



PPA STUDY 2023

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Introduction



We are pleased to present the findings of KNAV's 2023 Purchase Price Allocation Study ("2023 Study"), which offers valuable insights into the allocation of purchase consideration in business combinations. This study, meticulously conducted by analysing public filings for 606 transactions between January 1, 2022 to December 31, 2022, provides a comprehensive overview of industry trends and deal dynamics.

► Key Observations

- **Allocation Trends:** On average, **39%** of the total purchase consideration was allocated to **identifiable intangible assets**, while **51%** was attributed to **goodwill**, with notable variations across industries. On overall basis, **contingent consideration** (“CC”) accounted for **18%** of the total purchase consideration.
- **Sector Activity:** **Industrials** and **Information Technology** sector emerged as the **most active** for M&A activities, boasting the largest transaction size.
- **Goodwill and Intangible Assets:** **Health Care** witnessed the highest percentage of **intangible assets** allocation whereas **Real Estate** had the highest percentage of **goodwill** to purchase consideration.
- **Contingent Consideration:** Approximately **25%** of the analysed transactions in 2023 Study included **contingent consideration** as a crucial component of the purchase consideration.

► Methodology

- The initial sample of transactions was screened using S&P Capital IQ Pro database for transactions announced or completed between January 1, 2022 to December 31, 2022 resulting in 1,494 transactions. Exclusions were made for transactions involving investment firms or multiple acquirers or over the counter listed companies. We then reviewed the public filings of the 1,494 transactions for detailed disclosure notes related to the business combination presenting purchase consideration, intangible assets and goodwill. Transactions with missing disclosures, insufficient information or those reported as asset acquisition with entire purchase consideration allocated to goodwill were excluded. This resulted in the final population of 606 transactions wherein reasonably sufficient information was available in the public filings reviewed until March 2023.

► Analysis

- The **606 transactions** formed the basis of our study, representing approximately **41%** of the initial sample. Our analysis primarily focused on the allocation of purchase consideration to identifiable intangible assets, contingent consideration, and goodwill. For the 2023 Study, purchase consideration has been computed as a sum of any amount paid either in cash, equity share, or fair value of contingent consideration, plus debt taken over as a part of the transaction, plus non-controlling interest, plus the fair value of previously held equity interests.

» Industry and Deal Size Stratification

- Transactions were classified into ten industry sectors per GICS®* industry analysis framework and stratified across five deal size categories based on purchase consideration. This stratification allowed for an understanding of allocation patterns across different sectors and deal sizes.

A list of transactions being considered for each industry is also provided on our website, the link for which is [available here](#).

» Caveats

- The information and data provided in this study have been gathered from sources deemed reliable; however, completeness, accuracy, and timeliness cannot be guaranteed. Moreover, it's essential to consider that each deal may entail unique nuances, and thus, the findings of this study should not be interpreted in isolation.

» Conclusion

- The 2023 Study sheds light on critical aspects of purchase price allocation in business combinations, offering valuable insights for stakeholders in the M&A landscape. Valuers, auditors, and regulators will find this study useful as they navigate the complexities of transaction valuation and purchase price allocation. By leveraging the insights from this analysis, professionals can enhance their decision-making processes and ensure compliance with regulatory requirements.

We extend our sincere gratitude to all team members involved in the completion of this study and remain committed to providing actionable insights to our clients and industry partners.

Sincerely,



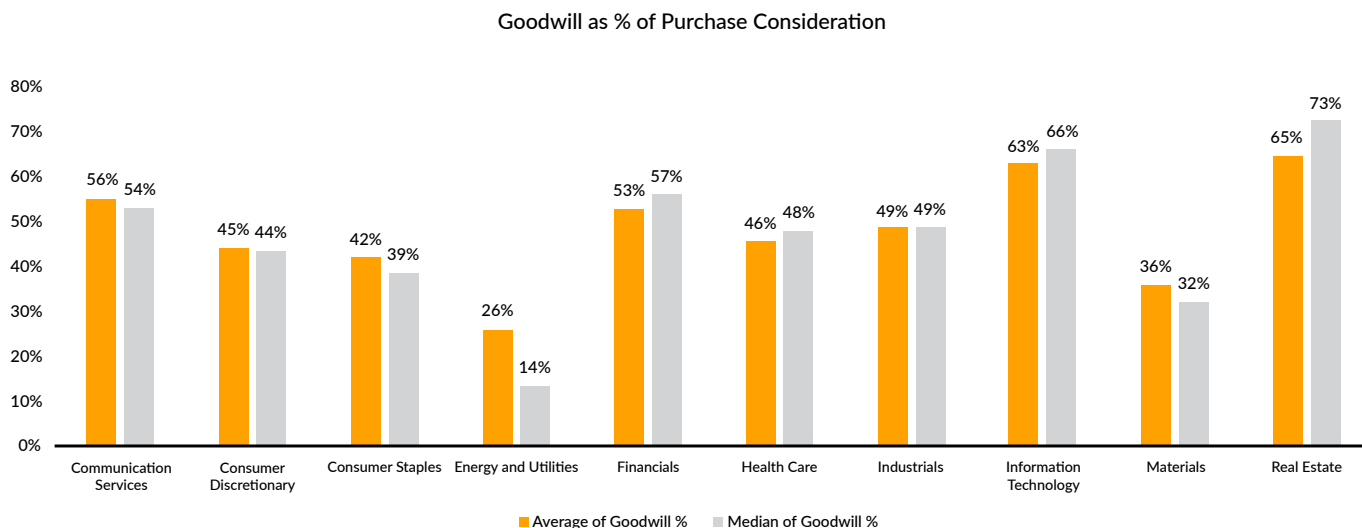
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KNAV

