



U.S. Equipment Finance Market Study:

2016-2017



EQUIPMENT LEASING & FINANCE

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U.S. Equipment Finance Market Study: 2016-2017



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The Foundation accomplishes its mission through development of future-focused studies and reports identifying critical issues that could impact the industry.

The Foundation research is independent, predictive and peer-reviewed by industry experts. The Foundation is funded solely through contributions. Contributions to the Foundation are tax deductible.

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Preface

Purpose of This Study

In 2012, The Equipment Leasing & Finance Foundation (The Foundation) commissioned IHS (IHS Markit) to conduct comprehensive research on the size and expected growth of the U.S. equipment finance market. In 2015, The Foundation commissioned IHS Markit to conduct a new study, analyze changes, and forecast potential future growth. By cross-referencing various public and proprietary databases, the new study provides an in-depth review and analysis of equipment financing volume at the national and state level.

While this study utilizes data from a number of sources, a key input came from a custom survey of businesses that acquired or purchased equipment in 2015. The Foundation borrower survey was conducted in July/August of 2016 by IHS Markit on behalf of The Foundation. In the course of the survey, respondents were asked to convey key current and historic data concerning their firm's industry classification, revenue, size, value of equipment purchases, and financing tendencies by equipment type. The respondents also shared their opinions on the key drivers of equipment investment and made forward-looking statements regarding their intent to increase investment. Since most of the data provided by survey participants contained sensitive company-specific information, the results have been aggregated in this report to ensure confidentiality.

This report offers an independent assessment of the equipment finance market. Although The Foundation served as a resource and reviewer of findings, IHS Markit is exclusively responsible for this report and all of the analysis and content contained herein. The analysis and metrics developed during the course of this research represent the independent views of IHS Markit and are intended to provide a comprehensive look at the current state of the equipment finance market and how the environment may change in the future. Because it is impossible to address all interpretations of these outcomes, IHS Markit encourages the reader to form their own assessment of the report conclusions as they pertain to their particular business activity.

Additional information on this survey can be found in the Appendix.

Primary & Secondary Data Sources

The following data sources were referenced during the course of the study:

- Federal Reserve Senior Loan Officer Opinion Survey on Bank Lending Practices
- Federal Reserve Flow of Funds
- The U.S. Department of Commerce – Bureau of Economic Analysis
- The Equipment Leasing and Finance Association (ELFA) 2016 Survey of Equipment Finance Activity
- The 2016 Equipment Leasing & Finance Foundation Foundation Borrower survey
- IHS U.S. Economic Outlook
- IHS Equipment Market Monitor

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Market Segmentation

For the purposes of this study, equipment financing refers to retail or end-user financing of equipment and software. The finance market estimates reflect lending to businesses and government agencies. This allows for a clearer comparison to the Department of Commerce statistics on US equipment investment.

Equipment finance volume estimates in this study are primarily derived from a survey of businesses that acquired equipment in 2015. IHS Markit also incorporated lender-based surveys by the Federal Reserve and others to capture industry trends. The propensity to finance is determined by tracking equipment purchases that firms self-report as being financed by leases (operating, capital, and other), secured loans, lines of credit, cash or credit card (paid in full each month), and other.

Executive Summary

- Total public and private investment in equipment and software grew 4.0% in 2015, to \$1.5 trillion. Growth is expected to be relatively flat in 2016, increasing by only 0.5%. According to the IHS Markit economic outlook, growth in investment in equipment and software will accelerate slightly in 2017, growing at a 3.0% rate. By 2020, total investment in equipment and software is expected to reach \$1.8 trillion.
- The 2015 estimate for the equipment finance market (including software) is \$1.02 trillion. The market for equipment and software financing is expected to grow to \$1.03 trillion in 2016, and is projected to reach \$1.24 trillion in 2020.
- According to the survey, 68% of the total value of equipment and software purchased in 2015 was acquired through the use of financing. This is a significant increase over the 2011 estimate of 55%. Of that 68% finance share, 39% was leased, 16% used a secured loan, and 13% used a line of credit. This represents a major shift toward the use of leases and secured loans, which accounted for only 17% and 9% of the total value of purchases in 2011, respectively. This also marked a significant shift away from lines of credit.
- The overall propensity to finance has increased since the 2012 iteration of the survey. According to the results of the 2016 Foundation Borrower Survey, 78% of respondents indicated that they used at least one form of financing when acquiring equipment in fiscal year 2015. This share is an increase from the 72% observed in the 2012 survey for 2011 activity.
- Bank financing accounted for 47% of financed purchases in 2015, compared to 57% in the 2012 Foundation borrower survey. While banks' share of financing activity has decreased, they remain the primary lenders across all equipment types in 2015. The smallest penetration for bank financing is in software purchases, for which banks hold only a 38% share.
- Banks continue to focus their new financing efforts on companies with lower risk profiles. The share of bank financing of highly profitable companies (profit greater than 20% of sales) was 43% in 2015, compared to 47% in 2011. Meanwhile the share of bank lending to unprofitable companies declined from 53% to only 26%, as less profitable companies are forced to seek alternative financing options.
- The share of cash payments declined for companies of all sizes from 2011 to 2015. With low interest rates, strong competition among lenders, and abundant liquidity, financing equipment acquisitions is especially attractive as lenders compete to offer the best rates to borrowers.
- As in 2012 and 2007, the 2016 Foundation survey confirms that larger ticket purchases are financed to a greater degree than smaller ticket purchases.

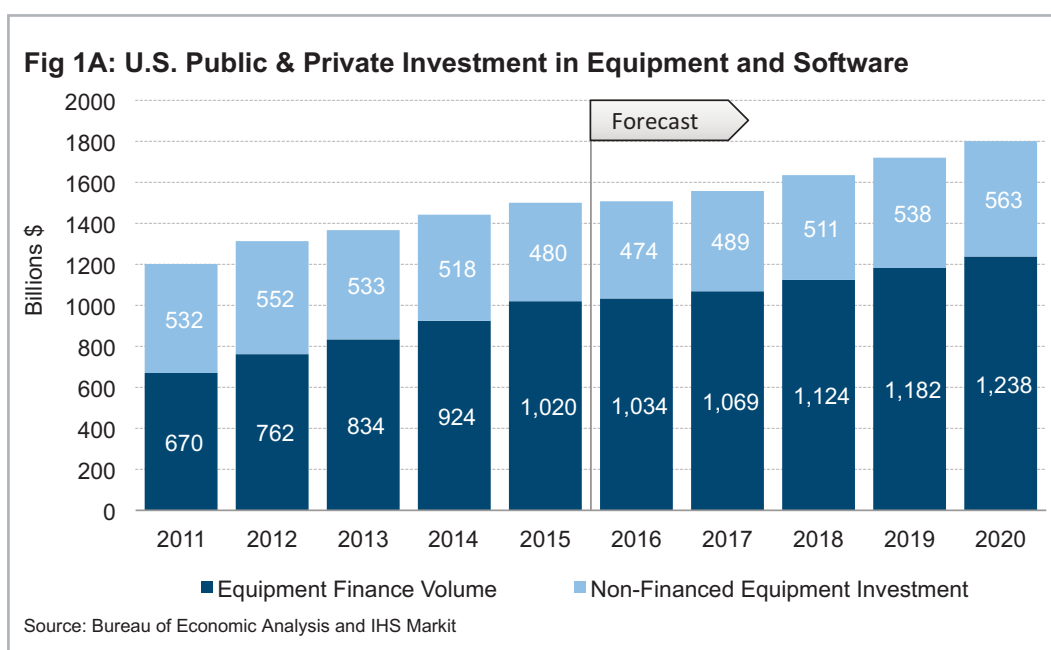
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- The growth of fintech companies has been a significant development in the equipment leasing and financing industry recently. Industry experts indicate that fintech companies have driven faster adoption of technology and have contributed to the "digitalization" of the lending process.
- Executives with knowledge of the equipment leasing and finance industry indicated that customers are increasingly asking for managed solutions or bundled services, and usage-based products. This presents both an opportunity and a challenge for lenders, as it places additional burden onto the lender.
- Most industry experts indicated that they expect very little impact to the demand for leasing from the introduction of new lease accounting standards in December 2018. Under the new guidance, lessees will be required to recognize assets and liabilities for leases with terms of more than 12 months. As the new standards have been under discussion for many years, executives expressed that firms are well prepared for the changes.

Gauging the U.S. Market for Equipment Finance

Total spending on equipment and software slowed somewhat in 2015 in comparison to the previous year. In general, companies continued to invest steadily. However, growth in equipment investment was dampened as firms exposed to foreign competition, low oil and gas prices, and falling agricultural prices pulled back on capital investment initiatives. The total market for public and private investment in equipment and software in the United States grew 4.0% in 2015 to \$1.5 trillion in 2015, compared to 5.5% growth in 2014 (Figure 1A). The equipment leasing and finance industry accounts for a significant portion of the equipment investment activity in the U.S. Based on survey results from the 2016 Foundation Borrower survey, as well as data from the U.S. Department of Commerce Bureau of Economic Analysis, IHS Markit estimates that leasing and financing of equipment totaled \$1.02 trillion in 2015. This accounts for 68% of U.S. investment in equipment and software (Figure 1A).

When measured from the perspective of businesses acquiring equipment, the volume of equipment financed appears significantly larger than estimates based upon creditor surveys. Surveys of equipment leasing and finance companies provide valuable information on the performance of the industry, but they can only provide a partial picture of the size of

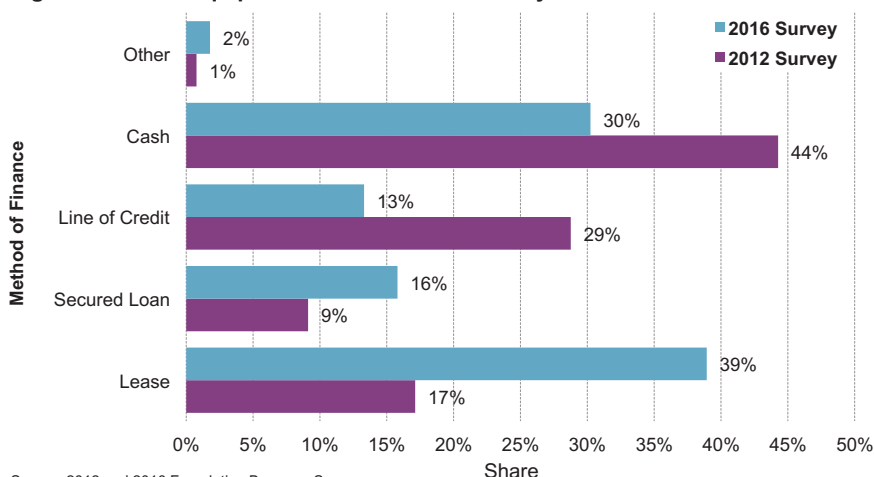


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the industry. This is due in part to the fact that borrowing for equipment acquisitions is also often classified under more generic forms of credit, such as commercial and industrial loans or lines of credit. These financial assets, however, also cover business borrowing for many other purposes, making it difficult to isolate equipment financing. The Foundation survey addresses this shortcoming by focusing on businesses that acquired equipment and asking survey respondents to share their method of financing for their acquisitions in 2015. This data is then extrapolated to yield the total value of equipment financed.

Examining the size of the market for equipment and software financing by method of finance provides an interesting perspective. Based on the results of the 2016 Foundation Borrower Survey, after accounting for company size and estimated acquisition volume, total finance volume (as represented by leases, loans, and lines of credit) was calculated to be 68% of total investment in equipment and software in the United States. This represents a significant increase in comparison to the 2012 Foundation Borrower Survey, which estimated equipment and software finance to be 55% of total investment in equipment and software (Figure 1B). The largest contribution to the growth in finance volume came from leasing, which rose to 39% of total investment volume from 17% in 2012. Finance volume has shifted away from lines of credit, in favor of leasing and secured loans. The cash share of total equipment and software investment has declined since 2012, as cheap borrowing costs make leases and loans more attractive to firms making purchasing decisions.

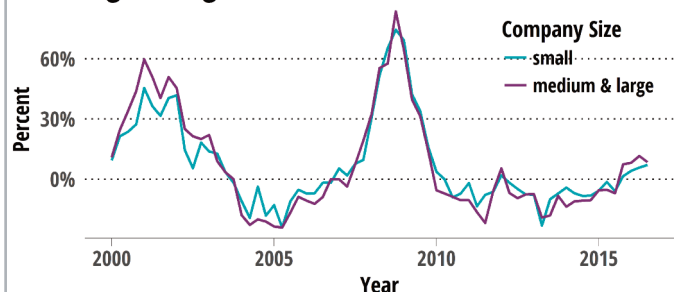
Fig 1B: Share of Equipment Investment Volume by Method of Finance



The Prospects for Equipment Finance Growth

Despite low financing costs in 2016, investment in equipment and software has been relatively weak. The main factors holding back capital investment are excess global capacity, low commodity prices, a strong dollar, and sluggish export markets. Total equipment investment has been most negatively impacted by the collapse in drilling for oil and natural gas. In the face of these headwinds, total investment in equipment and software is expected to grow only 0.47% in 2016. Finance volume is expected to outpace total investment growth, as excess liquidity and strong competition have driven down the cost of borrowing, making leasing and financing attractive options. IHS Markit estimates that equipment finance volume will grow 1.31% in 2016, reaching \$1.034 trillion.

Fig 2: Net Percent of Domestic Banks Tightening Standards for C&I Loans



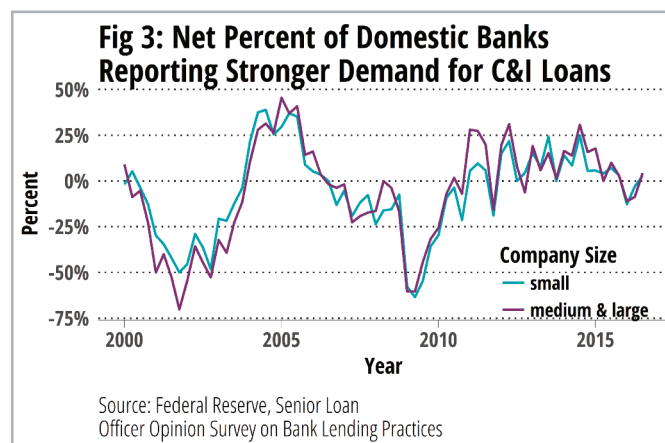
Source: Federal Reserve, Senior Loan Officer Opinion Survey on Bank Lending Practices

According to the July 2016 *Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS)*, published by the Federal Reserve, domestic banks have been modestly tightening lending standards for commercial and industrial (C&I) loans since the beginning of 2016 (Figure 2). Among the reasons for increasing standards, respondents to the SLOOS noted a less favorable or more uncertain economic outlook, worsening of industry-specific problems, and reduced tolerance for risk. For the small percentage of survey respondents who reported loosening standards, the most cited reason was aggressive competition from other banks or nonbank lenders.

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In interviews conducted by IHS Markit with executives in the equipment leasing and finance industry, increased competition was repeatedly cited as a noteworthy change to the industry environment in the past year. Cheap borrowing costs, combined with abundant liquidity and weak growth in equipment investment have all contributed to greater competition among lenders. This has put significant pressure on profit margins within the equipment finance industry, as lenders look to win business from competitors.

Demand for commercial and industrial loans has been weak in 2016, although the July 2016 SLOOS indicated a slight uptick in demand for small firms along with large and middle-market firms (Figure 3). This could be an indication that firms that have been holding off on investment initiatives due to uncertainty in the U.S. economy, may be ready to invest in new capital.



Since the previous iteration of this study in 2012, the average age of equipment has been declining across many of the major equipment types as favorable credit conditions combined with pent-up demand provided a strong incentive for equipment replacement. The average age of agricultural machinery fell from 6.9 years in 2008 to 5.7 years in 2014 (Table 1), driven by strong production and price growth in the agriculture sector. In 2015, the average age of agricultural equipment inched back up and can be expected to continue on that trend in 2016 and 2017 as falling agricultural prices have contributed to a weak outlook for the sector.

The average age of equipment has varied within the transportation sector. Railroad equipment has fallen from an average age of 16.1 years in 2010, to 13.2 years in 2015. Ships and boats meanwhile have fallen at a slower rate, from an average 15.3 years to 14.5 years in 2015. The average age of aircraft has fallen slightly, down to 9.9 years in 2015 from a high of 10.4 years in 2012. While these are high value sectors in which equipment lasts a long time, there is plenty of potential for new equipment to replace the transportation industry's aging stock.

