

# Initial Public Offerings: Underpricing

Jay R. Ritter  
Cordell Professor of Finance  
University of Florida  
352.846-2837 *voice*

<https://site.warrington.ufl.edu/ritter/>

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**Table 1: Mean First-day Returns and Money Left on the Table, 1980-2020**

The sample is IPOs with an offer price of at least \$5.00, excluding ADRs, unit offers, closed-end funds, REITs, natural resource limited partnerships, small best efforts offers, banks and S&Ls, and stocks not listed on CRSP (CRSP includes Amex, NYSE, and NASDAQ stocks). Proceeds exclude overallotment options, but include the global offering size. The amount of money left on the table is defined as the closing market price on the first-day of trading minus the offer price, multiplied by the shares offered.

Year	Number of IPOs	Mean First-day Return		Aggregate Amount Left on the Table	Aggregate Proceeds
		Equal-weighted	Proceeds-weighted		
1980	71	14.3%	20.0%	\$0.18 billion	\$0.91 billion
1981	192	5.9%	5.7%	\$0.13 billion	\$2.31 billion
1982	77	11.0%	13.3%	\$0.13 billion	\$1.00 billion
1983	451	9.9%	9.4%	\$0.84 billion	\$8.89 billion
1984	171	3.7%	2.5%	\$0.05 billion	\$2.02 billion
1985	186	6.4%	5.6%	\$0.23 billion	\$4.09 billion
1986	393	6.1%	5.1%	\$0.68 billion	\$13.40 billion
1987	285	5.6%	5.7%	\$0.66 billion	\$11.68 billion
1988	105	5.5%	3.4%	\$0.13 billion	\$3.88 billion
1989	116	8.0%	4.7%	\$0.27 billion	\$5.81 billion
1990	110	10.8%	8.1%	\$0.34 billion	\$4.27 billion
1991	286	11.9%	9.7%	\$1.50 billion	\$15.39 billion
1992	412	10.3%	8.0%	\$1.82 billion	\$22.69 billion
1993	510	12.7%	11.2%	\$3.52 billion	\$31.44 billion
1994	402	9.6%	8.3%	\$1.43 billion	\$17.18 billion
1995	462	21.4%	17.5%	\$4.90 billion	\$27.95 billion
1996	677	17.2%	16.1%	\$6.76 billion	\$42.05 billion
1997	474	14.0%	14.4%	\$4.56 billion	\$31.76 billion
1998	281	21.9%	15.6%	\$5.25 billion	\$33.65 billion
1999	476	71.2%	57.4%	\$37.11 billion	\$64.67 billion
2000	380	56.3%	45.8%	\$29.68 billion	\$64.80 billion
2001	80	14.0%	8.4%	\$2.97 billion	\$35.29 billion
2002	66	9.1%	5.1%	\$1.13 billion	\$22.03 billion
2003	63	11.7%	10.4%	\$1.00 billion	\$9.54 billion
2004	173	12.3%	12.4%	\$3.86 billion	\$31.19 billion
2005	159	10.3%	9.3%	\$2.64 billion	\$28.23 billion
2006	157	12.1%	13.0%	\$3.95 billion	\$30.48 billion
2007	159	14.0%	13.9%	\$4.95 billion	\$35.66 billion
2008	21	5.7%	24.7%	\$5.63 billion	\$22.76 billion
2009	41	9.8%	11.1%	\$1.46 billion	\$13.17 billion
2010	91	9.4%	6.2%	\$1.84 billion	\$29.82 billion
2011	81	13.9%	13.0%	\$3.51 billion	\$26.97 billion
2012	93	17.7%	8.9%	\$2.75 billion	\$31.11 billion
2013	158	20.9%	19.0%	\$7.89 billion	\$41.56 billion
2014	206	15.5%	12.8%	\$5.40 billion	\$42.20 billion
2015	118	19.2%	18.9%	\$4.16 billion	\$22.00 billion
2016	75	14.5%	14.2%	\$1.77 billion	\$12.52 billion
2017	106	12.9%	16.0%	\$3.68 billion	\$22.98 billion
2018	134	18.6%	19.1%	\$6.39 billion	\$33.47 billion
2019	112	23.5%	17.7%	\$6.93 billion	\$39.18 billion
2020	165	41.6%	47.9%	\$29.66 billion	\$61.86 billion
1980-1989	2,047	7.2%	6.1%	\$3.30 billion	\$53.99 billion
1990-1998	3,614	14.8%	13.3%	\$30.07 billion	\$222.38 billion
1999-2000	856	64.6%	51.6%	\$66.79 billion	\$129.47 billion
2001-2020	2,258	16.7%	17.2%	\$101.57 billion	\$592.02 billion
<b>1980-2020</b>	<b>8,775</b>	<b>18.4%</b>	<b>20.1%</b>	<b>\$201.73 billion</b>	<b>\$1,001.86 billion</b>

