

# Purchase price allocation study

December 2021

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# Introduction

- We are proud to present the eleventh edition of our Purchase Price Allocation study. This study presents statistics on publicly disclosed purchase price allocation studies and economic useful lives for the years 2019 and 2020. The source of this analysis is the PPAlyser database. PPAlyser is a subscription database which contains financial details of publicly disclosed purchase price allocations, discount rates and impairments. Besides purchase price allocation data, PPAlyser also provides data on economic useful lives. For more information, visit [www.ppanalyser.com](http://www.ppanalyser.com).
- This analysis presents a selection of statistics. These include statistics for each industry, region and type of intangible. In addition you will find statistics on economic useful lives.
- Should you have any questions or comments, please do not hesitate to contact us, [info@ppanalyser.com](mailto:info@ppanalyser.com).

# Criteria & Methodology

- The source used for this study is the [PPAnalyser](#) database. PPAAnalyser includes purchase price allocation data that was identified by searching for purchase price allocations disclosed in annual and quarterly reports.
- For the purpose of this study a selection of PPA's included in the database was made based on the following criteria:
  - Year: 2019 and 2020
  - Financial information disclosed: only PPAs were included that disclosed both the purchase price as well as the allocation of intangibles.
- Intangibles identified in the PPAs and discount rates were assigned to one of the following intangible categories:
  - Marketing related intangible assets
  - Customer related intangible assets
  - Artistic related intangible assets
  - Contract related intangibles
  - Technology related intangibles
  - Research & Development related intangibles
- All amounts were converted to USD using a single exchange rate for 2019 and 2020.
- When analysing the proportion of tangible assets, intangible assets and goodwill compared to total assets, total assets is determined by summing up the value of each individual asset.

# Criteria & Methodology

- We classified the PPAs and impairments into the following industry categories:
  - Agriculture, forestry and fishing
  - Construction
  - Finance, insurance and real estate
  - Manufacturing
  - Mining
  - Public administration
  - Retail trade
  - Services
  - Transportation and public utilities
  - Wholesale trade
- Consolidated statistics were determined based on percentages of the individual PPAs (i.e. not weighted).
- For economic useful lives a distinction is made between intangibles with definite and indefinite lifetimes. Both are disclosed and analysed separately.
- We segmented the allocation results across seven size categories (in USD x millions):
  - > 1,000
  - 500 - 1,000
  - 250 - 500
  - 100 - 250
  - 50 - 100
  - 25 - 50
  - < 25

# Statistics

## Allocation based on transaction size

- The median purchase price in 2020 decreased slightly by 1.0% compared to 2019, from approximately USD 45.6 million to USD 45.1 million. The number of transactions also decreased in 2020. However, it should be noted that transactions that occurred in 2020 are typically not all disclosed in the annual reports of 2020; therefore, a reporting delay exists.
- An increase in overall median purchase price can be observed; the purchase price of transactions for most categories increased. Only the purchase price of transactions between USD 25 and 50 million and transactions under USD 25 million decreased by 0.9% and 3.8%, respectively.
- The majority of the purchase price allocations included in this study are published in US annual reports. For 2020, the proportion of US-related PPAs increased by 1.0% compared to the previous year, to 67.0%. The portion of European PPA's decreased from 12.4% in 2019 to 7.8% in 2020.

	Number of transactions			
	2020		2019	
Comparison	#	% of total	#	% of total
United States	189	67.0%	419	66.0%
Canada	36	12.8%	69	10.9%
Europe	22	7.8%	79	12.4%
Asia	15	5.3%	37	5.8%
Other	20	7.1%	31	4.9%
<b>Total</b>	<b>282</b>		<b>635</b>	

	Transactions		Median PP (x 1000)		
	2020	2019	2020	2019	% change
PP > 1,000	20	57	2,993,810	2,219,782	34.9%
500 < PP < 1,000	17	43	715,200	683,000	4.7%
250 < PP < 500	23	46	340,000	329,530	3.2%
100 < PP < 250	34	77	162,650	153,170	6.2%
50 < PP < 100	39	69	73,151	67,000	9.2%
25 < PP < 50	41	83	35,715	36,044	-0.9%
PP < 25	108	260	7,701	8,004	-3.8%
<b>Total</b>	<b>282</b>	<b>635</b>	<b>45,147</b>	<b>45,597</b>	