Table 1: Current-Cost Average Age at Yearend of Private Fixed Assets, Equipment, Structures, and Intellectual Property Products by Type

	2008	2009	2010	2011	2012	2013	2014	2015
Computers and peripheral equipment	1.9	2	2	2.1	2.1	2.2	2.2	2.2
Communication equipment	5.2	5.5	5.6	5.7	5.8	5.8	5.9	6
Medical equipment and instruments	4.1	4.3	4.4	4.5	4.5	4.6	4.7	4.7
Photocopy and related equipment	5.5	5.6	5.5	5.3	5.1	5.1	5.1	5.1
Office and accounting equipment	2.9	3.2	3.3	3.5	3.3	3.2	3.2	3.2
Industrial equipment	9.6	9.9	10.2	10.2	10.1	10	10	10
Transportation equipment	7.6	8.2	8.3	8.1	7.8	7.5	7.2	6.8
Aircraft	9.6	10	10.2	10.3	10.4	10.3	10.2	9.9
Ships and boats	14.9	15.1	15.3	15.3	15.2	14.9	14.7	14.5
Railroad equipment	15.8	15.9	16.1	15.7	14.9	14.3	13.5	13.2
Furniture and fixtures	6.5	6.9	7.2	7.4	7.5	7.6	7.6	7.7
Agricultural machinery	6.9	6.8	6.8	6.7	6.3	5.9	5.7	5.9
Construction machinery	4.9	5.3	5.3	5.4	5.3	5.4	5.3	5.1

Source: Bureau of Economic Analysis

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Interpreting the Results of the 2016 Foundation Borrower Survey

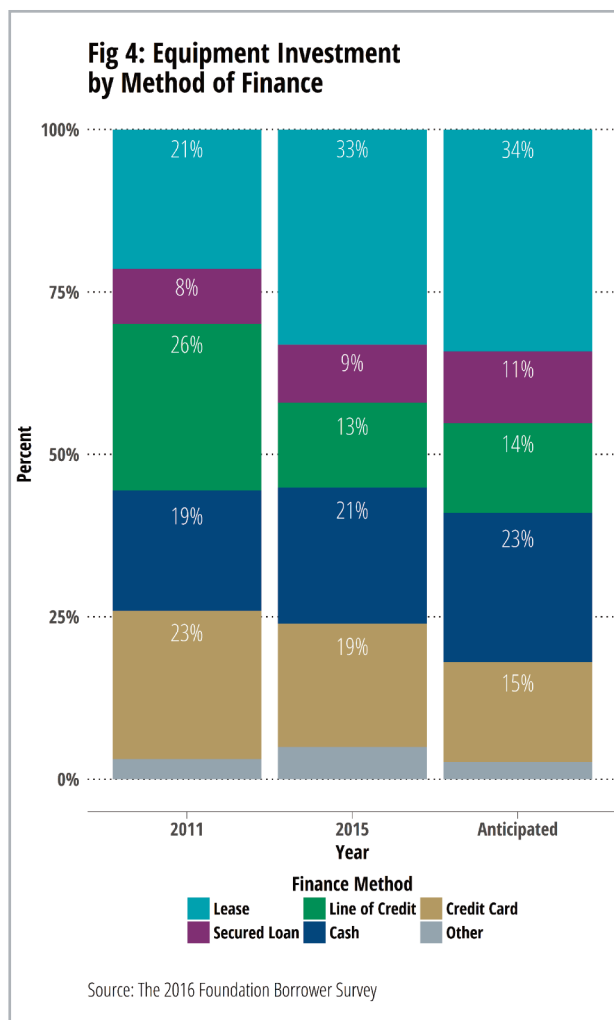
In order to assess the size and characteristics of the equipment finance market, IHS Markit conducted an end-user survey for the Equipment Leasing & Finance Foundation to investigate borrower behavior and financing choices. The survey sample included 400 respondent firms across a diverse range of industries. In addition to the survey, IHS Markit conducted interviews with several executives with experience in the equipment finance industry in order to gain additional insights and perspectives. IHS Markit increased the level of detail in the 2016 borrower survey, expanding questions concerning equipment types, transaction amounts and company size. This allows greater granularity of results. Survey results reinforce the market forecast, predicting a small market expansion since 2012 and changes in the financing and risk balance of the market.

The overall propensity to finance has increased since the 2012 iteration of the survey. According to the results of the 2016 Foundation Borrower Survey, 78% of respondents indicated that they used at least one form of financing when acquiring equipment in fiscal year 2015. This share is an increase from the 72% observed in the 2012 survey for 2011 activity.

Figure 4 shows the frequency at which each finance method was used to acquire equipment, without accounting for the size of the purchase. By this measure, respondents indicated that they used leasing in 33% of their transactions in fiscal year 2015. This was a significant increase for leasing compared to only 21% of transactions in fiscal year 2011. Respondents indicated much less frequent use of credit lines, as the share fell to 13% in this year's survey, down from 26% in the previous survey. When asked about their anticipated equipment acquisitions over the next 12 months, businesses indicated a slight uptick in the use of all financing methods (leases, secured loans, lines of credit), as well as more cash transactions, while credit card use is expected to shrink for the entire market (Figure 4).

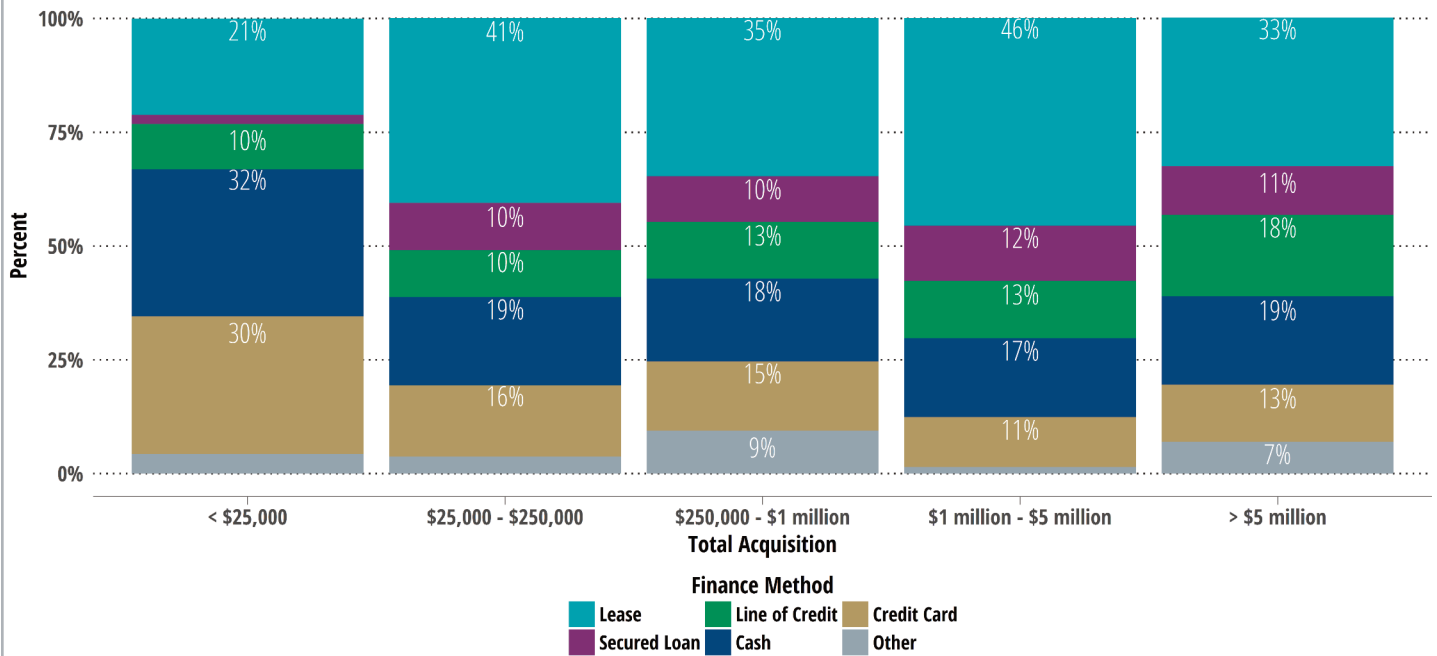
The expanded share of borrower's financing is likely tied to increased competition between lenders. In an executive interview, one respondent attributed this competition to liquidity easing by the government. Abundant, cheap liquidity in the market, combined with limited growth in demand for new loans, drives down financing rates as institutions compete for market share. As liquidity makes its way through the lenders, eventually it increases the amount and rate of borrower transactions. Cheap debt, however, creates the potential for credit losses once interest rates go up or demand slows down, which some interviewees noted as a possible risk to the lending market going forward.

While the overall market will exhibit small growth in 2016, certain sectors have seen a more volatile response. The small overall increase in cash is attributed almost entirely to the companies with the smallest total acquisition amount (Figure 5A). Companies with total acquisitions less than \$25,000 are using relatively little financing, likely due to the general upward trend of financing standards required by banks. If financing standards continue the short-term trajectory, small companies will return to financing, but it is unlikely, as over the long run, Federal Reserve rates are expected to rise slowly and debt will become more expensive than it has been for the past eight years. Companies with total acquisition amounts larger than \$25,000 are comparatively large and stable, which hints



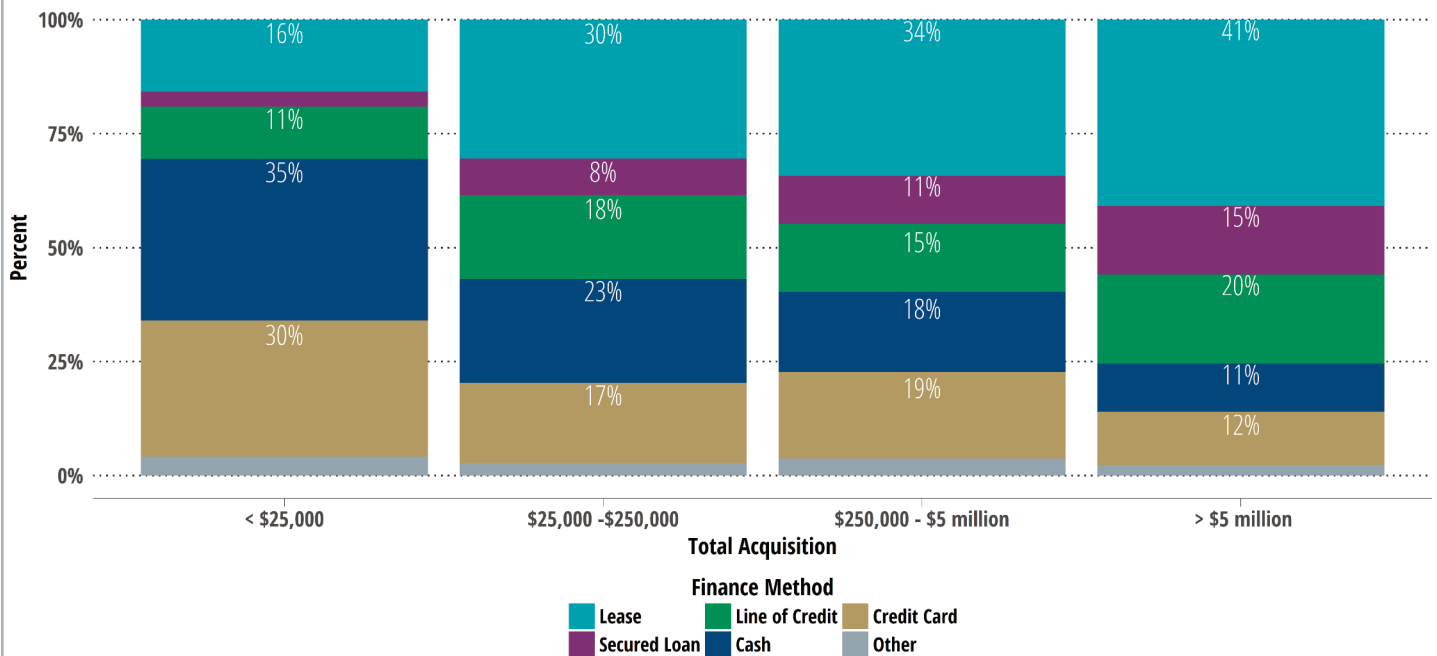
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Fig 5A: Method of Finance by Total Acquisition Amount, 2016



Source: The 2016 Foundation Borrower Survey

Fig 5B: Method of Finance by Total Acquisition Amount, 2012



Source: The 2012 Foundation Borrower Survey

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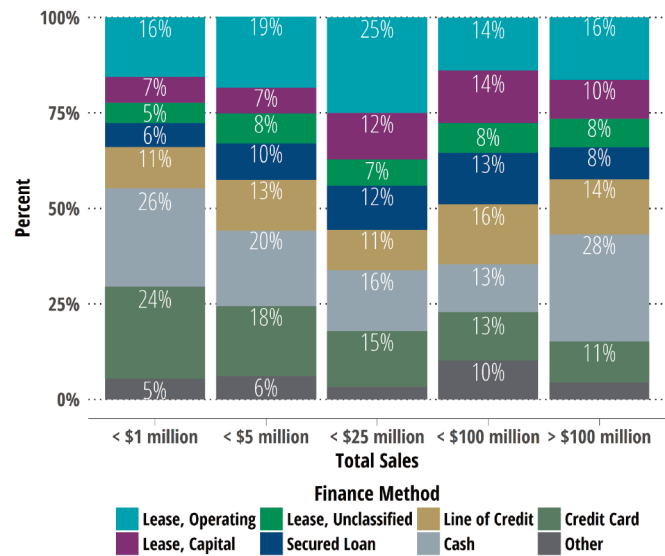
at a risk aversion for both banks and companies to finance small transactions (Figure 5A). It is notable that the use of leasing among companies with total acquisition values greater than \$5 million has dropped significantly compared to the 2012 Foundation Borrower Survey results (Figures 5A and 5B). Cheaper loan terms are likely the root of this change.

Examining the same financing data by total company sales, rather than total acquisition values, shows a more even split. Leases are represented as three separate categories: Operating, Capital and Unsure, which represents leases for which respondents cannot recall the type or do not believe it falls into either category. While the overall use of financing remains generally stable over sales brackets, the use of cash and credit is larger for smaller companies. Operating leases, which remain off balance sheet and are treated similarly to rentals, are by far the most common lease type. This may shift once new FASB accounting standards are introduced in December 2018, which require all leases longer than 12 months to be represented on the balance sheet. This diminishes some of the added value of operating leases for assets that are leased for most of their useful life. Another potential impact from the FASB standards, as suggested by some of the executive interviewees, is a shift toward managed solutions and pay-per-use contracts with commitments of less than 12 months. Capital leases are less widespread by nature, because their use is limited to items that mimic assets. The use of secured loans, however, is higher for high-sales bracket companies (Figure 6), due to a narrow spread between loan and lease terms. This view of the data does not take acquisition type or value into account, measuring the frequency of a financing method as a percentage of a company's total financing and expenditure.

Inspecting the same data again, this time by average transaction size, shows a predilection for smaller average transactions to be funded by credit card, cash and lines of credit, while companies with average transactions greater than \$250,000 use financing options more evenly across types. It is important to note that average transaction size is the mean of all transactions for a company and therefore includes transactions that are both smaller and larger. It does not take transaction size spread into account (Figure 7).

