



FOR IMMEDIATE RELEASE

IR Contact:

Iris Wu, Manager
irissh_wu@aseglobal.com
Tel: +886.2.6636.5678
<http://www.aseglobal.com>

Grace Teng, Manager
grace_teng@aseglobal.com
Tel: +886.2.6636.5678

ADVANCED SEMICONDUCTOR ENGINEERING, INC. REPORTS UNAUDITED CONSOLIDATED FINANCIAL RESULTS FOR THE FOURTH QUARTER AND FULL YEAR OF 2017

Taipei, Taiwan, R.O.C., February 1, 2018 – Advanced Semiconductor Engineering, Inc. (TAIEX: 2311, NYSE: ASX) (“We”, “ASE”, or the “Company”), among the world’s leading companies in semiconductor packaging and testing, today reported unaudited net revenues¹ of NT\$83,986 million for the fourth quarter of 2017 (4Q17), up by 9% year-over-year and up by 14% sequentially. Net income attributable to shareholders of the parent for the quarter totaled NT\$6,246 million, down from a net income attributable to shareholders of the parent of NT\$7,957 million in 4Q16 and down from a net income attributable to shareholders of the parent of NT\$6,336 million in 3Q17. Basic earnings per share for the quarter were NT\$0.74 (or US\$0.123 per ADS), compared to basic earnings per share of NT\$1.04 for 4Q16 and NT\$0.76 for 3Q17. Diluted earnings per share for the quarter were NT\$0.71 (or US\$0.118 per ADS), compared to diluted earnings per share of NT\$0.88 for 4Q16 and NT\$0.69 for 3Q17.

For the full year of 2017, the Company reported net revenues of NT\$290,441 million and net income attributable to shareholders of the parent of NT\$22,988 million. Basic earnings per share for the full year of 2017 were NT\$2.82 (or US\$0.463 per ADS). Diluted earnings per share for the full year of 2017 were NT\$2.62 (or US\$0.430 per ADS).

RESULTS OF OPERATIONS

4Q17 Results Highlights – Consolidated

- Net revenue contribution from packaging operations, testing operations, EMS operations, substrates sold to third parties and others, each represented approximately 39%, 8%, 52%, 1% and 0%, respectively, of total net revenues for the quarter.
- Cost of revenue was NT\$69,193 million for the quarter, up from NT\$60,030 million in 3Q17.
 - Raw material cost totaled NT\$44,775 million for the quarter, representing 53% of total net revenues.
 - Labor cost totaled NT\$9,140 million for the quarter, representing 11% of total net revenues.
 - Depreciation, amortization and rental expenses totaled NT\$7,020 million for the quarter.

¹ All financial information presented in this press release is unaudited, consolidated and prepared in accordance with Taiwan-IFRS (International Financial Reporting Standards as endorsed for use in the R.O.C.). Such financial information is generated internally by us and has not been subjected to the same review and scrutiny, including internal auditing procedures and audit by our independent auditors, to which we subject our audited consolidated financial statements, and may vary materially from the audited consolidated financial information for the same period. Any evaluation of the financial information presented in this press release should also take into account our published audited consolidated financial statements and the notes to those statements. In addition, the financial information presented is not necessarily indicative of our results of operations for any future period.



- Gross margin decreased 1.1 percentage points to 17.6% in 4Q17 from 18.7% in 3Q17.
- Operating margin was 9.2% in 4Q17 compared to 9.6% in 3Q17.
- In terms of non-operating items:
 - Net interest expense was NT\$318 million.
 - Net foreign exchange gain of NT\$780 million was primarily attributable to the depreciation of the U.S. dollar against the NT dollar.
 - Loss on valuation of financial assets and liabilities was NT\$216 million.
 - Net gain on equity-method investments was NT\$29 million, including NT\$134 million of the share of profit from our investment in Siliconware Precision Industries Co., Ltd.
 - Other net non-operating expenses of NT\$102 million were primarily related to miscellaneous expenses. Total non-operating income for the quarter was NT\$173 million.
- Income before tax was NT\$7,879 million for 4Q17, compared to NT\$7,815 million in 3Q17. We recorded income tax expenses of NT\$1,085 million for the quarter, compared to NT\$1,083 million in 3Q17.
- In 4Q17, net income attributable to shareholders of the parent was NT\$6,246 million, compared to net income attributable to shareholders of the parent of NT\$7,957 million in 4Q16 and net income attributable to shareholders of the parent of NT\$6,336 million in 3Q17.
- Our total number of shares outstanding at the end of the quarter was 8,737,306,664, including treasury stock owned by our subsidiaries. Our 4Q17 basic earnings per share of NT\$0.74 (or US\$0.123 per ADS) were based on 8,467,256,132 weighted average number of shares outstanding in 4Q17. Our 4Q17 diluted earnings per share of NT\$0.71 (or US\$0.118 per ADS) were based on 8,632,468,652 weighted average number of shares outstanding in 4Q17.