# Statistics

## Allocation across industries

- The median purchase price of all transactions decreased in 2020 to approximately USD 45.1 million (-1.0%).
- Most transactions are observed in the services sector, with 45.4% of the total amount of recorded transactions in 2020. The second-largest sector is the manufacturing sector, accounting for 40.1% of the total.
- When looking at the median purchase price, the most statistically significant increase can be observed in the manufacturing industry (69.5%). The most significant decrease can be observed in the services industry (-23.3%).\*

	Number of transactions				Median purchase consideration		
	2020	% of PPA's 2020	2019	% of PPA's 2018	2020	2019	% change
All industries	282	100%	635	100%	45,147	45,597	-1.0%
Agriculture, Forestry, Fishing	-	-	2	0.3%	-	99,343	-
Construction	2	0.7%	6	0.9%	172,712	237,713	-27.3%
Finance, Insurance, Real Estate	15	5.3%	60	9.5%	46,213	54,452	-15.1%
Manufacturing	113	40.1%	249	39.2%	72,906	43,005	69.5%
Mining	2	0.7%	15	2.4%	20,761	103,374	-79.9%
Public Administration	-	-	7	1.1%	-	19,139	-
Retail Trade	4	1.4%	28	4.4%	9,710	9,025	7.6%
Services	128	45.4%	198	31.2%	32,773	42,755	-23.3%
Transportation & Public Utilities	9	3.2%	48	7.6%	138,290	48,188	187.0%
Wholesale Trade	9	3.2%	22	3.5%	44,081	22,651	94.6%

# Statistics

## Allocation across intangibles

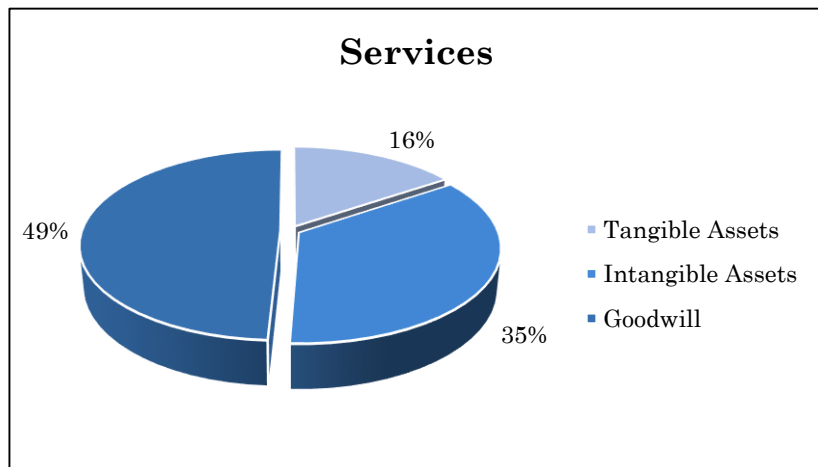
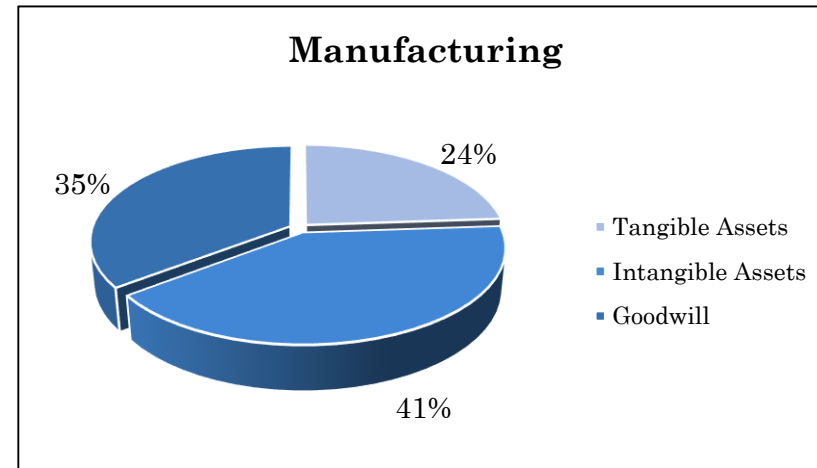
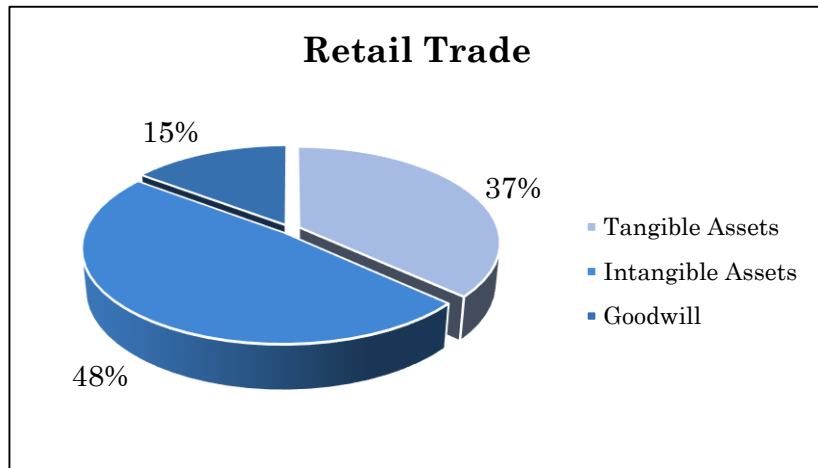
- Overall, the proportion of intangible assets (incl. goodwill) in relation to total assets increased across all asset class sizes (19.8% on average). The most significant increase can be observed for transactions with assets valued below USD 25 million (30%), and for transactions with asset values above USD 1 billion (29%).
- The total proportion of intangible assets (excl. goodwill) in relation to total assets increased by 16.0% on average.
- The total proportion of goodwill in relation to total assets increased by 15.7% on average.

