



2012 Purchase Price Allocation Study

November 2013

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### Introduction

We are proud to present the second edition of our Purchase Price Allocation Study. In this study you will find statistics on publically disclosed purchase price allocation studies of 2012 and 2011. The source for our analysis is the PPAnalyser database. PPAnalyser is a subscription database that includes financial details of publically disclosed purchase price allocations. Besides purchase price allocation data, PPAnalyser also provides economic useful life data used in PPA analyses. For more information visit <a href="https://www.ppanalyser.com">www.ppanalyser.com</a>.

In this second edition you will find a selection of statistics. These include statistics per type of industry, type of intangible and per region. In addition you will find statistics on economic useful lives.

Should you have any questions or comments, please don't hesitate to contact us on ppastudy@ppanalyser.com.



### Criteria & methodology

- The source we used for this study was the <u>PPAnalyser</u> database. PPAnalyser 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 PPAs included in the database was made based on the following criteria:
  - Year: 2011 and 2012.
  - Financial information disclosed: only those PPAs were included that disclosed both the purchase price as well as the allocation of intangibles.
  - Interest sought: purchases of interests equal to or less then 50% were excluded.
- Intangibles identified in the PPAs were assigned to one of the following intangible categories:
  - 1. Marketing related intangible assets
- 5. Technology related intangible assets

Customer related intangible assets

6. Research & Development related intangible assets

- 3. Artistic related intangible assets<sup>1</sup>
- 4. Contract related intangible assets
- All amounts were converted to USD using a single exchange rate for 2011 and a single exchange rate for 2012.

<sup>&</sup>lt;sup>1</sup> None of the PPA's identified includes artistic related intangibles. Therefore we did not include this category in our analysis.



### Criteria & methodology

- We classified the PPAs into the following industry categories:
  - Consumer Discretionary
  - Consumer Staples
  - Energy
  - Financials
  - Healthcare
  - Industrials
  - Information Technology
  - Materials
  - Telecommunication Services
  - Utilities

- We segmented the allocation results across seven size categories (in USD x Millions):
  - > 1,000
  - 500 1000
  - 250 500
  - 100 250
  - 50 100
  - -25-50
  - < 25

- Consolidated statistics were determined based on the percentages of the individual PPAs (i.e. not weighted).
- For economic useful life a distinction is made between intangibles with definite and indefinite lifetime. Both are disclosed and analysed separately.



### Allocation based on transaction size

- The total number of transactions decreased by 20% in 2012.
- The median transaction size in the year 2012 increased by 16.27% compared to the year 2011, from 40 million USD to 46.5 million USD.
- Even though the overall number of transactions decreased, the number of transactions with a purchase price of 500M or higher increased significantly (+10.3% for transactions > 1 Billion and +30.3% for transactions between 500 million and 1000 million).
- The median purchase price decreased in all segments by 7% on average, with an exception of transactions valued between 25M and 50M (+2.8%).

Year	Number of transactions	Median Transaction Size (x 1000)
2012	602	46,508
2011	753	40,000
% Change	-20%	16.27%

	Nun	ber of	transactions	Median purchase price (th.)				
	2012	2011	% change	2012	2011	% change		
PC > 1000	43	39	10.3%	2,440,394	3,153,020	-22.6%		
500 < PC < 1000	43	33	30.3%	654,045	715,651	-8.6%		
250 < PC < 500	49	80	-38.8%	352,530	356,745	-1.2%		
100 < PC < 250	81	96	-15.6%	152,228	163,786	-7.1%		
50 < PC < 100	75	95	-21.1%	67,250	69,401	-3.1%		
25 < PC < 50	78	111	-29.7%	36,600	35,613	2.8%		
PC < 25	233	299	-22.1%	8,820	10,164	-13.2%		



### Allocation across industries

#### Number of transactions

- The most transactions were identified in the IT industry, the industrials industry and the healthcare industry.
- The strongest increase can be observed in the energy industry (+5.2%), the industrials industry (+2.9%) and the consumer staples industry (2.2%).
- The strongest decrease can be found in the financials industry (-3.4%) and the healthcare industry (-3.3%).

### Purchase price

- The median purchase price of all transactions increased to approximately 46,5 million USD (+16.3%).
- The strongest increase can be observed in the financials industry (+303.9%), the energy industry (+57.3%) and the materials industry (+23.1%).
- Significant decreases can be observed in the utilities industry (-81.6%), the telecommunication industry (-60.6%) and the consumer staples industry (-29.5%).

