

Networking Technologies, 3D Printing & Robotics

Q4 3D Printing Survey Points To Strong System Demand From SSYS Resellers

CONCLUSION

We remain bullish on the 3D printing space following favorable feedback from our Q4 reseller/industry survey (79 respondents). Our Q4 survey once again was highlighted by strong demand for SSYS systems, while DDD continues to lag. We remain bullish on SSYS shares, and see the recent pullback in SSYS as a great entry point for investors. On the contrary, we remain cautious on DDD shares until we see organic growth rates and product innovation improve. We believe DDD's recent struggle is a company specific issue and does not reflect the overall 3D printing industry. Given the favorable feedback from our reseller survey, we continue to view the 3D printing and additive manufacturing industry as one of the better secular growth markets and we recommend investors get exposure to SSYS and MTLs.

- **Survey Demographics** - We conducted our Q4 3D printing industry survey and collected feedback from 79 3D printing resellers and service bureau operators. 91% of our survey respondents were located in North America, with 8% in Europe and 1% in APAC. Roughly 32% of respondents classified themselves as both a system reseller and service bureau operator with 50% operating a service bureau and the remaining 18% were resellers.
- **SSYS Sees Strong System Demand, While DDD Lags.** We saw similar results as Q3 with a higher percentage of Stratasys resellers versus 3D Systems resellers reporting above plan results. For the December quarter, we had a total of 34 respondents indicate they are a SSYS or DDD reseller. Of the 34, 14 resellers had above plan respondents, 13 of the above plan responses were Stratasys resellers and only 1 was a 3D Systems reseller. On the flip side, we had a total of 8 resellers report below plan quarters, of which 7 were 3D Systems resellers and only 1 was a Stratasys reseller.
- **Material Sales Improve Nicely In Q4.** Survey responses for material sales showed positive results in Q4, with the number of above plan responses increasing and below plan responses decreasing. In Q4, the percentage of above plan responses increased to 31% in Q4 from 22% in Q3, and the below plan response declined from 9% to 6%. This is the second consecutive quarter of increased above plan responses, and we believe this is due to increased utilization in existing machines.
- **Service Demand Shows Mixed Results, But Outlook Looks Strong.** After a tough Q3, the service bureau market saw modest improvement in Q4 with the percentage of below plan responses declining from 32% to 22% in the quarter; however, the percentage of respondents indicating an above plan Q4 also declined slightly from 18% to 16%. We were encouraged to see total 1 year growth expectations increase 4 percentage points to 17%, which includes ~24% of all survey respondents expect their service business will grow in excess of 30%, up from 14% in Q3.

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Related Companies:	Share Price:
DDD	28.75
MTLS	9.89
PRLB	62.51
SSYS	72.74
VJET	7.35

RISKS

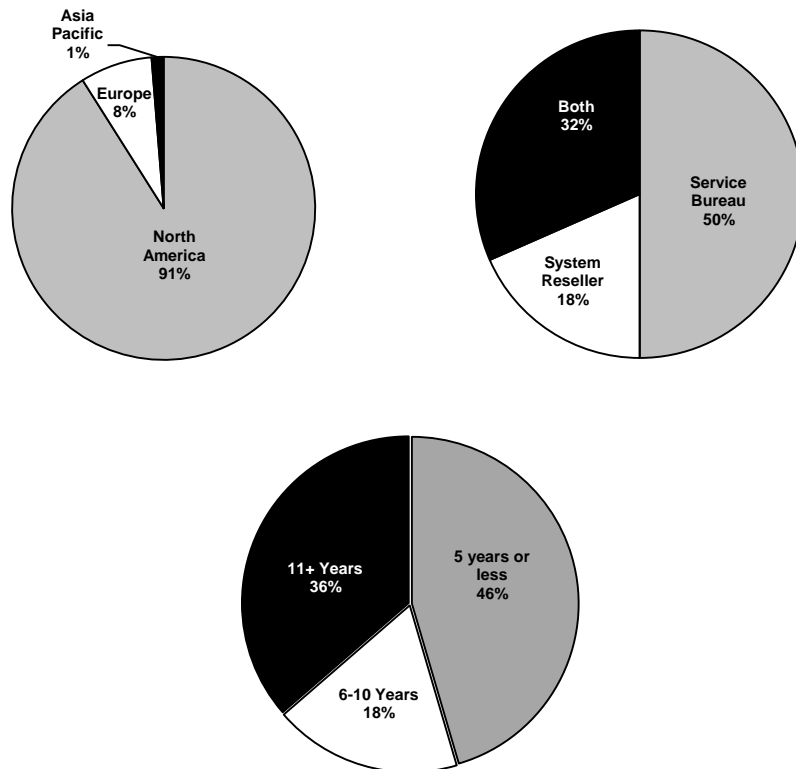
Competition, lack of proprietary materials, economic slowdown and relatively high valuations

**Q4 Industry Survey
Demographics**

We conducted our end-of-the-quarter 3D printing industry survey and received feedback from a record number of industry contacts within the broader 3D printing and additive manufacturing markets. We collected feedback from 79 different 3D printing resellers and service bureau operators, of which 91% of our survey respondents were located in North America, with 8% in Europe and only 1% in Asia Pacific. Roughly 32% of respondents classified themselves as both a system reseller and service bureau operator (*very common within the industry*), with 50% indicating their primary business was exclusively operating a service bureau and the remaining 18% solely system resellers. 36% of participants noted at least 11 years of experience within the 3D printing and additive manufacturing markets, with an additional 18% highlighting anywhere from 6-10 years of experience. We have started capturing data from an increasing number of new industry contacts with 46% of respondents having five years of industry experience or less. The exhibits below highlight the demographics from our Q4 industry survey.

Exhibit 1

SURVEY DEMOGRAPHICS- LOCATION, MARKET, SEGMENT, LENGTH OF MARKET TIME



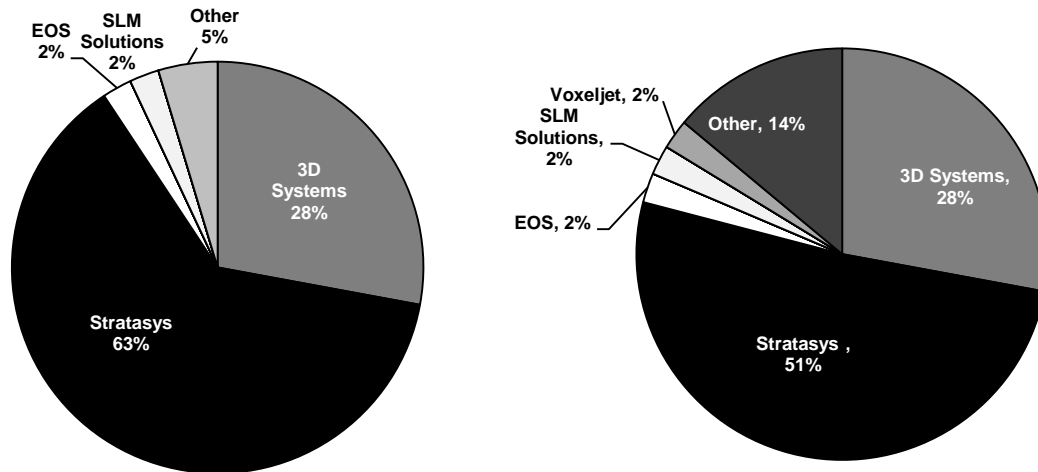
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Location N = 78, Market N = 76, Market Time N = 66

**Reseller Composition
Led By SSYS**

Over the past year there has been a sizeable increase in the percentage of resellers that have been operating in the 3D printing market for less than five years. Our belief is that this is due to a record number of new survey participants over that same time frame coupled with growing demand for 3D printing, which is driving an increase in new resellers and service bureau operators. Our survey has typically been skewed toward Stratasys and 3D Systems and this quarter was no exception. Of the 43 respondents that answered this question, 51% were Stratasys resellers (22 resellers) and 28% were 3D Systems resellers (12 resellers). This compares to 63% Stratasys resellers (27 resellers) and 28% 3D Systems resellers (12 resellers) in our Q3 survey. Our survey also captured feedback from resellers that had exposure to EOS, SLM, Voxeljet and others, but these other 3D printing manufacturers typically have more of a direct sales approach and use fewer resellers. Below are the results of our Q4 survey in comparison with our Q3 results.

Exhibit 2

WHICH 3D PRINTER MANUFACTURER DO YOU WORK WITH? Q3 14 (LEFT) VS Q4 14 (RIGHT)



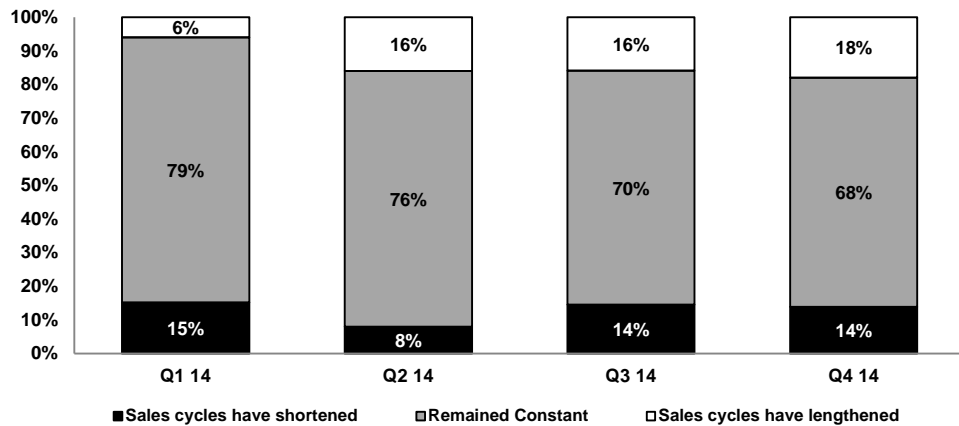
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q10, N= 43

**~68% of Resellers
See Sales Cycles
Constant**

In our most recent survey, we asked resellers how sales cycles have trended over the last several quarters. By far the most common response was sales cycles have remained stable, which was the case 68% of the time. While last quarter the percentage of respondents indicating sales cycles may be shortening increased 6 percentage points to 14%, this quarter's data shows the percentage of respondents indicating that sales cycles have lengthened is up 2% to 18%. The number of respondents believing sales cycles have shortened remained flat at 14%. We believe this slight shift makes sense and we see it as a bit of mean reversion, given prior quarters have witnessed a significant decrease in the number of respondents seeing shortening sales cycles. Below we highlight the results from our Q4 survey.