*GISC - Global Industry Classification Standard

Allocation of Goodwill

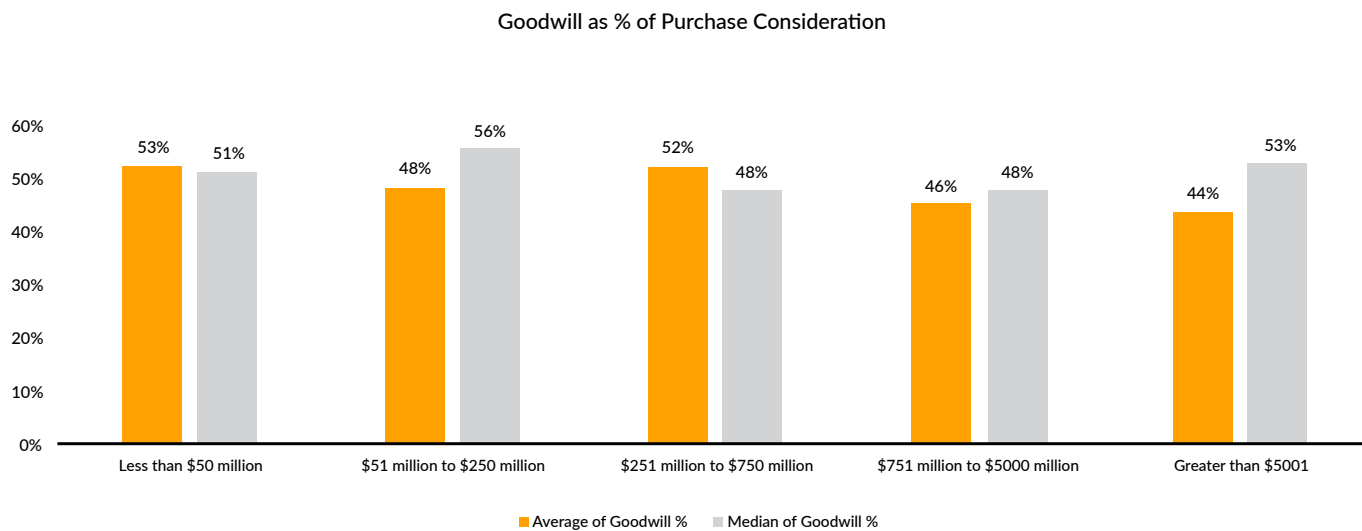


Allocation of Goodwill: By industry



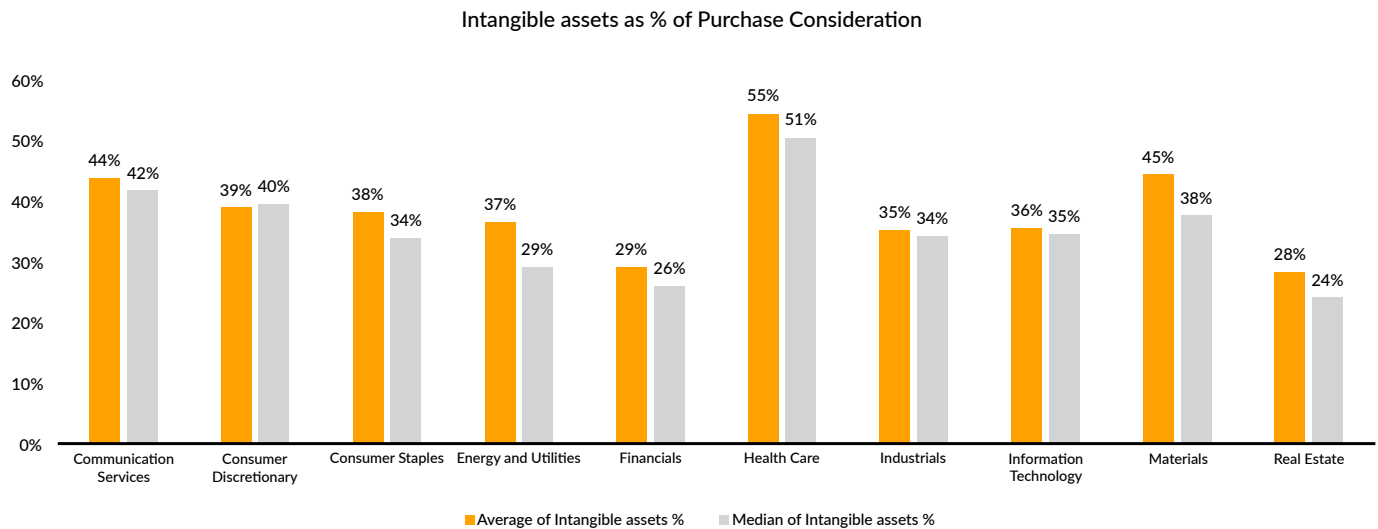
- The data highlights significant variation in the average and median goodwill percentages across different industry groups. For instance, the **Information Technology (“IT”)** sector shows the **highest average and median goodwill percentages at 63% and 66%** respectively, indicating that acquisitions in this sector often involve substantial premiums being paid. The rapid pace of technological advancements and market dynamics in the IT sector have led to higher premiums paid for acquiring companies with innovative products, strong market positions, or talented teams.
- **Real Estate** sector also exhibited **higher average and median goodwill** percentages compared to others, evidencing that acquisitions in these sectors typically involve **significant premiums paid beyond tangible, financial & other assets**. The real estate sector often experiences consolidation, with larger companies acquiring smaller firms to expand their portfolios or geographic presence. During these times, mergers and acquisitions in the real estate industry can result in higher goodwill as acquirers pay a premium to gain access to valuable assets and market share.
- The disparity in goodwill percentages across industry groups underscores the importance of sector-specific factors in merger and acquisition (“M&A”) transactions. Understanding these trends can inform strategic decision-making, valuation assessments, and risk management strategies for companies operating within or considering entry into these sectors.