**Table 1a****Mean First-day Returns and Money Left on the Table, 1980-2020**

The market value includes the market value of all share classes using the post-issue no. of shares.

Year	Number of IPOs	Mean First-day Return		Aggregate Amount Left on the Table	Aggregate Proceeds	Market value at 1 <sup>st</sup> closing market price
		Equal-weighted	Proceeds-weighted			
1980	71	14.3%	20.0%	\$0.18 billion	\$0.91 billion	\$5.88 billion
1981	192	5.9%	5.7%	\$0.13 billion	\$2.31 billion	\$10.71 billion
1982	77	11.0%	13.3%	\$0.13 billion	\$1.00 billion	\$5.11 billion
1983	451	9.9%	9.4%	\$0.84 billion	\$8.89 billion	\$41.35 billion
1984	171	3.7%	2.5%	\$0.05 billion	\$2.02 billion	\$8.76 billion
1985	186	6.4%	5.3%	\$0.23 billion	\$4.09 billion	\$15.18 billion
1986	393	6.1%	5.1%	\$0.68 billion	\$13.40 billion	\$46.77 billion
1987	285	5.6%	5.7%	\$0.66 billion	\$11.68 billion	\$45.59 billion
1988	105	5.5%	3.4%	\$0.13 billion	\$3.88 billion	\$21.65 billion
1989	116	8.0%	4.7%	\$0.27 billion	\$5.81 billion	\$22.37 billion
1990	110	10.8%	8.1%	\$0.34 billion	\$4.27 billion	\$17.79 billion
1991	286	11.9%	9.7%	\$1.50 billion	\$15.35 billion	\$54.06 billion
1992	412	10.3%	8.0%	\$1.82 billion	\$22.69 billion	\$74.35 billion
1993	510	12.7%	11.2%	\$3.52 billion	\$31.44 billion	\$126 billion
1994	402	9.6%	8.3%	\$1.43 billion	\$17.18 billion	\$64 billion
1995	462	21.4%	17.5%	\$4.90 billion	\$27.95 billion	\$127 billion
1996	677	17.2%	16.1%	\$6.76 billion	\$42.05 billion	\$215 billion
1997	474	14.0%	14.4%	\$4.56 billion	\$31.76 billion	\$141 billion
1998	281	21.9%	15.6%	\$5.25 billion	\$33.65 billion	\$164 billion
1999	476	71.2%	57.4%	\$37.11 billion	\$64.67 billion	\$652 billion
2000	380	56.3%	45.8%	\$29.68 billion	\$64.80 billion	\$642 billion
2001	80	14.2%	8.4%	\$2.97 billion	\$35.29 billion	\$177 billion
2002	66	9.1%	5.1%	\$1.13 billion	\$22.03 billion	\$84 billion
2003	63	11.7%	10.4%	\$9.96 billion	\$9.54 billion	\$40 billion
2004	173	12.3%	12.4%	\$3.86 billion	\$31.19 billion	\$148 billion
2005	159	10.3%	9.3%	\$2.64 billion	\$28.23 billion	\$105 billion
2006	157	12.1%	13.0%	\$3.95 billion	\$30.48 billion	\$135 billion
2007	159	14.0%	13.9%	\$4.95 billion	\$35.66 billion	\$212 billion
2008	21	5.7%	24.8%	\$5.63 billion	\$22.76 billion	\$63 billion
2009	41	9.8%	11.1%	\$1.46 billion	\$13.17 billion	\$59 billion
2010	91	9.4%	6.2%	\$1.84 billion	\$29.82 billion	\$113 billion
2011	81	13.3%	13.0%	\$3.51 billion	\$26.97 billion	\$160 billion
2012	93	17.7%	8.9%	\$2.77 billion	\$31.11 billion	\$181 billion
2013	158	20.9%	19.0%	\$7.89 billion	\$41.57 billion	\$270 billion
2014	206	15.5%	12.8%	\$5.40 billion	\$42.20 billion	\$238 billion
2015	118	19.2%	18.7%	\$4.16 billion	\$22.00 billion	\$150 billion
2016	75	14.5%	14.4%	\$1.80 billion	\$12.52 billion	\$79 billion
2017	106	12.9%	16.0%	\$3.68 billion	\$22.98 billion	\$162 billion
2018	134	18.6%	19.1%	\$6.39 billion	\$33.47 billion	\$216 billion
2019	112	23.5%	17.7%	\$6.93 billion	\$39.18 billion	\$331 billion
2020	165	41.6%	47.9%	\$29.66 billion	\$61.86 billion	\$687 billion
1980-1989	2,047	7.2%	6.1%	\$3.30 billion	\$53.99 billion	\$223 billion
1990-1998	3,614	14.8%	13.3%	\$30.07 billion	\$222.38 billion	\$985 billion
1999-2000	856	64.6%	51.6%	\$66.79 billion	\$129.47 billion	\$1,294 billion
2001-2020	2,258	16.7%	17.2%	\$101.57 billion	\$592.02 billion	\$3,609 billion
<b>1980-2020</b>	<b>8,775</b>	<b>18.4%</b>	<b>20.1%</b>	<b>\$201.73 billion</b>	<b>\$1,001.86 b</b>	<b>\$6,111 billion</b>