4Q17 Results Highlights – IC ATM²

- Cost of revenues was NT\$30,932 million for the quarter, down by 1.4% sequentially.
 - Raw material cost totaled NT\$9,392 million for the quarter, representing 23% of total net revenues.
 - Labor cost totaled NT\$7,769 million for the quarter, representing 19% of total net revenues.
 - Depreciation, amortization and rental expenses totaled NT\$6,487 million for the quarter.
- Gross margin increased 0.9 percentage points to 26.0% in 4Q17 from 25.1% in 3Q17.
- Operating margin was 14.4% in 4Q17 compared to 13.7% in 3Q17.

4Q17 Results Highlights – EMS

- Cost of revenues for the quarter was NT\$39,287 million, up by 32.3% sequentially.
 - Raw material cost totaled NT\$35,451 million for the quarter, representing 82% of total net revenues.
 - Labor cost totaled NT\$1,336 million for the quarter, representing 3% of total net revenues.
 - Depreciation, amortization and rental expenses totaled NT\$433 million for the quarter.
- Gross margin decreased to 9.2% in 4Q17 from 10.3% in 3Q17.
- Operating margin were both 4.3% in 4Q17 and 3Q17.

2017 Full-Year Results Highlights – Consolidated

² ATM stands for Semiconductor Assembly, Testing and Material.



- Net revenues for the full year of 2017 amounted to NT\$290,441 million, up by 6% from 2016. The revenue contribution from packaging operations, testing operations, EMS operations, substrates sold to third parties and others represented approximately 44%, 9%, 46%, 1% and 0%, respectively, of total net revenues for the year.
- Cost of revenue for the year of 2017 was NT\$237,709 million, compared with NT\$221,697 million in 2016.
 - Raw material cost totaled NT\$142,934 million for the year, representing 49% of total net revenues.
 - Labor cost totaled NT\$35,978 million for the year, representing 12% of total net revenues.
 - Depreciation, amortization and rental expenses totaled NT\$27,703 million for the year.
- Gross margin decreased 1.1 percentage points to 18.2% in 2017 from 19.3% in 2016.
- Operating margin decreased to 8.7% in 2017 from 9.7% in 2016.
- Total non-operating income for the year was NT\$5,711 million, compared to total non-operating income of NT\$1,324 million for 2016.
- Income before tax was NT\$30,929 million for 2017. We recognized an income tax expense of NT\$6,261 million for the year.
- In 2017, net income attributable to shareholders of the parent amounted to NT\$22,988 million, compared with a net income attributable to shareholders of the parent of NT\$21,643 million in 2016.
- Our total number of shares outstanding at the end of the year was 8,737,306,664, including treasury stock owned by our subsidiaries. Our 2017 basic earnings per share of NT\$2.82 (or US\$0.463 per ADS) were based on 8,160,887,369 weighted average numbers of shares outstanding in 2017. Our 2017 diluted earnings per share of NT\$2.62 (or US\$0.430 per ADS) were based on 8,369,240,703 weighted average number of shares outstanding in 2017.

2017 Full-Year Results Highlights – IC ATM

- Cost of revenues for the full year of 2017 was NT\$121,873 million, compared with NT\$120,514 million in 2016.
 - Raw material cost totaled NT\$36,953 million for the year, representing 23% of total net revenues.
 - Labor cost totaled NT\$31,153 million for the year, representing 19% of total net revenues.
 - Depreciation, amortization and rental expenses totaled NT\$25,788 million for the year.
- Gross margin decreased to 24.3% in 2017 from 24.9% in 2016.
- Operating margin decreased to 12.3% in 2017 from 12.9% in 2016.