		Numbe	er of trans	sactions	Median purchase consideration				
	20	12	20:	2011		2012	2011	%	
	# %		#	%	change	2012	2011	change	
All industries	602	100.0%	750	100.0%		46,508	40,000	16.3%	
Consumer Discretionary	49	8.1%	72	9.6%	-1.5%	44,000	43,354	1.5%	
Consumer Staples	33	5.5%	25	3.3%	2.2%	31,177	44,228	-29.5%	
Energy	63	10.5%	40	5.3%	5.2%	134,567	85,573	57.3%	
Financials	33	5.5%	67	8.9%	-3.4%	136,346	33,761	303.9%	
Healthcare	64	10.6%	104	13.9%	-3.3%	61,360	70,784	-13.3%	
Industrials	131	21.8%	142	18.9%	2.9%	28,800	27,640	4.2%	
Information Technology	171	28.4%	218	29.1%	-0.7%	27,503	27,963	-1.6%	
Materials	43	7.1%	45	6.0%	1.1%	136,989	111,298	23.1%	
Telecommunication Services	8	1.3%	17	2.3%	-1.0%	19,964	50,609	-60.6%	
Utilities	7	1.2%	20	2.7%	-1.5%	37,025	201,717	-81.6%	



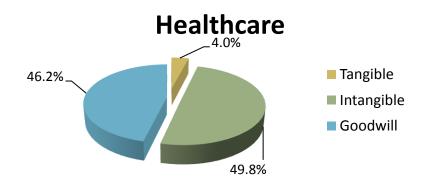
### Allocation across intangibles

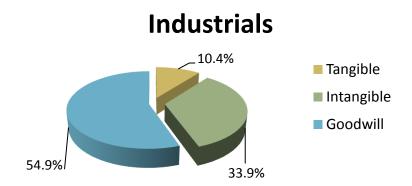
- Overall, a decrease of intangibles in relation to the purchase prices can be found across all transaction sizes (-2.0%). An exception can be observed for transactions valued between 250 million USD & 500 million USD (+11.0%) and for transactions between 25 million USD & 50 million USD (+4.0%).
- The proportion of the intangible value (excl. goodwill) in relation to the purchase price decreased in 2012 for nearly all transactions (-2.3% on average). The proportion of goodwill in relation to the purchase price increased for almost all transaction segments (+0.1% on average).
- The decrease of intangible values is in line with the shift of transactions from intangible intensive industries (Consumer Staples, IT & Telecom) towards asset intensive industries (financials, energy and materials). See also the analysis on the previous slide

	Intangi	ble asset %	% of PP	Good	dwill as % (	of PP	Intangibles (incl. Goodwill) as % of PP			
	2012	2011	% change	2012	2011	% change	2012	2011	% change	
PC > 1000	34%	42%	-8.5%	48%	47%	0.6%	82%	89%	-7.0%	
500 < PC < 1000	29%	38%	-8.6%	44%	49%	-5.3%	73%	87%	-14.0%	
250 < PC < 500	39%	30%	8.8%	50%	48%	1.9%	89%	78%	11.0%	
100 < PC < 250	27%	31%	-3.9%	50%	46%	4.4%	77%	77%	0.0%	
50 < PC < 100	29%	35%	-5.6%	45%	46%	-0.8%	74%	81%	-7.0%	
25 < PC < 50	36%	32%	4.0%	51%	51%	0.0%	87%	83%	4.0%	
PC < 25	36%	38%	-2.2%	45%	45%	0.1%	81%	82%	-1.0%	
Average			-2.3%			0.1%			-2.0%	

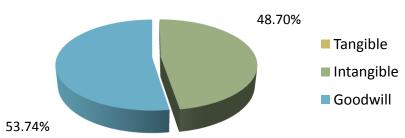


### Allocation across intangibles & industries (1/4)





### **Information Technology**

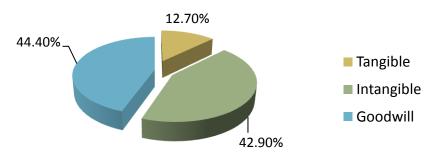


- Healthcare, Industrials and IT have the highest share of intangible value compared to other industries. This result is in line with expectations.
- For Healthcare, a 50/50 share among goodwill and intangibles can be observed.
- For Industrials, a split can be observed of 33.9%
   intangibles, 54.9% goodwill and 10.4% tangible assets.
- IT has a negative tangible value on average, 48.7% is allocated to intangibles and 53.74% is allocated to goodwill.