	Int. asset % of total assets			Goodwill as % of total assets			Intangibles (incl. Goodwill) as % of assets		
	2020	2019	% change	2020	2019	% change	2020	2019	% change
Total assets > 1,000	35%	27%	27%	45%	36%	25%	79%	61%	29%
500 < Total assets < 1,000	41%	30%	35%	42%	39%	8%	83%	65%	28%
250 < Total assets < 500	31%	27%	14%	48%	42%	14%	79%	67%	19%
100 < Total assets < 250	36%	35%	2%	45%	41%	9%	80%	72%	12%
50 < Total assets < 100	36%	32%	10%	39%	36%	7%	75%	66%	14%
25 < Total assets < 50	37%	35%	6%	46%	38%	19%	76%	71%	8%
Total assets < 25	39%	34%	17%	38%	30%	29%	78%	60%	30%
<b>Average</b>			<b>16.0%</b>			<b>15.7%</b>			<b>19.8%</b>



# Statistics

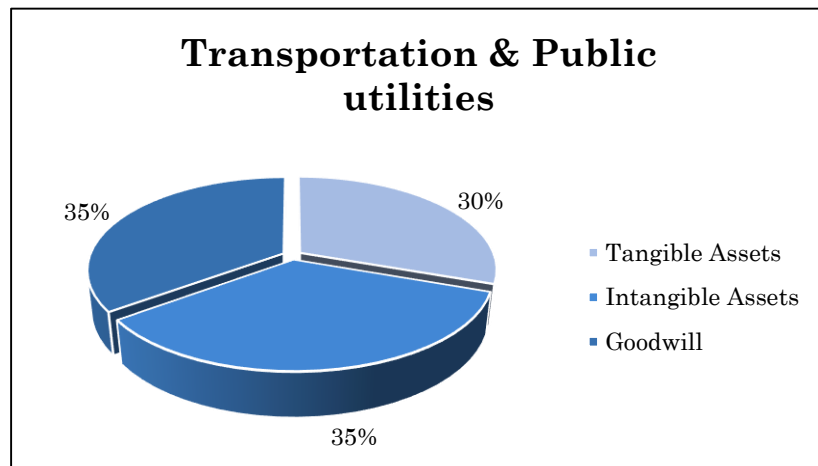
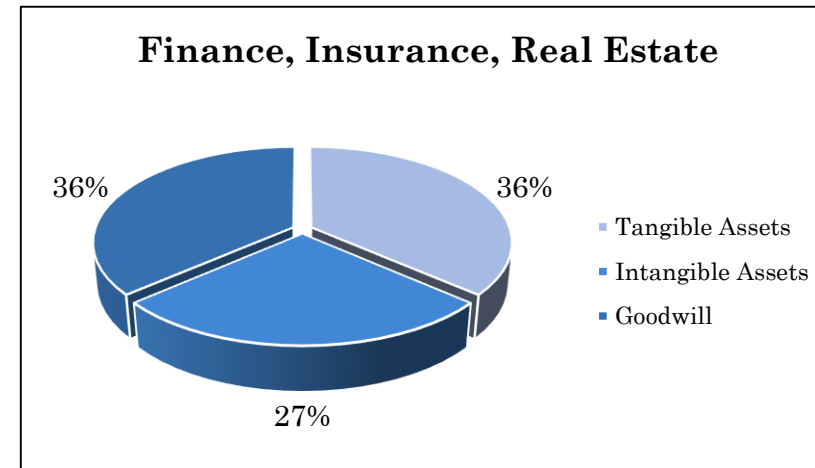
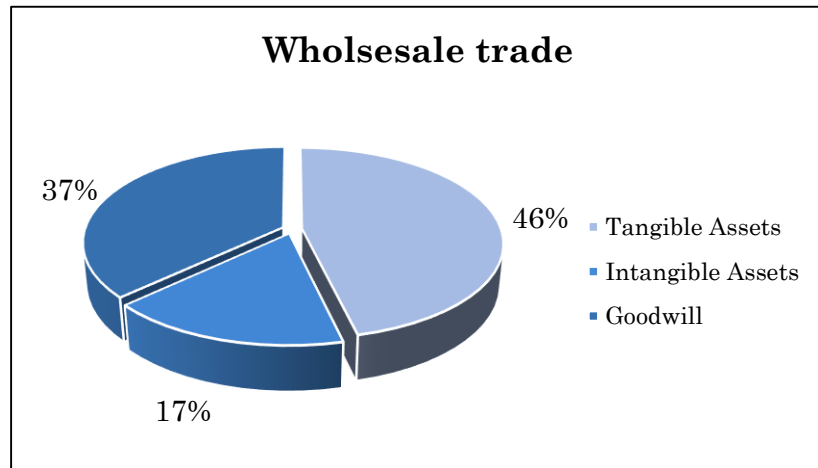
## Allocation across intangibles & industries (1/2)



- The industries with the highest proportion of intangible assets compared to total assets are the retail trade industry (48%), manufacturing industry (41%), and services industry (35%).
- The industries with the highest proportion of goodwill compared to total assets are the services industry (49%), the wholesale trade industry (37%), and the finance, insurance, and real estate industry (36%).\*

# Statistics

## Allocation across intangibles & industries (2/2)



- The industries with the highest proportion of tangible assets compared to total assets are the wholesale industry (46%), the finance, insurance, and real estate industry (36%), and the transportation & public utilities industry (30%). The industry with the lowest proportion of tangible assets to total assets is the services industry, with 16%.

