2019

THE STATE OF THE BOOK INDUSTRY



State of the Book Industry 2019

Executive Summary

The *State of the Book Industry 2019* provides an overview and examination of current trends and issues impacting American book manufacturers. The report starts with a macroeconomic scan and then funnels down through various book manufacturing topics, ending with an examination of key management issues book manufacturers will likely face in this environment. Specific topics include:

- The microenvironment—current economic forces impacting the book industry
- The print economy and book manufacturing
- Key trends in book readership, consumption, and demand
- Book manufacturers' income and operating metrics
- Key management issues for book manufacturers in 2019

In general, the U.S. economy is healthy and growing as we enter 2019 and should be a positive influence on the book industry. However, there are signs of economic stress. The first three quarters of 2018 were very robust, but the fourth quarter showed some weakening, although the final numbers are incomplete.

The U.S. manufacturing sector is also generally robust. Throughout December, the manufacturing sector added about 32,000 jobs, bringing the total number of manufacturing jobs added to 284,000 over the whole year. According to the National Association of Manufacturers, the expected growth rate over the next 12 months for sales is 4.3 percent. Employment, prices, investment and productivity are also projected to rise in 2019.

According to the report, the economy will most likely continue on a pace of solid growth of around 2.5 percent in 2019. However, as the economy nears ten years of expansion there are risks. Other 2019 economic scenarios discussed in the report are:

- A "slowing but growing" trend line with GDP retreating back to around 2 percent growth
- A 2019 recession with total GDP down around 1.5 percent

The percentage likelihood of three scenarios is a 40-percent chance for solid growth, 30-percent chance of slowing growth, and 30-percent chance for a recession.

Although book manufacturing has its own unique industry drivers, it is also an integral part of the print economy. Since the end of the Great Recession in June of 2009, print markets have become increasingly healthy since print generally performs best in the mature recovery phase of the business cycle. On a nominal basis, print markets are growing around 1 to 2 percent at the present time. For 2016 (the most current data from the U.S. Census), print's economic footprint totaled \$166.3 billion in annual shipments, 42,060 establishments, and over 810,000 employees. Printers' profits are also generally healthy based on historical trends. The most recent metric from PIA's *Ratios* progam shows profits as a percent of sales at 2.9 percent.

Printers, of course, provide a varied mix of products and services including book manufacturing. As of 2018, almost four in ten printers indicate that they provide book printing. However, the number of book manufacturing specialists is much less. Most of the printers that say they offer book printing do so only within a mix of other products they produce.

Business conditions for book manufacturing specialists have also been generally healthy for the last few years as trends in book readership and the consumption of printed books have been favorable. Sales of printed books are generally growing and are not being replaced by e-books at a rapid pace. The book printing industry did take a hit in the earlier part of the 2010s, but the latest numbers show that consumers still like to hold a physical copy of a book in their hands. A survey conducted in April of 2017 shows this fact at a basic level as more adults preferred printed books than e-books.

The book industry reached its peak unit sales in 2008 and then had to face both a declining economy and digital competition. Between 2009 and 2013, we saw the first rollouts of the Nook by Barnes and Noble as well as Kindles and tablets which were marketed as the next big thing in reading. Two storms hitting the print book industry at once forced unit sales down by almost 200 million compared to its peak just four years earlier.

However, since that trough, the industry has recovered and the number of printed books is growing. This may be the result of the greatly improved economy as well as, perhaps, people changing their perceptions in terms of the user friendliness of e-books compared to printed books. Consumers were asked how many books they purchased within the last 12 months and the results were promising, as they showed that only 10 percent of Americans say that they did not purchase any. About half of those surveyed said that they purchase anywhere between one and five books, which tells us that about 40 percent purchase more than five.

Overall, book manufacturers' financial operations are improving. Book manufacturers participating in the *Ratios* survey averaged before tax profit on sales of 3.4 percent. This rate was

significantly higher than the all printer average of 2.9 percent. The major cost items for book printers are people and paper. The number one expenditure in relation to sales is total payroll cost, around 41 percent. Paper cost comprised an additional 25 percent and other materials accounted for an additional 15 percent.

The employee profile for a book manufacturer demonstrates the preponderance of production employees, with almost eight out of ten employees in this category. The remaining employees were almost equally divided between administrative/executive and sales employees. Book manufacturers also exhibit high levels of investment in plant and equipment, with an average of over \$103,000 per employee. At the same time, profit per employee averaged \$6,175 in 2017-2018.

Over the course of 2019 there will be both significant opportunities and challenges for book manufacturers. The most momentous challenge is the risk of a recession, so book manufacturers need to continuously track the pace of the overall economy and be flexible in their hiring and investment plans. At the same time book manufacturers need to be ready to take advantage of the opportunities of an expanding economy and book sales.