Exhibit 3

HOW HAVE SALES CYCLES CHANGED?



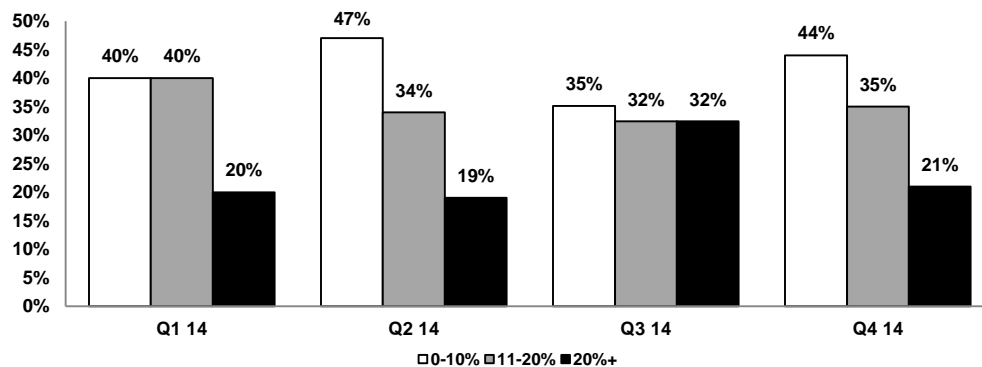
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q11, N= 72

Down in Q4, But Remain Believers in DDM Applications

Direct Digital Manufacturing (DDM) is the use of 3D printing technology for end-used part production, which has seen increasing traction with the ongoing introduction of higher grade materials, faster system throughputs and a better acceptance of the technology. Over the past four quarters we have asked our survey participants what percent of their business they believe is being directed towards DDM applications. According to the resellers we surveyed in Q4, DDM represents 20%+ of sales for roughly 21% of respondents, while DDM represents 11-20% and 0-10% of sales for 35% and 44% of respondents, respectively. While the percentage of business going to DDM applications is slightly down in Q4, we still remain believers that DDM will be a driver for the overall 3D industry. We believe the discrepancy is in the inconsistency of respondents compared to prior quarters given we are capturing more responses from newer resellers and we are no longer getting feedback from some of the recently acquired service bureaus (FineLine, Harvest, Medical Modeling and Solid Concepts) that had more exposure to DDM applications. The exhibit below highlights our findings over the past four quarters.

Exhibit 4

% OF BUSINESS OPERATIONS DEDICATED TO DDM



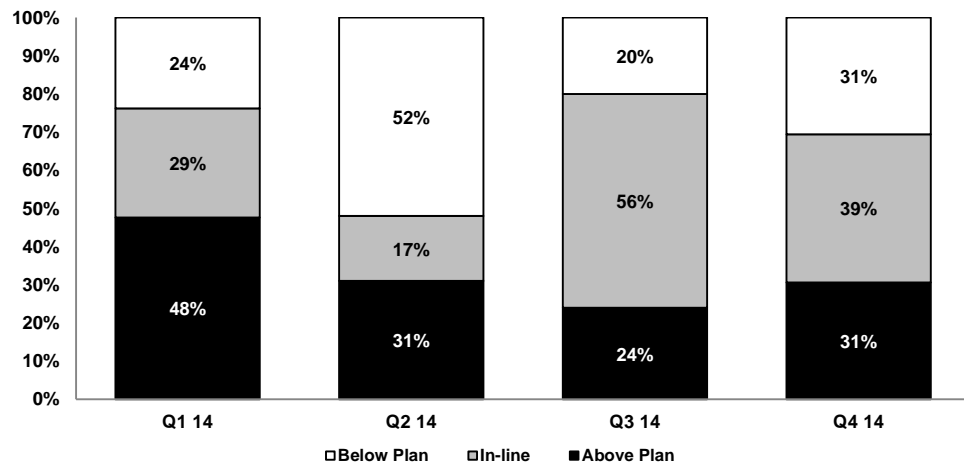
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q8, N= 34

Q4 Total System Sales Shows Mixed Results

We were encouraged to see the percentage of above plan responses (for system sales) increase in Q4 from 24% to 31%, but at the same time disappointed to see the number of below plan responses see a sharper increase from 20% in Q3 to 31% this quarter. The remaining 39% of resellers indicated in-line responses, which is significantly down from 56% in Q3. While looking at the aggregate data may point to an average or even down quarter for 3D printing system sales, breaking up each response between Stratasys and DDD resellers paints an entirely different picture which we dive into in the following paragraphs. The exhibit below highlights the results from our Q3 industry survey.

Exhibit 5

Q4 14 SYSTEM SALES VS PLAN



Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q7, N= 36

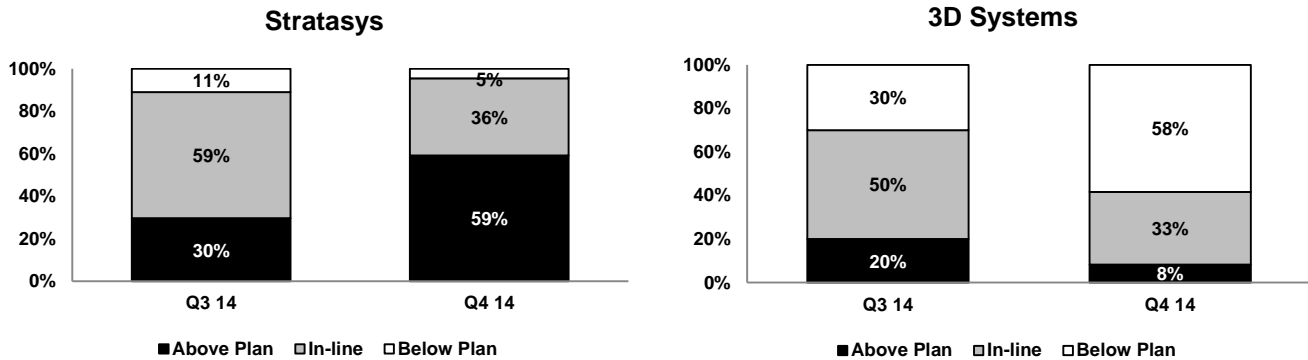
SSYS Sees Another Strong Quarter For System Sales While DDD Lags

Digging deeper into the below and above plan system responses, we saw similar results as in Q3 with a higher percentage of Stratasys resellers versus 3D System resellers reporting an above plan quarter. For the December quarter, we had a total of 34 respondents indicate they are a SSYS or DDD reseller. Of the 34, 14 resellers had above plan respondents, 93% (13) of which were Stratasys resellers and the remaining 7% (1) were 3D Systems resellers. On the flip side, we had a total of 8 resellers report below plan quarters, of which 88% (7) were 3D resellers and only 12% (1) were SSYS resellers.

Looking at company specific trends, SSYS resellers saw a nice increase in above plan responses in Q4, with 59% of SSYS resellers indicating an above plan quarter, up from 30% in Q3. The percentage of SSYS resellers seeing a below plan quarter shrunk from 11% in Q3 to 5% in this quarter. 3D Systems saw the percentage of above plan responses decrease from 20% to 8% in the quarter, while the percentage of below plan responses increased from 30% in Q3 to 58%. Although Q4 has historically been a larger quarter for 3D printer sales, we believe this data points to our belief that Stratasys is starting to pull away as the leader in the 3D printing space given the high demand for their Connex and Fortus machines. The exhibit below highlights the results from our Q4 industry survey.

Exhibit 6

DDD & SYSS SYSTEM SALES VS PLAN



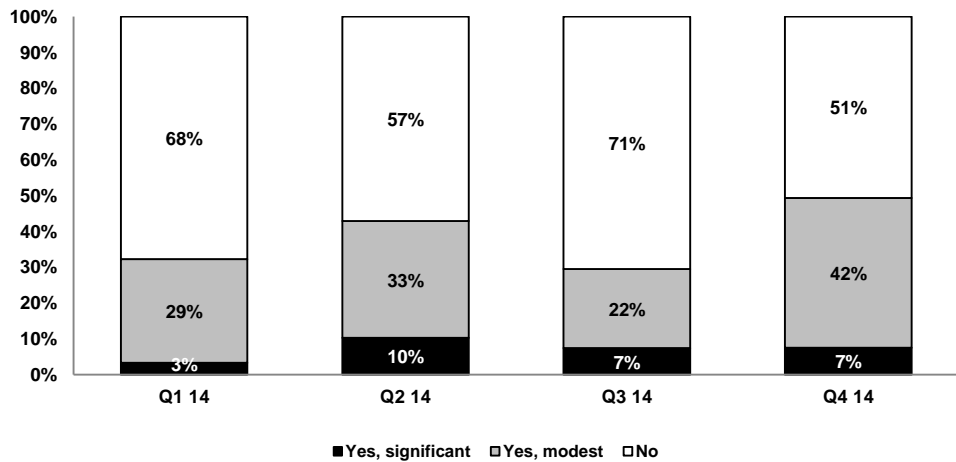
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q23, N= 67

Resellers See Modest Discounts From OEMs in Q4

While the percentage of resellers indicating significant discounting remained flat at 7%, we saw a large increase in the percentage of resellers indicating they are starting to see modest discounting from OEMs. In Q4, modest discount responses increased from 22% to 42%, and the percentage of resellers not seeing any discount decreased to 51% from 71% in Q3. The results of this question may indicate growing competition in the 3D space, but after talking with our industry contacts we are starting to believe OEMs may begin to bring down system prices slightly to make them more attractive to their customers. After multiple conversations with our contacts, one of the biggest issues continuing to drag on 3D adoption is the large capital investment the higher end system costs. We could see further pricing pressure put on OEMs in 2015 due to competition and customer price sensitivity, but believe discounts will not be significant. Below are the results from our Q4 survey.

Exhibit 7

HAVE YOU SEEN ANY ABNORMAL DISCOUNTS FROM OEMS TO CLOSE SYSTEM ORDERS IN Q4?