# Statistics

## Overview allocation across intangibles & industries

- The most frequently identified intangibles are customer, marketing and technology related intangibles. Contract, R&D and artistic related intangibles are observed less frequently.
- The proportion of marketing related intangibles to total assets is highest in the manufacturing industry (11.6%) and services industry (6.7%).
- The proportion of customer related intangibles to total assets is highest in the transportation & public utilities (23.8%), and Finance, Insurance and real estate industry (22.0% ).\*
- The proportion of technology related intangibles to total assets is highest in the manufacturing (18.6%) and services industry (17.1%).

2020	Count						Intangible as a % of Total Assets					
Comparison	Marketing	Customer	Technology	Contract	R&D	Artistic	Marketing	Customer	Technology	Contract	R&D	Artistic
Agriculture, Forestry, Fishing	-	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-	-
Finance, Insurance, Real Estate	10	13	3	-	1	2	5.3%	22.0%	0.3%	-	1.8%	50.5%
Manufacturing	93	93	85	13	9	1	11.6%	18.3%	18.6%	24.3%	33.1%	1.0%
Mining	-	-	-	-	-	-	-	-	-	-	-	-
Public Administration	-	-	-	-	-	-	-	-	-	-	-	-
Retail Trade	-	-	-	-	-	-	-	-	-	-	-	-
Services	101	114	104	4	5	-	6.7%	18.9%	17.1%	20.1%	6.4%	0.2%
Transportation & Public Utilities	8	8	3	2	1	-	3.6%	23.8%	6.1%	55.6%	1.3%	-
Wholesale Trade	10	5	2	1	1	-	4.3%	18.8%	8.3%	1.8%	5.0%	-
<b>Total</b>	<b>222</b>	<b>233</b>	<b>197</b>	<b>20</b>	<b>17</b>	<b>3</b>						