Allocation of Goodwill: By size



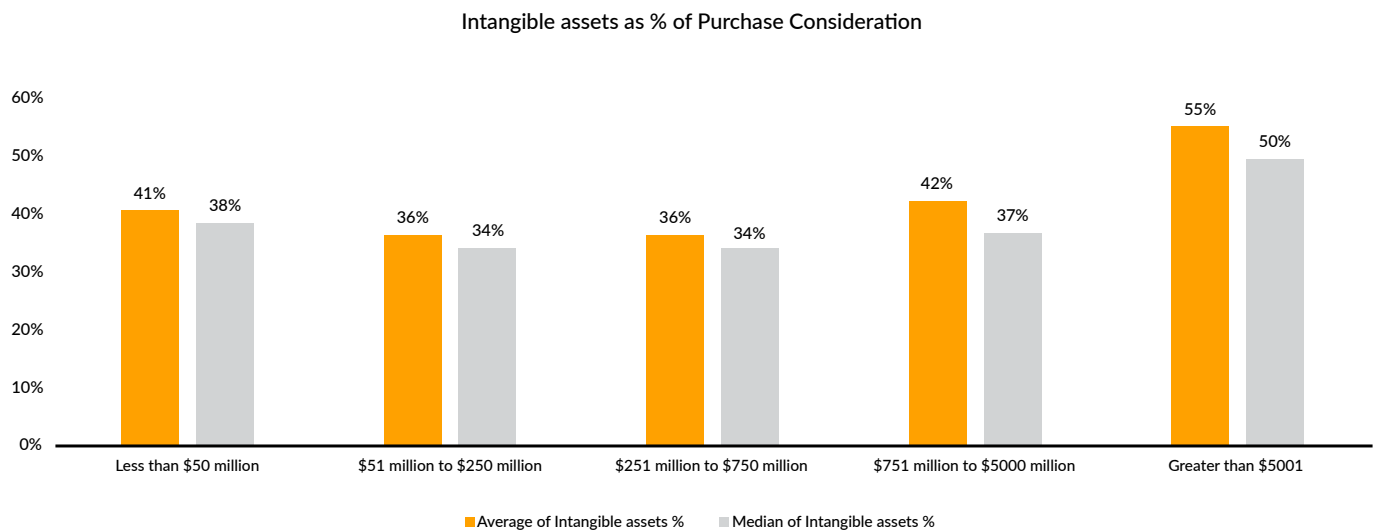
- The data illustrates an inverse relationship between the size of the company and the average percentage of goodwill. **Smaller companies exhibit a higher average percentage of goodwill compared to larger companies.** Smaller companies are often valued based on their future growth potential rather than their current financial performance. Acquirers may be willing to pay a premium for smaller companies with promising growth prospects, leading to a higher proportion of goodwill in the purchase consideration.
- While the data provides insights into the average and median percentages of goodwill across different size groups, it's important to consider individual circumstances and factors specific to each transaction. The determination of goodwill can be influenced by various factors such as industry dynamics, market conditions, synergies, brand value, customer relationships, and intangible assets. Therefore, while trends based on size groups can be informative, a comprehensive analysis of each transaction's unique characteristics is essential for understanding the drivers of goodwill and its implications for valuation and financial reporting.