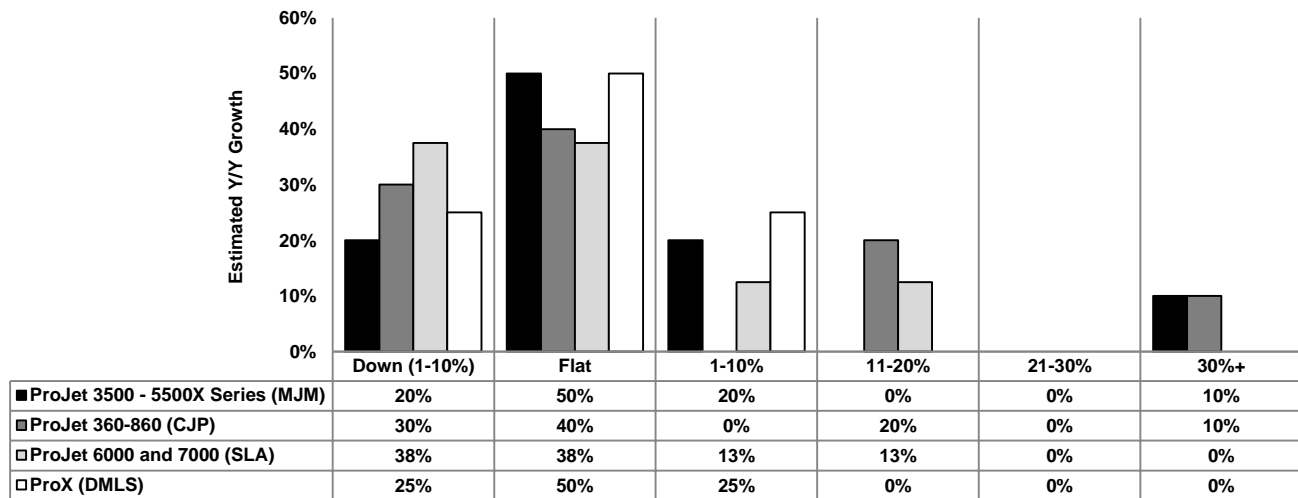
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q23, N= 67

Weak Q4 Across All Technologies for DDD

As we previously mentioned, a high percentage of DDD resellers had a below plan Q4, and looking at 3D Systems products roughly 70% of resellers indicated negative to flat year/year growth across all technologies in the quarter including MJM, CJP, SLA, and DMLS. While 10% of resellers saw 30%+ growth for both MJM and CJP systems, we were a little surprised to see no reseller see direct metal laser sintering (DMLS) sales growth in excess of 10%. 3D Systems has seen strong growth for their metal printers and through the first nine months of 2014 3D Systems saw metal sales increase 241% compared to the same period in 2013. Although we believe that metal applications is one of the fastest growing verticals in the 3D printing industry, we have heard from industry contacts that 3D Systems ProX metal printers have caused some headaches due to high fail rates and other printing factors. While we have also heard from other contacts that 3D Systems metal technology works great for certain applications, we believe the jury is still out on customer sentiment for 3D's DMLS systems. Below are the results from our Q4 survey.

Exhibit 8

3D SYSTEMS SPECIFIC Q4 PRINTER GROWTH



Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q16, N = 36

Thoughts On Phenix DMLS

While on the topic of metals, we asked resellers their view on the Phenix DMLS technology versus other metal system vendors. Overall, the results were pretty neutral but some positive statements. Below we highlight the results of this question.

How do you view Phenix DMLS technology versus other direct metal system vendors in the space?

“New to Market--selling cycle is long”

“Quality Better”

“No opinion yet”

“Competitive.”

“Neutral”

“Unproven at this point, we just sold our first Prox300 so we will see how it goes this quarter when it delivers and installs.”

“Don’t know”

“For the moment - equal to. However, 3DS is betting big in the DM space. The ProX400 is the beginning of an unbeatable product line in 2015 and beyond.”

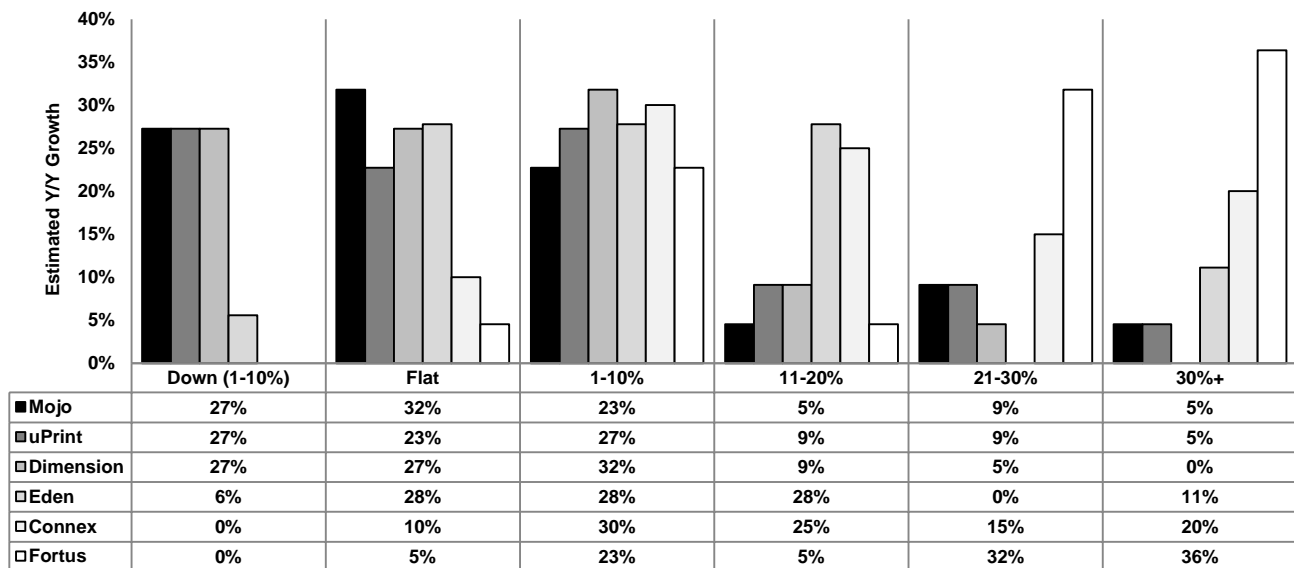
“Better quality / surface finish.”

Stratasys High End Sales Likely Drive Upside in Q4

In Q4, our survey data suggests that many SSYS resellers may have had an above plan quarter, which once again was led by the company’s high end systems. Fortus and Connex sales finished strong in Q4, while Mojo, uPrint and Dimension sales likely underperformed expectations. Roughly 68% of resellers noted that Fortus sales were up 21%+ year/year in Q4, including 36% who indicated sales grew in excess of 30%. Approximately 35% of Connex resellers noted year/year growth above 21% and an additional 25% reported growth in the range of 11-20%. Feedback for Mojo sales was less optimistic, as 59% of resellers indicated year/year growth declined 1-10% or was flat (likely getting cannibalized by MakerBot). In all, we believe Fortus and Connex sales likely drove upside to Q4 system estimates, which we view as major catalysts heading into the quarter. We just want to highlight again that Q4 tends to be one of the bigger quarters for 3D printing resellers. The exhibit below highlights the specific reseller feedback we received for individual Stratasys product lines.

Exhibit 9

STRATASYS SPECIFIC Q4 PRINTER GROWTH



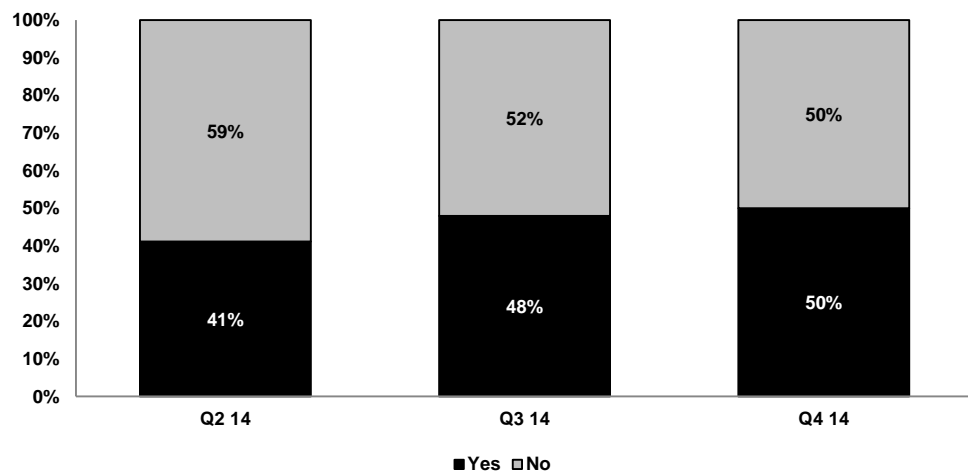
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q17, N = 126

MakerBot Cannibalizing Lower End Systems

In the paragraph above, we highlight our belief that lower end printers from Stratasys including Mojo and uPrint are likely suffering from MakerBot cannibalization. In our survey, we asked resellers if they were seeing an impact from MakerBot and what we found is that 50% believed there was cannibalization from MakerBot, which is up from 48% in the previous quarter and 41% in Q2. This increasing belief in cannibalization provides a likely reason for the softness in Mojo and uPrint system sales, while higher end units performed well. On the flip side, we believe MakerBot sales will be extremely strong again this quarter and more than offset the weakness in Mojo and uPrint sales. Below are the results from our Q4 survey.

Exhibit 10

MAKERBOT CANNIBALIZATION



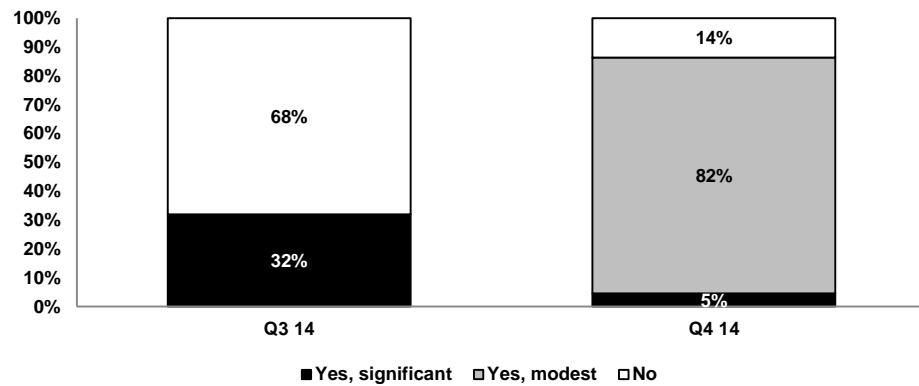
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q13, N= 22

Nylon Optimism Grows As Being Driver of Fortus Sales

We believe Nylon 12 will be the first of many Nylon-based material sets from Stratasys, which should drive additional growth for both system and material sales. Recall, we estimate that Nylons represent over 50% of materials used in laser sintering systems, so the market opportunity is fairly large and already established. Specifically, we asked resellers if they believe Nylons will be a driver for Fortus sales, and the feedback in Q4 showed optimism compared to Q3, with 82% of resellers noting that Nylons will be a modest driver of Fortus sales, which is up from 0% in Q3. Although the percentage of resellers responding that Nylons would be a significant driver to Fortus systems decreased from 32% in Q3 to 5%, the percentage of resellers responding that Nylons would not be a driver to Fortus sales decreased from 68% in Q3 to 14% in the recent quarter. The exhibit below highlights the results from our Q4 3D printing industry survey.

