

## Tempur Pedic International Inc. (TPX) Memo

Name: Alexander Abosi	College/School: COMM '13	Date: 11/29/11
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<b>Important Company Financial Data</b>		End Dec 31 (in \$ '000,000)						
		Period	2008A	2009A	2010A	2011E	2012E	2013E
Price								
52-Week Range	\$ 33.48- 74.81							
Market Cap	\$ 4.41B	Revenue	928	831	1,105	1,294	1,515	1,772
Enterprise Value	\$ 4.81B	YoY Growth	-	-10.5%	32.9%	17.2%	17.0%	17.0%
Cash & Equivalents	\$ 103M	Consensus Rev	928	831	1,105	1,417	1,596	1798.6
Institutional Ownership	33.8%	Gross Profit	401	394	555	585	628	681
Total Debt	\$ 509.7M	Gross Profit %	43.2%	47.5%	50.2%	45.2%	41.5%	38.4%
Shares Outstanding	65.9M	EBITDA	134	145	246	246	232	233
Beta	1.88	EBITDA Margin %	-	17.4%	22.3%	19.0%	15.3%	13.1%
Short Interest	26.4%	Net Income	59	85	157	186	223	267
Volume	1,816,090	Net Inc Margin %	44.0%		14.2%	14.3%	14.7%	15.1%
Forward P/E	17.7	Diluted EPS	0.79	1.12	2.16	\$2.74	\$3.32	\$3.99
Book Val/Share	1.51	YoY Growth	-	41.8%	92.9%	26.9%	21.2%	21.7%
TEV/EBITDA (ttm)	13.4	Consensus EPS	0.79	1.12	2.16	\$3.16	\$3.82	\$4.56

**Company Description**  
 TPX is a leading designer, manufacturer, and marketer of premium mattresses. The company's signature TEMPUR® material is made from "memory foam," and has been widely acclaimed by customers and critics. TEMPUR® was originally based on NASA research and has since been recognized by NASA as a technology that "promotes a better quality of life for mankind." TEMPUR® has also experienced substantial media exposure- including the Hollywood movie "Yes Man," starring Jim Carrey as well as numerous TV infomercials. All of TPX's products are made from TEMPUR® and is listed as patent #7507468 on March 31, 2003- which has been the subject of numerous lawsuits by TPX against many of its competitors. TPX was founded in 1989 and is headquartered Lexington, KY. TPX has just over 1,500 employees.

**Contrarian Thesis & Variant Perception**  
*Cheaper isn't always better.* When it comes to a good night's sleep, people tend to be picky and there seems to be an increasing interest in premium mattresses. TPX is poised to take advantage of the strong demand for premium mattresses and continue its revenue growth due to significant secular tailwinds in the industry as a whole. TPX is the most recognizable brand in a seemingly oligopolistic industry that has fairly high barriers to entry already. Its main competitors charge similar prices, but the Tempur-Pedic name has become synonymous with "comfort," just as Xerox was synonymous with photocopying. I believe TPX will be able to strategically take advantage of its brand equity and continue to garner a significant portion of the mattress industry- which already has very few major players- and ultimately replace conventional spring mattresses as a staple. Other mattress companies do not focus on memory foam mattresses and it accounts for an insignificant proportion of their sales, whereas TPX is the exact opposite. TPX premium mattress sales in the US alone accounts for ~48% of revenue. **The replacement period for conventional mattresses is around 5 years, whereas people should replace TEMPUR® after 15-20 years. I believe that the market share for TPX has been growing, and will continue to grow, because people realize buying TEMPUR® is cheaper in the long run than replacing conventional lower priced mattresses.**