Allocation of Intangible Assets: By industry



- The analysis showcases diverse levels of intangible asset representation across industries. Sectors like **Communication Services** and **Health Care** exhibit **higher average and median percentages**, indicating a greater reliance on intangible assets for value creation, typically driven by technology and intellectual property.
- The **Financials** and **Real Estate** sectors stand out with notably **lower average and median percentages** of intangible assets compared to other industries. This trend aligns with the **sector's reliance on tangible and monetary assets** such as cash reserves, loans, financial and other assets, which often overshadow the significance of intangible assets like brand value or intellectual property.

Allocation of Intangible Assets: By size



- There is an increasing trend in both the average and median percentages of intangible assets as the size of the company increases. **Smaller companies, categorized as "Less than \$50 million," have lower average and median percentages of intangible assets compared to larger companies,** suggesting that larger companies have more substantial intangible asset holdings relative to their size. Larger companies often have more diversified operations, expansive intellectual property portfolios, and established brand recognition, contributing to a higher proportion of intangible assets relative to their size.
- The data suggests existence of unique factors driving the composition of intangible assets in the largest companies, leading to greater variability within this size category.

Contingent Consideration: Introduction



Contingent considerations (“CC”) are typically employed in transactions to bridge the valuation gap between buyer and seller arising from differences of opinion regarding the target company’s future economic prospects. It helps to get the buyer and seller on the same page when it comes to valuation.

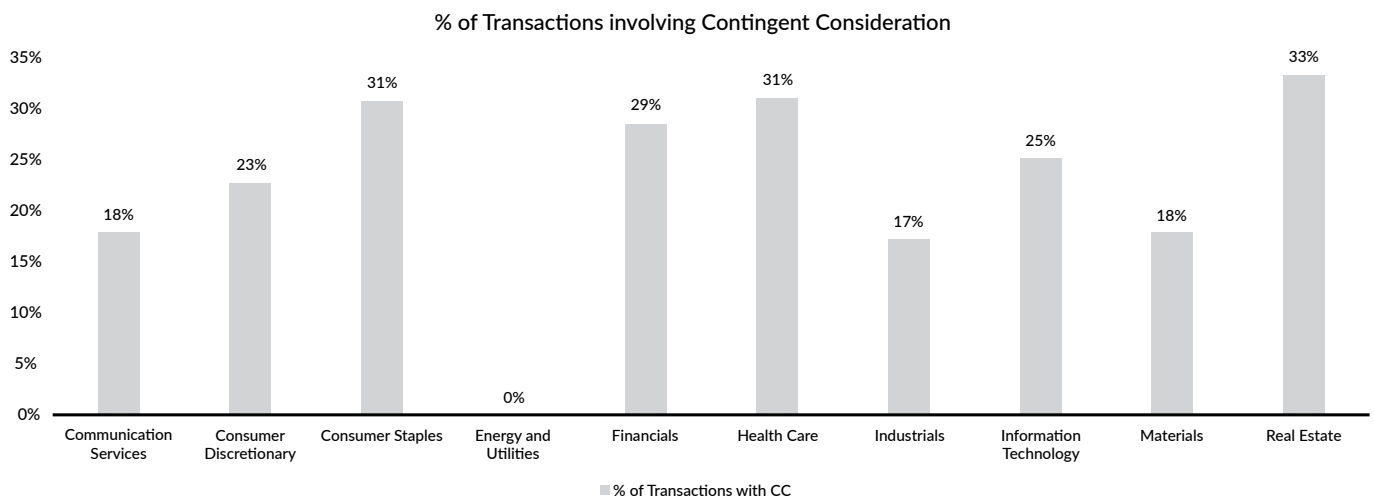
ASC 805/ IFRS 3: Business combinations standard requires that contingent consideration assets and liabilities be recorded at fair value as of the acquisition date.

Moreover, they also require the revaluation of most contingent consideration instruments at each subsequent reporting period until the final settlement of the obligation.

