	108.2	88,462,814
1989	83,745,030	89.7	26.1	115.9	97,030,370
1990	87,971,533	89.1	25.2	114.4	100,602,676
1991	89,311,786	87.0	26.1	113.1	101,016,143
1992	92,659,338	89.9	25.2	115.1	106,652,899
1993	96,562,526	87.6	24.8	112.4	108,560,517
1994	101,730,356	85.7	24.4	110.1	112,042,831
1995	105,299,103	87.6	24.9	112.5	118,478,058
1996	108,378,052	81.7	24.8	106.4	115,362,594
1997	110,525,049	77.4	25.4	102.7	113,561,713
1998	113,325,370	81.2	25.9	107.2	121,428,366
1999	111,429,324	83.7	26.5	110.3	122,863,786
2000	113,589,472	87.4	26.6	114.0	129,528,854
2001	124,411,884	92.5	25.0	117.5	146,177,700
2002	140,996,964	93.2	24.5	117.6	165,841,657
2003	161,077,976	83.9	24.1	107.9	173,873,885
2004	173,673,135	80.2	24.6	104.8	181,954,952
2005	179,195,243	77.3	24.3	101.5	181,971,396
2006	181,766,485	69.3	24.9	94.2	171,228,466
2007	181,246,054	70.8	25.6	96.4	174,732,090
2008	$178,421,527	73.9%	26.1%	100.0%	$178,408,164

Notes: (2), (6) All dollar amounts are in $000s.
All data reflect direct revenues and costs from "Best's Aggregates and Averages."
Prior to 1975, medical malpractice is included; for 1975-2008, it is excluded.
(6) = (2) x (5)

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Cost of the U.S. Tort System

Appendix 4

Comparisons of Personal Lines to Commercial Lines Costs and Impact of Self-Insurance

	Personal Lines			Commercial Lines			
Year	Insured	Self- (Un) Insured	Total	Insured	Self- (Un) Insured	Total	Self- (Un) Insured
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1973	$ 8,521,899	2.0%	$ 8,695,815	$ 6,099,397	6.0%	$ 6,488,720	$ 563,240
1974	8,921,581	2.0	9,103,654	6,916,232	6.0	7,357,694	623,535
1975	10,336,734	2.0	10,547,688	7,578,176	9.0	8,327,665	960,444
1976	11,609,756	2.0	11,846,690	9,077,764	10.0	10,086,405	1,245,574
1977	12,902,054	2.0	13,165,362	11,171,351	14.0	12,989,943	2,081,899
1978	14,381,293	2.0	14,674,789	13,235,295	16.0	15,756,304	2,814,504
1979	15,985,767	2.0	16,312,007	14,949,116	16.9	17,980,958	3,358,083
1980	17,084,039	2.0	17,432,692	16,973,905	22.4	21,860,944	5,235,693
1981	18,892,570	2.0	19,278,133	20,037,210	22.6	25,897,553	6,245,906
1982	20,828,903	2.0	21,253,983	23,609,190	22.9	30,616,810	7,432,699
1983	22,945,067	2.0	23,413,333	27,001,563	23.3	35,210,231	8,676,935
1984	25,615,607	2.0	26,138,375	25,593,130	24.8	34,037,149	8,966,786
1985	29,695,287	2.0	30,301,313	34,760,369	25.5	46,638,495	12,484,152
1986	34,460,827	2.0	35,164,110	43,706,759	26.7	59,630,991	16,627,514
1987	38,092,590	2.0	38,869,990	47,019,592	26.9	64,330,038	18,087,846
1988	41,783,652	2.0	42,636,380	46,679,161	26.8	63,751,737	17,925,304
1989	46,424,500	2.0	47,371,939	50,605,870	28.0	70,297,668	20,639,237
1990	50,967,722	2.0	52,007,879	49,634,954	28.0	68,952,159	20,357,363
1991	52,338,179	2.0	53,406,306	48,677,963	28.6	68,131,990	20,522,153
1992	55,274,662	2.0	56,402,716	51,378,237	29.8	73,166,079	22,915,896
1993	56,164,851	2.0	57,311,072	52,395,666	29.6	74,376,917	23,127,472
1994	58,857,222	2.0	60,058,389	53,185,609	29.4	75,292,080	23,307,639
1995	60,222,560	2.0	61,451,592	58,255,497	30.3	83,629,186	26,602,720
1996	61,414,886	2.0	62,668,251	53,947,707	30.6	77,762,576	25,068,233
1997	62,097,411	2.0	63,364,705	51,464,302	31.3	74,964,151	24,767,144
1998	64,995,727	2.0	66,322,170	56,432,639	31.6	82,480,623	27,374,427
1999	66,807,453	2.0	68,170,870	56,056,333	31.7	82,032,197	27,339,281
2000	70,866,341	2.0	72,312,592	58,662,514	32.7	87,171,504	29,955,242
2001	75,245,057	2.0	76,780,671	70,932,643	33.6	106,850,923	37,453,893
2002	78,405,888	2.0	80,006,008	87,435,769	32.1	128,760,109	42,924,460
2003	82,522,939	2.0	84,207,081	91,350,946	32.3	135,000,048	45,333,244
2004	85,077,876	2.0	86,814,159	96,877,076	33.3	145,337,818	50,197,025
2005	86,731,770	2.0	88,501,806	95,239,627	33.6	143,527,240	50,057,650
2006	85,645,991	2.0	87,393,869	85,582,475	33.8	129,363,704	45,529,106
2007	89,012,409	2.0	90,828,989	85,719,680	34.4	130,751,119	46,848,019
2008	$92,299,249	2.0%	$94,182,907	$86,108,915	34.1%	$130,746,535	$46,521,278