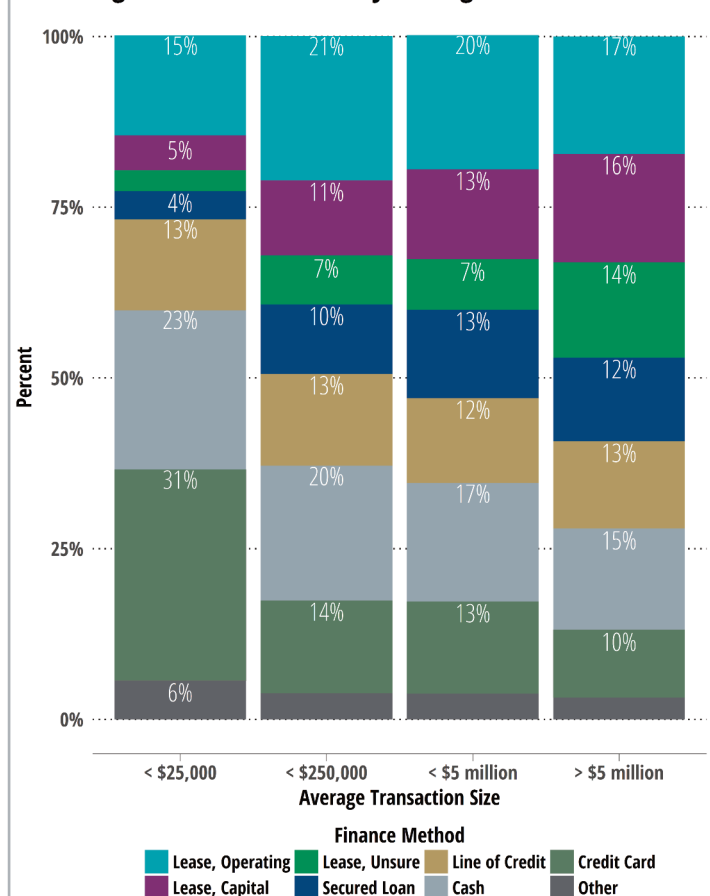
In addition to providing information on methods of finance, survey respondents provided detail on purchases

Fig 6: Finance method by Total Sales



Source: The 2016 Foundation Borrower Survey

Fig 7: Finance Method by Average Transaction Size

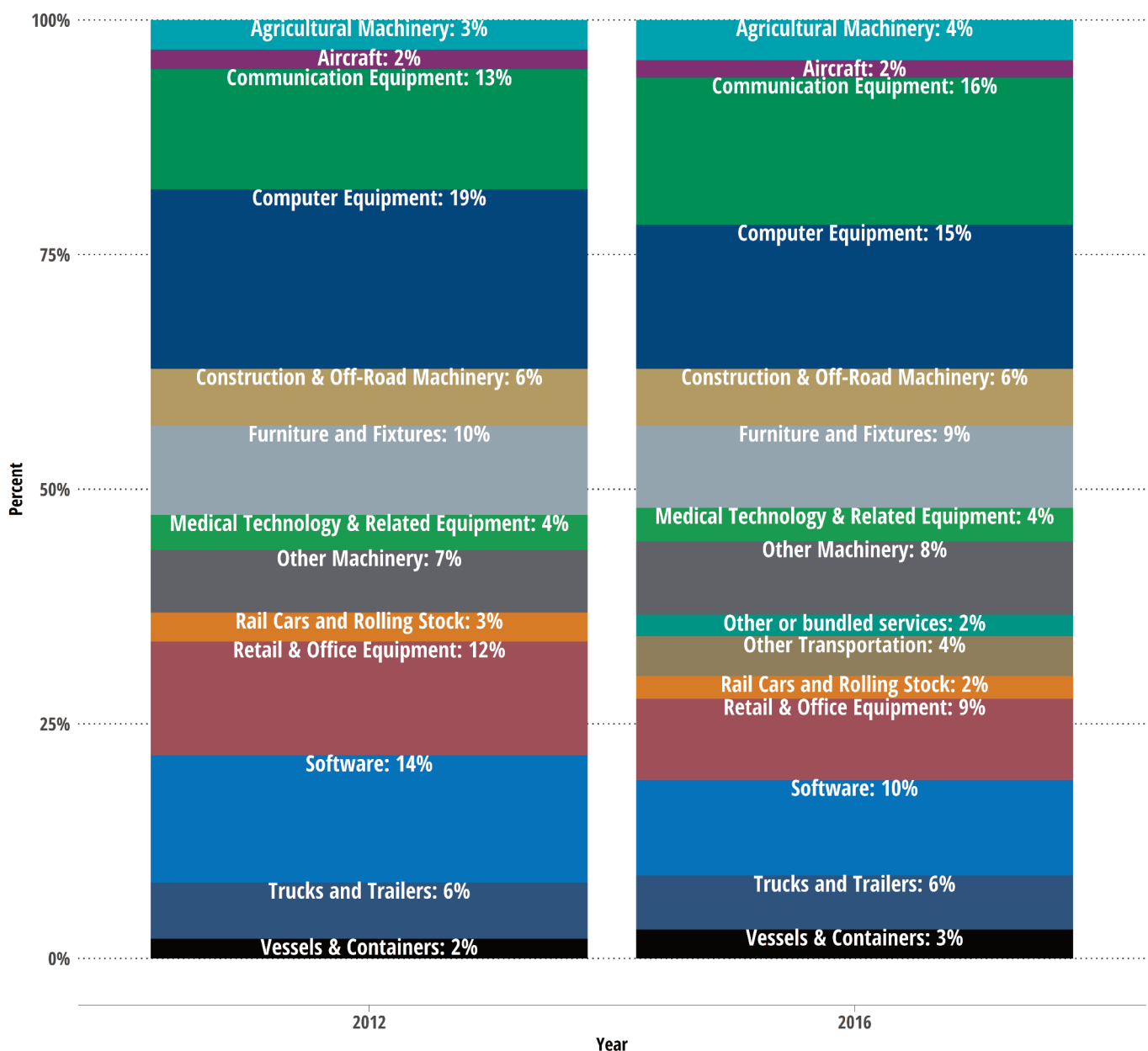


Source: The 2016 Foundation Borrower Survey

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by equipment type. According to the survey, companies are spending a greater portion of their total acquisitions on communication equipment and relatively less on software and computer equipment; though together the three categories remain the largest fraction of total expenditure. Since 2012, however, the total share of equipment expenditure has dropped from 46% to 41%. The popularization of managed solutions, which combines equipment purchases with services into a bundled offering, is a driver of the change in communications equipment, computer equipment and software, as the equipment lifecycle is significantly shorter than in other equipment types. This reduction is also due to price decreases of technology as computers and software become less expensive over time, as well as a slowing of the obsolescence rate of technology. In the past five years, the rate of technological obsolescence has slowed, which means companies can now submit to longer lease and loan terms without the fear of their assets becoming worthless while they are being financed.

Fig 8: Share of Purchases by Equipment Type

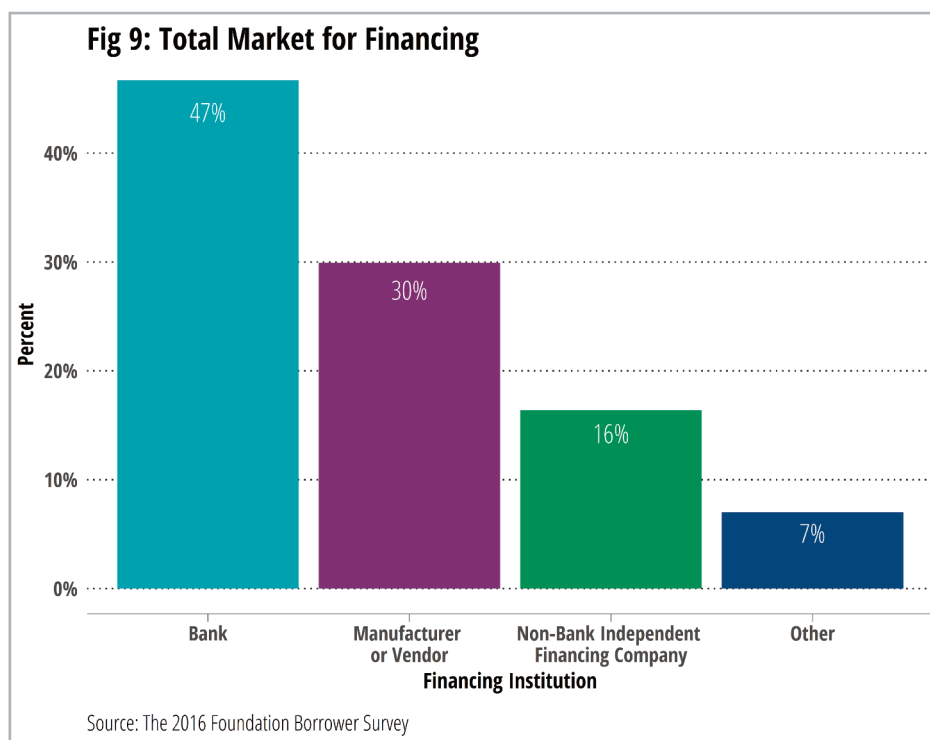


Source: The 2016 Foundation Borrower Survey

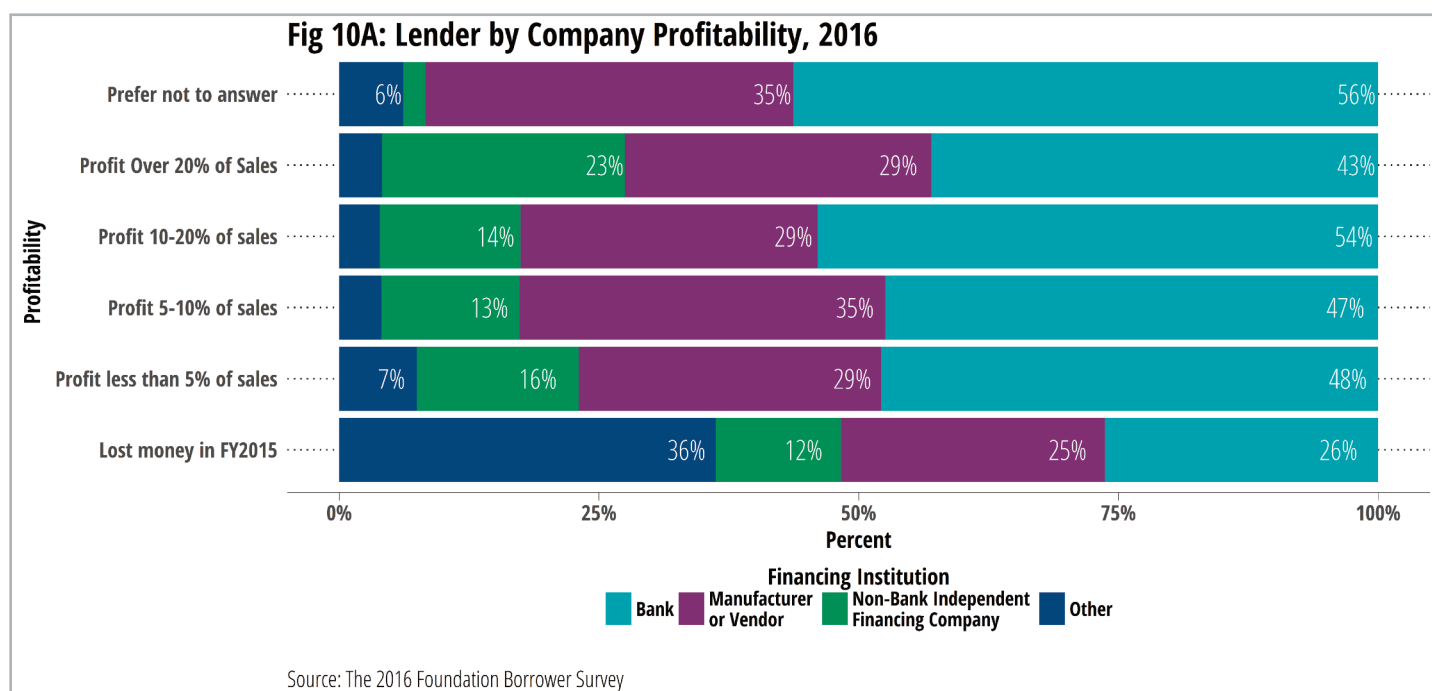
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A lower rate of technological asset turnover would decrease the rate of new acquisitions. Considering the decline in cost and increase in term length, a five percent decrease in acquisition share is not particularly shocking. No other significant changes in the makeup of equipment acquisitions were detected in the survey (Figure 8).

Turning to the institutional segmentation of the financing market, 47% of businesses use banks to finance their acquisitions (Figure 9). This is down from a 57% share for banks in the 2012 Foundation Borrower Survey. Increasing demand for managed solutions, which are most often offered through manufacturers and vendors, is a likely contributing factor to the shift toward non-bank lending. The growth of fintech companies, which are most commonly categorized as non-bank independent finance companies, has also played a role in helping non-bank lenders to gain share.

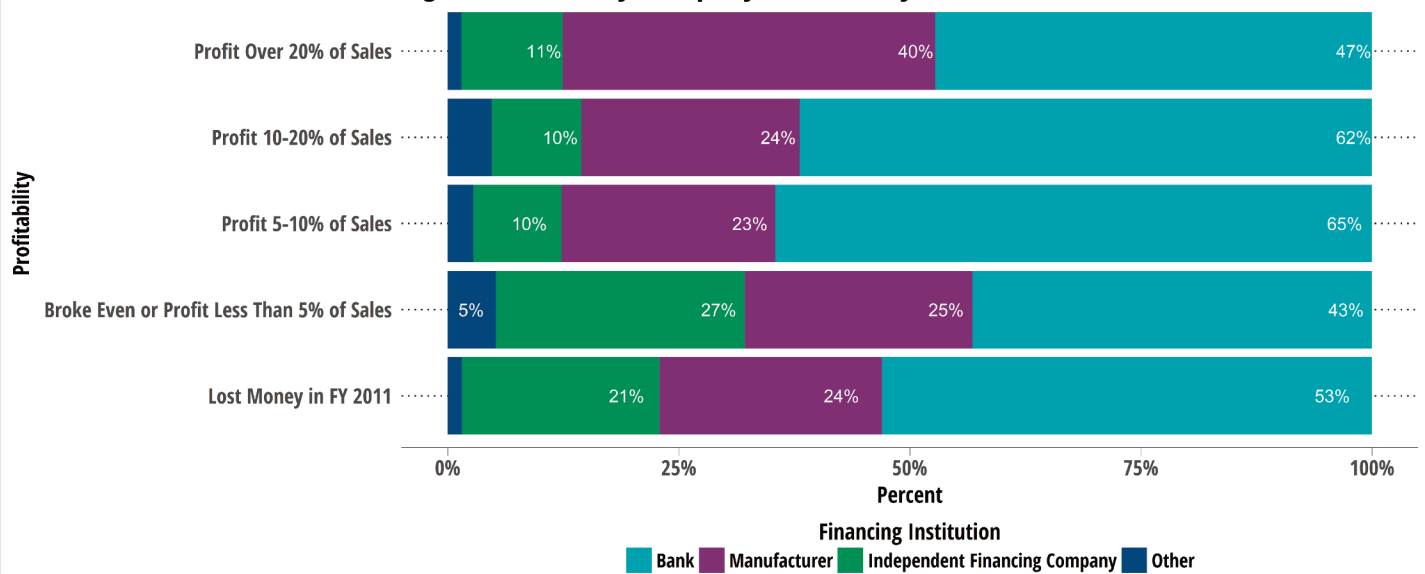


Broken down into brackets of company profitability, however, there is a significant difference in the company makeup for bank financed and non-bank financed endeavors. The bank share of lending to companies who lost money in the previous 12 months fell from 53% in the 2012 Foundation Borrower survey to only 26% in this year's survey (Figure 10A & 10B). As banks shift their lending toward larger, less risky institutions, less profitable firms are forced to seek alternative funding methods. This is likely a signal of a turn on the part of financing institutions toward higher credit standards, which is evident



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Fig 10B: Lender by Company Profitability, 2012



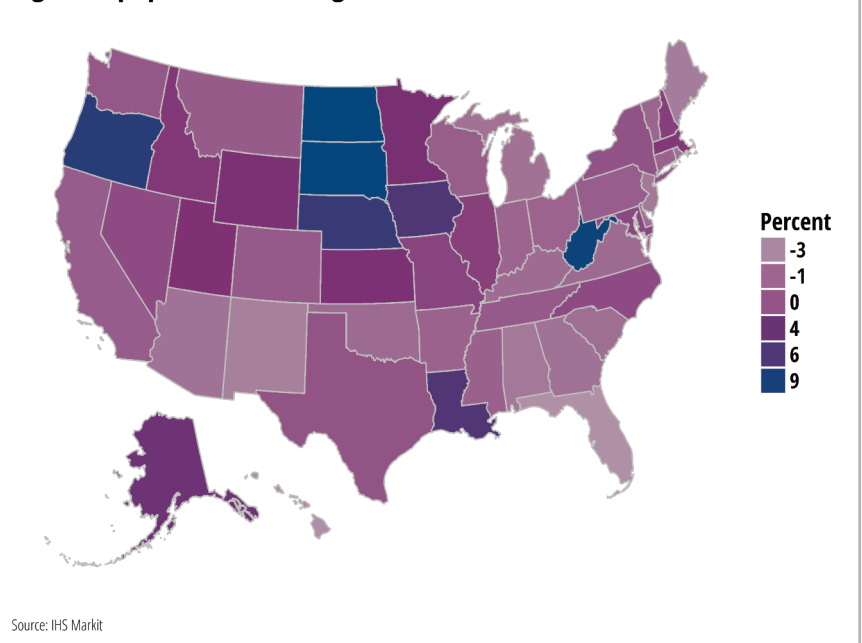
Source: The 2012 Foundation Borrower Survey

in the *Federal Reserve's Senior Loan Officer Opinion Survey on Bank Lending Practices* (Figure 2). This tightening of credit standards is likely in response to the anticipated interest rate hikes on part of the Federal Reserve as well as the increased demand for loans over the past few years as consumer spending rises. The growth of manufacturer and vendor financing is likely due to increasing demand for managed solutions.