# Statistics

## Useful lives

- The relative number of PPAs with a disclosed economic useful life increased with 23.5% (from 46.8% in 2019 to 57.8% in 2020).
- The portion of indefinite useful lives decreased from 2.9% of the useful lives in 2019 to 1.9% in 2020.
- Indefinite useful lives are not included in further analysis of useful lives data.

# PPA with useful life disclosure	2020		2019	
Comparison	#	%	#	%
Total PPA's	282	100%	635	100%
Total PPA's with disclosed useful life	163	57.8%	297	46.8%

Useful lives (in)definite	2020		2019	
Comparison	#	%	#	%
Definite useful lives	404	98.1%	661	97.1%
Indefinite useful lives	8	1.9%	20	2.9%
Total	412	100%	681	100%

# Statistics

## Useful life per intangible asset

- In 2020 the highest economic useful life was observed for contract related intangibles, with a median of 14 years.\*
- When comparing 2020 to 2019, a few changes can be observed. The median economic useful life of marketing related intangibles decreased by ~4 months, whereas the median economic life of customer related intangibles increased by ~11 months. The median economic useful life of technology related intangibles did not differ from the 2019 median value.\*

Interquartile range (in years)	2020				2019			
Comparison	Lower	Median	Upper	Count	Lower	Median	Upper	Count
Marketing- related	2	4.2	7	138	2.0	4.5	6.0	232
Customer related intangible assets	2	5.7	13	142	2.0	5.0	12.0	239
Artistic related intangible assets	-	-	-	2	-	-	-	2
Contract related intangible assets	8.0	15.0	19.8	9	2.0	5.5	14.3	21
Technology related intangible assets	3.8	5.0	8.0	112	4.0	5.0	8.0	156
R&D related intangible assets	-	-	-	1	-	-	-	6

# Statistics

## Useful life per intangible asset and industry

- The economic useful life attributed to marketing related intangibles is highest in the manufacturing and finance, insurance, and real estate industry (5 years) and lowest in the services industry (4 years).\*
- The economic useful life attributed to customer related intangibles is highest in the manufacturing industry (6 years) and lowest in the services industry (5 years).\*
- The economic useful life attributed to technology related intangibles is highest in the manufacturing industry (7 years) and lowest in the services industry (5 years).

	Marketing	Customer	Technology	Contract	R&D	Artistic	Marketing	Customer	Technology	Contract	R&D	Artistic
2020	Count of PPAs with eco. useful life						Median Economic useful life (years)					
Agriculture, Forestry, Fishing	-	-	-	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-	-	-	-
Finance, Insurance, Real Estate	5	6	2	-	-	1	5.0	11.7	8.0	-	-	1.5
Manufacturing	62	57	53	3	-	-	5.0	6.0	7.0	13.0	-	-
Mining	1	1	-	-	-	-	2.0	8.0	-	-	-	-
Public Administration	-	-	-	-	-	-	-	-	-	-	-	-
Retail Trade	-	1	3	1	-	-	-	1.0	5.0	1.0	-	-
Services	60	70	51	4	1	1	4.0	5.0	5.0	19.2	4.0	14.0
Transportation & Public Utilities	6	5	2	1	-	-	1.3	15.0	4.0	15.0	-	-
Wholesale Trade	4	2	1	-	-	-	10.0	4.0	8.0	-	-	-
Total	138	142	112	9	1	2	4.2	5.7	5.0	15.0	4.0	7.8

- Observations based on less than 10 transactions were not taken into account for this analysis.

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## About PPAlyser

*PPAnalyser is an online subscription database developed and owned by Bridgeton Analytics B.V., a limited liability company based in Amsterdam, the Netherlands. Bridgeton Analytics develops, markets and distributes financial data. Its main product is PPAlyser, an online subscription database that includes data of over 11,000 purchase price allocation studies disclosed between 2007 and 2022. For more information visit [www.ppanalyser.com](http://www.ppanalyser.com).*