**Table 4h**  
**Technology Company IPO Underpricing, 1980-2020**

Underpricing is measured as the equally weighted average of the first-day return from the offer price to close. The screens described in Table 1 apply, including the exclusion of ADRs.

Year	Number of IPOs			EW mean 1 <sup>st</sup> -day Return,%		
	Total	Tech	NonTech	Total	Tech	NonTech
1980	71	22	49	14.3%	21.7%	10.9%
1981	192	72	120	5.9%	7.0%	5.2%
1982	77	42	35	11.0%	13.6%	7.9%
1983	451	173	278	9.9%	13.9%	7.5%
1984	171	50	121	3.7%	5.5%	2.9%
1985	186	37	149	6.4%	6.1%	6.5%
1986	393	77	316	6.1%	7.2%	5.9%
1987	285	59	226	5.6%	7.3%	5.2%
1988	105	28	77	5.5%	5.5%	5.5%
1989	116	35	81	8.0%	11.9%	6.3%
1990	110	32	78	10.8%	14.9%	9.1%
1991	286	71	215	11.9%	17.3%	10.1%
1992	412	115	297	10.3%	14.4%	8.7%
1993	510	127	383	12.7%	17.8%	11.1%
1994	402	115	287	9.6%	14.1%	7.8%
1995	462	205	257	21.4%	30.8%	14.0%
1996	677	276	401	17.2%	20.2%	15.2%
1997	474	174	300	14.0%	16.9%	12.4%
1998	281	113	168	21.9%	39.1%	10.3%
1999	476	370	106	71.2%	86.7%	17.2%
2000	380	260	120	56.3%	68.8%	29.4%
2001	80	23	57	14.0%	23.5%	10.2%
2002	66	20	46	9.1%	8.6%	9.3%
2003	63	18	45	11.7%	17.4%	9.5%
2004	173	61	112	12.3%	16.6%	10.0%
2005	159	45	114	10.3%	10.8%	10.1%
2006	157	48	109	12.1%	15.3%	10.8%
2007	159	76	83	14.0%	18.8%	9.6%
2008	21	6	15	5.7%	2.6%	7.0%
2009	41	14	27	9.8%	16.9%	6.2%
2010	91	33	58	9.4%	15.5%	5.9%
2011	81	36	45	13.9%	20.2%	9.0%
2012	93	40	53	17.7%	23.4%	13.3%
2013	158	45	113	20.9%	26.7%	18.5%
2014	206	51	155	15.5%	25.2%	12.2%
2015	118	38	80	19.2%	18.8%	19.4%
2016	75	21	54	14.5%	32.4%	7.5%
2017	106	30	76	12.9%	21.1%	9.6%
2018	134	39	95	18.6%	32.3%	13.0%
2019	112	37	75	23.5%	28.6%	21.0%
2020	165	42	123	41.6%	63.7%	34.0%
<b>1980-2020</b>	<b>8,775</b>	<b>3,176</b>	<b>5,599</b>	<b>18.4%</b>	<b>31.2%</b>	<b>11.1%</b>