- Investment Thesis Points**
- **Organic growth opportunities within Industry:** The mattress & home furnishing industry has been growing steadily throughout the years despite the mortgage crisis and foreclosures in 08/09. TPX is positioned to ride this long term secular growth trend, prying its way into everyday consumer market territory. **How? "Demand on top of demand."** (1) People demanding homely consumer durables & (2) People demanding premium products on top of that. **Growth within the industry alone should be sufficient as a driving factor to carry TPX's top-line, and TPX has been relying on that secularity (Exhibit 3.2);**
  - **Strategic Pricing & Quality issues:** Since TPX had the first mover advantage, it is able to charge a decent amount for its premium mattresses compared to its competitors and TPX seems to have a command of the pricing power in the industry. Its main competitors, *Sealy Corporation, Serta Inc. and Simmons Bedding Company* play copycat to match prices set by TPX and try to seem indistinguishable from TPX products. But TPX's **TEMPUR® material has a distinct texture and feel compared to the rest of the competition and is physically distinguishable from its competitors, offering them a unique value proposition.** Typically, variable costs of memory foam (*visco-elastic polyurethane*) are pretty standard throughout all manufacturers (**Exhibit 5.1 & Exhibit 6.1**);
  - **Oligopolistic industry with significant barriers to entry:** As mentioned above, there are only a few real players in the premium mattress industry focusing on memory foam technology. They obviously set the prices and try to communicate between each other implicitly in this regard. But because variable costs are typically low, there isn't much stopping these few from a pricing war. TPX has already been accused by Sealy Corporation and Simmons Bedding of playing unfairly in terms of pricing and raising various issues with patent infringement as well. With all this being said, TPX should not expect a viable threat of new entrants into the premium mattress industry because **customers aren't trying to find better mattress deals, they seem to be looking for better Tempur-Pedic deals;**
  - **TPX has the ability to maintain margins even after experiencing stiff headwinds:** At the ugly end of the sub-prime mortgage

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crisis when people were basically losing their homes and clearly no one was buying houses anymore, TPX may not have been able to grow its top-line but it was **able to maintain an EBITDA margin of ~20%**;

- **TPX impressive management team has made textbook progress:** Through 2007 to 2009, in anticipation of the financial crisis, management had to make difficult decisions in terms of tying down costs and managing its costs structure. This was done in full anticipation of a potential decline in sales as a result of the macroeconomic climate. **Through this climate, management has decided to shift the overall product mix to mattresses and pillows. These seem to carry smaller margins than the bed toppers, sheets, covers and pads they also sell. But, the tradeoff provided by higher demand for their unique mattresses has seemed to have paid off.** Also TPX management and other insiders own ~10% of the shares. To me, this means that management is clearly confident in themselves and giving them a tangible incentive to keep the company growing (*Exhibit 3.2 & Exhibit 3.3*);
- **High Return on Equity with attractive FCF yield:** TPX doesn't have a lot of shares outstanding- roughly 67 million. Therefore its ROE for the trailing twelve months was around 252%- which I know seems pleasing to the eyes and nourishing to an investor's intellect. **Even with this high ROE, its earnings seem to understate its cash flow. Capital requirements have been usually low in past years (capital expenditures usually run less than 2% of revenues) and I do not anticipate any large capital expenditure needs in the future. Its Free Cash Flow yield is roughly ~6% and should grow to over 8% by year end.** It has been using its cash largely for share repurchases, and a strong FCF in the future should translate into more share repurchase opportunities or even a dividend payout;
- **Strong vs. Weak revenue CAGR:** TPX has a 5-Yr revenue compound annual growth rate of ~8.2%, after taking into account the revenue slumps from 2 & 3 years ago. Because of this, TPX technically isn't a high growth stock- but the only issue is- **I think it is. YoY growth has been around 33% and even as high as 60% in some years.** Blatantly, this puts it in *high growth* territory. On top of this, the growth limit seems boundless because TPX is yet to really expand overseas. **It has international presence in Canada and select parts of Eastern Europe, but customers have expressed interest in places as far as South Africa. I believe TPX is able to stand on two feet in locations like Cape Town, South Africa and New Delhi & Mumbai, India;**

### Misperception

- **Consumer weakness:** When it comes to a good night sleep, especially after a hard day's work, nothing seems to be more satisfying to the everyday working man than laying on his back. The market sentiment on TPX products is that it is overrated, unnecessary and that premium mattresses have numerous substitutes that are more affordable. **Some people believe that TPX's mattress prices are prohibitive- but I believe they are only motivating enough to find a better priced Tempur-Pedic mattress;**
- **High short interest:** TPX has a short interest of ~26% and this therefore puts it in line with some of the stocks with the highest short interest ratios in the NYSE. I believe the stock is oversold and it is oversold for a list of **other misperceptions.**
  1. TPX offers an undifferentiated, overpriced product.
  2. TEMPUR® is a fad product
  3. Investors are better off staying away from consumer cyclicals
  4. High short interest reveals implicit issues with the company that is not easily apparent- doubling short interest;
- **Limited market share gains will inhibit top-line growth:** TPX specializes in mattresses, while its competitors offer different mattress products. TPX has 11.5% share, with 14.5% for Simmons 16.7% for Serta and 18.9% for Sealy (38.4% other) The Street believes it will be unable to steal away some of that market share offering premium mattresses alone. But I predict that the TPX will eventually capture some of the market (14%-15%) if the trend and popularity with TEMPUR® continues in the US and abroad (*Exhibit 3.1*);