The State of the Book Industry 2019

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- The microenvironment—current economic forces impacting on the book industry
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Economic Forces Impacting Book Manufacturers in 2019

In general, the U.S. economy is healthy and growing as we enter 2019. However, there are signs of economic stress. The first three quarters of 2018 were very robust, but the fourth quarter showed some weakening, although the final numbers are incomplete. Some relevant economic metrics include:

- Third quarter economic growth increased at 3.5 percent (on an annual inflation adjusted basis)
- Fourth quarter growth is estimated at around 2.8 percent with some forecasts as low as 2.4 percent and some as high as 3 percent
- Business profits have been strong, driven by strong domestic and global sales plus deregulation and lower corporate taxes
- Inflation (CPI) slowed in the fourth quarter and continues on a modest pace
- Consumer sentiment remains high
- Unemployment rose a bit in December but is still extremely low, reflecting strong demand for labor (3.9%)

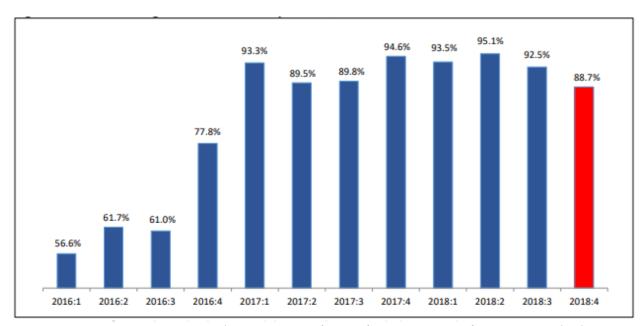
The estimated economic growth for the fourth quarter is lower than it was the previous two, but if the estimate of 2.8 percent is indeed accurate, it would still be the best fourth quarter that the U.S. has seen since 2013. All in all, the Macroeconomy is in a healthy state.

Manufacturing Sector Remains Strong

Throughout December, the manufacturing sector added about 32,000 jobs, bringing the total number of manufacturing jobs added to 284,000 over the whole year.

According to the National Association of Manufacturers, the expected growth rate over the next 12 months for sales is 4.3 percent. Other expectations include:

- Full time employment + 2.2 percent
- Price of company's products + 2.8 percent
- Employee wages + 2.3 percent
- Capital investments +2.6 percent

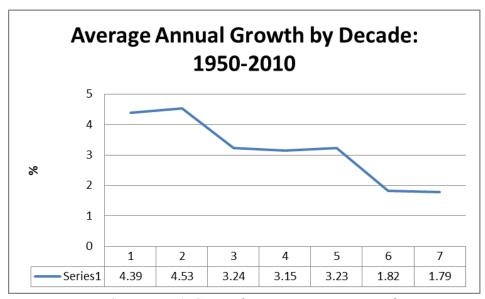


Source: National Association of Manufacturers: Manufacturer's Outlook Survey

Sentiment amongst those in the manufacturing sector did decline a bit when surveyed during the fourth quarter, but not by much. Compared to 2016, however, the sentiment within manufacturing seems quite promising.

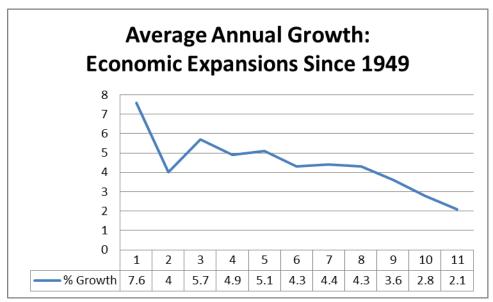
Longer Run Economic Trends

On a longer-run basis, the U.S. economy is slowing. The average annual growth rate of inflation-adjusted GDP has generally slowed by the decade since the 1950s. Indeed, the decline is more than two percentage points since the 1950s and over one percentage point since the 1970s and 1980s.



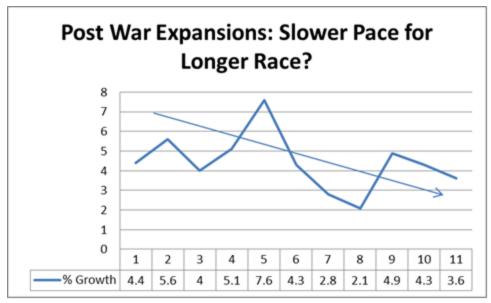
Source: PIA Center for Print Economics and Management

A primary reason for the longer-term decline in growth is that the growth rates achieved during economic expansions have decreased over the decades. This trend is apparent when the eleven expansions are viewed chronologically since 1949.



Source: PIA Center for Print Economics and Management

There seems to be some correlation between lower-growth expansions and longer-lasting expansions. Since 1949, the economic expansions have not only been generally weaker but the good news is they have been generally longer. As this expansion heats up, does that raise an alarm?



Source: PIA Center for Print Economics and Management

With this background we can now provide our forecast of the economy in 2019 and beyond.