Exhibit 11

HAS THE INTRODUCTION OF NYLONS BEEN A DRIVER FOR FORTUS SALES?



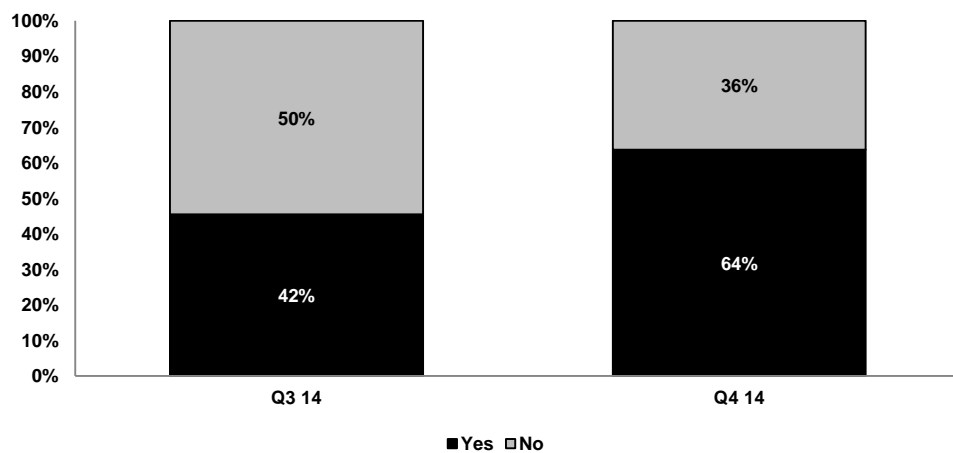
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q12, N=22

New Objet Machines

Keeping with the Stratasys theme, we asked resellers if they believed they would be able to sell the new Objet1000 machines in 2015. What we found is that nearly 64% of resellers believe they could sell an Objet1000 in 2015, which is up from 42% in Q3. We believe the availability of the long awaited Objet1000 will be a modest system revenue catalyst for Stratasys. To remind investors, the Objet1000 is the largest Polyjet system on the market, and sells for roughly \$600,000. Similar to the Connex machines, the Objet1000 allows for multi material printing and can hold up to \$40,000 of materials at once. We believe Stratasys had a significant amount of backlog for this machine in Q3 (which started shipping mid year in 2014). Below we highlight the results from our Q4 survey.

Exhibit 12

DO YOU BELIEVE YOU WILL SELL AN OBJET PRINTER IN THE NEXT YEAR?



Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q32, N= 22

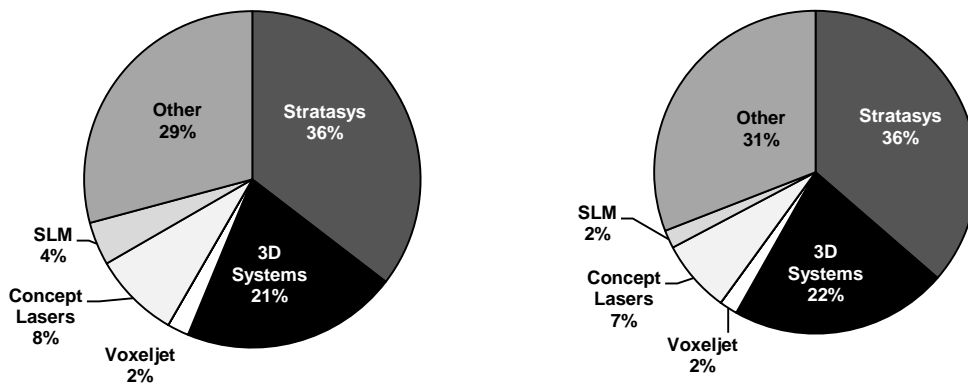
SYSS System Demand Remains Strong in Service Bureaus

As mentioned above, system demand seemed to remain strong in the December quarter for SYSS with more resellers experiencing above plan results versus below plan. To get a better sense of demand for printers we also asked service bureaus what will most likely be their next system purchase. Stratasys continues to lead this category with 36% of service bureaus planning to add one of their machines next, which is the same percentage as Q3. The company’s Fortus machines still are seeing the strongest demand among all printers, where 29% expect to add an FDM machine next, which is up from 21% in Q3. There was a slight decline in Objet printer responses with 7% of service bureaus looking to add this technology next, but we believe our survey participants may have added this technology in the quarter which resulted in an 8% decline.

3D Systems saw a modest uptick in service bureau demand this quarter with 22% of responses planning to add a DDD printer next, which compares to 21% in Q3. Of the four technologies, our data points to SLA and SLS systems seeing growing demand, while DMLS and MJM continue to decline. In Q4, 9% of service bureaus indicated adding a SLA printer, which is up from 4% in Q3. SLS printers also saw a modest increase from 4% to 7% in the December quarter. DMLS printers for the second straight quarter saw a notable decline among service bureaus, and only 5% of response indicated they are planning on adding this technology next which compares to 10% in Q3 and 20% in Q2. We believe the downside demand is due to an increasing number of metal printers now available in the market, and the issues starting to surface with DDD metal printers. Lastly, 3D’s MJM technology had 0 demand interest from service bureaus, which is down from 2% in Q3. We believe this is largely due to SSYS Connex Systems taking share from DDD MJM technology. The exhibit below highlights the results from the survey.

Exhibit 13

WHAT WILL LIKELY BE YOUR NEXT PRINTER PURCHASE? Q3 14 (LEFT) VS Q4 14 (RIGHT)



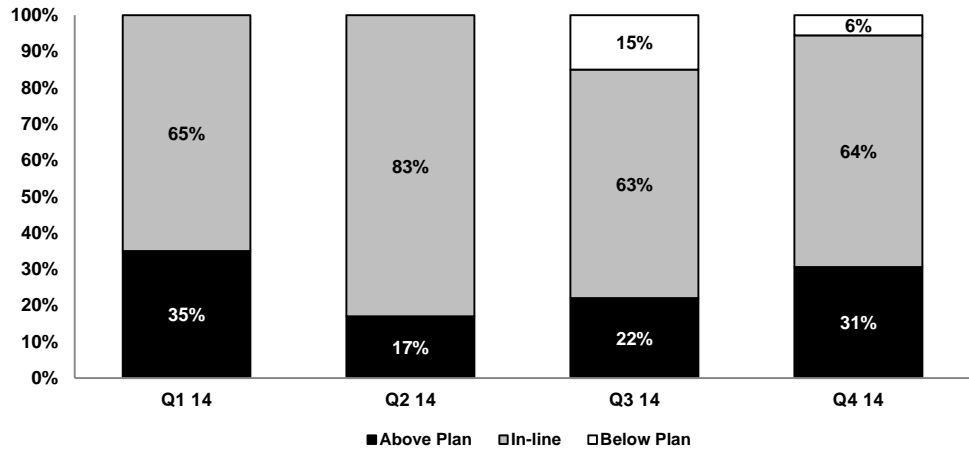
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q5, N=55

Material Sales Show Sequential Improvements

Survey responses for material sales showed positive results for the December quarter, with the number of above plan responses increasing and below plan responses decreasing. In Q4, the percentage of above plan responses increased to 31% from 22% in Q3, and the below plan response declined 9 percentage points to 6% in the same time period. This is the second consecutive quarter of increased above plan responses, and we believe this is due to increased system sales as well as a larger installed base. The exhibit below highlights material sales results from our Q4 3D printing industry survey.

Exhibit 14

Q4 MATERIAL SALES VERSUS EXPECTATIONS



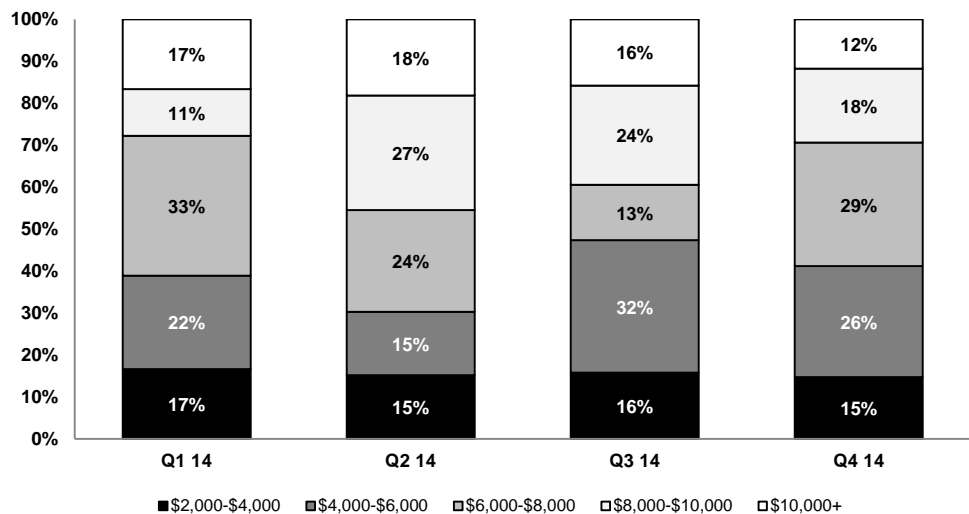
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q7, N= 40

Average Material Spend Decreases

Average material usage per machine has been increasing throughout the industry and we believe this trend will continue. As displayed in the following exhibit, we saw an uptick in average material usage for \$6-8K, and a corresponding decrease in \$2-4K and \$4-6K. We did see a decrease in \$8K+ responses, but we believe the decrease in higher volume responses is more related to the significant increase in resellers that take the survey versus an actual decrease in material usage in the quarter. During Q4, we see that 30% of respondents indicated they spend on average \$8,000 or more, which is down from ~40% in the previous quarter. But we believe the 16% increase in the \$6-8K segment offsets the decrease in high usage responses.