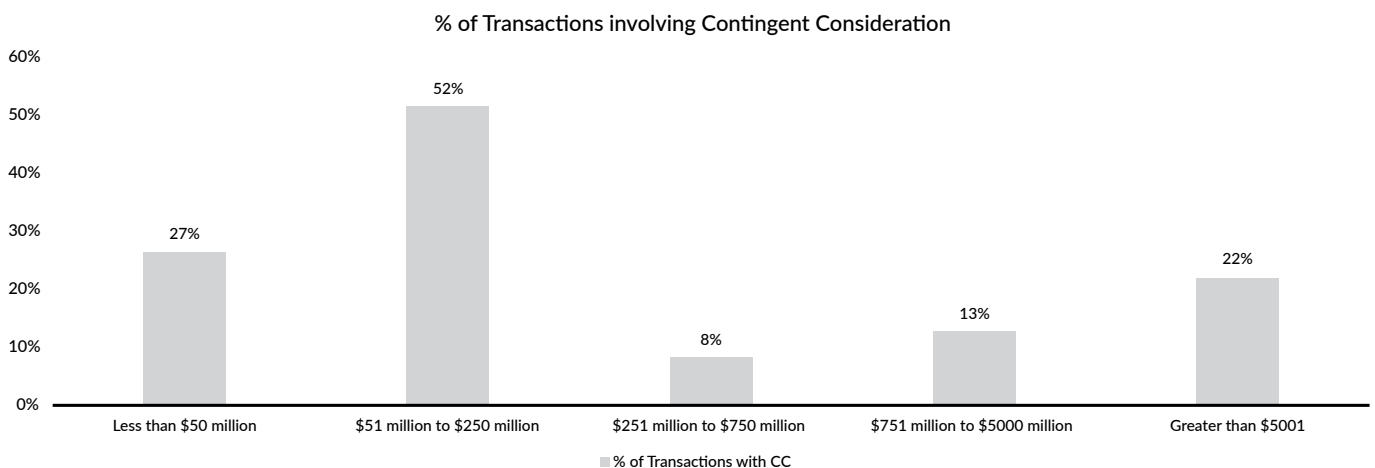
In the 2023 Study, approximately 25% of the analysed transactions had CC in the purchase consideration.

Out of the overall transactions, CC represented 14% and 18% of the purchase consideration when measured on the median and mean, respectively.