Equipment Finance by State

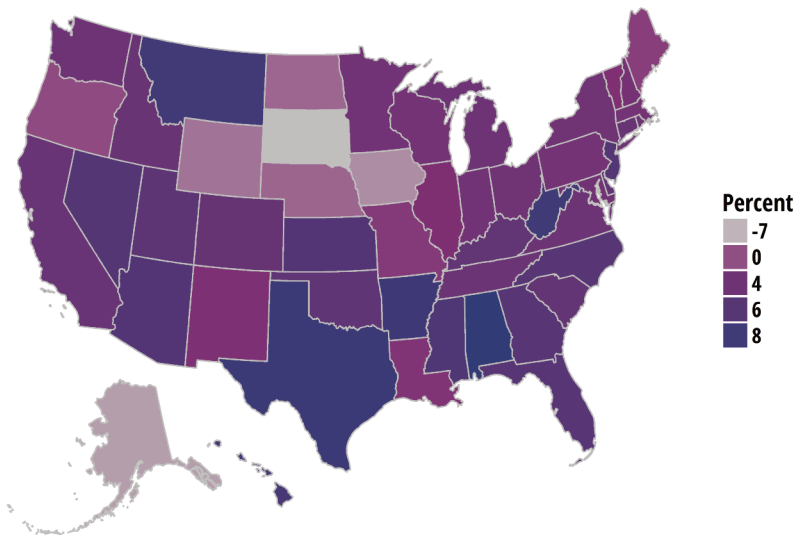
The vast majority of states fall under \$25 billion dollars of equipment financing. States like California, Texas and New York dramatically outstrip the rest of the country, with \$104 billion, \$90 billion and \$53 billion dollars respectively. These same three states held the top three positions in 2011 as well, indicating the economic concentration of the market. In terms of growth, however, Alabama grew at a 9% CAGR, more than any other state between 2011 and 2016 (Figure 12). Other high growth states are Texas, Arkansas, West Virginia, and Montana. This is vastly different from the growth recorded between 2007 and 2011, where the Dakotas, West Virginia and Oregon were growing at well above the national average (Figure 12). Average growth has jumped considerably. Between 2007 and 2011, 27 states had negative compound annual growth rates (Figure 11). This year, there are only six (Nebraska, North Dakota, Wyoming, Iowa, Alaska and South Dakota). The collapse in oil prices, along with low agricultural commodity

Fig 11: Equipment Financing Volume, CAGR 2007-2011, % annual rate



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Fig 12: Equipment Financing Volume, CAGR 2011-2016, % annual rate



Source: IHS Markit

prices, have been the biggest factors impacting these states.

South Dakota, which has the largest contraction in financing growth at -7.8% CAGR since 2011, is heavily reliant on agriculture, which is volatile due to highly variant weather conditions and recent low commodity prices. While manufacturing remains strong, the market for equipment financing is suffering due to subdued construction gains and a depressed agricultural market.

Early in the growth period, states like North Dakota and Alaska were experiencing an oil boom. The Bakken shale formation in the northwest corner of North Dakota saw high rates of economic activity, nearly tripling oil production in the region since 2005. The plummeting price of oil, however, has dried up most of the opportunities in the area. Since

2011, the by-state growth has switched dramatically. Alaska's heavy dependence on the oil sector has caused small but persistent employment losses. The state government depends on oil revenues to fund 90 percent of its revenues, which means public sector investment is also down with the price of crude. Large oil exploration projects are ready to move forward, once there is a rebound in oil and gas prices.

Wyoming's oil sector has similarly bottomed out, which has caused contractions in the financing market. Environmental concerns will restrain new exploration and demand for Wyoming's energy resources, which are primarily in the form of coal reserves. Wyoming governor Matt Mead is encouraging technology sector growth in the state, which may have a future positive impact on financing in Wyoming.

Texas, a large energy producer in the United States, is still experiencing higher growth. It is likely that this financing growth will continue, as the repeal of the crude export ban will spur expansion and technological innovations continue to increase the efficiency of extraction. Currently, its hospitality, business services, health, and education sectors continue to grow payrolls, which is good news for the financing market.

Financing activity in Alabama has been helped by the increase in business activity, as manufacturers like Remington Arms and Polaris have opened factories in the past few years. This expansion in manufacturing investment is likely the root of the Alabama financing market's 8.9 percent compound annual growth rate between 2011 and 2016.

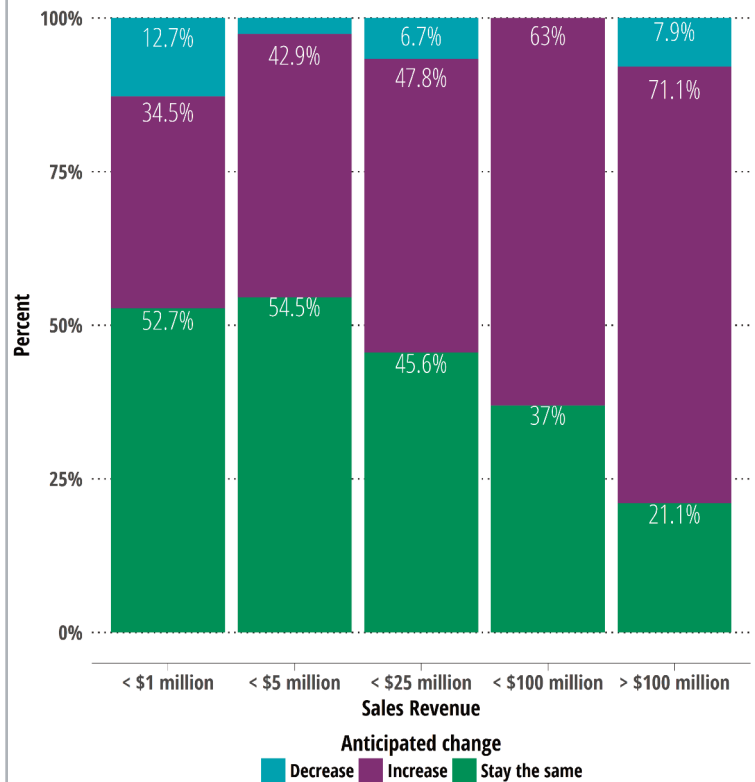
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Short-Term Outlook for the Equipment Finance Industry

In order to gain a deeper understanding of the equipment investment market, and to identify the main drivers of future investment decisions of companies, IHS Markit asked respondents to the 2016 Foundation Borrower Survey a series of forward-looking questions. Businesses were asked to provide their opinion on the most important factors affecting their anticipated equipment investment decisions and to indicate whether or not they are planning to increase equipment investment in the upcoming year.

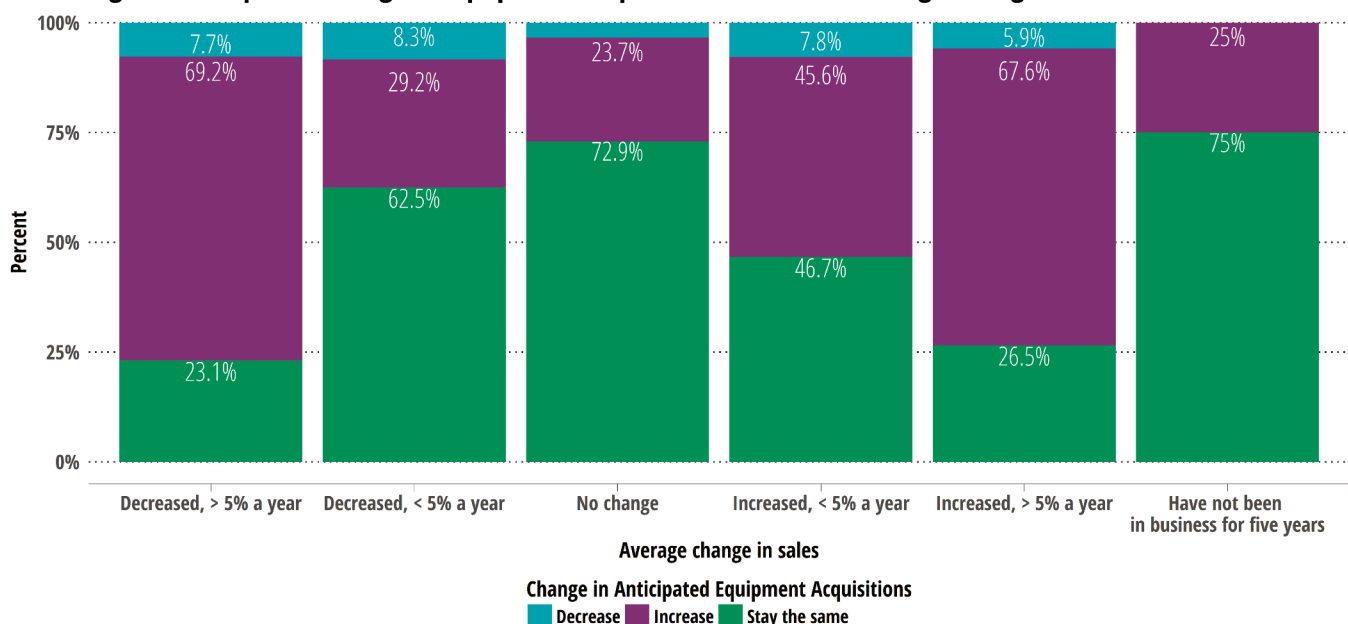
Anticipated changes in the market reflect current trends in the findings. Companies with high revenues are more likely to increase their equipment acquisitions within the next year, while 65% of companies with under a million dollars of sales revenue are planning to remain at the same level or decrease their acquisitions (Figure 13). The market, both this year and in the next twelve months, is favoring larger companies with higher revenues and more employees. Among companies with revenues greater than \$100 million, 71% indicated that they plan to increase equipment acquisitions in the next 12 months (Figure 13). The small fraction of companies with revenues over \$100 million that plan to decrease their equipment acquisition rate may be a signifier of potential improved investment opportunities for leasing

Fig 13: Anticipated change in equipment acquisitions, 12-month period



Source: The 2016 Foundation Borrower Survey

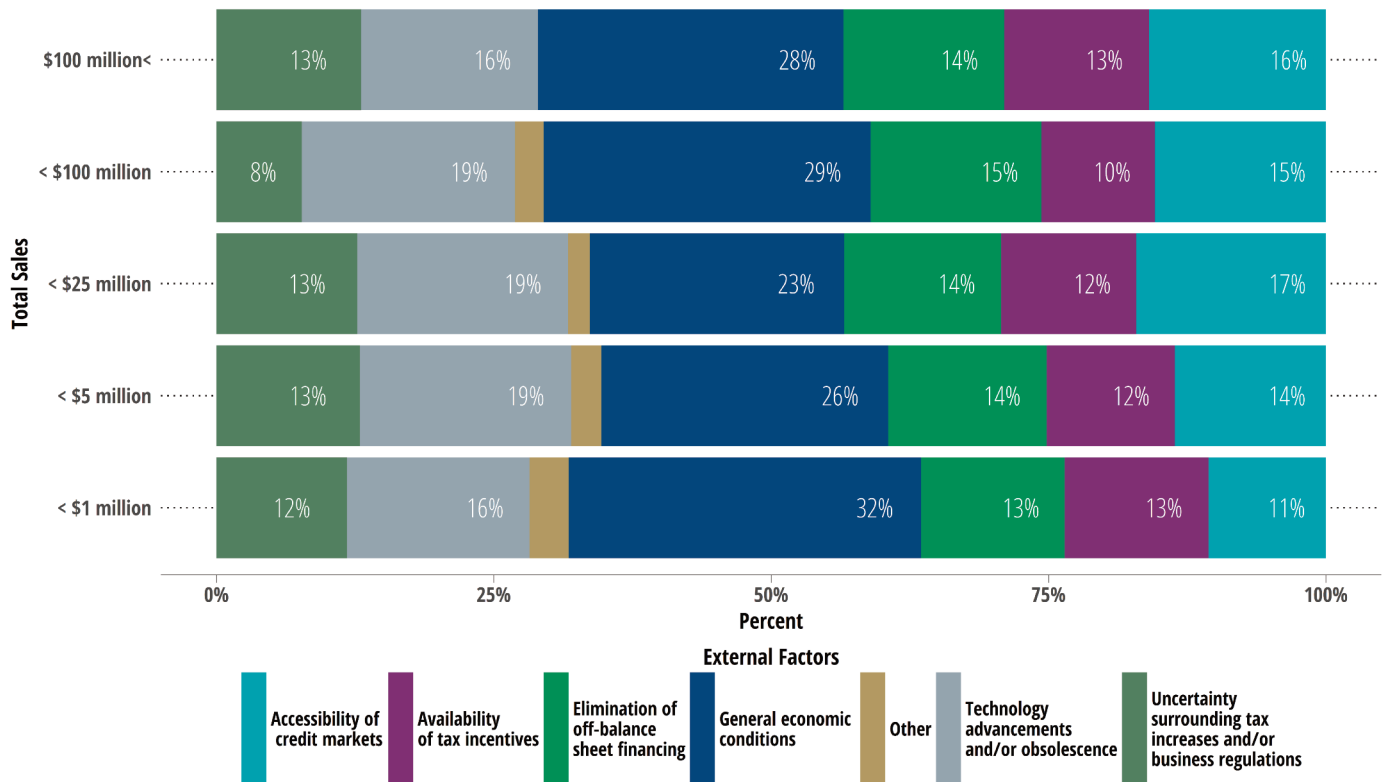
Fig 14: Anticipated Change in Equipment Acquisitions based on average change in sales



Source: The 2016 Foundation Borrower Survey

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Fig 15: External Influences on Leasing or Financing Additional Equipment in the Next 12 Months



Source: The 2016 Foundation Borrower Survey

companies as interest rates rise. Companies with growing revenues are also more likely to further invest in equipment, as is expected.

Anticipated changes in acquisitions based on changes in sales present a different perspective. Companies who experienced no change in sales volume largely expect to make no changes to their equipment acquisitions (72.9%). Meanwhile, companies that experience large increases or decreases (more than 5%), indicated that they plan to increase their equipment acquisitions in the next 12 months (Figure 14).

Leasing or financing equipment in the next year will be largely influenced by general economic conditions, credit accessibility and the anticipated elimination of off-balance sheet financing (Figure 15). General economic conditions and uncertainty of regulations is linked to political uncertainty in the United States and abroad. Historically, markets react more stably to elections where outcomes are more certain. The 2016 election cycle has been tumultuous, which may have caused some timidity on when and how to acquire and finance new equipment. It is not likely, however, that political and economic uncertainty has drastically affected equipment acquisition, as equipment replacement schedules are relatively sticky. It is more likely that companies will shift their financing decisions depending on the outcomes of interest rate and market changes than their levels of equipment acquisition. Economic changes abroad, such as Brexit, will also affect financing methods for companies with overseas interests. These questions may not be resolved in the next few months, which will cause flight toward safer methods of financing.

It is expected that the market will experience further consolidation where large, low-risk companies are catered to by banks and smaller, higher risk companies will turn toward alternative financing methods, such as fintech entities and other non-traditional methods to finance their equipment. Leasing and finance industry executives noted that the fintech market has the potential to disrupt existing financing markets if it gains a foothold and regulatory bodies do not inhibit its growth

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and flexibility, which is unlikely. Its central appeal is efficiency of platform and delivery, as often fintech companies are mobile-based and can provide a level of convenience and speed that borrowers desire. Fintech companies put pressure on the industry to innovate. The response of the traditional financing market will dramatically affect the response fintech has on their own market share and revenues.

When aggregated by industry type, companies are largely even across their concerns, though services are slightly more concerned about technology advancements, while companies that are neither manufacturing nor services are more concerned about general economic conditions. General economic conditions are the largest concern for all industries (Figure 16).

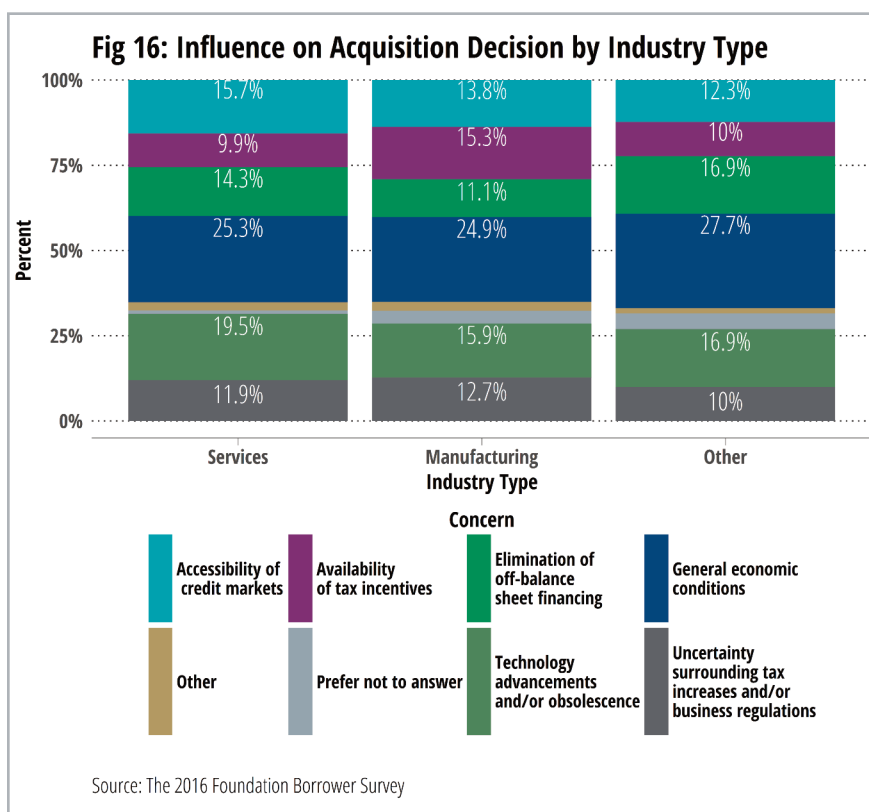
Economic Outlook

The U.S. economy is approaching a steady, if unexciting, cruise speed. Real GDP growth is expected to accelerate after being held back by a drop in inventories in recent quarters. The pace of employment gains is slowing, which is consistent with an economy that is either at, or rapidly approaching full employment. Consumer spending is expected to remain the mainstay of the economy, but improved trends in housing and capital spending (as the troubles in the oil patch begin to ease) will also support growth.