**Table 5**  
**Number of U. S. IPOs (excluding ADRs) with an offer price of greater than \$5.00**  
**that doubled (offer to close) in price on the first day of trading, 1997-2020**

A listing of each IPO since 1980 that doubled on the first day can be found elsewhere on Jay Ritter's IPO Data page.

<b>Quarter</b>	<b>Number</b>	<b>Quarter</b>	<b>Number</b>
1997, first	0	2007, first	0
1997, second	2	2007, second	0
1997, third	0	2007, third	0
1997, fourth	0	2007, fourth	0
1998, first	0	2008, first	0
1998, second	2	2008, second	0
1998, third	3	2008, third	0
1998, fourth	7	2008, fourth	0
1999, first	19	2009, first	0
1999, second	24	2009, second	0
1999, third	27	2009, third	0
1999, fourth	45	2009, fourth	0
2000, first	48	2010, first	0
2000, second	9	2010, second	0
2000, third	20	2010, third	0
2000, fourth	(Transmeta) 1	2010, fourth	(Youku.com ADR) 0
2001, first	0	2011, first	(Qihoo 360 ADR) 0
2001, second	0	2011, second	(LinkedIn) 1
2001, third	0	2011, third	(China Mobile Games ADR) 0
2001, fourth	0	2011, fourth	0
2002, first	0	2012, first	0
2002, second	0	2012, second	(Splunk) 1
2002, third	0	2012, third	0
2002, fourth	0	2012, fourth	0
2003, first	0	2013, first	0
2003, second	0	2013, second	(Noodles & Co.) 1
2003, third	0	2013, third	(Sprout, Benefitfocus) 2
2003, fourth	0	2013, fourth	(Potbelly, Container Store) 2
2004, first	0	2014, first	4
2004, second	(Jed Oil) 1	2014, second	0
2004, third	0	2014, third	1 (ReWalk Robotics) 1
2004, fourth	0	2014, fourth	1(Habit Restaurants) 1
2005, first	0	2015, first	(Spark Therapeutics, Shake Shack) 2
2005, second	0	2015, second	(Aduro Biotech, Seres Therapeutics)2
2005, third	(Baidu.com is ADR) 0	2015, third	(Global Blood Theraperutics) 1
2005, fourth	0	2015, fourth	0
2006, first	(Chipotle Mexican) 1	2016, first	0
2006, second	0	2016, second	0
2006, third	0	2016, third	1 (Nutanix)
2006, fourth	(Nymex Holdings) 1	2016, fourth	0

**Table 5 (continued)**

**Number of U. S. IPOs (excluding ADRs) with an offer price of greater than \$5.00  
that doubled (offer to close) in price on the first day of trading, 1997-2020**

The count does not include ADRs, penny stocks, and units.