Exhibit 15

WHAT IS THE AVERAGE MATERIAL USAGE OF YOUR INSTALL BASE?



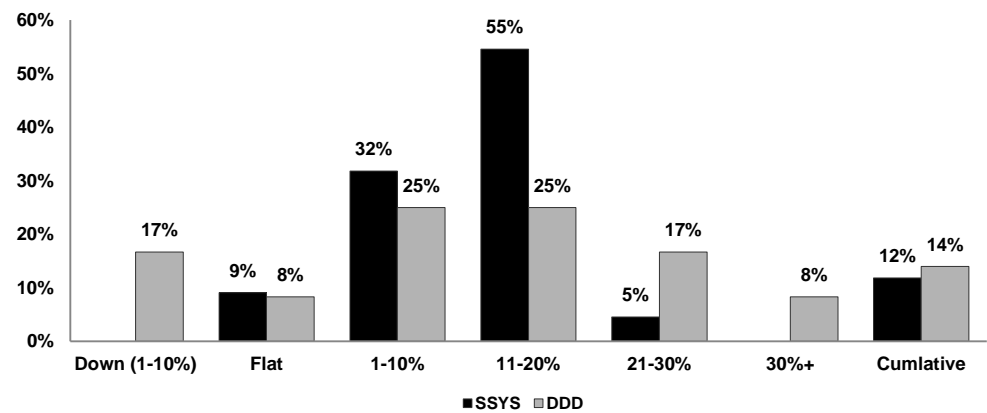
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q9, N= 34

Material Sales Decline Sequentially

Both Stratasy's and 3D Systems resellers report slightly lower material sales growth in Q4 compared to our Q3 survey. On a consolidated basis, Stratasy's resellers reported material growth of 12%, which is down slightly from 13% in the September quarter. This included 5% who noted growth in excess of 21%, 87% in the range of 1-20% and the remaining 9% flat. While our results may suggest deceleration off of the prior growth rate for SSYS, we believe direct to customer sales (*not run through the channel*), likely make up for the variance. 3D Systems' material sales came back above Stratasy's and Q3 numbers with resellers indicating material growth of 14% on a consolidated basis (7% in Q3). 25% noted growth in excess of 21%, while 50% noted growth of 1-20%, 8% of respondents reported flat growth, and the remaining 17% of resellers reported negative growth. The exhibit below highlights the results from our Q4 3D printing survey.

Exhibit 16

Q4 MATERIAL SALES GROWTH BY VENDOR



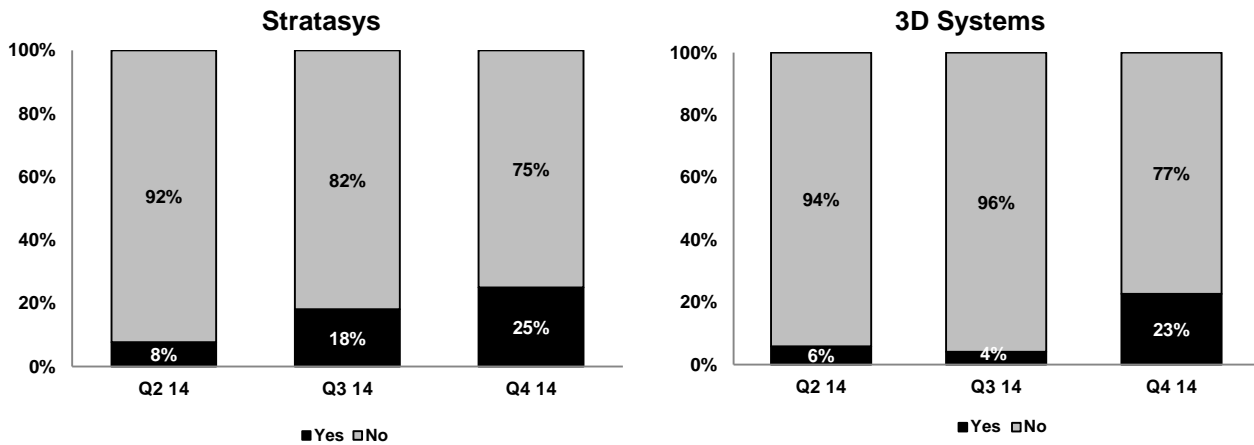
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q19/22, N=34

Material Pricing May Be Changing

As a check, we asked resellers in Q4 whether they had seen any abnormally large discounts on materials from 3D Systems or Stratasy's during the quarter. What we found is that there seemed to be an uptick in large discounts on materials during the quarter, indicating that the pricing environment may be changing. Although still a low percentage, 25% of SSYS resellers are starting to see large discounts offered on materials to induce system sales, which compares to 18% in Q3 and 8% in Q2. 23% of DDD resellers also noticed large discounts in material prices, which are up from 6% in Q3. While the majority of resellers still see material prices stable, we believe this may be something investors keep their eyes on. Below we highlight our findings in the Q4 survey.

Exhibit 17

HAS 3D OR STRATASYS BEEN OFFERING ANY ABNORMALLY LARGE DISCOUNTS ON MATERIALS?



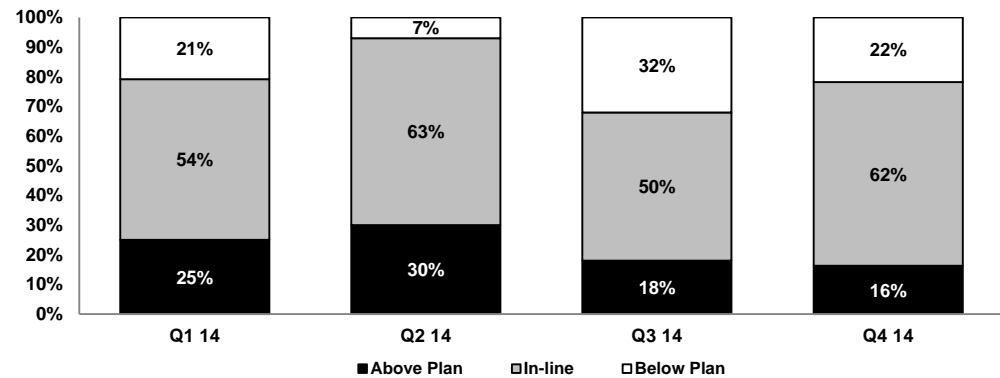
Source: Piper Jaffray Research, Q3 3D Printing VAR Survey Q28/31, DDD N= 12, Stratasys N= 22

Service Market Sees Modest Improvement In Q4

After a tough Q3, the service market seemed to see modest improvement in Q4 with the number of below plan responses declining from 32% to 22% in the quarter; however, the percentage of respondents indicating an above plan Q4 also declined slightly from 18% to 16%, producing a net negative for the December quarter. While the results for Q4 may continue to show a weak service market, we believe the discrepancy is in the inconsistency of respondents in prior quarters given we are no longer getting feedback from some of the acquired service bureaus (FineLine, Harvest, Medical Modeling and Solid Concepts), which are some of the largest service operators in the United States. After a number of channel checks we believe that the larger bureaus continue to see strong demand and are expanding capacity. We believe service bureaus are a great way to get exposure to 3D technology without encountering the high capital investment, and feel this industry will prove to be a growth driver for the 3D printing space. The exhibit below highlights the results from our Q4 2014 3D printing industry survey.

Exhibit 18

Q4 SERVICE SALES VERSUS EXPECTATIONS



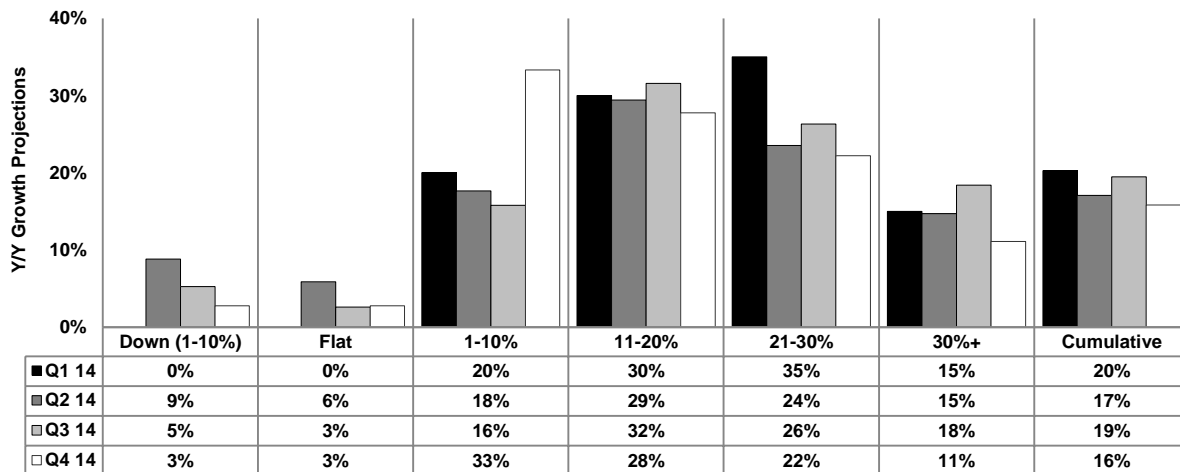
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q7, N=55

Expectations for System Pipeline Weakens In Q4

In Q4, aggregate full year system growth forecasts were down three percentage points to 16% from the prior quarter, with the share of resellers expecting 30%+ growth in 2014 decreasing 7% points to 11%. Most resellers (33%) expect system sales to increase 1-10%, while 28% and 22% of resellers expect 11-20% and 21-30%, respectively. Only a very small percentage (6%) expects system sales to remain flat or be negative. Although our data expects slower growth than some are expecting, we believe system sales will continue to see 25%+ growth in 2015 led by new product and new technology introductions. The chart below highlights one year system growth projections over Q4 and the three previous quarters.