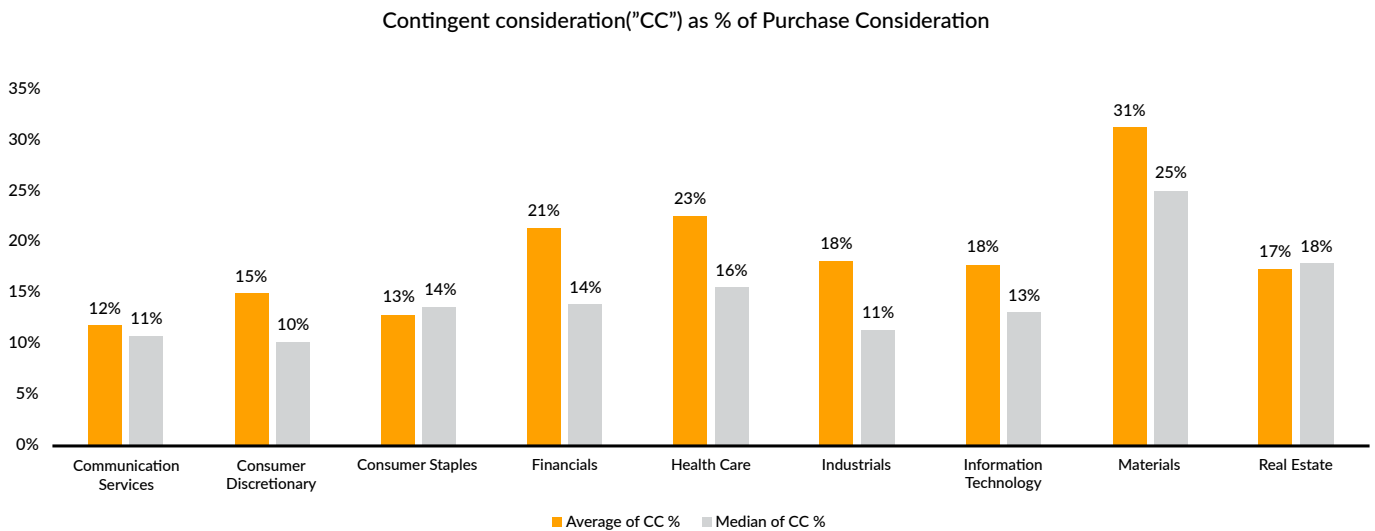
By industry



By size

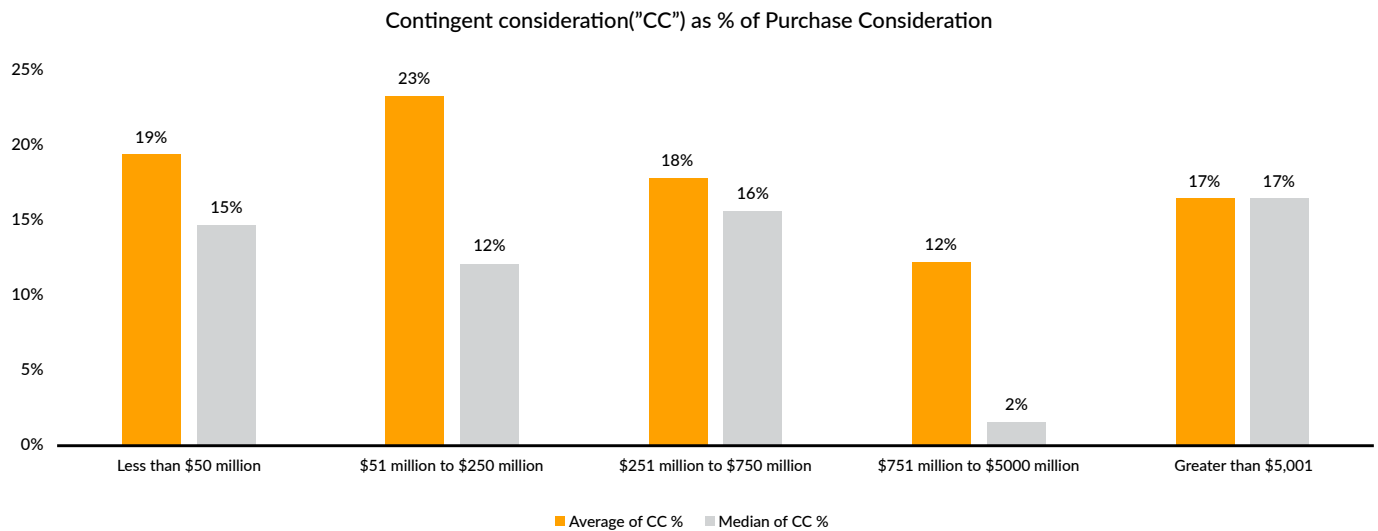


Contingent Consideration: By industry



- There is considerable variability in the CC percentages across different industry groups. For instance, the **"Materials" industry group has the highest average and median CC percentages at 31% and 25%**, respectively, reflecting the **sector's dependence on volatility in commodity prices**, susceptibility to macroeconomic factors and long-term investment horizons. In contrast, industry groups such as **"Communication Services" and "Consumer Staples"** have relatively lower CC percentages.
- The data reveals **notable differences between the average and median CC percentages within certain industry groups**. For example, the "Health Care" industry group shows a higher average CC percentage (23%) compared to the median (16%), indicating potential skewness or outliers in the distribution of CC percentages within this industry. Similarly, the "Financials" industry group exhibits a relatively higher average CC percentage (21%) compared to the median (14%), suggesting potential variations in the consideration structures of companies within this sector.

Contingent Consideration: By size

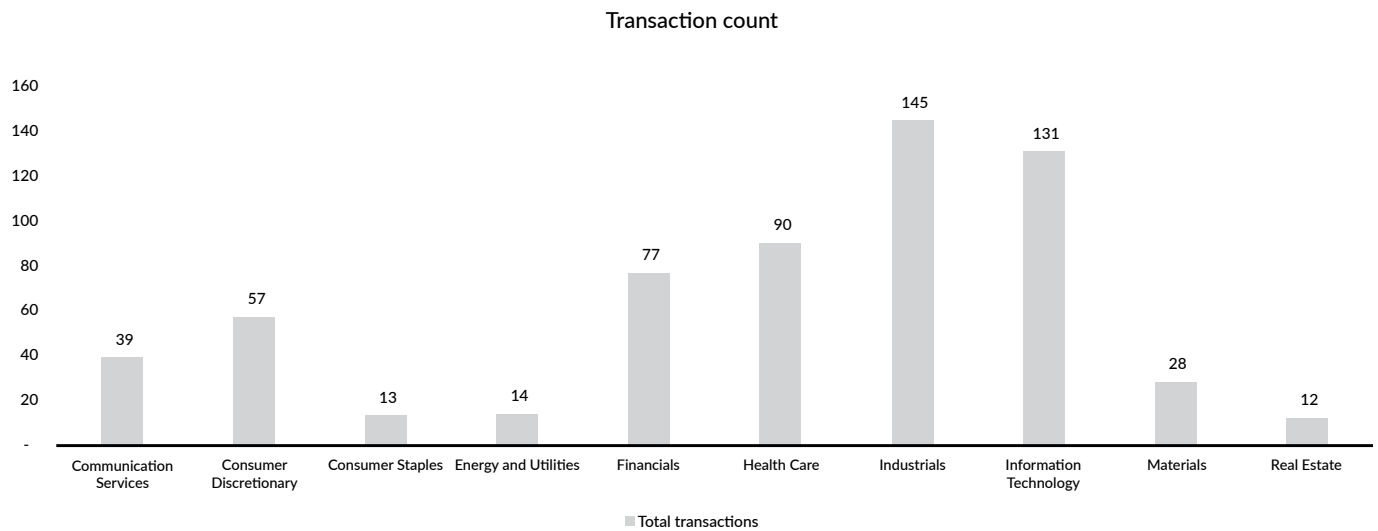


- There is **notable variability in the average and median CC percentages across different size groups**. While the "\$51 million to \$250 million" size group exhibits the highest average CC percentage at 23%, the "\$751 million to \$5000 million" size group has the lowest average CC percentage at 12%.