2017 Full-Year Results Highlights – EMS

- Cost of revenues was NT\$120,354 million, up by 15.5% from 2016.
 - Raw material cost totaled NT\$106,221 million for the year, representing 79% of total net revenues.
 - Labor cost totaled NT\$4,756 million for the year, representing 4% of total net revenues.
 - Depreciation, amortization and rental expenses totaled NT\$1,808 million for the year.
- Gross margin increased to 10.2% in 2017 from 9.8% in 2016.
- Operating margin increased to 4.2% in 2017 from 3.5% in 2016.

LIQUIDITY AND CAPITAL RESOURCES

- Capital expenditures in 4Q17 totaled US\$142 million, of which US\$103 million were used in



packaging operations, US\$28 million in testing operations, US\$7 million in EMS operations, US\$3 million in interconnect materials operations and US\$1 million in others.

- For the full year of 2017, we spent US\$639 million for capital expenditures, including US\$468 million in packaging operations, US\$134 million in testing operations, US\$26 million in EMS operations, US\$10 million in interconnect materials operations and US\$1 million in others.
- As of December 31, 2017, total unused credit lines amounted to NT\$174,235 million.
- Current ratio was 1.37 and net debt to equity ratio was 0.12 as of December 31, 2017.
- Total number of employees was 68,753 as of December 31, 2017, compared to 68,231 as of September 30, 2017.

BUSINESS REVIEW

Packaging Operations³

- Gross margin for our packaging operations during the quarter was 23.9%, up by 1.6 percentage points from 3Q17.
- Capital expenditures for our packaging operations amounted to US\$103 million for the quarter, of which US\$46 million were used to purchase wafer bumping and flip chip packaging equipment, and US\$57 million were used to purchase common equipment, SiP equipment and wirebond packaging equipment.

Testing Operations

- Depreciation, amortization and rental expense associated with our testing operations amounted to NT\$1,645 million during the quarter, down from NT\$1,659 million in 3Q17.
- In 4Q17, gross margin for our testing operations was 36.6%, down by 1.2 percentage points from 3Q17.
- Capital expenditures for our testing operations amounted to US\$28 million during the quarter.

EMS Operations

- In 4Q17, gross margin for our EMS operations was 9.2%, down by 1.1 percentage points from 3Q17.
- Capital expenditures for our EMS operations amounted to US\$7 million during the quarter.

Substrate Operations

- PBGA substrate manufactured by ASE amounted to NT\$2,127 million for the quarter, down by NT\$51 million, or by 2.4% from 3Q17. Of the total output of NT\$2,127 million, NT\$922 million was from sales to external customers.
- Gross margin for substrate operations was 12.2% for the quarter, down by 0.9 percentage points from 3Q17.
- In 4Q17, our internal substrate manufacturing operations supplied 25% (by value) of our total substrate requirements.

Customers

IC ATM CONSOLIDATED BASIS

- Our five largest customers together accounted for approximately 34% of our total net revenues in 4Q17, compared to 36% in 3Q17. No customer accounted for more than 10% of our total net revenues in 4Q17.

³ IC packaging services include module assembly services.



- Our top 10 customers contributed 49% of our total net revenues for the quarter, compared to 50% in 3Q17.
- Our customers that are integrated device manufacturers or IDMs accounted for 45% of our total net revenues for the quarter, compared to 44% in 3Q17.

EMS BASIS

- Our five largest customers together accounted for approximately 82% of our total net revenues in 4Q17, compared to 80% in 3Q17. One customer accounted for more than 10% of our total net revenues in 4Q17.
- Our top 10 customers contributed 90% of our total net revenues during the quarter, compared to 89% in 3Q17.

OUTLOOK

Based on our current business outlook and exchange rate assumptions, management projects overall performance for the first quarter of 2018 to be as follows:

- In USD terms, IC-ATM 1Q18 business should be slightly ahead of 1Q17 levels;
- Excluding foreign exchange impacts, IC-ATM 1Q18 gross margin should also slightly improve versus 1Q17 levels;
- EMS 1Q18 business should be slightly below 3Q17 levels;
- EMS 1Q18 gross margin should be slightly above 4Q17 levels.

About ASE, Inc.