Exhibit 19

1-YEAR SYSTEM GROWTH PROJECTIONS



Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q14, N=36

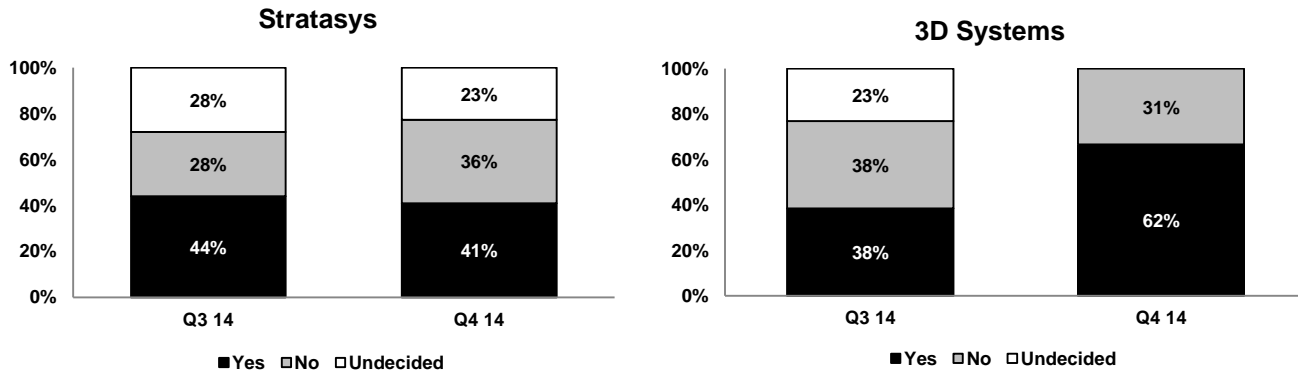
Channel Shifting Towards Adoption of DDD Prosumer Offerings

Both Stratasys and 3D Systems have introduced/acquired lower-end 3D printers that are targeting the prosumer markets (professional consumers). In our Q4 survey, we asked resellers if they plan on selling any of the “prosumer” printers from either Stratasys or 3D Systems. The results show a shift for both companies as Stratasys saw its percentage of yes

replies decline to 41% from 44%, while 62% of 3D resellers indicated plans to sell prosumer offerings, up from 38% last quarter. The following exhibit highlights responses regarding selling prosumer 3D printers through the channel.

Exhibit 20

DO YOU PLAN ON RESELLING PROSUMER OFFERINGS FROM STRATASYS OR 3D SYSTEMS?



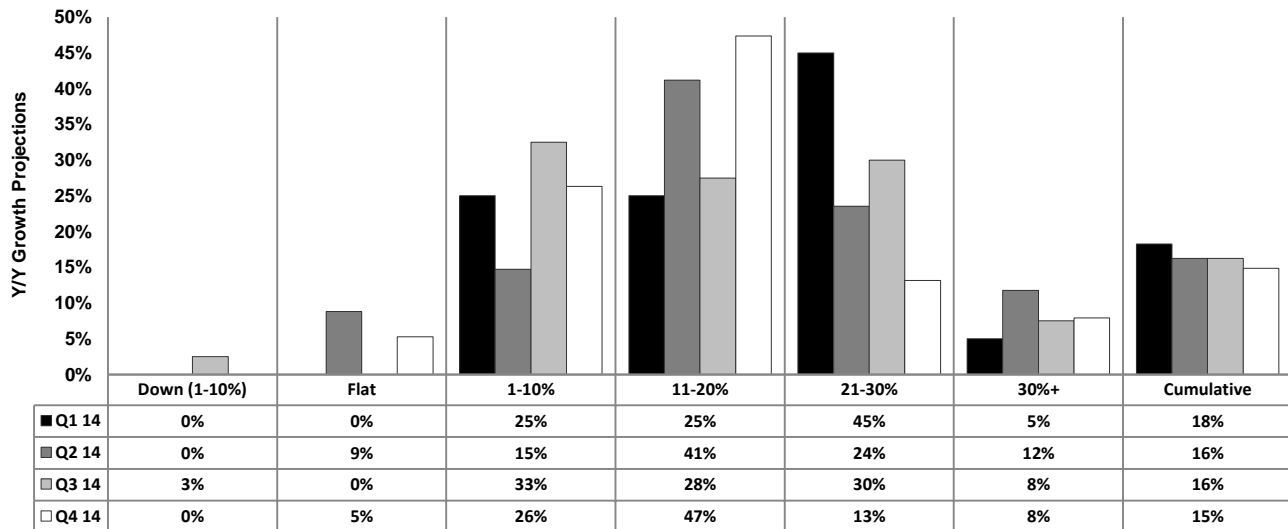
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q29/33, SSYS N=22, DDD N=12,

Aggregate Material Sales Down In Q4

On a weighted average basis, resellers are now targeting ~15% growth in their materials business, which is slightly down from Q3 of 16% growth. In our Q4 survey the number of resellers expecting 21%+ growth in 2014 decreased 17 percentage points to 21%. Meanwhile, resellers expecting material growth of 11-20% increased from 28% to 47%, and resellers expecting negative growth decreased to 0% in the December quarter. In our view, the down tick in material sales can be tied to a significant increase in newer resellers participating in our survey, so the data is not consistent when compared to the Q3 results. The exhibit below highlights the results from our Q4 3D printing industry survey.

Exhibit 21

1-YEAR MATERIAL GROWTH PROJECTIONS



Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q14, N=38

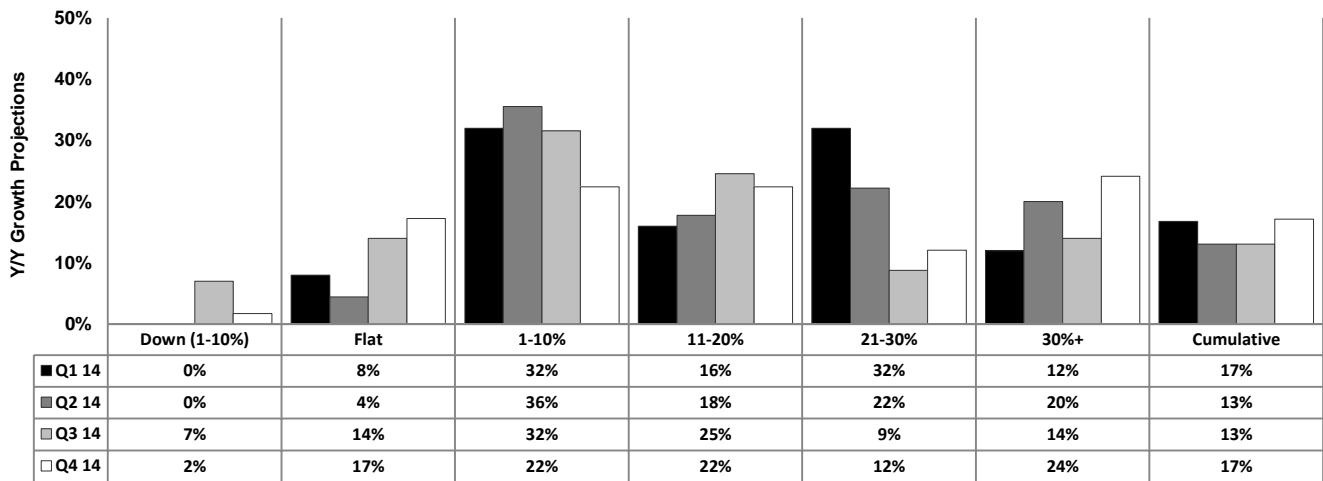
Service Data Points To Strong 2015

Recall, the 3D service bureau market now accounts for over half of all revenue in the broader 3D printing space. The majority of new entrants (*end customers*) within the 3D market tend to utilize service shops prior to investing in their own systems. We expect this trend will persist for some time as more and more companies begin to leverage 3D printing technologies. Aiding service bureau growth is overflow from internal 3D printing departments, which utilize both paid parts services and internal capabilities. We have spoken with several customers who typically outsource larger, more complicated products, as in-house systems are often reserved for specific prototyping and design work (*we see this changing over time*).

For Q4, total growth expectations increased 4 percentage points to 17%, which includes ~24% of all survey respondents expecting their service business to grow in excess of 30%, up from 14% in Q3. We believe the recent uptick in sales expectations is due to many companies starting to see the cost and manufacturing benefits of 3D printing. We see this data as positive for SSYS and DDD service segments, which represent 20% and 33%, respectively, and are also bullish for Proto Labs' (PRLB) FineLine division that they acquired mid-2014. Fineline only accounts for 6% of total sales for Proto Labs, but we expect this to grow in the coming years and become more material to the business. The exhibit below highlights the results from our Q4 3D Printing VAR Survey.

Exhibit 22

1-YEAR SERVICE GROWTH PROJECTIONS



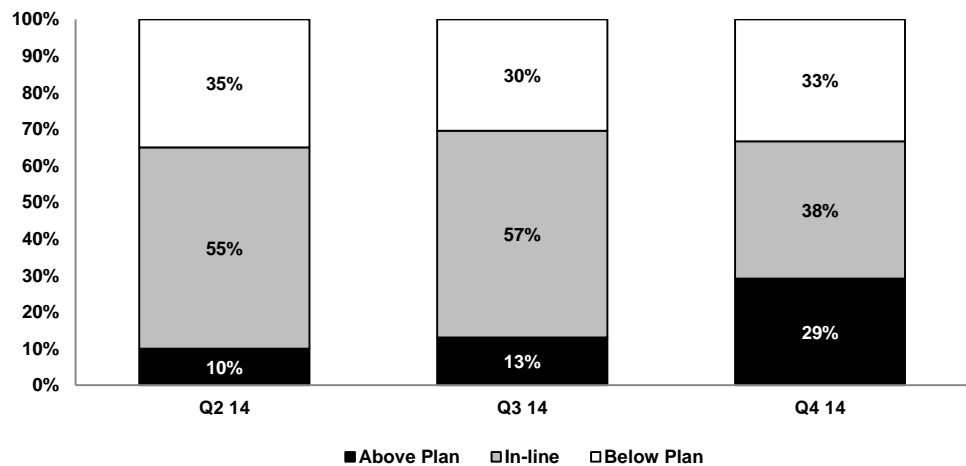
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q15, N=58

Software Demand

We are strong believers that the growing number of CAD seats and software innovation is a key driver for the overall 3D printing market, and for that reason we started asking questions regarding software sales in Q2. We caveat these results with the reality that we are still searching out the most relevant resellers of Materialise products and this being only the third quarter, we are unsure of the correlation between our data and reality. That being said, Q4 saw a sizable uptick from Q3, when 29% of resellers saw software sales above plan, up from 13% in Q3. However, the percentage of resellers indicating a below plan quarter modestly increased also, but still produced a net positive. We believe that growth in software is a positive sign for Materialise, as ~20% of their total revenues are generated from 3D printing software sales. The exhibit below highlights our Q4 results.