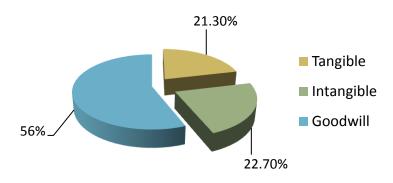
### Allocation across intangibles & industries (2/4)

### **Consumer Discretionary**



## Financials 16.2% Tangible Intangible Goodwill

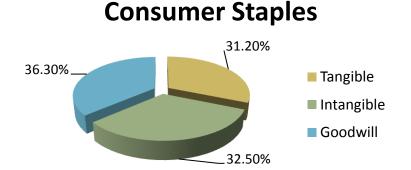
### **Telecommunication Services**

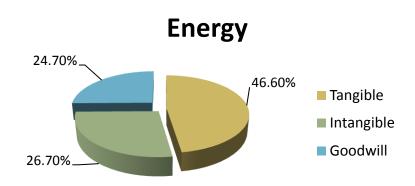


- For the Consumer Discretionary, Financials and Telecommunication Services industry, the allocation to tangible assets is between 12.7% and 21.3%.
- For Consumer Discretionary, an almost equal amount is allocated to intangibles and goodwill on average.
- The highest percentage of goodwill in relation to purchase price can be found in the Financials industry.
- In the Telecommunication Services industry, more than 50% of the purchase price is allocated to goodwill. An equal portion is allocated to tangible and intangible assets.



### Allocation across intangibles & industries (3/4)





# Materials 36.3% Tangible Intangible Goodwill

- The Consumer Staples, Energy and Materials industry have the highest allocation of the purchase price to tangible assets compared to other industries.
- For Consumer Staples and Materials industry, an almost equal percentage of the purchase price is allocated to goodwill, tangible assets and intangible assets.
- Analysing all industries, the highest percentage of purchase price allocated to tangible assets is identified in the Energy industry (46.6%). Goodwill and intangible assets are equally balanced.



### Allocation across intangibles & industries (4/4)

- The most frequently identified intangibles are: marketing-, customer-, and technology related intangibles. Contract-, R&D-, and artistic related intangibles are observed less frequently.
- The proportion of marketing related intangibles is highest in the Consumer Staples and Consumer Discretionary industry.
- The proportion of contract related intangibles is also highest in the Consumer Staples and Consumer Discretionary industry.
- The proportion of customer related intangibles is highest in the Energy industry and Telecommunication Services industry.
- The proportion of technology related intangibles is highest in the Healthcare, Financials and IT industry.
- For artistic and R&D related intangibles the amount of transactions is too low to make any comments. Nevertheless, IT and Healthcare have the highest number of PPA's with R&D related intangibles (23 and 14 respectively).

	Count							Intangible as a % of Purchase Price (Median)				
Comparison	Mark	Contr	Cust	Tech	Art	R&D	Marketing	Contract	Customer	Technology	Artistic	R&D
Total	190	32	252	173	n/a	40	3.7%	7.2%	19.4%	18.6%	n/a	4.3%
Consumer Discretionary	16	11	16	6	n/a	n/a	12.0%	22.2%	16.1%	16.1%	n/a	n/a
Consumer Staples	12	2	12	4	n/a	n/a	12.7%	13.6%	16.8%	9.1%	n/a	n/a
Energy	8	2	15	1	n/a	1	5.1%	9.9%	29.0%	0.6%	n/a	59.6%
Financials	5	n/a	9	4	n/a	n/a	1.3%	n/a	14.6%	21.8%	n/a	n/a
Healthcare	27	6	29	28	n/a	14	3.7%	5.9%	20.1%	23.8%	n/a	6.7%
Industrials	30	3	43	14	n/a	2	5.6%	3.0%	20.0%	6.8%	n/a	1.6%
Information Technology	83	7	113	108	n/a	23	2.8%	7.1%	16.4%	21.8%	n/a	3.5%
Materials	8	1	11	7	n/a	n/a	4.2%	0.7%	24.0%	7.0%	n/a	n/a
Telecommunication Services	1	n/a	4	1	n/a	n/a	0.9%	n/a	29.3%	10.3%	n/a	n/a
Utilities	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a



### Allocation across regions

- The majority of the purchase price allocations included in this study relates to US transactions.
- However, the proportion of PPA's captured in the US decreased from 73% to 64% in 2012. Also, the proportion of Canadian PPA's decreased from 14% to 11% in 2012.
- The proportion of European PPA's increased from 8% in 2011 to 16% in 2012. Also, the proportion of PPA's from other regions increased from 5% in 2011 to 9% in 2012.
- The overall median purchase price increased, which is primarily attributable to the significant increase in purchase prices in the year 2012 in the US. The median purchase price of all other regions decreased. This suggests large takeovers took place in the US.