Supply constraints are holding back the housing market recovery. After a two-quarter setback in the middle of 2016, growth in residential investment is forecast to resume in the fourth quarter. Low mortgage rates, solid job growth, and pent-up demand are boosting home sales. Lean inventories of unsold homes, low rental vacancy rates, and rising home prices will encourage builders to step up construction activity in late 2016 and beyond.

Net exports made a small contribution to GDP growth in the first half of 2016. Over the next several quarters, starting in the third, they are expected to be a drag. The key reason net exports have not restrained growth over the last three quarters is because economic growth has been so slow, partly because of an inventory correction, which now may be behind us. The dollar strengthened about 3% in early May after the Federal Reserve signaled that it was about to raise interest rates again. It has been zigzagging since. In the forecast, a Fed rate hike in December, along with stronger domestic growth, helps drive the dollar higher through the first half of 2017. It then descends over several years, as growth rates and interest rates across the world rise.

Real nonresidential fixed investment, aka capital spending, has been in decline in 2016. The collapse in drilling for oil and natural gas continues to be the dominant reason for its decline. The strong dollar, which has impacted manufacturing companies exposed to foreign competition, and downgraded outlooks for the US and global economies, which have discouraged company expansions, have also played roles. Spending on equipment should improve as the temporary factors holding it back fade. In the forecast, spending growth accelerates from -2% in 2016 to 3% in 2017 and 5.4% in 2018, as the drags from the stronger dollar and low energy prices dissipate and companies invest at rates consistent with an economy

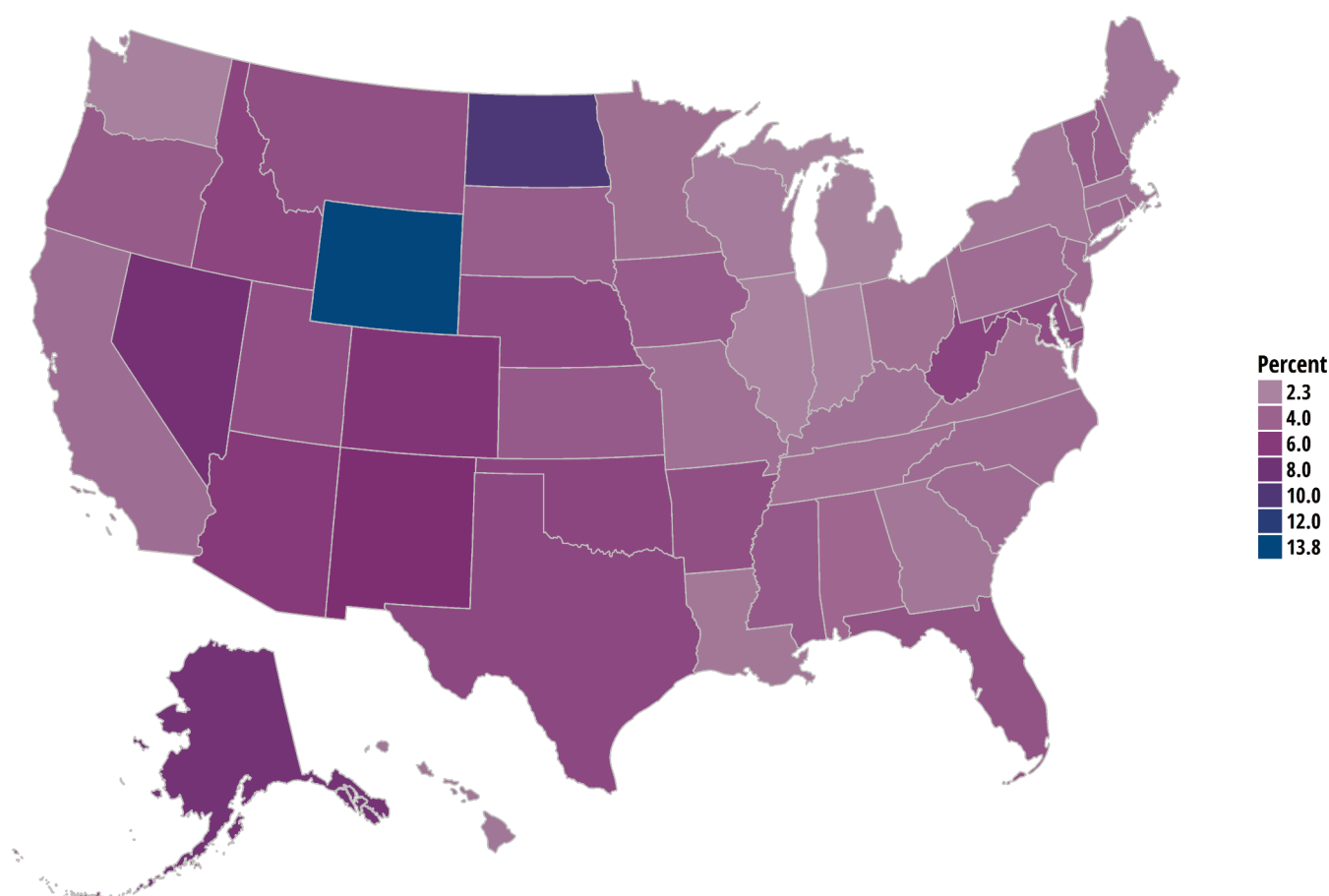


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growing at a 2-3% rate. Spending on intellectual property products, a category that is steadier year in and year out compared to spending on equipment and structures, is also expected to make modest gains in the 3.5-5.0% range over 2016-18. The outlook for total public and private investment in equipment and software is for steady growth over the forecast period. After remaining nearly flat in 2016 (0.5%), total investment in equipment and software is expected to accelerate to 3.3% growth in 2017, before reaching 5.0% in 2018. Total investment in equipment and software is projected to increase by 5.2% and 4.7% in 2019 and 2020, respectively. The finance share of investment is expected to pick up slightly as the economy improves, but should stay in the range of 68-69%.

Broken down by state, equipment financing is expected to have the strongest growth in Wyoming, albeit from a very low level, increasing by a CAGR of 13.9% from 2016 to 2020. California, the largest state by equipment finance volume, is projected to grow by 3.4% on a CAGR basis from 2016 to 2020. Among the top five states by equipment and software finance volume, Texas is forecast to have the strongest growth, increasing by 5.3% CAGR 2016-2020.

Fig 17: Equipment Financing Volume, CAGR 2016-2020, % annual rate



Source: IHS Markit

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Analysis of the 2016 Survey of Equipment Finance Activity

The 2016 Survey of Equipment Finance Activity (SEFA) looks to evaluate the state of the industry from the lender perspective. The participants in the SEFA survey are members of the ELFA, and represent 85% of the assets reported in the 2015 Monitor 100. It is important to note that the 2016 SEFA is a survey of creditors and provides a different perspective than the Foundation Borrower Survey discussed throughout this report. Although the surveys are similar, they have differing methodologies and the findings may vary somewhat.

New business volume, a measure of growth, totaled \$122.6 billion in 2015 (Figure 18). This represents an increase of 12.4% compared to the previous year. Banks represent the largest share of new business volume in the survey. It should be noted that the Bank share is larger compared to previous years' surveys, as the portfolios acquired by Wells Fargo from GE Capital had previously been categorized in the Independent segment. In this year's survey, those portfolios for both 2014 and 2015 are in the Bank segment.

The highest growth rate in new business volume went to the Independents, increasing by 59.9% to \$12.7 billion (Figures 18 and 19). Approximately 70% of Captives and Independents reported growth, compared to 61.1% of Banks. Though the full impact is not clear, it is suspected that some of the increase can be attributed to the growth of fintech and managed solutions, which are often provided through manufacturers and vendors. Overall, 65% of respondents reported growth in 2015.

The middle-ticket market segment represents the largest share of the market at 47%, or \$57.8 billion in 2015. Large-ticket represents only 17% of the total market, but had the strongest growth in 2015, expanding to \$23.8 billion. This expansion in the large-ticket market segment suggests a consolidation toward bigger entities with lower risk. The small-ticket segment represents 33% of new business volume, reaching \$41.0 billion in 2015 (Figure 20).

Fig 18: New Business Volume by Type of Organization

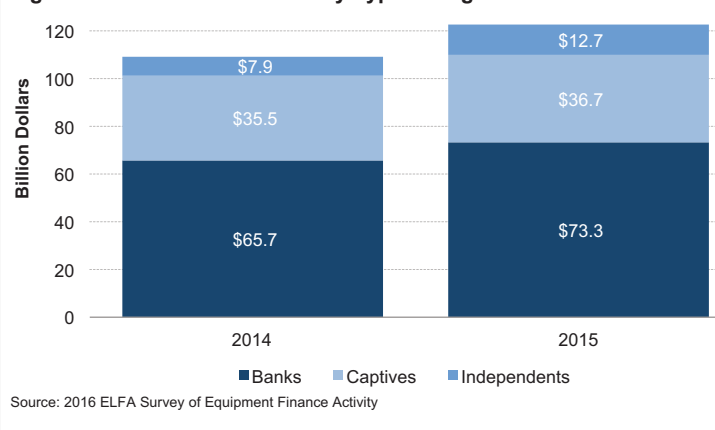


Fig 19: Growth in New Business Volume Over Five-Year History by Type of Organization

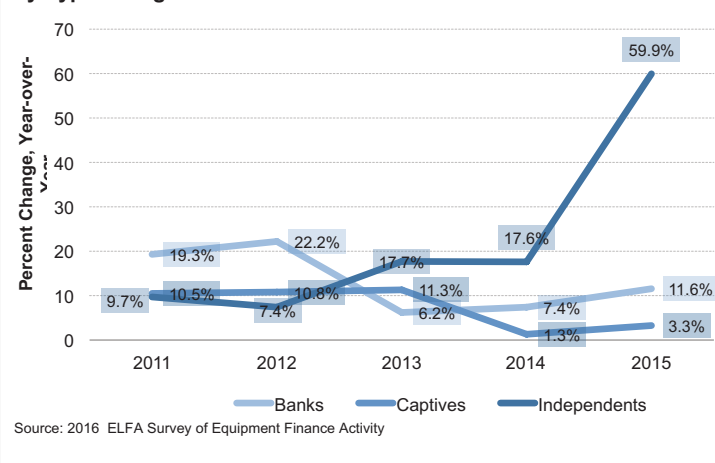
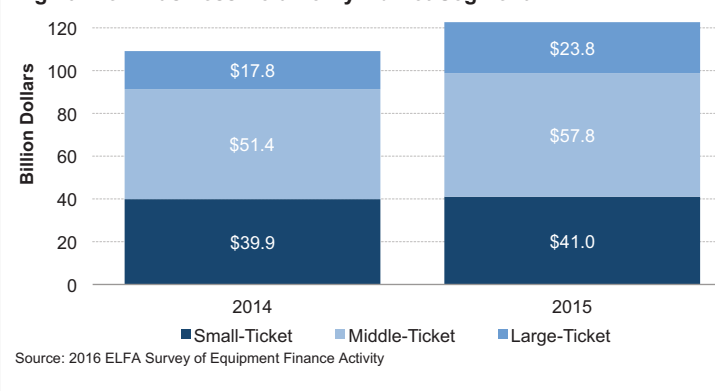
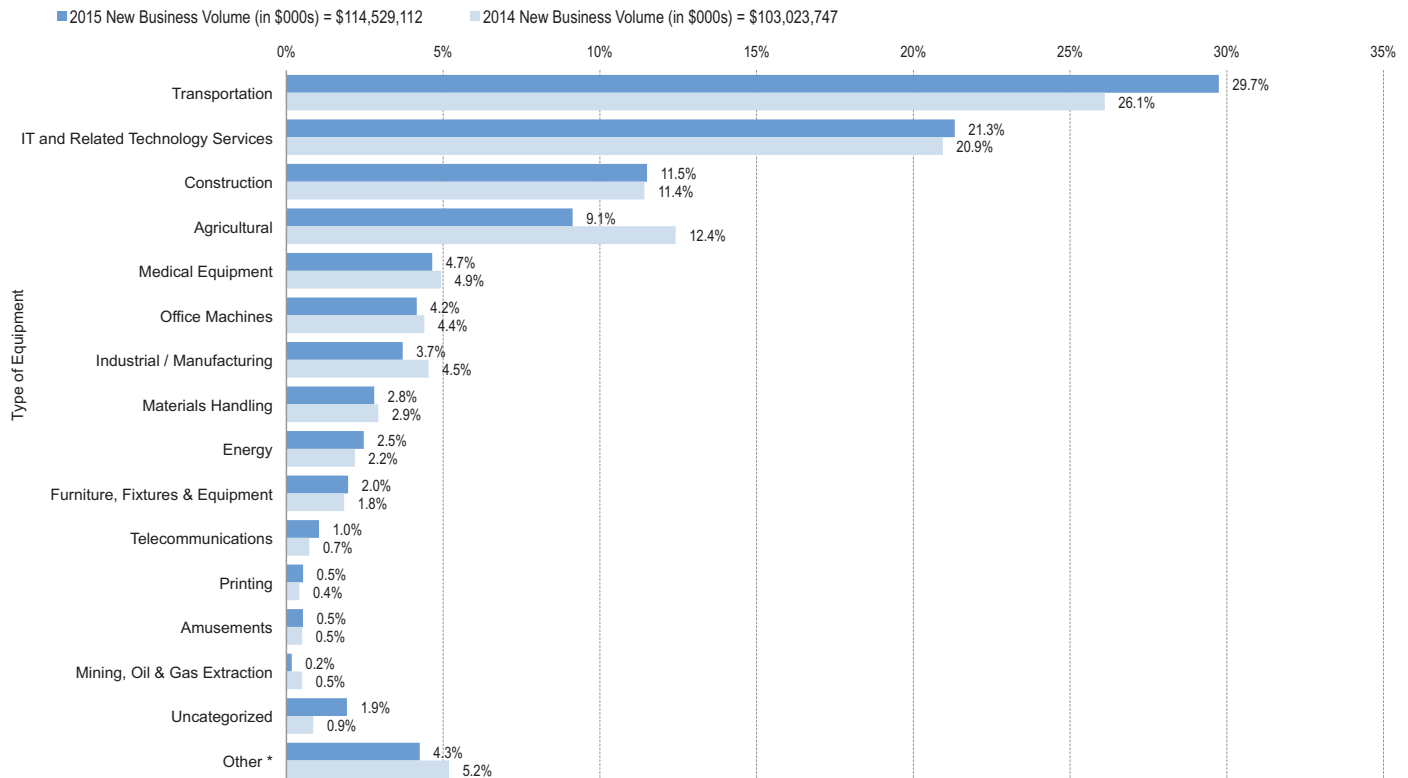


Fig 20: New Business Volume By Market Segment



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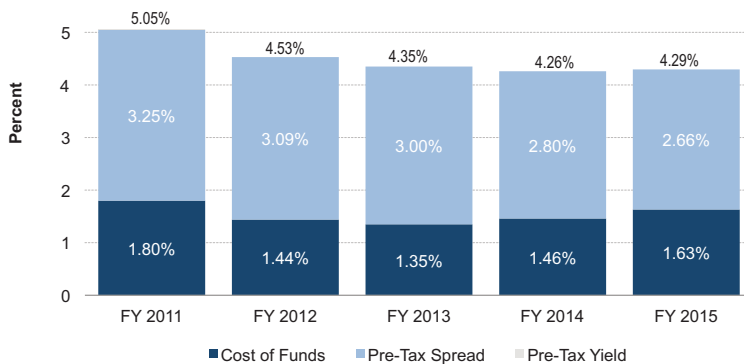
Fig 21: New Business Volume by Equipment Type (Summary Categories)



Source: 2016 ELFA Survey of Equipment Finance Activity

Looking at the results by equipment type, the largest share of new business volume was in transportation equipment, which represents 29.7% of NBV in 2015. Transportation equipment also represented the largest increase in share, growing by 3.6 percentage points from its 2014 share of 26.1%. The sharpest decline was in agricultural equipment, which fell to 9.1% of new business volume in 2015 from 12.4 % in 2014 (Figure 21).

Fig 22: Dollar-Weighted Average Pre-Tax Yield, Cost of Funds, and Pre-Tax Spread Over Five Year History



Source: 2016 ELFA Survey of Equipment Finance Activity

According to the 2016 SEFA, the cost of funds increased for the second consecutive year, putting continued downward pressure onto pre-tax spreads. In 2015, the cost of funds increased by 17 basis points, while pre-tax yields grew by only 3 basis points, resulting in a decrease in pre-tax spread of 14 basis points (Figure 22).

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Conclusions

Since the previous iteration of the Foundation Borrower Survey in 2012, the market for equipment finance has expanded. The financed share of total investment volume in equipment and software grew to 68%, with the largest increases coming from leasing. In 2015, the size of the market for financed equipment and software was estimated at \$1.02 trillion.