Outlook for 2019 and Beyond

First, we take a look at the yield curve. What is the yield curve saying about our economy?



Source: Federal Reserve Bank of St. Louis

The yield curve is typically a good indicator of recession in the U.S. economy. Once the difference between the yield of a short-term and long-term bond becomes negative, it may indicate that a recession is coming. The shaded areas in the chart signify a period in which the U.S. economy was in a recession. It is clear to see that the recessions all follow a period in

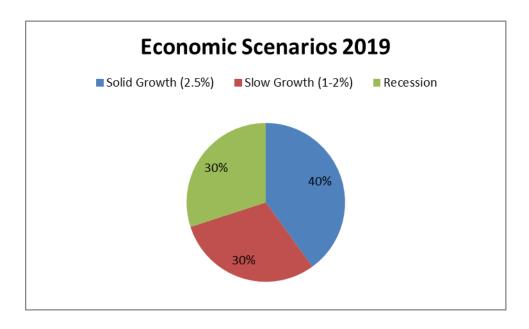
which the yield curve dipped below zero. A good sign for us is that the yield curve is still positive at the moment. Coupled with that is more positive news: when or if it does go negative, history has shown us that the lag effect will give us quite a bit of time to prepare. Typically, once the curve drops below zero, a recession does not present itself for about 16.5 months on average.

Date of Inversion	Months to Recession
Jan. 12, 1966	False Alarm
Sept. 8, 1966	False Alarm
Dec. 19, 1968	12
Feb. 12, 1973	9
July 4, 1978	18
Sept. 1, 1980	11
May 29, 1989	14
Sept. 10, 1998	30
Feb. 20, 2006	22

In our view, the economy will most likely continue on a pace of solid growth of around 2.5 percent in 2019. However, as always, economic forecasting is fraught with uncertainty. As usual, we offer two other entirely possible 2019 economic scenarios:

- A "slowing but growing" trend line with GDP retreating back to around 2 percent growth
- A 2019 recession with total GDP down around 1.5 percent

Of course, other outcomes are possible, including higher growth or a more serious recession or any hybrid combination of our three scenarios. Our percentage likelihood of our three scenarios is a 40-percent chance for solid growth, 30-percent chance of slowing growth, and 30-percent chance for a recession. The relatively high likelihood of recession has significant consequences for book manufacturers' strategy options in 2019 and is discussed in the section on management issues at the end of this report.



Source: PIA Center for Print Economics and Management

Let's look at each of these scenarios.

Solid Growth: This most likely scenario is a continuation of the recent uptick in economic growth. The two key drivers of this prospect are already in place—deregulation and the cut in corporate taxes. These both increase the competitiveness of the U.S. economy and raise the equilibrium annual growth rate by around 0.5 to 1 percent. So far, the economy has been able to accelerate to this pace by an elastic response in labor force participation and a return to more "animal spirits" in business investment.

2019 Recession: Historically, most recessions are caused by two primary reasons—external shocks (such as oil shortages or a financial crisis) or excess exuberance leading to over investment that finally results in cutbacks and downsizing. A variation of the second cause is simply the recovery dying of old age as new investment opportunities decline. A case can be made for either of these arising next year or in 2020.

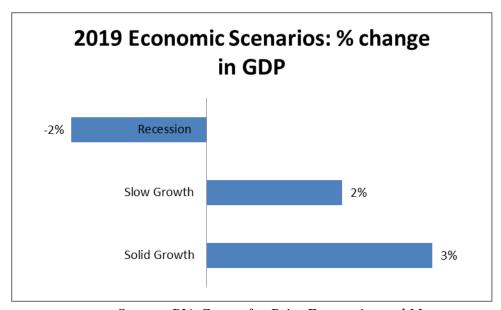
- External shocks: There are many possible external shocks, but the most likely at the present time is an escalation of trade wars leading to higher tariffs, leading to even higher tariffs and finally recession.
- Excess exuberance: We discussed the possibility of too much of a good thing being a bad thing earlier. The excess exuberance could lead to over-investment and ultimately cutbacks leading to more cutbacks. The likelihood of this may be higher, given the fact that we are in the second-longest recovery in 164 years of tracking the U.S. economy.

Over the past few months the "yield curve" (the spread between short-term and long-term interest rates) has been rotating toward less slope, and this has been a fairly reliable predictor of a coming recession. While the yield curve has shifted, it has not yet flipped, so we likely have some gas left in the economic tank. But with over 110 months of growth, time may be running out.