Transaction count

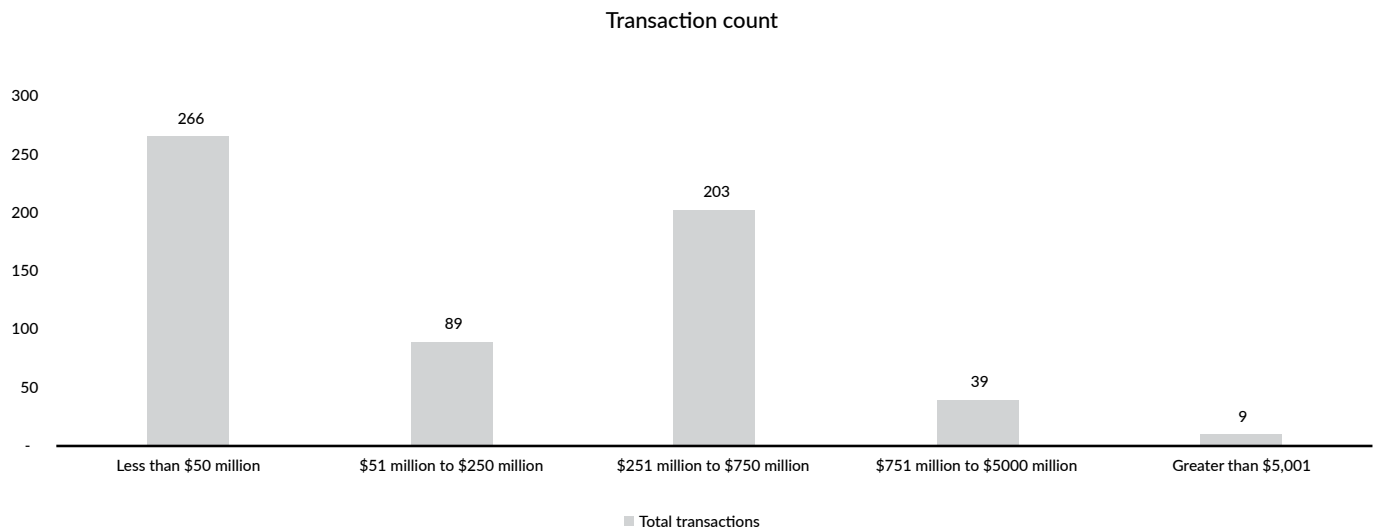


Transaction count – By industry



- The data illustrates varying transaction volumes across different industry groups. Sectors like **Industrials and Information Technology** have significantly higher transaction counts compared to others, with **145 and 131 transactions** respectively. On the other hand, sectors like **Real Estate and Energy and Utilities** have notably **lower transaction counts**, with only **12 and 14** transactions respectively.

Transaction count – By size



- There is a concentration of transactions in the lower size groups, with the combined total transactions of the "Less than \$50 million" and "\$51 million to \$250 million" groups comprising the majority of the overall transaction volume. This concentration indicates a **higher frequency of deals in the mid-market and smaller deal segments compared to larger transactions**, reflecting potential trends in market activity or investment preferences.

Industry trends





Industry: Communication Services

- This sector encompasses companies involved in communication services such as telecommunications, media, entertainment, content delivery, broadcasting, cable and satellite services, as well as internet and interactive media services. It includes businesses engaged in providing internet, television, radio, and other communication services.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	47%	53%	12%
\$51 million to \$250 million	34%	70%	2%
\$251 million to \$750 million	66%	49%	NA
\$751 million to \$5000 million	14%	14%	NA
Greater than \$5,001	53%	47%	29%
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	46%	47%	12%
\$51 million to \$250 million	66%	49%	NA
\$251 million to \$750 million	33%	74%	2%
\$751 million to \$5000 million	14%	14%	NA
Greater than \$5,001	53%	47%	29%

Industry: Consumer Discretionary

- Companies in this sector produce goods and services that are considered non-essential or discretionary purchases by consumers. It includes industries such as retail, automotive, leisure, hospitality and other consumer-facing businesses.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	38%	48%	12%
\$51 million to \$250 million	43%	44%	9%
\$251 million to \$750 million	42%	28%	44%
\$751 million to \$5000 million	26%	38%	1%
Greater than \$5,001	35%	74%	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	38%	44%	10%
\$51 million to \$250 million	50%	27%	44%
\$251 million to \$750 million	45%	41%	9%
\$751 million to \$5000 million	21%	46%	1%
Greater than \$5,001	35%	74%	NA



Industry: Consumer Staples

- This industry consists of companies that produce essential items such as food, beverages, household products, personal care items and other everyday necessities. Consumer staples are products that consumers purchase regularly regardless of economic conditions.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	40%	24%	12%
\$51 million to \$250 million	36%	44%	NA
\$251 million to \$750 million	36%	52%	11%
\$751 million to \$5000 million	43%	45%	16%
Greater than \$5,001	NA	NA	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	32%	21%	12%
\$51 million to \$250 million	38%	55%	11%
\$251 million to \$750 million	36%	39%	NA
\$751 million to \$5000 million	43%	45%	16%
Greater than \$5,001	NA	NA	NA