Looking forward, the equipment finance market is poised for a period of modest, but steady growth. 2016 has been a year of subdued growth, but financing activity has outperformed overall investment activity. Banks continue to hold the largest share of the market, although Captives and Independents have been gaining share and pushing the market in new directions. Interviews with executives in the equipment leasing and finance industry identified increased demand for managed solutions and fintech offerings as potential drivers of growth in the market.

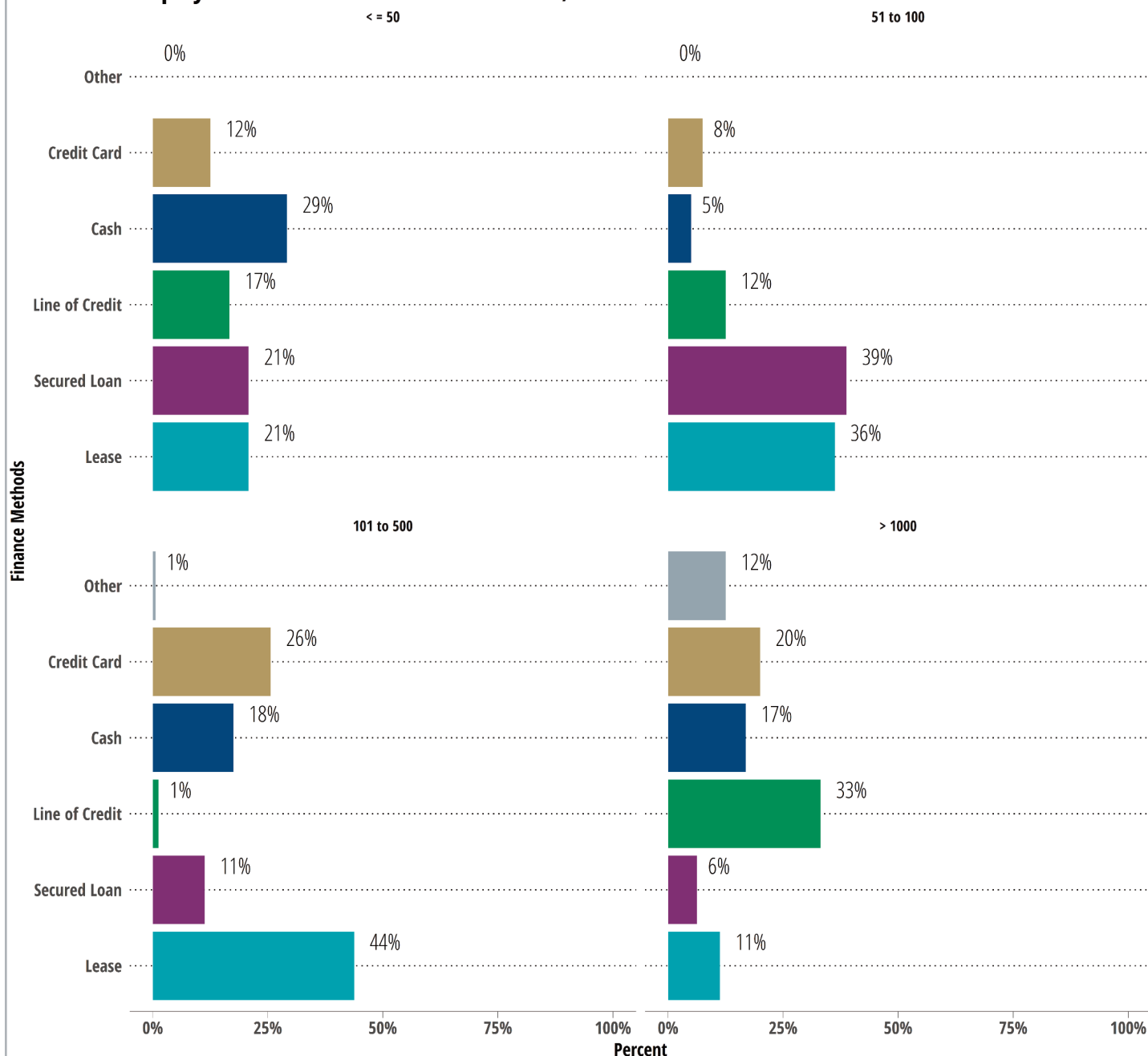
Despite low financing costs, investment in new equipment in software has been held back by excess global capacity, low commodity prices, a strong dollar, and sluggish export markets. IHS Markit expects public and private investment in equipment and software to finish 2016 at 0.5% annual growth. Spending on equipment is forecast to improve in 2017 and 2018 as the drags from the stronger dollar and low energy prices dissipate and companies invest at rates consistent with an economy growing at a 2-3% rate. Public and private investment in equipment and software is expected to expand by 3.3% in 2017, and accelerate to 5.0% growth in 2018.

Increased competition, though beneficial from a lessee's perspective is putting significant pressure on profit margins. According to the 2016 SEFA, respondents indicated increasing cost of funds over the past two years, driving down pre-tax spreads. With abundant liquidity in the market, and limited growth in new equipment investment, competition for new business is fierce. An improving economy and increased investment in 2017 and 2018, should help to ease some of the pressure on margins.

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Appendix

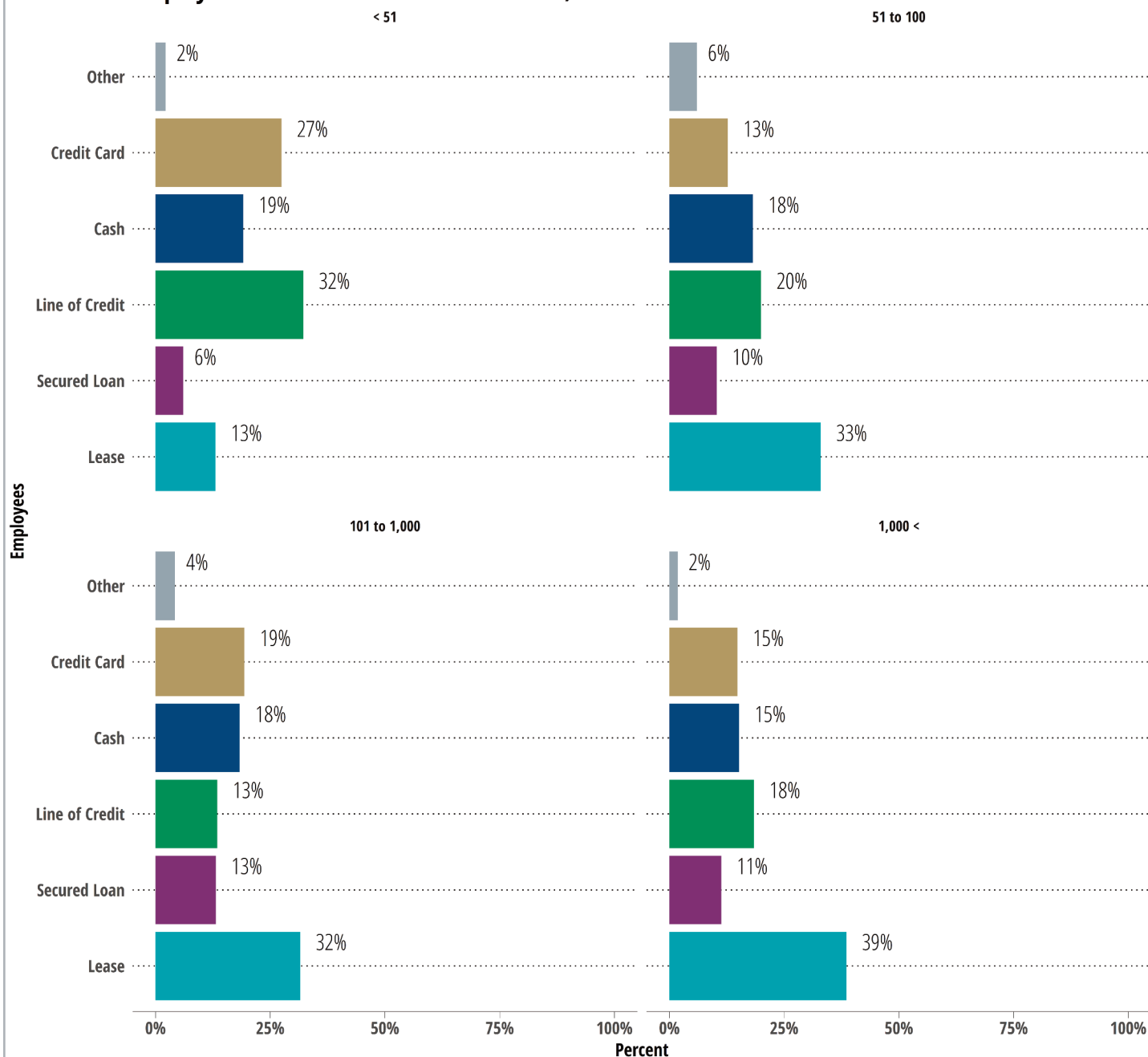
Figure A-1: Equipment Investment by Company Employee Number and Method of Finance, 2016



Source: The 2016 Foundation Borrower Survey

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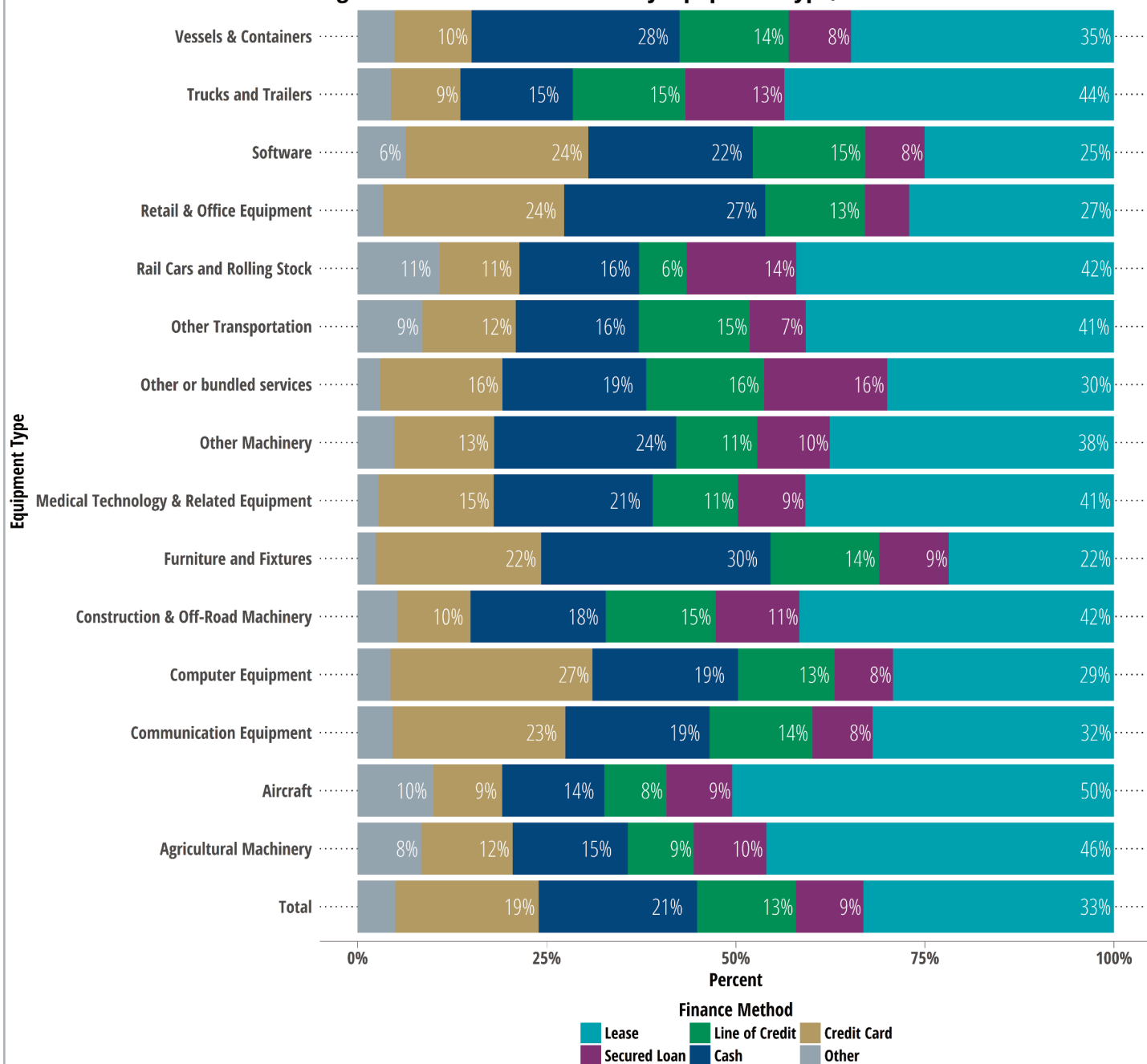
Figure A-2: Equipment Investment by Company Employee Number and Method of Finance, 2012



Source: The 2016 Foundation Borrower Survey

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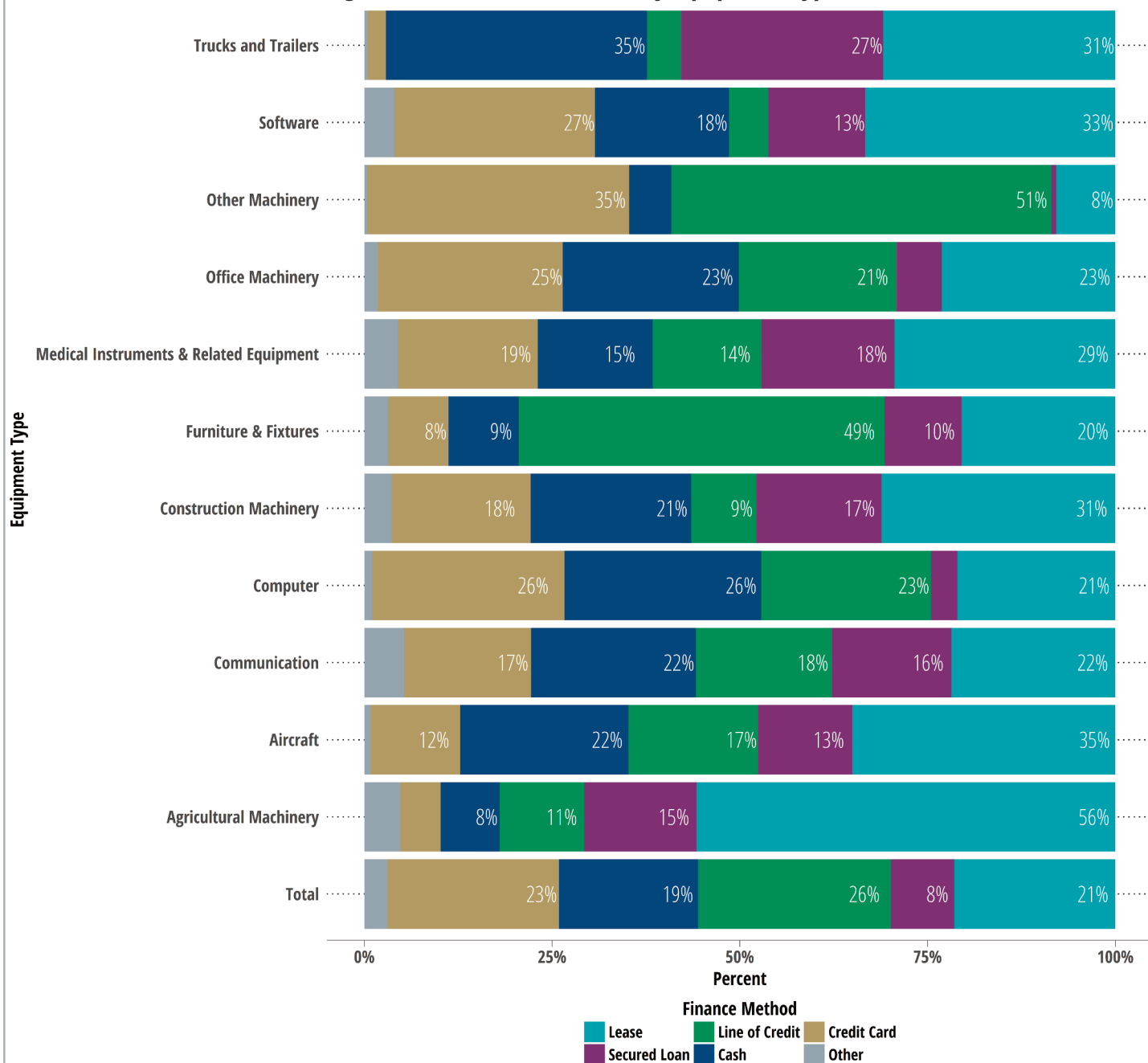
Figure B-1: Method of Finance by Equipment Type, 2016