Exhibit 23

Q2-Q4 14 SOFTWARE SALES VERSUS EXPECTATIONS



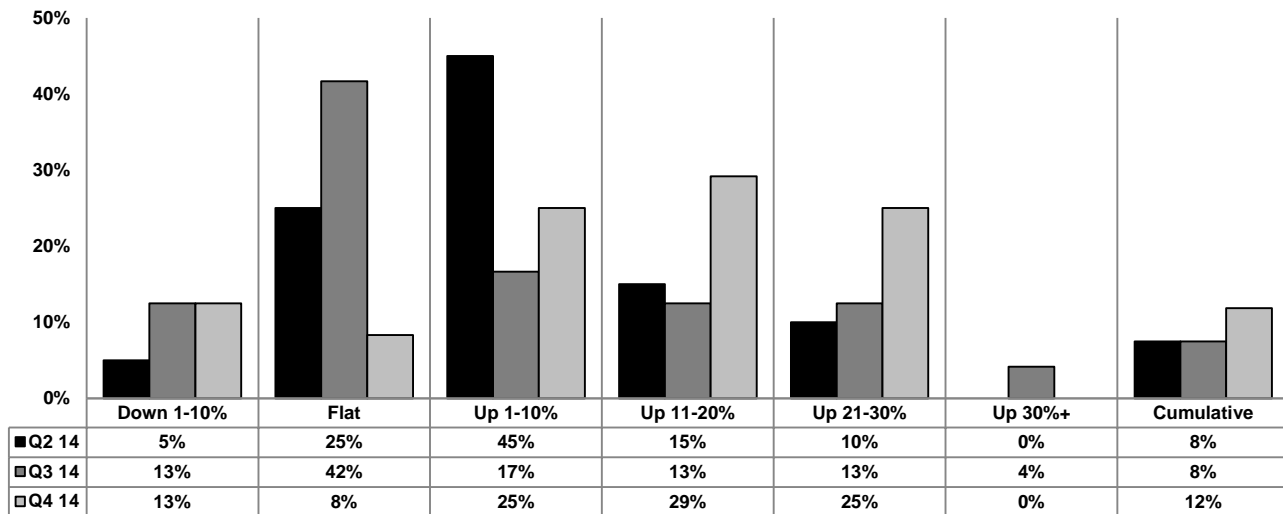
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q7, N= 24

Software 1 Year Forecasts Strengthens

Moving on to full year expectations, software demand saw an increase in one year growth expectations with a cumulative growth total increasing from 8% in Q3 to 12% this quarter. While no reseller is expecting 30%+ software growth, nearly 54% of respondents indicated that they expected growth to be up 11 -30%, which compares to 26% in the previous quarter. In addition, only 8% indicated growth to be flat, which is down from 42% in Q3. We believe this data is very positive for further adoption of 3D printing technologies, and are strong believers that the growth in software sales is a key driver for the overall 3D printing market.

Exhibit 24

1-YEAR SOFTWARE GROWTH PROJECTIONS



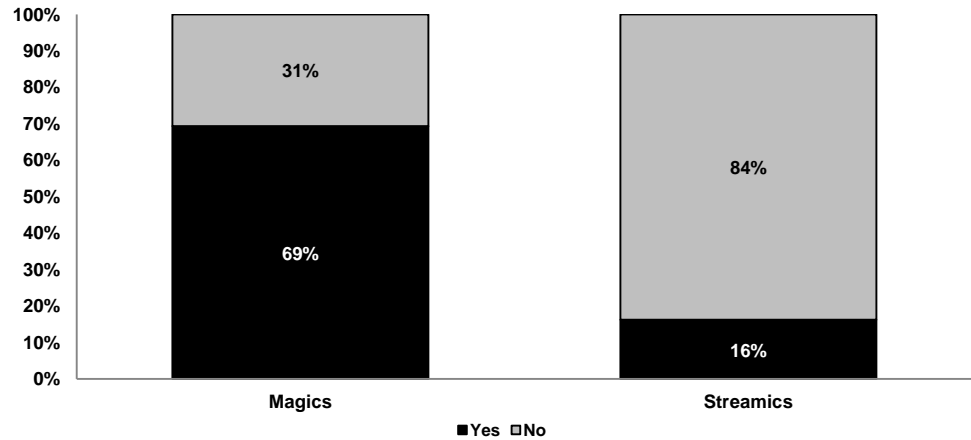
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q14, N= 24

MTLS Software Users Accelerate Modestly in Q4

Looking deeper into software, we asked respondents whether they use Materialise’s industry leading software Magics or Streamics. During our Q4 survey, we saw that 69% of the respondents are using Magics, which is up from 65% in Q3. We also saw a modest increase in Streamics users with 16% of respondents using this application. We believe an increase in Magics users is beneficial to Materialise given Magics accounts for roughly 80% of Materialise 3D printing software revenue.

Exhibit 25

DO YOU PLAN ON SELLING OR HAVE STARTED RESELLING MAGICS OR STREAMICS PRODUCTS?



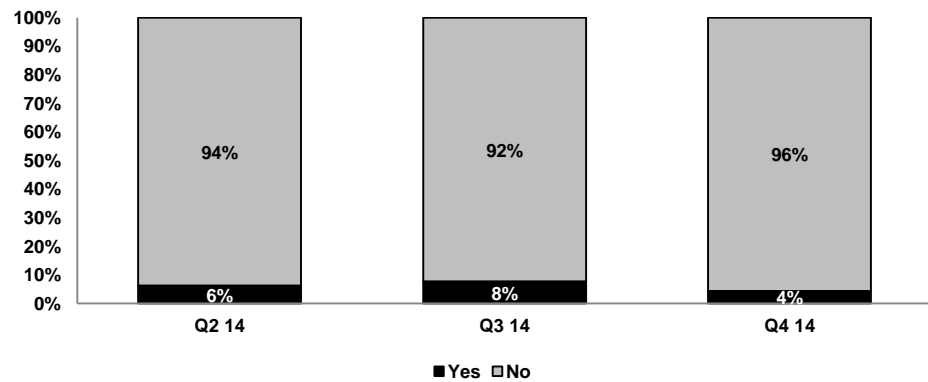
Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q12, N= 12

Most Resellers Yet To Be Approached By HP

In our survey, we asked respondents whether or not they had been approached by HP to resell their Multi Jet Fusion printer. Similar to last quarter we did not notice a significant portion of respondents saying yes. Of the 68 to respond to this question only 3 people or 4% had been approached. This compares to five respondents or 8% of respondents in the previous quarter. The below exhibit highlights the results of this question.

Exhibit 26

HAVE YOU BEEN APPROACHED BY HP TO SELL 3D PRINTERS?



Source: Piper Jaffray Research, Q4 3D Printing VAR Survey Q34, N= 68

HP Commentary

The sections below highlight the various quotes we received from our 3D Printing VAR Survey regarding HP’s release of their Multi Jet Fusion Technology.

“A good high quality multijet to compete with 3D Systems will be good for the market.”

“A lot of blue smoke/ no fire”

“A lot of hype, no machines introduced.”

“Announcement is one thing....execution is another.”

“Big company, big "mouth", let us wait on final product and final launching. I'm not sure consumer printing will grow up as everybody hopes.”

“Cool”

“Cool technology, I think it will bring a new level of expectation and performance to this industry. It's good.”

“Do not know enough to make a judgment.”

“Don't know enough to comment”

“Don't know”

“Excited”

“Excited for technology!”

“Extremely positive on performance, price and material quality”

“Fluff”

“Good competition”

“Great for the industry. Will validate and start to bring true competition and democratization into the market.”

“Have not spent any time looking at HP”

“I will be curious to see data sheets on the materials and see what it is truly capable of from an engineering standpoint.”

“I would like to see some sample parts and see an installed machine in person. I would also like to know about the post processing required”

“If it does what it says, it will be very disruptive - in a positive way.”

“I'll believe it when I see it.”

“Interested. Want to see it perform. There are a lot of systems coming out.”

“Interesting”

“Interesting, we'll have to see what the parts really look like/perform.”

“It is neat but I want to see parts in person and evaluate the quality of the parts. I would also like to know more details about the cost of materials, post processing requirements and user experiences.”

“It looks interesting from a cost per part point of view. I could make models cheaper. I have seen no data on material properties. That is always a limit for 3D printed resin parts but is an opportunity for a company like ours that coats parts to improve strength and stiffness.”

“It uses the ZCorp technology and has some interesting improvements.”

“It's a "Unicorn" product that cannot yet be bought, I think it was a big mistake to unveil the product with over a year before actual release for HP. I'll honestly be surprised if that particular product even makes it to market still. After multiple delays it is still a long ways away before I can interpret the true impact.”

“Right now, a small bump in the road.”

“It's interesting we shall see the impact that it has to Stratasys.”

*“It's several years to completion; wondering if they'll still be relevant when it's released”
“Jury still out”*

“Looks interesting, but want to see products printed on it”

“Looks like a really good technology. Interested in seeing how it actually works and when it launches”

“Neutral”

“No”

“No properties published on materials low credibility”

“Not enough information to form a good opinion”

“Not familiar with it yet”

“Not our focus”

“Not ready yet”

“Seeing is believing”

“Smart business move on their part. Excited to see the machine.”

“Sounds too good to believe, will wait for consumer reports on it”

“This will bring more interest and potentially more work. It will introduce the technology to more so the future looks even brighter”

“Too far off, and way too much like other promised "industry changers", waiting to see.”

“Underwhelmed.”

“Vaporware 2 years out. The world changes much faster”

“Vaporware technology-- no long term threat to the industry”

“Very interested”

“Voodoo technology. Show me some parts and we need a better understanding of the technology”

“Wait and see”

“Will follow their progress closely.”

General Reseller Quotes from Our Q4 VAR Survey

The sections below highlight the various quotes we received from our 3D Printing VAR Survey.

“2015 promises a new marketing effort from 3D Systems in the consumer space-- expect to see advertisements in movie theaters, TV commercials, etc.”

“3D Systems is doing some things well, but their channel strategy is not well thought out. Too many resellers, not enough focus and no accountability from anyone.”

“Advanced materials will drive margins growth.”

“Demand for Fortus Products was crazy in the last 2 months of the year!”

“I’ve been in the VAR business 20 years and I’ve never experienced a more unprofessional and poorly ran company as 3DS.”