Industry: Energy and Utilities

- This sector includes companies involved in the production, distribution, and supply of energy and utilities such as electricity, natural gas, water, and renewable energy sources. It encompasses both traditional energy sources like oil and gas as well as alternative energy technologies. It also includes companies engaged in the exploration, production, refining, and distribution of oil and gas.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	61%	24%	NA
\$51 million to \$250 million	25%	35%	NA
\$251 million to \$750 million	13%	13%	NA
\$751 million to \$5000 million	60%	23%	NA
Greater than \$5,001	48%	71%	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	61%	20%	NA
\$51 million to \$250 million	11%	7%	NA
\$251 million to \$750 million	29%	16%	NA
\$751 million to \$5000 million	60%	9%	NA
Greater than \$5,001	48%	71%	NA

Industry: Financials

- The financial sector comprises companies that provide financial services such as banking, insurance, investment, asset management and real estate services. It includes banks, insurance companies, brokerage firms, and other financial institutions.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	35%	50%	15%
\$51 million to \$250 million	28%	55%	24%
\$251 million to \$750 million	24%	48%	28%
\$751 million to \$5000 million	32%	70%	NA
Greater than \$5,001	4%	53%	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	39%	57%	13%
\$51 million to \$250 million	17%	49%	17%
\$251 million to \$750 million	23%	57%	14%
\$751 million to \$5000 million	27%	80%	NA
Greater than \$5,001	4%	53%	NA

Industry: Health Care

- Companies in the healthcare sector are involved in providing medical services, manufacturing pharmaceuticals, developing medical devices, and conducting healthcare research. It encompasses hospitals, biotechnology firms, pharmaceutical companies, healthcare providers and medical equipment manufacturers

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	51%	53%	27%
\$51 million to \$250 million	54%	45%	19%
\$251 million to \$750 million	52%	44%	22%
\$751 million to \$5000 million	61%	43%	NA
Greater than \$5,001	75%	26%	4%
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	56%	53%	24%
\$51 million to \$250 million	46%	39%	16%
\$251 million to \$750 million	50%	45%	10%
\$751 million to \$5000 million	51%	48%	NA
Greater than \$5,001	80%	17%	4%

Industry: Industrials

- This industry includes companies engaged in manufacturing, construction, engineering, and industrial services. It encompasses a wide range of businesses involved in producing machinery, equipment, aerospace products, transportation services, and other industrial goods.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	37%	48%	22%
\$51 million to \$250 million	31%	49%	15%
\$251 million to \$750 million	36%	51%	2%
\$751 million to \$5000 million	45%	49%	NA
Greater than \$5,001	NA	NA	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	35%	48%	15%
\$51 million to \$250 million	39%	51%	2%
\$251 million to \$750 million	27%	51%	9%
\$751 million to \$5000 million	46%	42%	NA
Greater than \$5,001	NA	NA	NA

Industry: Information Technology

- The IT sector comprises companies involved in technology-related services, software development, hardware manufacturing, and IT consulting. It includes software companies, hardware manufacturers, semiconductor producers, IT service providers, and internet-related businesses.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	38%	62%	19%
\$51 million to \$250 million	35%	65%	15%
\$251 million to \$750 million	31%	64%	8%
\$751 million to \$5000 million	29%	68%	21%
Greater than \$5,001	NA	NA	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	36%	65%	17%
\$51 million to \$250 million	31%	71%	8%
\$251 million to \$750 million	37%	66%	12%
\$751 million to \$5000 million	22%	67%	21%
Greater than \$5,001	NA	NA	NA



Industry: Materials

- This sector consists of companies engaged in the extraction, processing, and distribution of raw materials and industrial commodities. It includes industries such as chemicals, metals, mining, forestry, and paper and packaging.

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	52%	36%	21%
\$51 million to \$250 million	36%	35%	46%
\$251 million to \$750 million	48%	39%	NA
\$751 million to \$5000 million	46%	37%	NA
Greater than \$5,001	NA	NA	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	56%	37%	23%
\$51 million to \$250 million	40%	34%	NA
\$251 million to \$750 million	37%	32%	46%
\$751 million to \$5000 million	41%	32%	NA
Greater than \$5,001	NA	NA	NA



Industry: Real Estate

- The real estate industry includes companies involved in the development, management, brokerage, and investment of real property. It encompasses residential, commercial, and industrial real estate activities, including construction, property management, and real estate investment trusts (REITs).

Size Groups	Average of Intangible assets %	Average of Goodwill %	Average of CC %
Less than \$50 million	39%	77%	23%
\$51 million to \$250 million	21%	80%	10%
\$251 million to \$750 million	23%	49%	14%
\$751 million to \$5000 million	16%	10%	NA
Greater than \$5,001	NA	NA	NA
Size Groups	Median of Intangible assets %	Median of Goodwill %	Median of CC %
Less than \$50 million	56%	83%	23%
\$51 million to \$250 million	21%	43%	14%
\$251 million to \$750 million	27%	76%	10%
\$751 million to \$5000 million	16%	10%	NA
Greater than \$5,001	NA	NA	NA

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