### Risks

- **Issues with Long Term Debt & other Equity ratios:** TPX currently has a \$407mm debt due in 2016. Its Debt/Equity ratio is about x5.1. Its Price/Book is about \$44.32. **Obviously, TPX seems highly levered and overpriced but we first need to understand what we are buying into when looking at TPX. It is a company that rose to capture 11% of the market share in fewer than 15 years, selling a popular product while maintaining a high top-line growth rate and a high free cash flow yield (*Exhibit 3.2*);**
- **Consumer weakness & macroeconomic risks:** Given its mattress price today, TPX typically favors high income consumers. But, TPX's growth will rely on the secularity of the industry, which stretches beyond short term economic slumps;
- **Questionable management:** TPX has a high insider ownership but like most growth stocks- **it has a poor insider buy/sell ratio.** Management has done tremendously well in the past years, and subsequently, so has the stock- therefore I do not perceive this sell off as management "*unloading*" their stock. **Insider ownership still amounts to > 10% of shares outstanding;**

### How It Plays Out

#### ***Bull Thesis***

- Recovery and movement into a season of high discretionary income and spending.
- Popularity with premium mattresses continues its growing trend- closer to becoming household staple.

#### ***Bear Thesis***

- Macroeconomic headwinds pose significant threat to retail and consumer cyclical companies/stocks.
- Basically, premium mattresses are a fad and will never catch on. This fad will pass, TPX sales will suffer.

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### Exhibit 1.1: Consumer-centric Value Added Research

*Most value added research was conducted on people who own TEMPUR®, have tried it or at least heard of it. I chose to focus on the consumers because it was the basis of forming my own variant perception of TPX. Currently, TPX holds a strong “buy” rating & an “Outperform” rating by most analyst covering the stock, so I chose to disregard their opinion.*

<u>Name</u>	<u>Location</u>	<u>Q&amp;A</u>
Stacy (owns mattress)	Random shopper at <i>Brookstone Store</i> , Charlottesville, VA	<p><b><u>What’s your honest opinion on Tempur-Pedic?</u></b></p> <ul style="list-style-type: none"> <li>- ...when I asked the lady in the store about the bed before I bought it, she said it’s either you love it or you don’t... I gave it the “5 minute” test &amp; I fell in love...</li> <li>- ... I have looked at similar products by other companies, and also have friends with “off-brand” mattresses, and I can actually tell the difference...</li> <li>- ... Given a choice, I would stick with [TPX]</li> </ul> <p><b><u>Don’t you think it’s just a fad?</u></b></p> <ul style="list-style-type: none"> <li>- I dunno... I don’t care. I’m just happy it makes me sleep better...</li> </ul>
Cindy (owns pillow & lining)	Student at University of Virginia	<p><b><u>Why did you buy such an expensive pillow?</u></b></p> <ul style="list-style-type: none"> <li>- I didn’t think it was that costly for what I was getting in the end... I’ve been having neck troubles and the pillow seems to help a lot...</li> <li>- I can’t really sleep without it anymore...</li> </ul>

### Other

<u>Name</u>	<u>Location</u>	<u>Contact</u>
Vicky	Hilton Garden Inn, Charlottesville, VA	In person
Scott Reida	United States Patent & Trademark Office	gtdiscus@gmail.com
University of Virginia on campus-students	University of Virginia, Charlottesville, VA	In person
Random Shoppers* (incl. Stacy)	Brookstone, Charlottesville, VA	In person
Logistics & Operations & Random shoppers*	Macy’s, New York, NY	201-863-3250; In person
Random shoppers*	Grand Home Furnishings, Charlottesville, VA	In person
Random shoppers*	Mattress Warehouse, Charlottesville, VA	In person
Jon Anderson (no sig. info obtained)	William Blair & Co.	312-364-8697

*\*Other research was done by me testing the beds out on my own in the stores listed above. I visited the stores listed above & sat/lay down on the Tempur-Pedic mattresses as soon as I was allowed to do so.*

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## Exhibit 2.1:

## Discounted Cash Flows Valuation Model (See Exhibit 2.2 for Assumptions)

Fiscal Year Ends: December (\$ in '000)	2010	2011E	2012E	2013E	2014E	2015E		
<b>Revenue:</b>								
Net sales	1,105,421	1,294,448	1,514,504	1,771,970	2,073,205	2,425,650		
<b>Total Revenue</b>	1,105,421	1,294,448	1,514,504	1,771,970	2,073,205	2,425,650		
Cost of sales	549,994	709,492	886,865	1,090,844	1,330,830	1,596,996		
<b>Gross Profit</b>	555,427	584,956	627,639	681,126	742,375	828,653		
Operating expenses (incl. D&A)	309,525	371,430	427,145	478,402	535,810	600,107		
<b>Operating income</b>	245,902	213,526	200,494	202,724	206,565	228,546		
Interest expense, net	(14,501)	N/A	N/A	N/A	N/A	N/A		
Other income (expense), net	(536)	N/A	N/A	N/A	N/A	N/A		
<b>Income before income taxes</b>	230,865	277,038	332,446	398,935	478,722	574,466		
Income tax provision	73,720	91,423	109,707	131,648	157,978	189,574		
<b>Net income</b>	157,145	185,615	222,739	267,286	320,744	384,892		
<b>Free Cashflow Calculation (EBITDA Multiple)</b>								
		2011E	2012E	2013E	2014E	2015E		
<b>NOPAT</b>		185,615	222,739	267,286	320,744	384,892		
+ Depreciation & Amortization		32,190	31,330	30,120	29,880	27,270		
+ Any other non-cash expenses		-	-	-	-	-		
- Increases in NWC		(1,890)	(2,201)	(2,575)	(3,012)	(3,524)		
- CapEx		(18,700)	(20,000)	(22,900)	(23,100)	(24,700)		
<b>Unlevered Free Cashflow</b>		197,215	231,868	271,932	324,511	383,938		
Terminal Value						12,034,720		
Total CF to Shareholders		197,215	231,868	271,932	324,511	12,418,658		
<b>Discounted Cashflow</b>		185,937	194,318	202,572	214,880	7,309,511		
Discount Factor		0.50	1.50	2.50	3.50	4.50		
<b>Total Enterprise Value</b>		8,107,216						
Less Preferred or Minority Interest		-						
Less Debt		407,000						
<b>Total Equity Value</b>		7,700,216						
Value / Share		\$ 113.59						
Diluted Shares Outstanding ('000)	76,048	67,792						
							Terminal EBITDA Multiple	20
							WACC	12.50%
							<b>Sensitivity Table</b>	
								WACC
								10.00%    12.50%    15.00%
							EV/ EBITDA	15x    96.72    87.46    79.25
								20x    125.62    113.59    102.91
								25x    154.52    139.71    126.58
<b>Free Cashflow Calculation (Perpetual Growth Rate)</b>								
		2011E	2012E	2013E	2014E	2015E		SS
<b>NOPAT</b>		185,615	222,739	267,286	320,744	384,892		
+ Depreciation & Amortization		32,190	31,330	30,120	29,880	27,270		
+ Any other non-cash expenses		-	-	-	-	-		
- Increases in NWC		(1,890)	(2,201)	(2,575)	(3,012)	(3,524)		
- CapEx		(18,700)	(20,000)	(22,900)	(23,100)	(24,700)		
<b>Unlevered Free Cashflow</b>		197,215	231,868	271,931	324,512	383,938	406,975	
Terminal Value						6,261,146		
Total CF to Shareholders		197,215	231,868	271,931	324,512	6,645,085		
<b>Discounted Cashflow</b>		185,937	194,317	202,571	214,880	3,911,237		
Discount Factor		0.50	1.50	2.50	3.50	4.50		
<b>Total Enterprise Value</b>		4,708,942						
Less Preferred or Minority Interest		-						
Less Debt		407,000						
<b>Total Equity Value</b>		4,301,942						
Value / Share		\$ 59.10						
Diluted Shares Outstanding ('000)	76,048	72,792						
							Perp. Growth Rate	6.00%
							WACC	12.50%
							<b>Sensitivity Table</b>	
								WACC
								10.00%    12.50%    15.00%
							Perp. G. Rate	4.00%    62.28    46.46    37.82
								6.00%    90.74    59.10    45.04
								8.00%    176.11    82.98    56.37