ASE, Inc. is among the world's leading companies in semiconductor packaging and testing, including front-end engineering testing, wafer probing and final testing services. With advanced technological capabilities and a global presence spanning Taiwan, China, Korea, Japan, Singapore, Malaysia and the United States, ASE, Inc. has established a reputation for reliable, high quality products and services. For more information, please visit our website at <http://www.aseglobal.com>.

Safe Harbor Notice

This press release contains "forward-looking statements" within the meaning of Section 27A of the United States Securities Act of 1933, as amended, and Section 21E of the United States Securities Exchange Act of 1934, as amended. Although these forward-looking statements, which may include statements regarding our future results of operations, financial condition or business prospects, are based on our own information and information from other sources we believe to be reliable, you should not place undue reliance on these forward-looking statements, which apply only as of the date of this press release. The words "anticipate," "believe," "estimate," "expect," "intend," "plan" and similar expressions, as they relate to us, are intended to identify these forward-looking statements in this press release. Our actual results of operations, financial condition or business prospects may differ materially from those expressed or implied in these forward-looking statements for a variety of reasons, including risks associated with cyclical and market conditions in the semiconductor or electronic industry; changes in our regulatory environment, including our ability to comply with new or stricter environmental regulations and to resolve environmental liabilities; demand for the outsourced semiconductor packaging, testing and electronic manufacturing services we offer and for such outsourced services generally; the highly competitive semiconductor or manufacturing industry we are involved in; our ability to introduce new technologies in order to remain competitive; international business activities; our business strategy; our future expansion plans and capital expenditures; the uncertainties as to whether we can complete the share exchange contemplated by a joint share exchange agreement between Siliconware Precision Industries Co., Ltd. and us; the strained relationship between the Republic of China and the People's Republic of China; general economic and political conditions; the recent global economic crisis; possible disruptions in commercial activities caused by natural or human-induced disasters; fluctuations in foreign currency exchange rates; and other factors. For a discussion of these risks and other factors, please see the documents we file from time to time with the Securities and Exchange Commission, including our 2016 Annual Report on Form 20-F filed on April 21, 2017.

Supplemental Financial Information

IC ATM Consolidated Operations

Amounts in NT\$ Millions	4Q/17	3Q/17	4Q/16
Net Revenues	41,794	41,854	43,463
Revenues by Application			
Communication	48%	49%	53%
Computer	11%	10%	10%
Automotive, Consumer & Others	41%	41%	37%

Packaging Operations

Amounts in NT\$ Millions	4Q/17	3Q/17	4Q/16
Net Revenues	34,226	33,897	35,242
Revenues by Packaging Type			
Bumping, Flip Chip, WLP & SiP	34%	32%	32%
IC Wirebonding	55%	57%	57%
Discrete and Others	11%	11%	11%
Capacity			
CapEx (US\$ Millions)*	103	84	87
Number of Wirebonders	16,076	16,083	15,897

Testing Operations

Amounts in NT\$ Millions	4Q/17	3Q/17	4Q/16
Net Revenues	6,556	6,889	7,303
Revenues by Testing Type			
Final test	78%	79%	77%
Wafer sort	19%	18%	20%
Engineering test	3%	3%	3%
Capacity			
CapEx (US\$ Millions)*	28	29	30
Number of Testers	3,760	3,739	3,739

EMS Operations

Amounts in NT\$ Millions	4Q/17	3Q/17	4Q/16
Net Revenues	43,289	33,100	34,634
Revenues by End Application			
Communication	42%	45%	53%
Computer	14%	14%	14%
Consumer	32%	26%	20%
Industrial	6%	8%	7%
Automotive	5%	6%	5%
Others	1%	1%	1%
Capacity			
CapEx (US\$ Millions)*	7	13	6

* Capital expenditure excludes building construction costs.