Presently, the downside risks that could lead to a recession include:

- 1. Trade restrictions/barriers slow down the U.S. global economy
- 2. Labor shortages restrict growth, coupled with immigration restrictions (total number, quantity and quality, age). Immigrants—substitute or complement to U.S. labor supply?
- 3. Bottlenecks—particularly transportation
- 4. Costs and price pressures—Both are inherent in the growing economy and as a result of possible missteps by the Federal Reserve as it unwinds the bond-buying push of the last few years.
- 5. Interest rates ramp-up from inflation, and increases in deficit crowd out private investment
- 6. Other wild-card issues

Slowing but Growing: A slowing but growing economy would be a return to the economic trajectory of the past few years. The likely cause of this path is some combination of the six downside risks listed above. Just two or three of those in combination may not be enough to tip the economy into recession, but certainly could shave a full point from the solid growth scenario and leave us with sluggish growth.

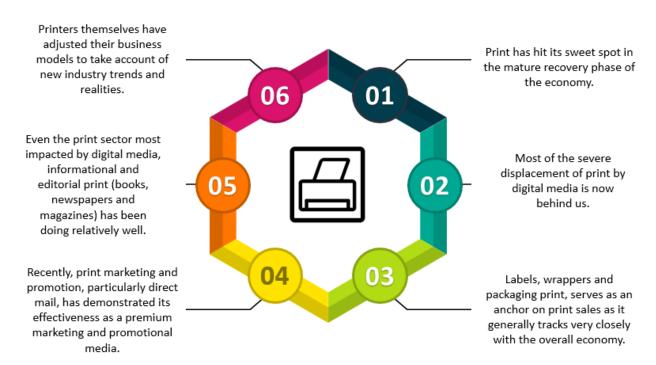


Source: PIA Center for Print Economics and Management

The Print Economy and Book Manufacturing

Although book manufacturing has its own unique industry drivers, it is also an integral part of the print economy. Therefore, it is useful to examine key trends in printing.

Since the end of the Great Recession in June of 2009, print markets have become increasingly healthy. This is particularly true for 2018 as the economy has ramped up. As we have previously pointed out, there are six key reasons why print and printers have largely been healthy since the end of the recession.



On a nominal basis, print markets are growing around 1 to 2 percent at the present time. For 2016 (the most current data from the U.S. Census), print's economic footprint totaled \$166.3 billion in annual shipments, 42,060 establishments, and over 810,000 employees.

2016 Print and Publishing Market Overview			
Commercial Print and Related Support Activities (NAICS 323)			
NAICS segment	Employment	Establishments	Shipments (\$1,000s)
323111 Commercial print	338,592	18,405	\$61,863,993.76
323113 Commercial screen	63,056	5,150	\$11,520,933.72
323117 Commercial book	19,886	421	\$3,633,362.22
323120 Support activities	24,555	1,545	\$4,486,433.13

Total	446,089	25,521	\$81,504,722.8

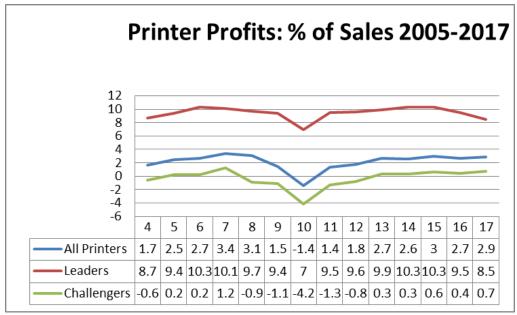
	Employment	Establishments	Shipments (\$1,000s)
511110 Newspaper	180,786	7,496	\$22,460,177.20
511120 Periodical	90,640	5,584	\$24,286,000.00
511130 Book	64,222	2,574	\$25,945,054.92
511140 Directory and mailing list	15,410	786	\$7,491,545.03
511191 Greeting card	13,076	99	\$4,576,600.00
Total	364,134	16,539	\$84,759,377.1

Commercial Print and Related Support Activities and Print-Related Media (NAICS 323 + 511)

	Employment	Establishments	Shipments (\$1,000s)
NAICS 323+511	810,223	42,060	\$166,264,100.0

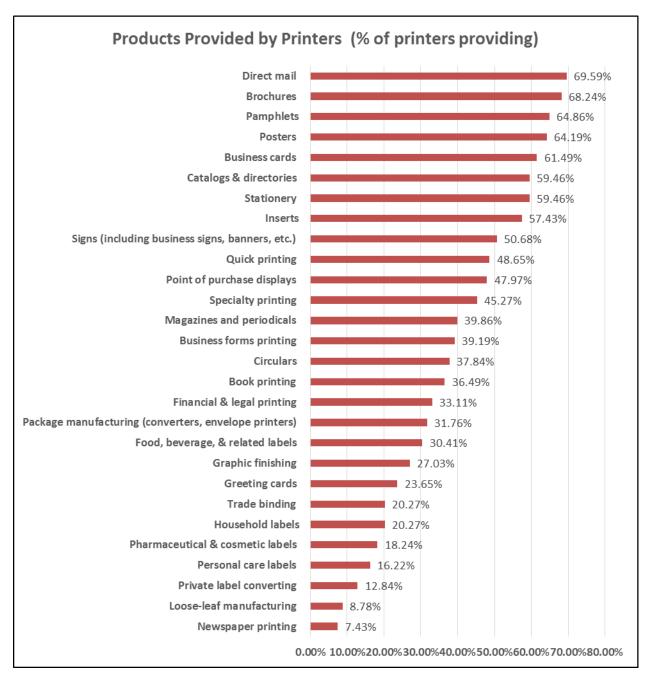
Source: U.S. Census Bureau

Printers' profits are also generally healthy based on historical trends. The most recent metric from PIA's *Ratios* progam shows profits as a percent of sales at 2.9 percent.