## Tempur Pedic International Inc. (TPX) Memo

### Exhibit 2.2:

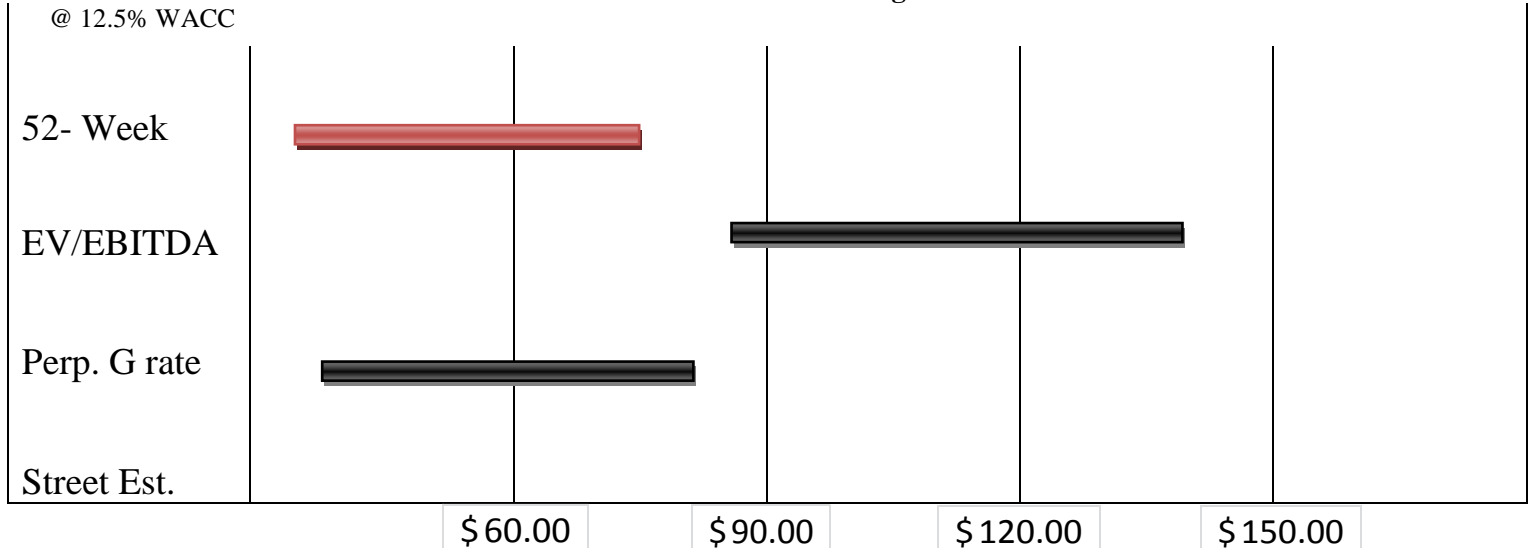
### Key Assumptions of Valuation Model

Net Working Capital (Balance Sheet)		12,944	15,145	17,720	20,732	24,256		
							WC % of Sales	1.00%
Non-recurring gross		0	0	0	0	0		
Non-recurring net		0	0	0	0	0		
<b>Reported Net income</b>		185,615	222,739	267,286	320,744	384,892		
<b>Operating EPS</b>		2.74	3.32	3.99	4.79	5.74		
Non-recurring		-	-	-	-	-		
<b>Reported EPS</b>		2.74	3.32	3.99	4.79	5.74		
<i>Diluted Shares Outstanding</i>		67,792	67,000	67,000	67,000	67,000		
<b>Consensus &amp; Estimates</b>								
Revenue		1,294,448	1,514,504	1,771,970	2,073,205	2,425,650		
EBITDA		245,716	231,824	232,844	236,445	255,816		
<b>KEY ASSUMPTIONS</b>								
<b>Margins</b>								
Cost of sales		54.81%	58.56%	61.56%	64.19%	65.84%		
Operating expenses		28.69%	28.20%	27.00%	25.84%	24.74%		
Interest expense, net		0.00%	0.00%	0.00%	0.00%	0.00%		
Other income (expense), net		0.00%	0.00%	0.00%	0.00%	0.00%		
Depreciation & Amortization		2.49%	2.07%	1.70%	1.44%	1.12%		
Income before income taxes		21.40%	21.95%	22.51%	23.09%	23.68%		
Income tax provision (% of EBT)		7.06%	7.24%	7.43%	7.62%	7.82%		
<b>Year/Year % Growth</b>								
<b>Revenue</b>		17.10%	17.00%	17.00%	17.00%	17.00%		
<b>KEY OUTPUTS</b>								
<b>Margins</b>								
Operating Income		16.50%	13.24%	11.44%	9.96%	9.42%		
<b>EBITDA</b>		18.98%	15.31%	13.14%	11.40%	10.55%		
Net Income		14.34%	14.71%	15.08%	15.47%	15.87%		
<b>Year/Year % Growth</b>								
Operating Income		-13.17%	-6.10%	1.11%	1.89%	10.64%		
<b>Net Income</b>		18.12%	20.00%	20.00%	20.00%	20.00%		
<b>Operating EPS</b>			21.42%	20.00%	20.00%	20.00%		
Total Revenue		17.10%	17.00%	17.00%	17.00%	17.00%		
Cost of sales		29.00%	25.00%	23.00%	22.00%	20.00%		
Operating expenses		20.00%	15.00%	12.00%	12.00%	12.00%		
Interest expense, net		0.00%	0.00%	0.00%	0.00%	0.00%		
Other income (expense), net		0.00%	0.00%	0.00%	0.00%	0.00%		
Depreciation & Amortization		0.00%	-2.67%	-3.86%	-0.80%	-8.73%		