“Production manufacturing opportunities have been increasing consistently for the past 6 months. Opportunities which would require purchasing multiple machines to meet timelines.”

“The continued lack of any real innovation from 3D Systems is astonishing. Another Euromold and nothing but lightly refreshed machines.”

“The future on 3D printing lies in commercial, end-use applications to drive both system and material development as well as sustained market demand.”

“The reseller channel is growing too large. How much competition can anyone stand?”

“We’re just scratching the surface of 3D printing”

“Where is SSYS Metal printing???”

Final Thoughts

Our Q4 survey was once again highlighted by strong demand for SSYS systems, while DDD continues to lag. Following the results from our Q4 survey, we continue to be bullish on SSYS shares due to the strong system demand reported from multiple resellers. In recent months, SSYS stock has been hit as investors remain cautious on spending levels in 2015. We see the recent pullback as a great entry point for investors and feel there are multiple catalysts in place including new product cycles, an expanding service offering, and new technology introductions to drive the stock higher. On the contrary, we remain cautious on DDD shares until we see organic growth rates rebound to more impressive levels which are achieved without channel stuffing. We believe DDD’s recent struggle is a company issue

and does not reflect the overall 3D printing industry. We continue to view the 3D printing and additive manufacturing industry as one of the better secular growth markets. Given the favorable feedback from our reseller survey and our conviction with respect to the market opportunity, we would be buyers of this space following the pullback we have seen in recent months. We recommend investors either buy a basket of stocks, or pick their favorite name, but would be long the space over the next several years, while being tactical with respect to buying/selling positions based on valuations.

**Ratings, Price
Targets and Risks**

Stratasys (SSYS) is Overweight rated with a \$120 PT based on 30x fully-taxed CY16 estimates operating income plus cash. Risks include margin pressure, competition from low cost printers, macro-economic slowdown.

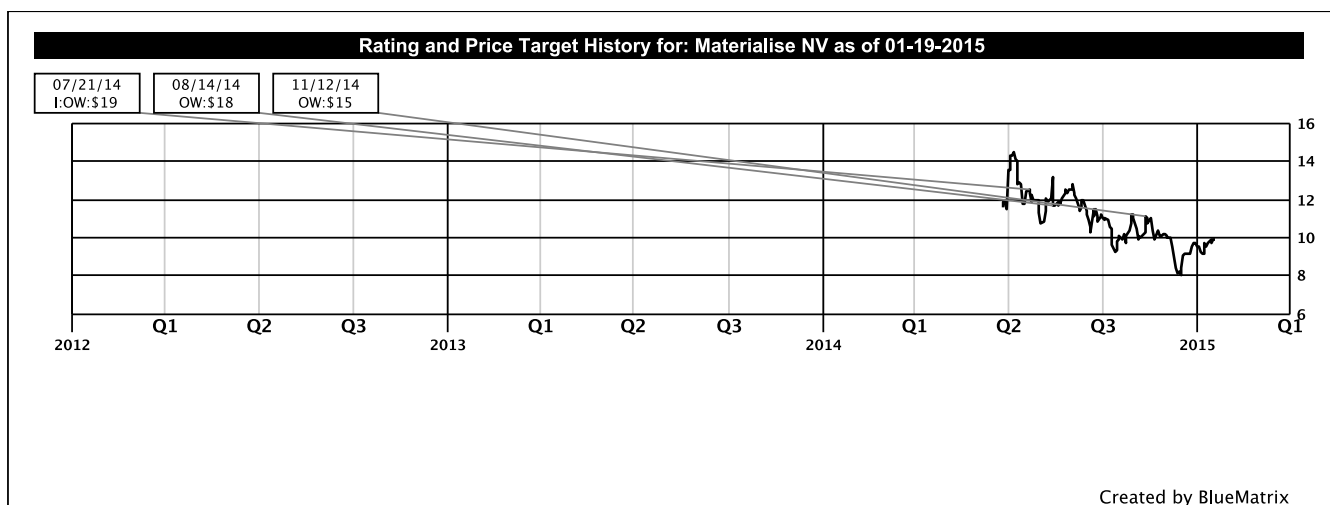
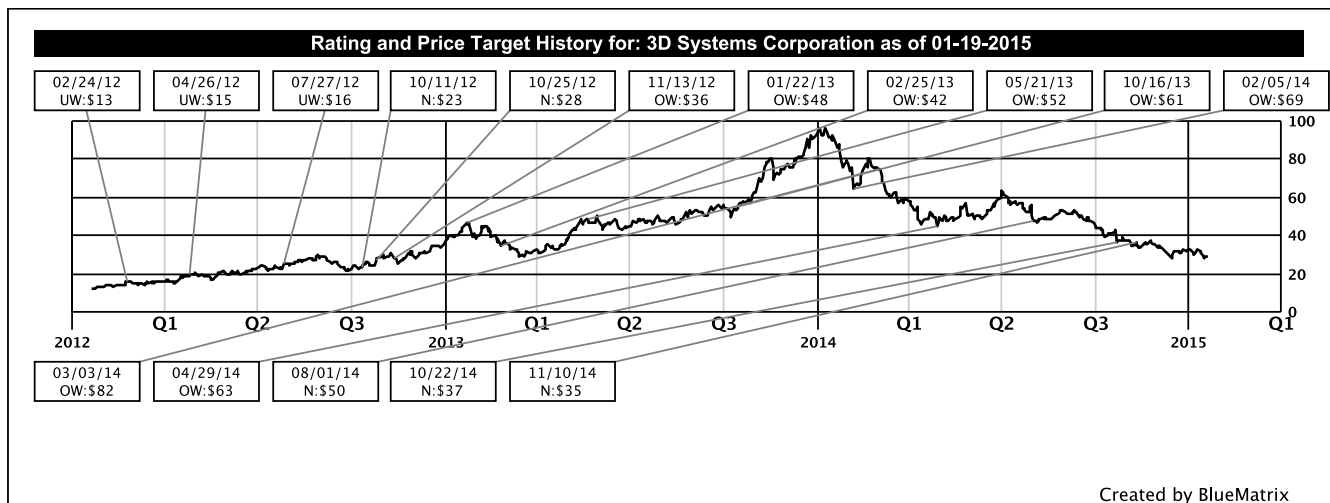
3D Systems (DDD) is Neutral rated with a \$35 PT based on a 4.2x EV/S multiple applied to our FY15 estimate. Risks include competition for other suppliers, potential market share losses, integration risk and inability to reach operating margin targets.

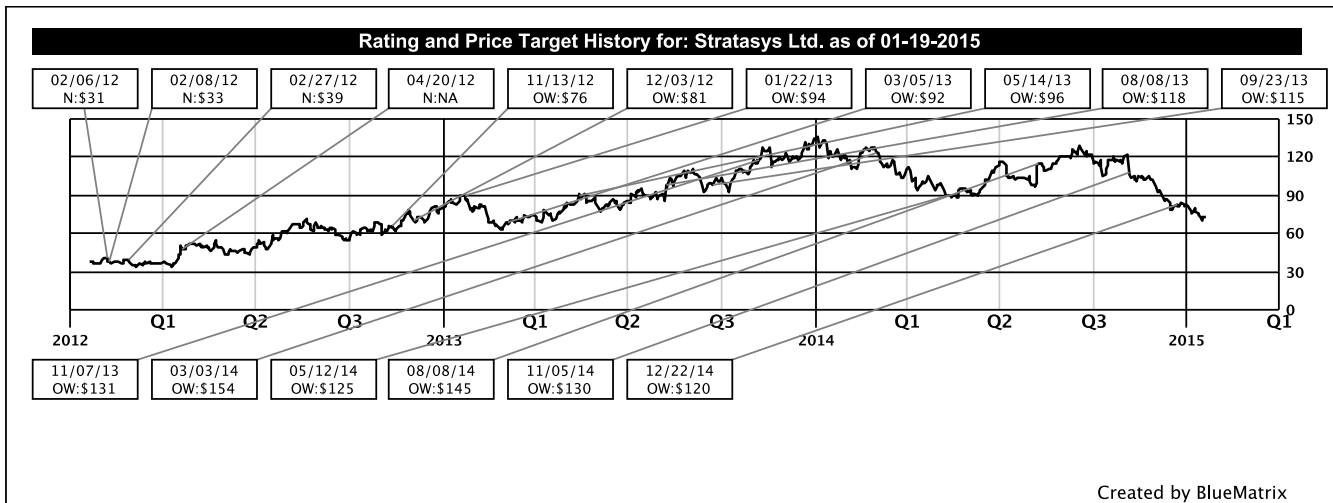
Materialise (MTLS) is Overweight rated with a \$15 PT based on a 5.3x EV/S multiple applied to our FY15 estimate. Risks include customer concentration within the Medical segment, increased competition, economic slowdown

Proto Labs (PRLB) is Overweight rated with a \$72 PT based on 30x fully-taxed CY15E operating income plus cash. Risks include macro-economic slowdown, disruptive new technologies, and software duplication.

Voxeljet (VJET) is Neutral rated with a \$12.50 PT based on 6.0x EV/S multiple applied to our FY15 revenue forecast. Risks include increased competition, ASP erosion, overseas exposure, share liquidity.

IMPORTANT RESEARCH DISCLOSURES





Notes: The boxes on the Rating and Price Target History chart above indicate the date of the Research Note, the rating, and the price target. Each box represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first Note written during the past three years.

Legend:

- I: Initiating Coverage
- R: Resuming Coverage
- T: Transferring Coverage
- D: Discontinuing Coverage
- S: Suspending Coverage
- OW: Overweight
- N: Neutral
- UW: Underweight
- NA: Not Available
- UR: Under Review

Distribution of Ratings/IB Services Piper Jaffray				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OW]	384	60.76	98	25.52
HOLD [N]	234	37.03	21	8.97
SELL [UW]	14	2.22	0	0.00

Note: Distribution of Ratings/IB Services shows the number of companies currently in each rating category from which Piper Jaffray and its affiliates received compensation for investment banking services within the past 12 months. FINRA rules require disclosure of which ratings most closely correspond with "buy," "hold," and "sell" recommendations. Piper Jaffray ratings are not the equivalent of buy, hold or sell, but instead represent

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Analyst Certification — Troy D. Jensen, CFA, Sr Research Analyst

— Austin R. Bohlig, Research Analyst

The views expressed in this report accurately reflect my personal views about the subject company and the subject security. In addition, no part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report.

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