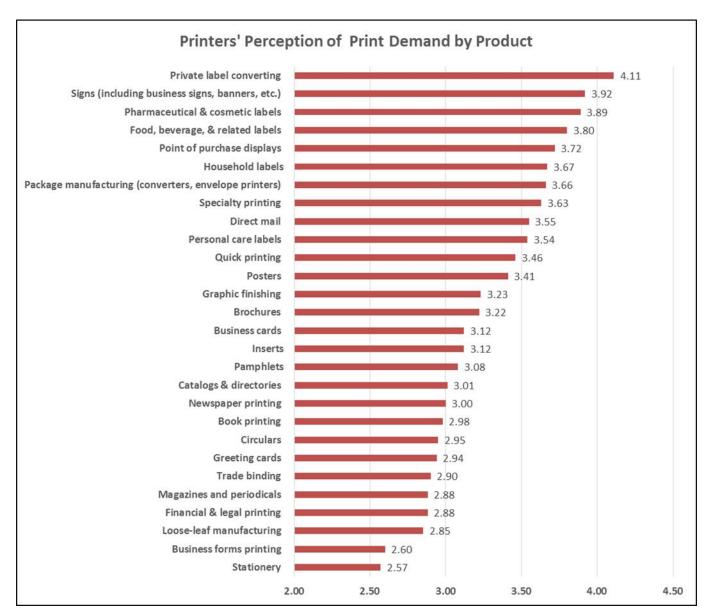
Source: PIA Dynamic Ratios

Printers, of course, provide a varied mix of products and services including book manufacturing. As of 2018, almost four in ten printers indicate that they provide book printing. However, the number of book manufacturing specialists is much less. Most of the printers that say they offer book printing do so only within a mix of other products they produce.



Source: PIA Center for Print Economics and Management

Another perspective on book printing is provided by examining printers' perspective of demand for various printed products and services. Last year, printers rated the demand for book printing 20th out of a total of 28 product/service categories in terms of the strength of demand. In general book demand was growing modestly.

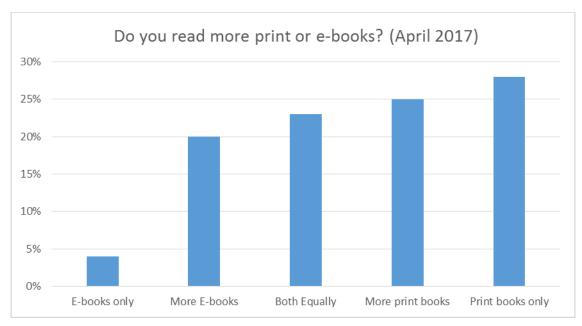


Source: PIA Center for Print Economics and Management

Key Trends in Book Readership, Consumption, and Demand

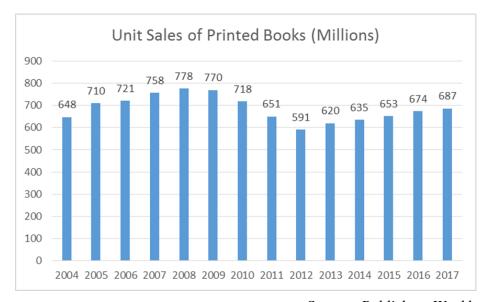
Generally, trends in book readership and the consumption of printed books have been favorable recently. Physical books are not being replaced by e-books.

The book printing industry did take a hit in the earlier part of the 2010s, but the latest numbers show that consumers still like to hold a physical copy of a book in their hands. A survey conducted in April of 2017 shows this fact at a basic level. More adults preferred printed books than e-books.



Source: Statista

It's hard to judge a whole industry by one simple survey, but a closer look at the numbers shows more evidence that the print book industry is actually improving.