Advanced Semiconductor Engineering, Inc.
Summary of Consolidated Statement of Comprehensive Income Data
(In NT\$ millions, except per share data)
(Unaudited)

	For the three months ended			For the year ended	
	Dec. 31 2017	Sep. 30 2017	Dec. 31 2016	Dec. 31 2017	Dec. 31 2016
Net revenues:					
Packaging	33,045	32,880	33,620	126,225	125,283
Testing	6,553	6,889	7,303	26,157	27,032
Direct Material	922	948	806	3,690	3,262
EMS	43,285	33,098	34,627	133,948	115,395
Others	181	63	772	421	3,912
Total net revenues	83,986	73,878	77,128	290,441	274,884
Cost of revenues ⁴	(69,193)	(60,030)	(61,754)	(237,709)	(221,697)
Gross profit	14,793	13,848	15,374	52,732	53,187
Operating expenses:					
Research and development	(3,046)	(2,986)	(3,091)	(11,747)	(11,391)
Selling, general and administrative ⁴	(4,041)	(3,794)	(4,153)	(15,767)	(15,136)
Total operating expenses	(7,087)	(6,780)	(7,244)	(27,514)	(26,527)
Operating income	7,706	7,068	8,130	25,218	26,660
Net non-operating (expenses) income:					
Interest expense - net	(318)	(350)	(451)	(1,468)	(1,987)
Foreign exchange gain (loss)	780	33	(308)	3,503	1,928
Gain (loss) on valuation of financial assets and liabilities	(216)	598	1,940	(2,782)	440
Gain (loss) on equity-method investments ⁴	29	323	422	434	1,520
Others	(102)	143	(73)	6,024	(577)
Total non-operating income (expenses)	173	747	1,530	5,711	1,324
Income before tax	7,879	7,815	9,660	30,929	27,984
Income tax expense	(1,085)	(1,083)	(1,274)	(6,261)	(5,091)
Income from continuing operations and before noncontrolling interest	6,794	6,732	8,386	24,668	22,893
Noncontrolling interest	(548)	(396)	(429)	(1,680)	(1,250)
Net income attributable to shareholders of the parent	6,246	6,336	7,957	22,988	21,643
Per share data:					
Earnings (losses) per share					
– Basic	NT\$0.74	NT\$0.76	NT\$1.04	NT\$2.82	NT\$2.82
– Diluted	NT\$0.71	NT\$0.69	NT\$0.88	NT\$2.62	NT\$2.37
Earnings (losses) per equivalent ADS					
– Basic	US\$0.123	US\$0.125	US\$0.164	US\$0.463	US\$0.438
– Diluted	US\$0.118	US\$0.115	US\$0.139	US\$0.430	US\$0.367
Number of weighted average shares used in diluted EPS calculation (in thousands)	8,632,469	8,624,804	8,255,657	8,369,241	8,284,129
Exchange rate (NT\$ per US\$1)	30.08	30.22	31.62	30.42	32.22

⁴ As of September 30, 2017, we have completed the identification of the difference between the cost of the investment and our share of the net fair value of subsidiary and associates' identifiable assets and liabilities. Accordingly, we retrospectively adjusted the provisional amounts recognized at the acquisition dates in May, July and November 2016, respectively.

Advanced Semiconductor Engineering, Inc.
Summary of Consolidated Statement of Comprehensive Income Data – IC ATM
(In NT\$ millions, except per share data)
(Unaudited)

	For the three months ended			For the year ended	
	Dec. 31 2017	Sep. 30 2017	Dec. 31 2016	Dec. 31 2017	Dec. 31 2016
Net revenues:					
Packaging	34,226	33,897	35,242	130,902	129,851
Testing	6,556	6,889	7,303	26,160	27,032
Direct Material	989	1,048	898	3,932	3,550
Others	23	20	20	87	83
Total net revenues	<u>41,794</u>	<u>41,854</u>	<u>43,463</u>	<u>161,081</u>	<u>160,516</u>
Cost of revenues ⁴	<u>(30,932)</u>	<u>(31,368)</u>	<u>(31,818)</u>	<u>(121,873)</u>	<u>(120,514)</u>
Gross profit	<u>10,862</u>	<u>10,486</u>	<u>11,645</u>	<u>39,208</u>	<u>40,002</u>
Operating expenses:					
Research and development	(2,125)	(2,123)	(2,270)	(8,361)	(8,343)
Selling, general and administrative ⁴	(2,736)	(2,639)	(3,002)	(11,037)	(10,959)
Total operating expenses	<u>(4,861)</u>	<u>(4,762)</u>	<u>(5,272)</u>	<u>(19,398)</u>	<u>(19,302)</u>
Operating income	<u>6,001</u>	<u>5,724</u>	<u>6,373</u>	<u>19,810</u>	<u>20,700</u>
Net non-operating (expenses) income:					
Interest expense - net	(394)	(416)	(499)	(1,751)	(2,204)
Foreign exchange gain (loss)	822	129	(432)	3,657	1,600
Gain (loss) on valuation of financial assets and liabilities	(577)	365	1,880	(3,762)	460
Gain (loss) on equity-method investments ⁴	1,245	1,249	1,611	8,505	5,188
Others	2	154	105	514	(320)
Total non-operating income (expenses)	<u>1,098</u>	<u>1,481</u>	<u>2,665</u>	<u>7,163</u>	<u>4,724</u>
Income before tax	<u>7,099</u>	<u>7,205</u>	<u>9,038</u>	<u>26,973</u>	<u>25,424</u>
Income tax expense	<u>(776)</u>	<u>(784)</u>	<u>(967)</u>	<u>(3,671)</u>	<u>(3,481)</u>
Income from continuing operations and before noncontrolling interest	<u>6,323</u>	<u>6,421</u>	<u>8,071</u>	<u>23,302</u>	<u>21,943</u>
Noncontrolling interest	<u>(77)</u>	<u>(85)</u>	<u>(114)</u>	<u>(314)</u>	<u>(300)</u>
Net income attributable to shareholders of the parent	<u>6,246</u>	<u>6,336</u>	<u>7,957</u>	<u>22,988</u>	<u>21,643</u>