Notes: All dollar amounts are in $000s.
(2), (5) From "Best's Aggregates and Averages" (excludes medical malpractice)
(3) Estimated by Towers Perrin
(4) = (2) / [1.0 – (3)]
(6) Based on various studies estimating the size of the self-insured market and estimates by Towers Perrin
(7) = (5) / [1.0 – (6)]
(8) = [(4) – (2)] + [(7) – (5)]

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Medical Malpractice Tort Costs

Appendix 5

Year	Loss and LAE Costs				U/W Expense Ratio	Total Cost
	Hospital	Physicians	Other	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1975	$ 378,619	$ 554,171	$ 83,951	$ 1,016,742	12.2	$ 1,158,476
1976	465,814	680,949	107,337	1,254,100	11.7	1,420,786
1977	567,845	875,367	140,488	1,583,700	12.6	1,811,894
1978	690,917	1,084,047	179,693	1,954,658	12.8	2,241,760
1979	848,193	1,363,543	232,868	2,444,605	11.0	2,745,213
1980	1,051,838	1,690,090	300,238	3,042,166	9.9	3,376,381
1981	1,290,927	1,998,159	374,557	3,663,643	9.9	4,065,717
1982	1,576,183	2,350,909	465,101	4,392,193	9.3	4,845,214
1983	1,890,801	2,772,834	574,426	5,238,060	9.7	5,802,016
1984	2,181,499	3,272,719	698,675	6,152,893	9.1	6,768,896
1985	2,129,009	3,418,252	710,593	6,257,854	7.2	6,740,227
1986	2,175,976	3,433,666	718,584	6,328,226	8.2	6,892,127
1987	2,268,904	3,581,822	749,467	6,600,193	9.8	7,314,182
1988	2,363,708	3,757,656	784,135	6,905,499	9.4	7,622,786
1989	2,456,483	4,013,665	828,813	7,298,961	14.1	8,498,791
1990	2,572,981	4,468,082	901,947	7,943,010	13.7	9,202,873
1991	2,692,628	4,966,450	981,113	8,640,192	14.3	10,077,004
1992	2,841,396	5,481,304	1,066,122	9,388,822	11.4	10,599,730
1993	2,967,300	5,863,791	1,131,246	9,962,337	13.5	11,511,556
1994	3,049,164	6,322,753	1,200,524	10,572,441	15.3	12,484,159
1995	3,162,980	6,796,529	1,288,552	11,248,061	15.3	13,285,645
1996	3,284,839	7,364,371	1,391,562	12,040,772	14.6	14,106,400
1997	3,481,942	7,917,420	1,504,483	12,903,845	16.6	15,474,060
1998	3,658,590	8,656,884	1,641,645	13,957,119	15.1	16,429,936
1999	3,997,582	9,528,191	1,821,007	15,346,779	14.3	17,898,229
2000	4,393,333	10,579,339	2,035,964	17,008,636	13.2	19,596,842
2001	4,904,910	12,093,338	2,334,513	19,332,761	11.0	21,723,960
2002	5,559,553	13,437,948	2,635,178	21,632,680	10.4	24,152,742
2003	5,963,951	14,787,711	2,878,501	23,630,163	10.8	26,484,564
2004	6,164,095	15,637,546	3,024,146	24,825,787	11.9	28,189,883
2005	6,245,734	16,519,377	3,157,791	25,922,902	11.8	29,391,286
2006	6,440,111	16,793,983	3,222,844	26,456,938	12.2	30,143,829
2007	6,504,512	16,961,922	3,222,522	26,688,956	12.2	30,409,030
2008	$8,140,229	$14,667,898	$3,132,120	$25,940,246	12.9	$29,768,202

Notes: All dollar amounts are in $000s
(2), (3), (4) From internal Towers Perrin study
(5) = (2) + (3) + (4)
(6) From "Best's Aggregates and Averages"; the ratio of underwriting expenses to all losses and expenses combined, multiplied by 0.90 to reflect lower costs in alternative market. Adjusted downward for 2005-2008 due to jump in industry ratio
(7) = (5) / [1.0 – (6)]

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