Source: Publishers Weekly

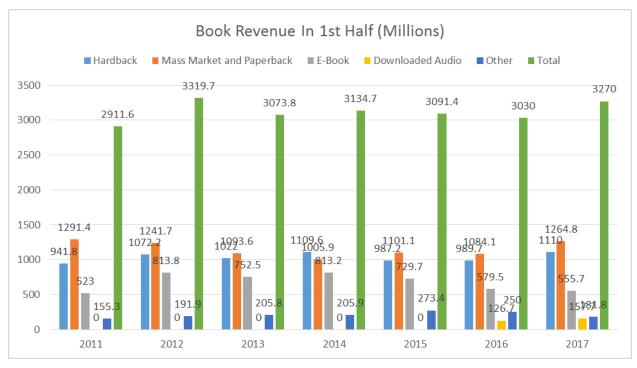
The book industry reached its peak unit sales in 2008 and then began to face a few issues at one time which led to a pretty significant drop in sales. Obviously, our country saw one of the greatest recessions during this time period, leading to a decline in sales, but there was another factor as well. Between 2009 and 2013, we saw the first rollouts of the Nook by Barnes and

Noble as well as Kindles and tablets which were marketed as the next big thing in reading. Two storms hitting the print book industry at once forced unit sales down by almost 200 million compared to its peak just four years earlier.

However, since that trough, the industry has recovered and the number of printed books is growing. This may be the result of the greatly improved economy as well as, perhaps, people changing their perceptions in terms of the user friendliness of e-books compared to printed books.

The percent increase from 2016 to 2017 was the lowest during the recovery period at just under 2 percent while rising anywhere from 2.4 percent to almost 5 percent since 2012. This may show that growth is slowing or it could show that it may have just been a down year. Once the 2018 numbers are released, we will get a better look at what may be happening.

Looking deeper, different book segments may be performing better or worse than others and it is helpful to examine different segments over time. The segments considered are hardback, mass market and paperback, e-books, downloaded audio, and other types. The chart below shows the revenue (in millions) for each of these segments in the first half of the year from 2011 to 2017.



Source: The Digital Reader

By considering only first half sales, it eliminates some of the skewness that may come from certain segments benefitting from holiday sales more than others. As far as revenue is concerned, we see some different results as compared to the trend captured in the graph illustrating print book units sold. The revenue has fluctuated between 2011 and 2017, but it did reach its peak in 2012. The reason for this phenomenon could possibly be attributed to the significant rise in e-book sales that came about in 2012 as compared to 2011.

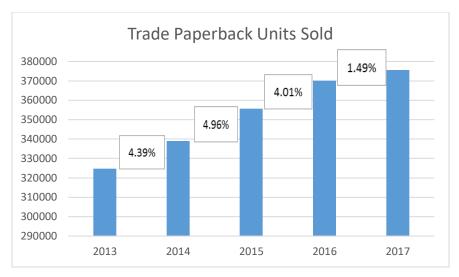
Even with the falling e-book sales, the 2017 revenue stream was at its highest since 2012, with a solid increase of around 8 percent since 2016. Some of this could be attributed to the rise in downloaded audio books, but the 157 million is pretty insignificant compared to the other categories. Both hardback (12 percent) and mass market and paperback (16.6 percent) revenues increased fairly significantly from 2016 to 2017. This is more in line with the numbers provided in the chart below and is another sign that the print book industry is holding up.

Another study done compared the January through September sales in 2017 to those in 2018 for a few different book segments. The segments included in the study are trade paperback, hardcover, mass market paperback, board books, and audio books. In both years, the largest number of units sold was in the trade paperback segment, which sold more than double that of hardcover. Both of these did increase its units sold from year to year, with trade paperback growing much slower (.7 percent) as compared to the hardcover (6 percent). Mass market paperback saw a 2.3 percent decrease in units sold from year to year and board books saw the biggest increase at 10 percent. More good news for the printed book segment came as audiobook unit sales dropped by around 27 percent. The details are provided below:

Unit Sales (Thousands) January - September			
Format	2017	2018	% Change
Trade Paperback	263,927	265,722	0.7%
Hardcover	119,257	126,385	6.0%
Mass Market Paperback	39,117	38,199	-2.3%
Board Books	22,518	24,762	10.0%
Audio	2,329	1,709	-26.6%

Source: Publishers Weekly

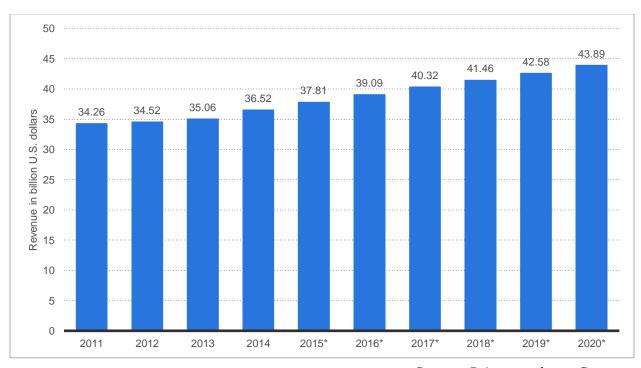
The following graph zeroes in on trade paperback units between 2013 and 2017 and shows total units sold as well as the percent change per year:



Source: Statista

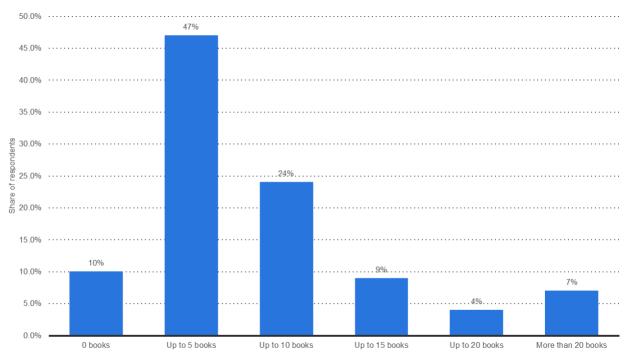
Trade paperback units have been increasing every year, but by looking at the chart above as well as the table; it is easy to see that growth has become sluggish the last two years. If the trend continues and growth becomes negative, then it may be time for those producing these products to consider some sort of strategy change.

Publisher revenue in the U.S. is another indicator of the state of the industry and, as can be seen in the chart below, the number has been rising steadily since 2011:



Source: PricewaterhouseCoopers

A survey conducted by PricewaterhouseCoopers also projected this number to continue its rise at least through 2020. As far as the growth rate is concerned, the projections remain relatively consistent. Rates have hovered around 3 percent per year, with an exception to 2011 when there was less than a 1 percent increase.



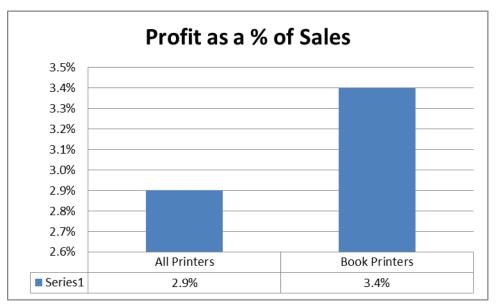
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Book Manufacturers' Income and Operating Metrics

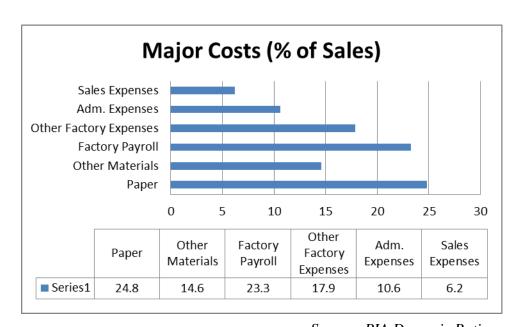
What about trends in income and operations for book manufacturers? In this section we present key income and operating metrics for book manufacturers. The statistics are based on the 2017-2018 *Ratios* survey from Printing Industries of America and are specific to book manufacturers.

Book manufacturers participating in the *Ratios* survey averaged before tax profit on sales of 3.4 percent. This rate was significantly higher than the all printer average of 2.9 percent.



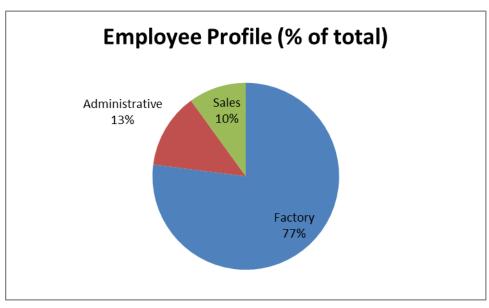
Source: PIA Dynamic Ratios

The major cost items for book printers are people and paper. The number one expenditure in relation to sales is total payroll cost, around 41 percent. Paper cost comprised an additional 25 percent and other materials accounted for an additional 15 percent.



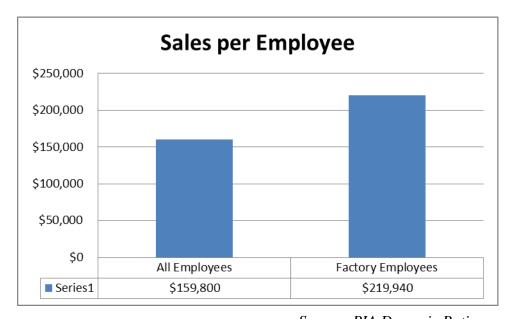
Source: PIA Dynamic Ratios

The employee profile for a book manufacturer demonstrates the preponderance of production employees, with almost eight out of ten employees in this category. The remaining employees were almost equally divided between administrative/executive and sales employees.



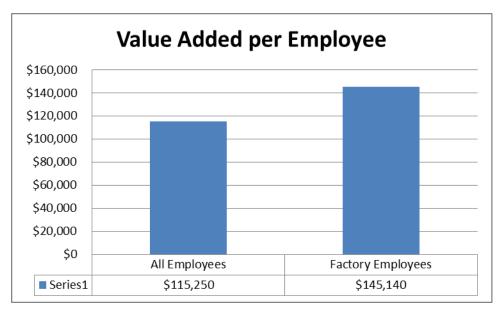
Source: PIA Dynamic Ratios

What about productivity? Our key metrics of productivity are sales per employee and sales per factory employee. During the 2017-2018 period, book manufacturers averaged almost \$160,000 in sales per employee and almost \$220,000 for factory employees.