Advanced Semiconductor Engineering, Inc.
Summary of Consolidated Statement of Comprehensive Income Data – EMS
(In NT\$ millions, except per share data)
(Unaudited)

	For the three months ended			For the year ended	
	Dec. 31 2017	Sep. 30 2017	Dec. 31 2016	Dec. 31 2017	Dec. 31 2016
Net revenues:					
Total net revenues	43,289	33,100	34,634	134,000	115,498
Cost of revenues	(39,287)	(29,691)	(31,038)	(120,354)	(104,211)
Gross profit	4,002	3,409	3,596	13,646	11,287
Operating expenses:					
Research and development	(936)	(877)	(840)	(3,452)	(3,133)
Selling, general and administrative	(1,208)	(1,101)	(1,099)	(4,536)	(4,068)
Total operating expenses	(2,144)	(1,978)	(1,939)	(7,988)	(7,201)
Operating income	1,858	1,431	1,657	5,658	4,086
Net non-operating (expenses) income:					
Total non-operating income	454	235	114	1,272	606
Income before tax	2,312	1,666	1,771	6,930	4,692
Income tax expense	(324)	(293)	(509)	(1,204)	(1,044)
Income from continuing operations and before noncontrolling interest	1,988	1,373	1,262	5,726	3,648
Noncontrolling interest	(500)	(338)	(305)	(1,440)	(906)
Net income attributable to shareholders of the parent	1,488	1,035	957	4,286	2,742

Advanced Semiconductor Engineering, Inc.
Summary of Consolidated Balance Sheet Data
(In NT\$ millions)
(Unaudited)

	<u>As of Dec. 31, 2017</u>	<u>As of Sep. 30, 2017</u>
Current assets:		
Cash and cash equivalents	46,078	38,975
Financial assets – current	5,785	3,989
Notes and accounts receivable	55,201	51,830
Inventories	34,080	37,266
Others	3,794	7,852
Total current assets	<u>144,938</u>	<u>139,912</u>
Financial assets – non current & Investments – equity method	50,983	51,107
Property plant and equipment	135,169	136,982
Intangible assets	11,341	11,830
Prepaid lease payments	8,851	7,810
Others	12,576	12,358
Total assets	<u>363,858</u>	<u>359,999</u>
Current liabilities:		
Short-term borrowings	17,962	19,638
Current portion of bonds payable	6,161	6,137
Current portion of long-term borrowings & capital lease obligations	8,280	6,882
Notes and accounts payable	41,672	41,077
Others	31,546	28,665
Total current liabilities	<u>105,621</u>	<u>102,399</u>
Bonds payable	16,982	16,981
Long-term borrowings & capital lease obligations	27,520	32,908
Other liabilities	9,734	9,755
Total liabilities	<u>159,857</u>	<u>162,043</u>
Shareholders of the parent	190,642	185,160
Noncontrolling interest	13,359	12,796
Total liabilities & shareholders' equity	<u>363,858</u>	<u>359,999</u>
Current Ratio	1.37	1.37
Net Debt to Equity	0.12	0.20