Source: The 2016 Foundation Borrower Survey

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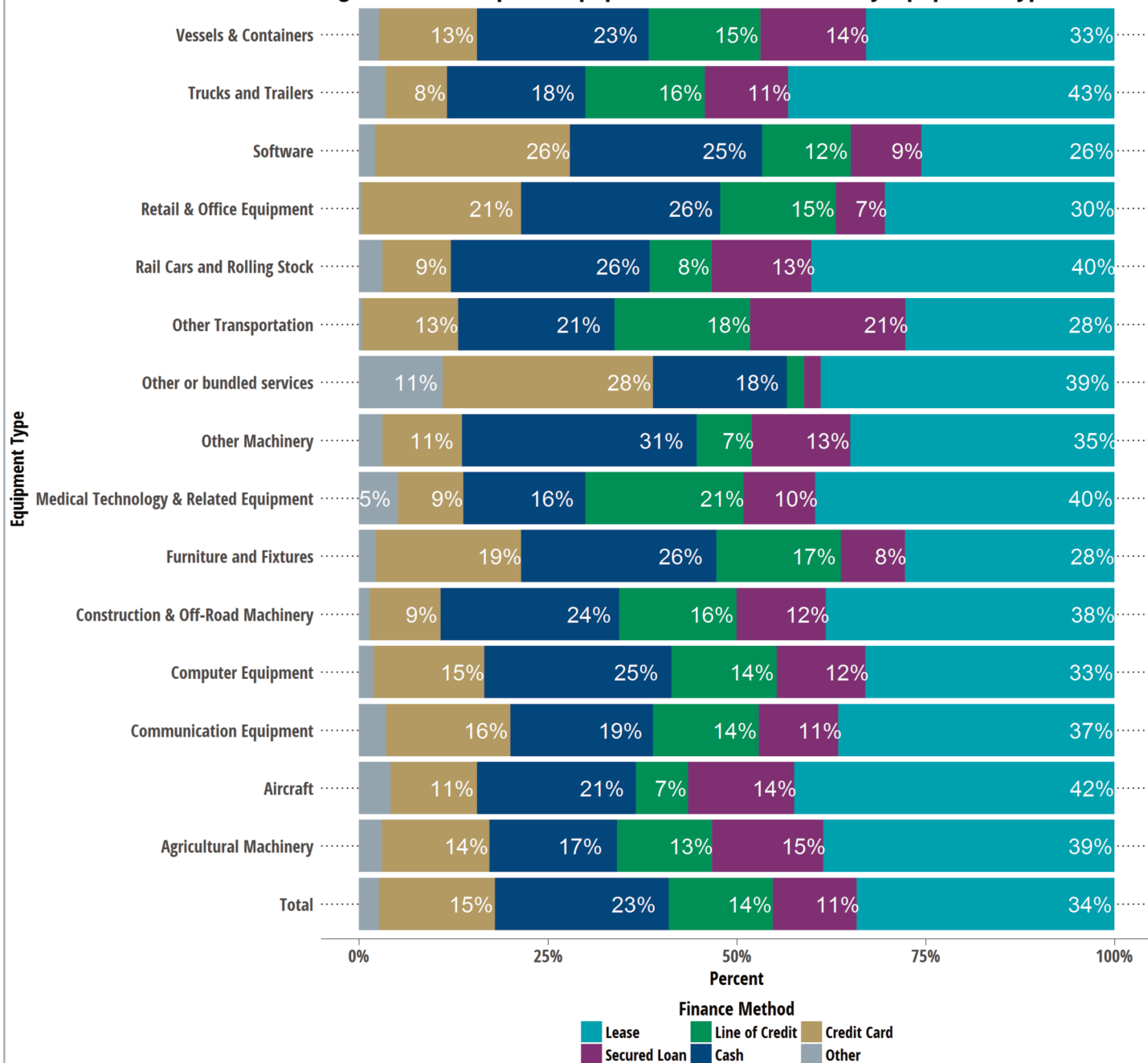
Figure B-2: Method of Finance by Equipment Type, 2012



Source: The 2016 Foundation Borrower Survey

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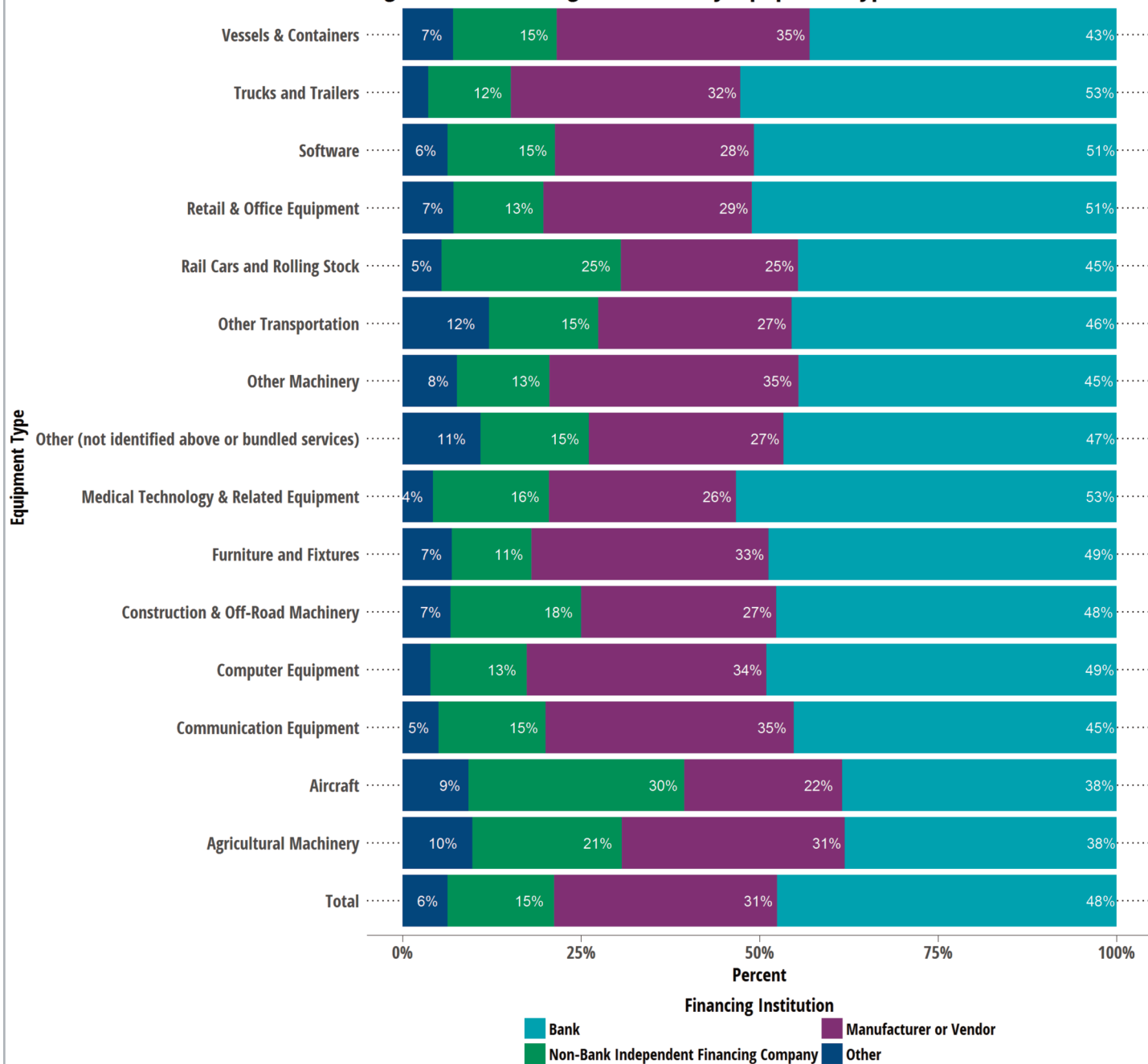
Figure B-3: Anticipated Equipment Finance Methods by Equipment Type



Source: The 2016 Foundation Borrower Survey

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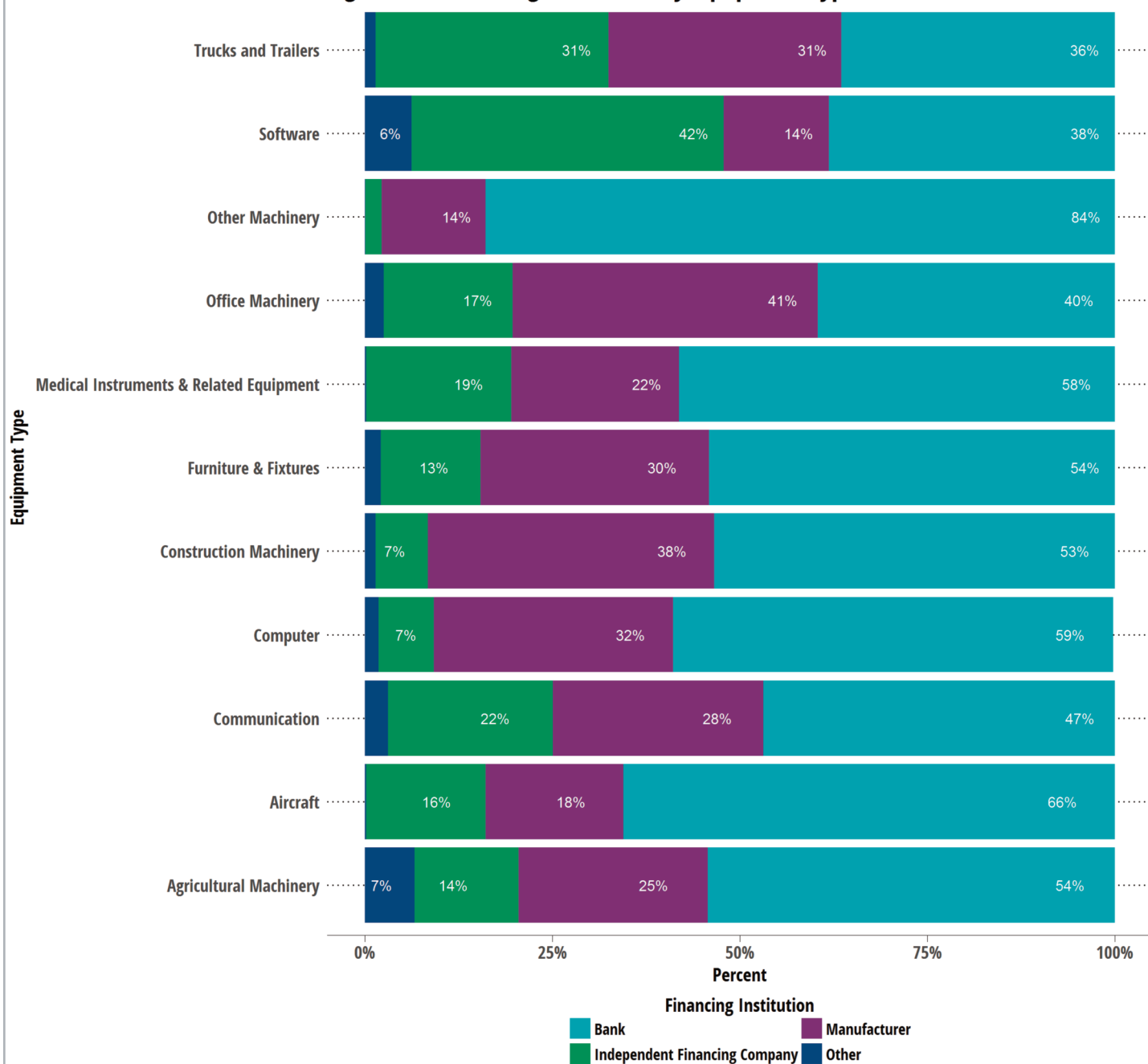
Figure C-1: Financing Institution by Equipment Type, 2016



Source: The 2016 Foundation Borrower Survey

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Figure C-2: Financing Institution by Equipment Type, 2012



Source: The 2016 Foundation Borrower Survey

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Figure D: Financing Method by General Industry

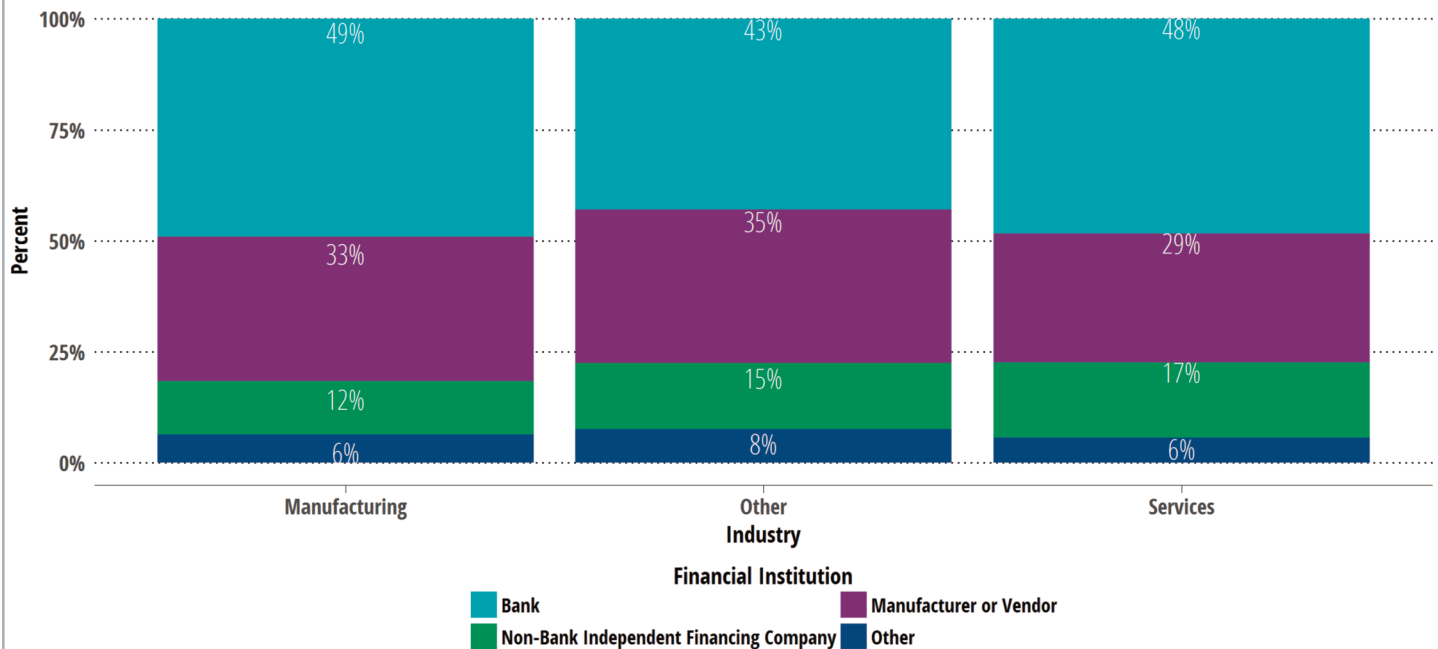
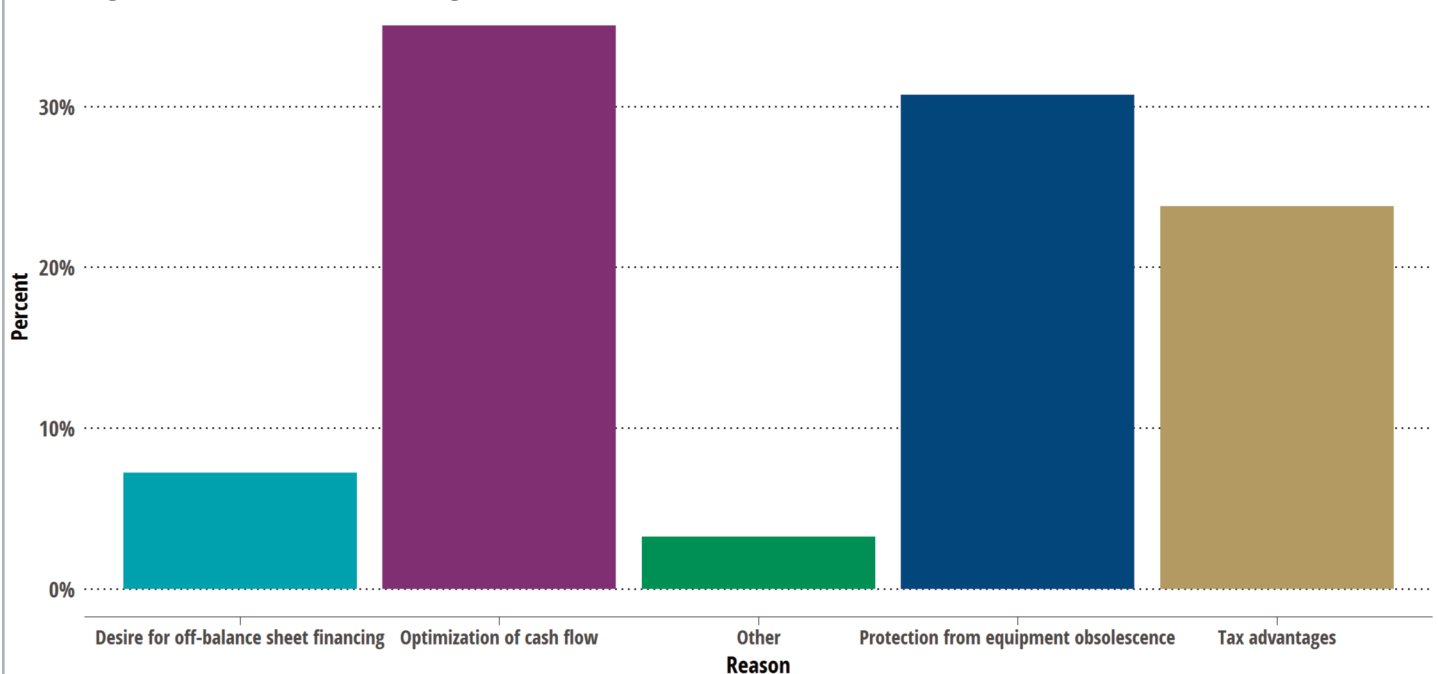