### Exhibit 2.3:

### TPX Share Price Ranges

@ 12.5% WACC



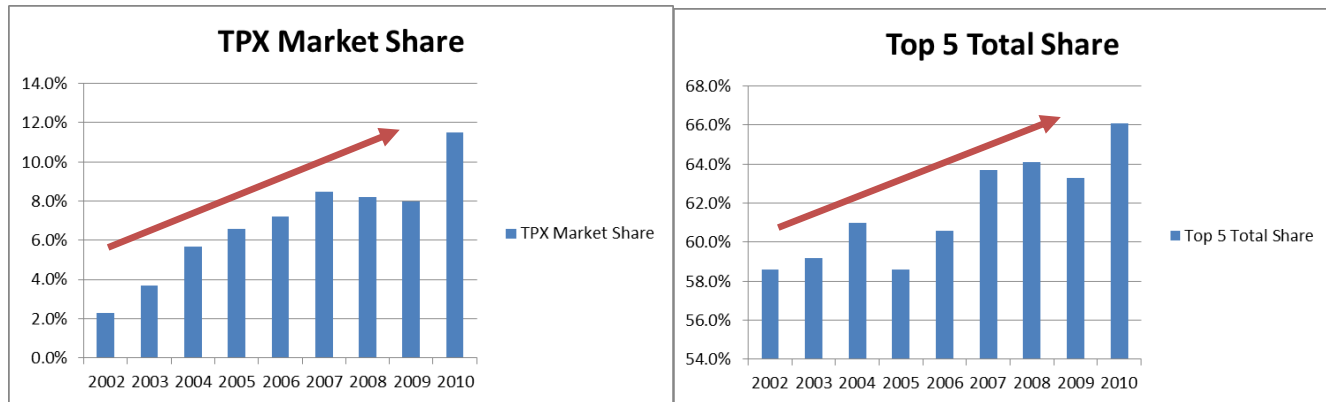
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**Exhibit 3.1: Top U.S Conventional Bedding Producers Market Share**