		Number of	transactions		Median purchase price				
	20	12	20	11	2012	2011			
Comparison	# % of total		#	% of total	thousands	thousands			
United States	387	64%	552	73%	56,792	37,192			
Canada	64	11%	104	14%	18,215	36,289			
Europe	99	16%	59	8%	27,991	98,979			
Other	52	9%	38	5%	31,695	44,727			
Total	602 100%		753 100%		46,508	40,000			



### Useful life per intangible asset

- The number of PPA's that disclosed the economic useful life decreased by 27% (from 51% in 2011 to 24% in 2012).
- In 2012, the highest interquartile range was observed for customer related intangibles (between 6 and 12 years).
- The lowest interquartile range in 2012 was observed for marketing related intangibles (between 3 and 7 years). It should be noted that marketing related intangibles have the highest number of PPA's where an indefinite usefull life was assumed.
- When comparing 2012 to 2011, a few changes can be observed. In 2012, the median economic useful life of contract related intangibles decreased from 7.5 to 5.5 years. The median economic useful life of customer related intangibles increased from 8 to 9 years.
- Also, an increase can be observed for technology related intangibles from 6.0 to 6.7 years.

# PPA with useful life disclosure	20	12	2011			
Comparison	#	%	#	%		
Total PPA's	602	100%	753	100%		
Total PPA's with disclosed useful life	146	24%	382	51%		

Interquartile range (in years)		20:	12		2011					
Comparison	Lower	Median	Upper	#indef	Lower	Median	Upper	#indef		
Marketing- related	3.0	5.0	7.0	16.0	3.5	5.0	8.5	61.0		
Contract related intangible assets	3.0	5.5	7.0	1.0	5.0	7.5	13.5	3.0		
Customer related intangible assets	6.0	9.0	12.0	n/a	5.0	8.0	12.0	n/a		
Technology related intangible assets	5.0	6.7	8.0	n/a	4.0	6.0	8.4	n/a		
R&D related intangible assets	4.0	4.3	7.0	12.0	4.6	5.0	7.3	21.0		



### Useful life per intangible asset and industry

- Useful life attributed to marketing related intangibles is highest in the consumer staples industry (8.5 years) and lowest in the telecommunication industry (2 years).
- Useful life attributed to contract related intangibles is highest in the healthcare industry (7 years) and lowest in the industrials industry (2 years).
- Useful life attributed to customer related intangibles is highest in the industrials industry (16.5 years) and lowest in the financials industry (5 years).
- Useful life attributed to technology related intangibles is highest in the consumer staples industry (10 years) and lowest in the energy, industrials and telecommunication services industry.
- For Artistic and R&D related intangibles, the amount of PPA's was too low to make any comments

	Marke	ting Contr	oct Custom	let Technic	JOSY Artistif	RaD	Marke	ting Contr	sct. Custo	net Techn	dlogy Artistic	ReD
2012		# of I	PPAs with e	co. useful	life			Median	Economic	useful life	(years)	
Consumer Discretionary	4	1	4	1	n/a	n/a	6.0	6.0	7.0	7.0	n/a	n/a
Consumer Staples	5	1	8	3	n/a	n/a	8.5	2.9	10.0	10.0	n/a	n/a
Energy	2	1	6	1	n/a	n/a	7.7	3.5	15.0	5.0	n/a	n/a
Financials	3	n/a	4	3	n/a	n/a	3.0	n/a	5.0	7.0	n/a	n/a
Healthcare	15	3	12	13	n/a	1	4.5	7.0	9.5	9.0	n/a	4.3
Industrials	7	1	10	3	n/a	n/a	5.0	2.0	16.5	5.0	n/a	n/a
Information Technology	55	5	73	63	n/a	2	5.0	6.0	8.0	6.0	n/a	4.0
Materials	3	1	5	3	n/a	n/a	7.0	4.0	15.0	7.5	n/a	n/a
Telecommunication Services	1	n/a	1	1	n/a	n/a	2.0	n/a	10.0	5.0	n/a	n/a
Utilities	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a



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## About PPAnalyser

PPAnalyser in an online subscription database developed and owned by Bridgeton Software B.V., a limited liability company based in Amsterdam, the Netherlands. Bridgeton Software develops, markets and distributes financial software. It's main product is PPAnalyser, an online subscription database that includes data of over 5,000 purchase price allocation studies disclosed between 2007 and 2013. For more information visit www.ppanalyser.com.