Figure E: Reason for financing over cash



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Figure F: Change in significance of external factor on financing decision

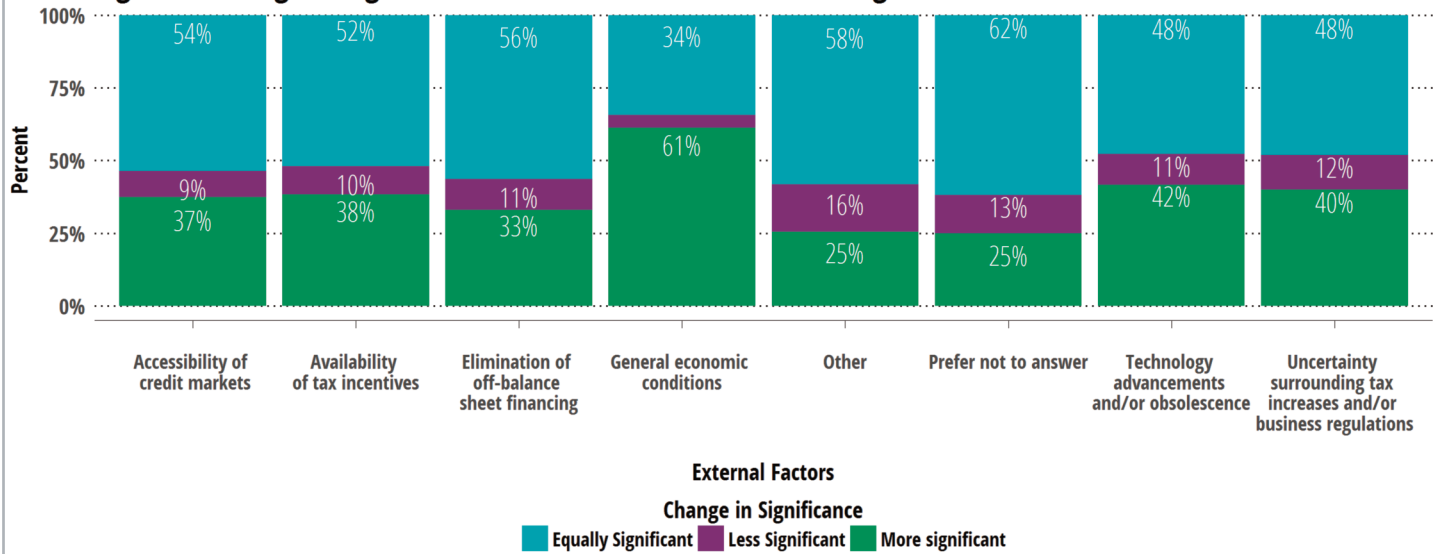
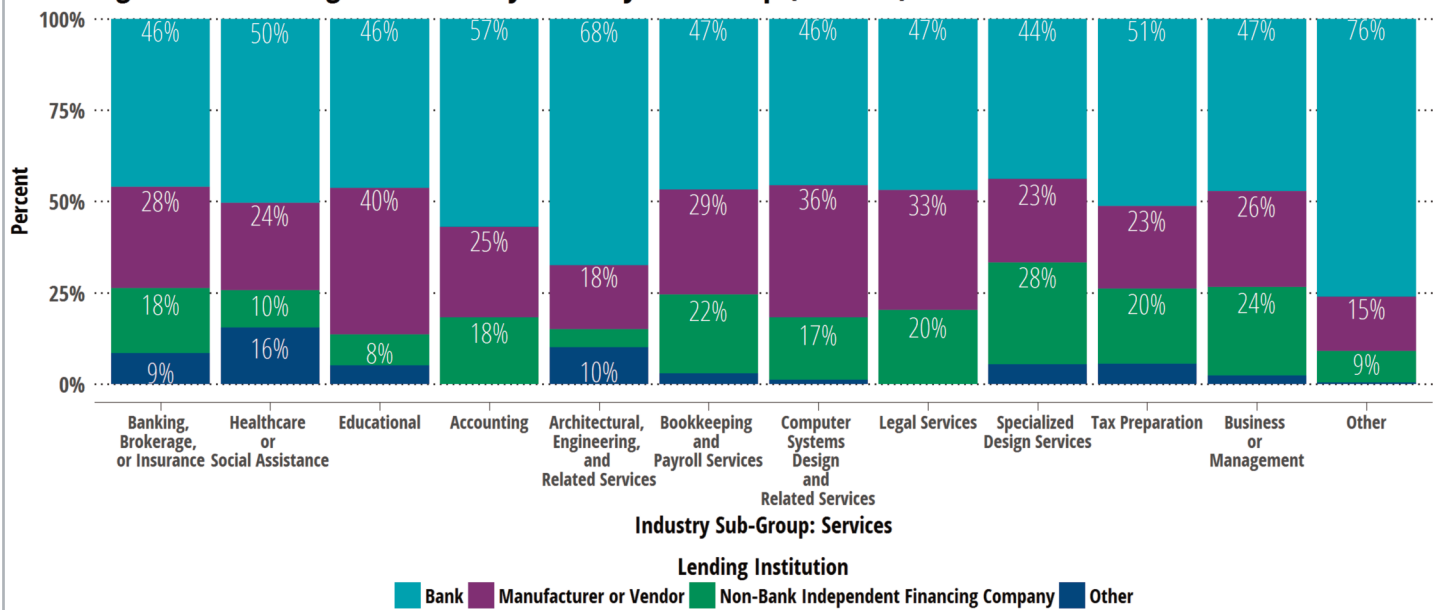


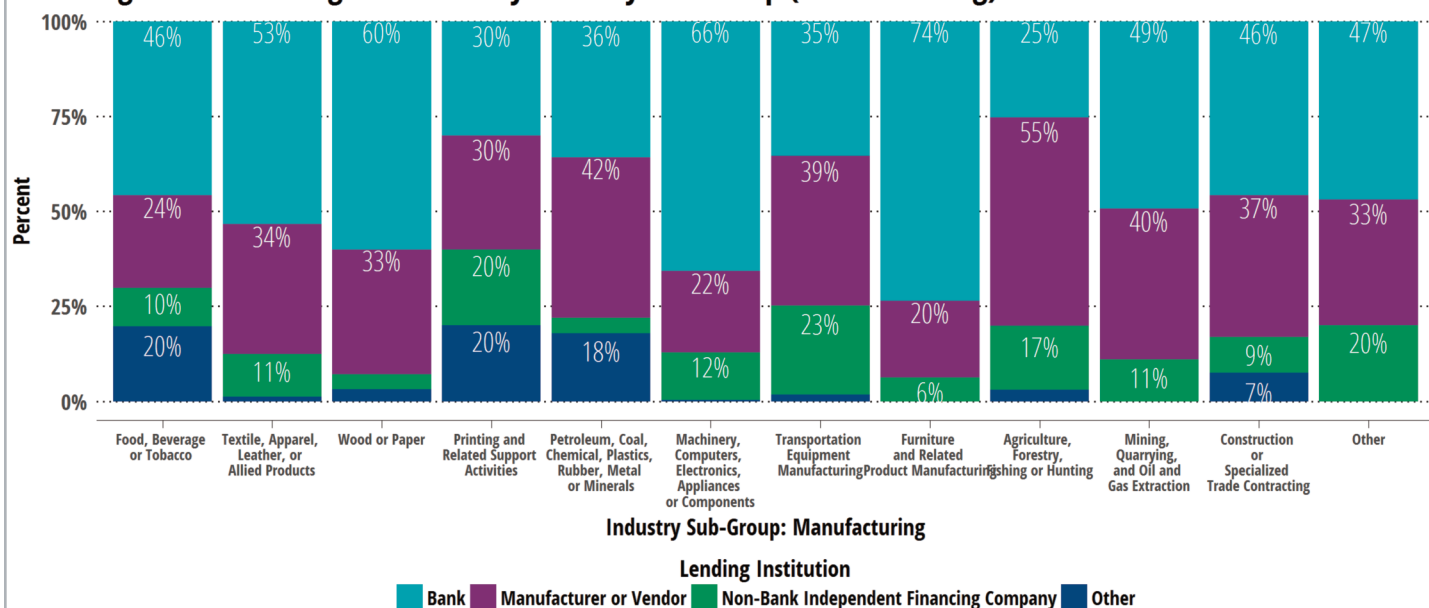
Figure G-1: Lending Institution by Industry Sub-Group (Services)



Source: The 2016 Foundation Borrower Survey

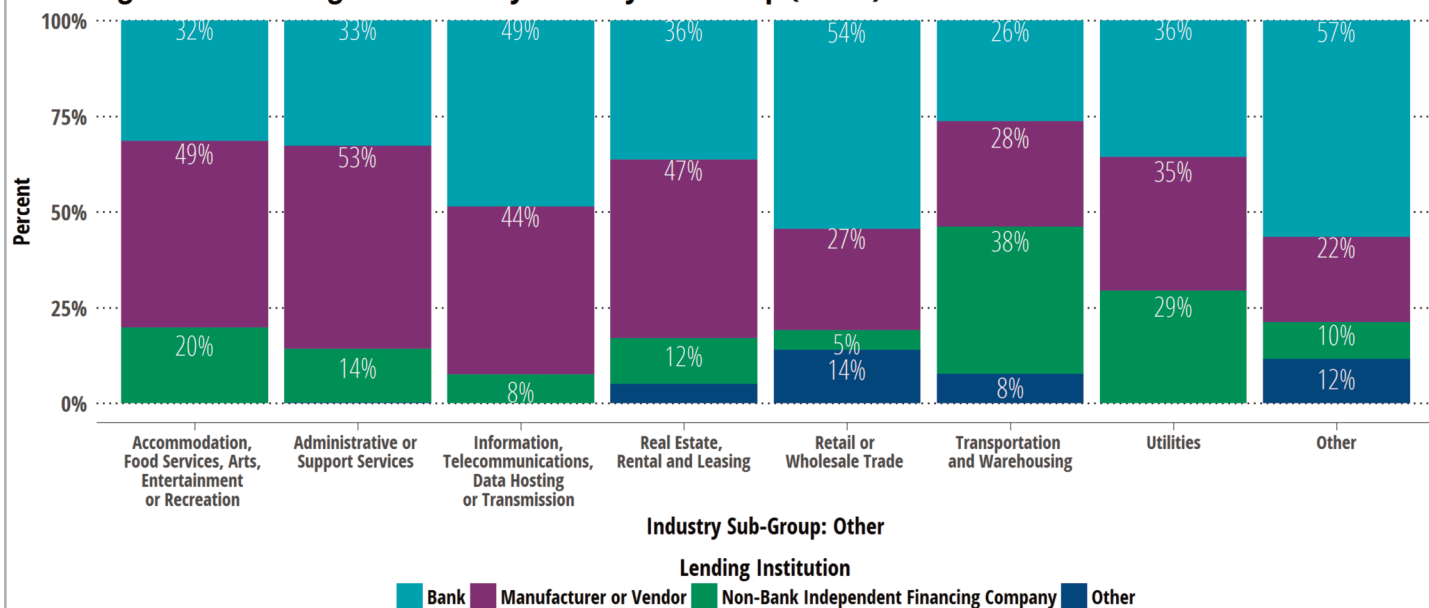
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Figure G-2: Lending Institution by Industry Sub-Group (Manufacturing)



Source: The 2016 Foundation Borrower Survey

Figure G-3: Lending Institution by Industry Sub-Group (Other)



Source: The 2016 Foundation Borrower Survey

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Table A: Growth in Financing Volume Compound Annual Growth Rate

State	2007-2011	2011-2016	2016-2020
Alabama	3.7%	9.0%	-2.0%
Alaska	7.5%	-5.4%	3.6%
Arizona	6.0%	6.4%	-1.7%
Arkansas	4.9%	8.2%	-0.8%
California	3.4%	4.5%	-0.4%
Colorado	6.2%	4.7%	-0.3%
Connecticut	3.5%	4.5%	-0.8%
Delaware	4.0%	5.2%	-1.5%
Florida	4.8%	5.9%	-3.5%
Georgia	3.0%	6.0%	-1.6%
Hawaii	3.0%	7.3%	-3.3%
Idaho	5.5%	4.4%	1.6%
Illinois	2.3%	2.2%	1.2%
Indiana	2.3%	3.5%	-1.0%
Iowa	4.3%	-4.3%	6.0%
Kansas	4.5%	6.5%	2.4%
Kentucky	3.2%	5.0%	-1.3%
Louisiana	2.9%	1.7%	5.8%
Maine	3.0%	1.1%	-2.2%
Maryland	5.0%	3.5%	0.7%
Massachusetts	3.2%	3.3%	1.6%
Michigan	2.3%	4.0%	-1.6%
Minnesota	3.4%	3.5%	2.7%
Mississippi	4.5%	6.7%	-0.7%
Missouri	3.3%	1.4%	1.0%
Montana	5.0%	7.9%	-0.4%
Nebraska	5.3%	-1.5%	7.5%
Nevada	7.4%	6.3%	0.5%
New Hampshire	4.3%	3.1%	1.3%
New Jersey	3.6%	6.3%	-2.1%
New Mexico	6.6%	2.3%	-2.5%
New York	3.0%	3.7%	0.2%
North Carolina	3.5%	5.9%	0.5%
North Dakota	10.3%	-1.6%	10.2%
Ohio	3.2%	3.7%	-0.9%
Oklahoma	5.4%	5.5%	-1.2%
Oregon	4.4%	0.4%	8.2%
Pennsylvania	3.5%	3.3%	-0.5%
Rhode Island	3.9%	4.0%	-1.6%
South Carolina	3.6%	4.9%	-1.5%
South Dakota	4.3%	-7.8%	10.0%
Tennessee	3.3%	4.3%	-0.2%
Texas	5.3%	8.3%	0.1%
Utah	5.1%	5.5%	1.9%
Vermont	4.2%	2.0%	-0.9%
Virginia	3.3%	4.1%	-1.2%
Washington	2.4%	4.0%	-0.1%
Washington DC	4.3%	1.0%	0.7%
West Virginia	5.5%	8.0%	9.7%
Wisconsin	2.8%	3.2%	-0.5%
Wyoming	13.9%	-2.5%	2.5%

Table B: Propensity to Finance by Company Size

Company Sales	% Share of companies that used at least one form of financing		
	2007 Survey	2012 Survey	2016 Survey
< \$1 million	45%	49%	63%
\$1 million - \$5 million	75%	81%	85%
\$5 million - \$25 million	66%	75%	84%
\$25 million - \$100 million	76%	86%	80%
> \$100 million	73%	82%	82%
Total	70%	72%	78%

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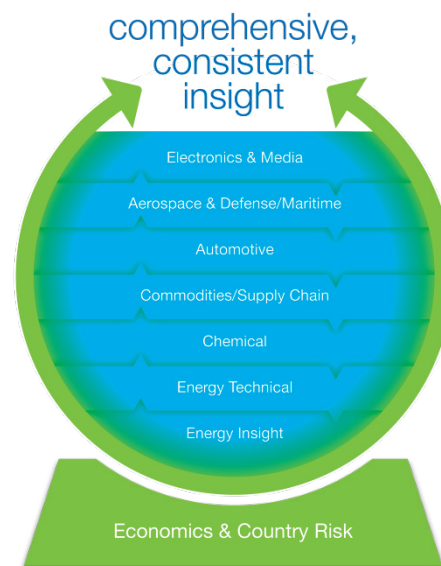
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Industry Future Council Report – Based on the deliberations of the Foundation's Industry Future Council of leading industry lessors, analysts, and service providers on current issues, trends and future industry outlook, the IFC Report is a guidebook for providers and arrangers of equipment finance as they undertake their own strategic planning efforts.

State of the Equipment Finance Industry Report – The SEFI provides a unique look at trends in the equipment finance industry over the past year, identifies key drivers for future growth, and explores emerging opportunities and risks that could shape the industry over the next 3-5 years.

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Journal of Equipment Lease Financing – The only scholarly periodical dedicated to equipment leasing and finance, the Journal is published quarterly and spotlights research, case studies, trends and practical information through in-depth articles. Author guidelines are available online at www.leasefoundation.org/research/jelf/

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