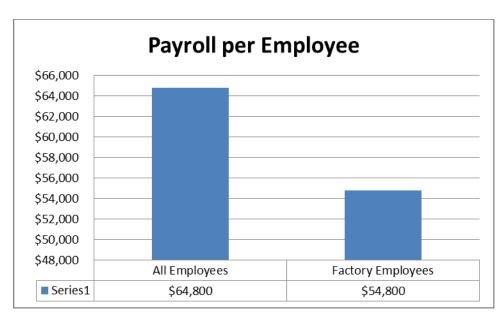
Source: PIA Dynamic Ratios

Other key productivity metrics include value added per employee. During the 2017-2018 period, book manufacturers averaged over \$115,000 in value added per all employees and over \$145,000 for factory employees.



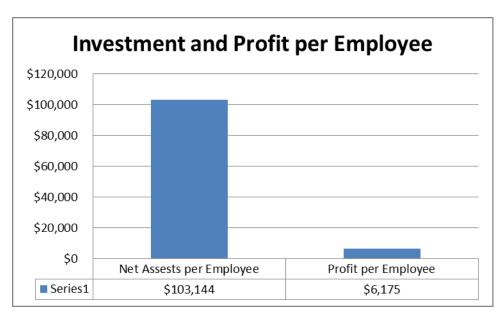
Source: PIA Dynamic Ratios

Book manufacturers pay high wages and benefits. During the 2017-2018 timeframe, book manufacturers paid an average total compensation of \$64,800 for all employees and just under \$55,000 for factory employees.



Source: PIA Dynamic Ratios

Book manufacturers also exhibit high levels of investment in plant and equipment, with an average of over \$103,000 per employee. This investment is directly related to the productivity and employee compensation metrics cited above. At the same time, profit per employee is also related to investment. This metric averaged \$6,175 in 2017-2018.



Source: PIA Dynamic Ratios

Key Management Issues for Book Manufacturers in 2019

Given the above macroeconomic and book specific trends, what are the key management issues for book manufacturers in 2019?

Outside the plant: An increasingly likelihood of recession, especially looking out over a two-year horizon. Although we are not forecasting a recession, the outlooks for overall print (including book manufacturers) ranges from revenue growth of 2 percent or more to revenue decline of 4 percent or more—a significant range. Book manufacturers need to be prepared for both ends of the spectrum next year. While the risks are high, the rewards are also high. Book printers need to do their homework to objectively evaluate investment opportunities to determine the ROI while also developing a "what if" plan for the downside.

Inside the plant: Increasing need for competitive advantage strategies and tactics to remain a viable and profitable firm. Strategic thinking is always important for success, but it is even more important in a changing environment. When it comes to strategy in the printing industry, printers first of all should address the dual issues of product/service focus and value-added ancillary services. Financial performance typically correlates with specialization by a printed product or vertical market. Also, diversification into various ancillary services also generally

correlates with higher profits. This dual strategy works by lowering costs from specialization and increasing revenues from diversification. All types of printers need to rethink where they are in this process and make new conscious decisions about what they are doing.



Additionally, drilling down there are two more focused management strategies that book manufacturers increasingly need to address.

Pay more attention to people costs. In today's labor shortage environment, the profit gap between profit leaders (printers in the top 25 percent of profitability) and profit challengers (the remaining 75 percent) is extremely people determined. Since roughly 40 cents of every dollar of a typical book printer's sales is expended on people (wages, salaries, benefits, and payroll taxes) managing people and their costs is a key determinant of profitability. Profit leaders employ significantly less employees per \$1 million in sales.

Increase your focus on education and training. Even as profit leaders employ relatively less people, the fact is that the employees they do have are that much more important to the profit equation. Book printers can gain a competitive advantage in human resources management. Profit-leading printers have a much stronger focus on human resource management, particularly training and education. Implement a high performance work system:

- Be all-inclusive in benefits, awards, profit sharing, and bonuses—employees should perceive equity in sharing gains in good years and pains in bad years
- Be transparent in sharing information on financial status, business plans, strategies, etc.
- Develop knowledgeable workers—invest in education and training opportunities for employees

• Link performance and reward—reward employees based on individual performance, their team's performance, and the firm's performance

In conclusion, the numbers show the outlook for book manufacturers to be generally promising for 2019. However, the downside risks are increasing resulting in a wide range of outcomes. Book manufacturers need to be ready to take advantage of the opportunities while at the same time looking out for the challenges. Managing in such an environment will be difficult.