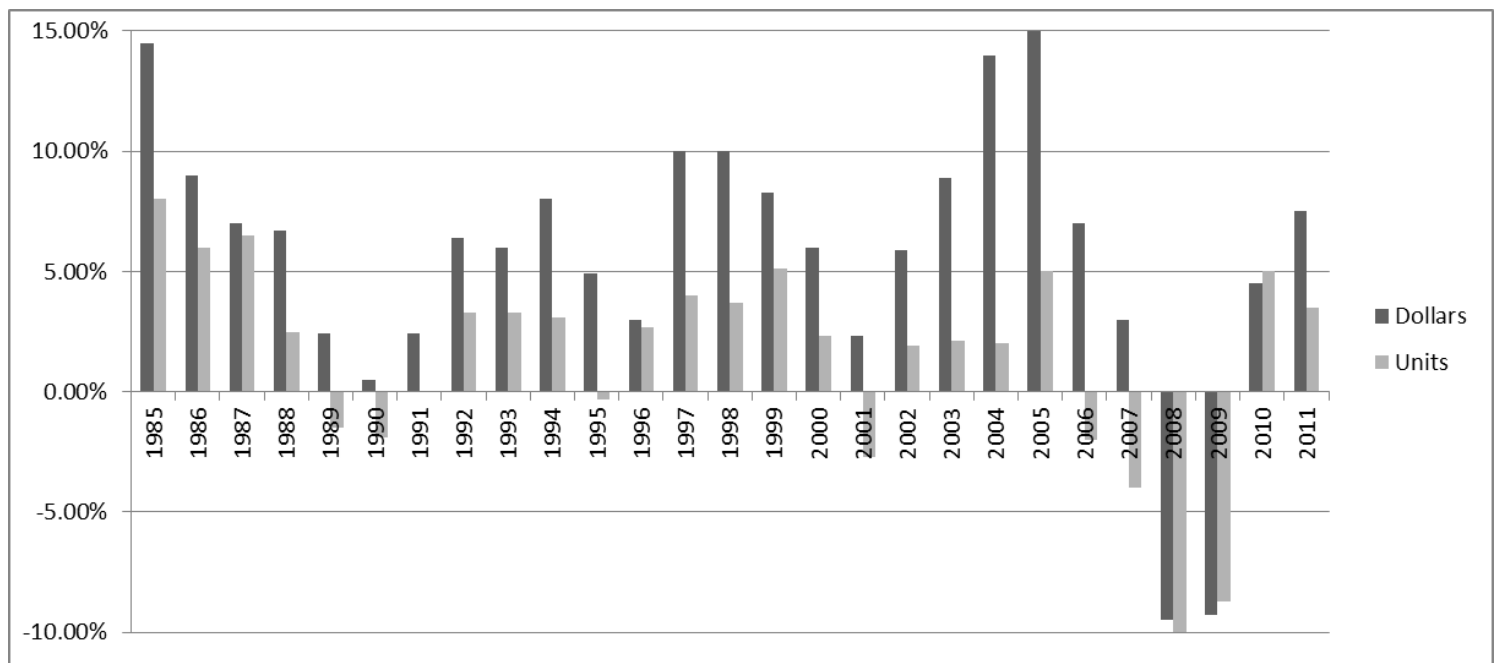
	2010	2009	2008	2007	2006	2005	2004	2003	2002
<b>Sealy</b>	18.9%	19.6%	19.5%	20.9%	20.6%	20.9%	21.3%	21.3%	23.1%
<b>Serta*</b>	16.7%	16.2%	15.7%	12.9%	13.0%	12.7%	14.0%	14.7%	15.3%
<b>Simmons*</b>	14.5%	15.2%	15.8%	15.7%	14.2%	13.3%	15.4%	15.7%	14.8%
<b>Tempur-Pedic</b>	11.5%	8.0%	8.2%	8.5%	7.2%	6.6%	5.7%	3.7%	2.3%
<b>Select Comfort</b>	4.5%	4.2%	4.9%	5.7%	5.6%	5.1%	4.7%	3.7%	3.1%
<b>Top 5 Total Share</b>	<b>66.1%</b>	<b>63.3%</b>	<b>64.1%</b>	<b>63.7%</b>	<b>60.6%</b>	<b>58.6%</b>	<b>61.0%</b>	<b>59.2%</b>	<b>58.6%</b>

\*Serta and Simmons are owned by Ares Management and the Ontario Teachers' Pension Plan, but are being operated as separate brands.

**Exhibit 3.2: TPX Growth Similar to Market; Opposite Direction of Sealy**

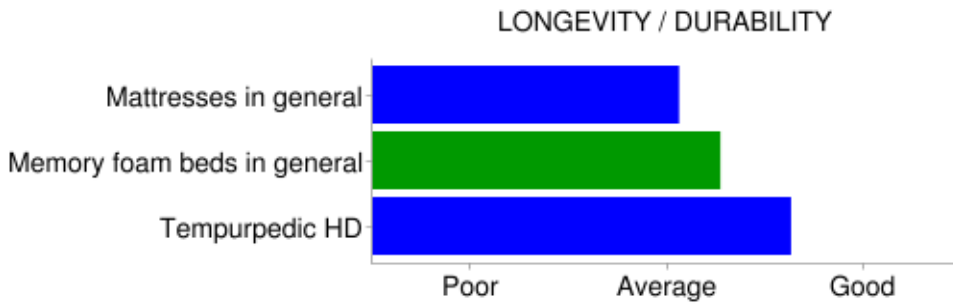


**Exhibit 3.3: Bedding Unit & Dollar Growth**

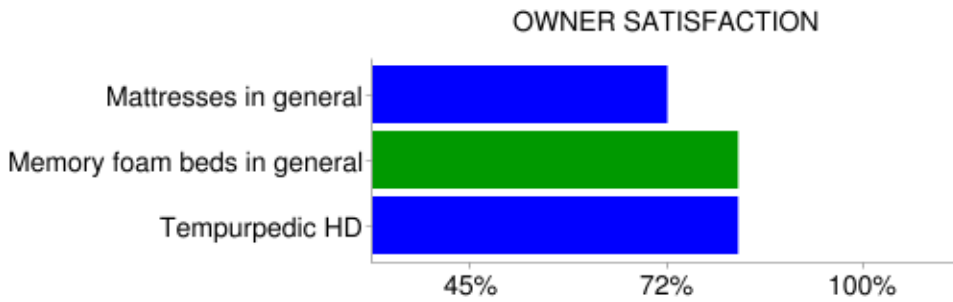


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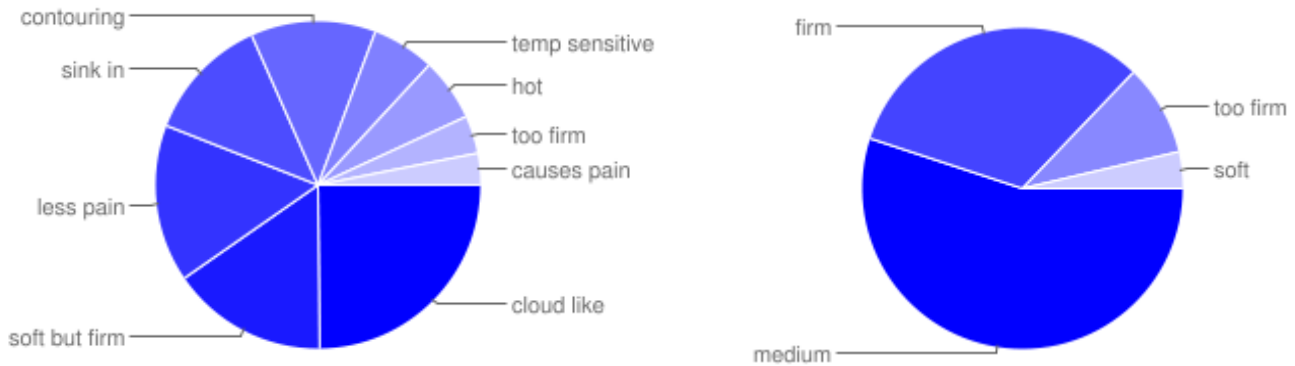
**Exhibit 4.1: Internet Surveyed Opinion: Longevity/Durability**



**Exhibit 4.2: Internet Surveyed Opinion: Owner Satisfaction**



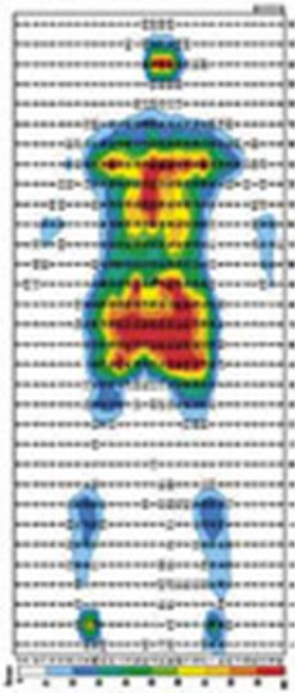
**Exhibit 4.3: Internet Surveyed Opinion: Sensation of Lying on a Tempur-Pedic Mattress**



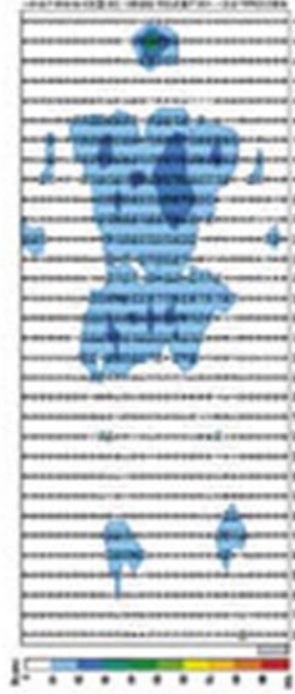
## Tempur Pedic International Inc. (TPX) Memo

### Exhibit 4.4: Difference between Spring Mattress & Tempur-Pedic

#### SPRING MATTRESS



#### MEMORY FOAM MATTRESS



#### Spring Mattress

A spring mattress relies on a varied number of springs which push back against your body with equal force. Because your body doesn't push back evenly, proper support is impossible. This results in pressure points leading to poor blood circulation & other harmful side effects.

#### Memory Foam Mattress

Tempur-Pedic mattresses distribute body weight evenly. It's like having billions of little springs supporting you. Pressure points are significantly reduced as a result.



## Tempur Pedic International Inc. (TPX) Memo

**Exhibit 5.1: Company Price Information & Comparison**

Price Range Queen Size	TEMPUR® (TPX)	iComfort® (Serta)	ComforPedic® (Simmons)	Embody™ (Sealy)
Low end	\$1,600	\$1,100	\$800	\$1,999
High end	\$3,600	\$2,400	\$4,300	\$3,999
Also available from company	Only other bedding products made from TEMPUR®	Spring mattresses, memory foam, other conventional bedding products	Spring mattresses, memory foam, other conventional bedding products	Spring mattresses, memory foam, other conventional bedding products

**Exhibit 6.1: Unique Tempur-Pedic Mattress Profile featuring TEMPUR® Material**