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2017, first		0
2017, second		0
2017, third		0
2017, fourth	(Reto Eco-Solutions)	1

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2018, first	(Zscalar)	1
2018, second		0
2018, third		0
2018, fourth		0

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2019, first		0
2019, second	(Beyond Meat, ADPT)	2
2019, third		0
2019, fourth	(Monopar Therapeutics)	1

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2020, first		1
2020, second		2
2020, third		10
2020, fourth		9

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**Table 6**  
**Number of Initial Public Offerings, First-Day Return, and**  
**Revisions from the File Price Range by Cohort Year, 1990-2020**

Cohort Year	Number of IPOs	Percentage First-day Return	Percentage of IPOs with OP < Lo	Percentage of IPOs in the Middle	Percentage of IPOs with OP > Hi
1990	97	9.4	24.7	52.6	22.7
1991	262	11.2	19.8	55.3	24.4
1992	363	9.9	38.0	40.5	21.5
1993	461	11.6	21.3	54.0	24.7
1994	334	8.4	37.7	49.7	12.6
1995	390	19.9	19.7	45.4	34.9
1996	600	15.9	25.0	50.2	24.8
1997	421	13.8	29.9	45.8	24.2
1998	284	21.4	27.5	50.0	22.5
1999	465	70.5	14.8	37.2	48.0
2000	371	57.1	22.1	39.4	38.5
2001	78	14.2	25.6	56.4	18.0
2002	67	8.7	32.8	53.7	13.4
2003	65	12.4	15.4	55.4	29.2
2004	172	12.3	37.2	41.9	20.9
2005	161	10.1	34.2	42.9	23.0
2006	155	11.7	39.4	40.6	20.0
2007	155	14.5	32.3	41.3	26.5
2008	21	5.7	47.6	38.1	14.3
2009	42	10.8	33.3	40.5	26.2
2010	100	9.3	47.0	41.0	12.0
2011	81	14.1	37.0	30.9	32.1
2012	103	17.5	40.8	35.0	24.3
2013	161	20.5	29.8	42.2	28.0
2014	221	14.4	43.4	39.8	16.7
2015	123	18.9	35.8	38.2	26.0
2016	75	14.4	33.3	57.3	9.3
2017	111	11.8	23.4	60.4	16.2
2018	136	18.4	16.9	61.8	21.3
2019	113	23.3	15.9	57.5	26.6
2020	153	43.0	7.2	50.3	42.5
<b>1990-2020</b>	<b>6,341</b>	<b>21.5</b>	<b>27.4</b>	<b>46.4</b>	<b>26.2</b>

Banks and S&Ls are included in this table, which excludes IPOs with a midpoint of the original file price range of less than \$8.00, as well as unit offers, small best efforts offers, ADRs, closed-end funds, REITs, partnerships, acquisition companies (SIC=6779), and stocks not listed on CRSP (CRSP includes firms listed on the NYSE, Amex (now NYSE MKT) and NYSE Arca, and NASDAQ). If a \$5.00 offer price screen was used instead of the \$8.00 midpoint screen, the sample size would increase by, for example, 20 IPOs in 1999 and 13 in 2000. Lo and Hi are the minimum and maximum of the original file price range. Because the average first-day return is lower on the firms that are added than on those that are deleted, the 10.1% average first-day return in 2005 is less than the 10.3% reported in other tables, such as Table 1.

**Table 7 (updated Dec. 28, 2020)**

**Percentage of IPOs relative to file price range:**

	<b>Below</b>	<b>Within</b>	<b>Above</b>
<b>1980-1989</b>	<b>30%</b>	<b>57%</b>	<b>13%</b>
<b>1990-1998</b>	<b>27%</b>	<b>49%</b>	<b>24%</b>
<b>1999-2000</b>	<b>18%</b>	<b>38%</b>	<b>44%</b>
<b>2001-2020</b>	<b>31%</b>	<b>46%</b>	<b>23%</b>
<b>1980-2020</b>	<b>28%</b>	<b>49%</b>	<b>23%</b>

**Average first-day returns relative to file price range:**

	<b>Below</b>	<b>Within</b>	<b>Above</b>
<b>1980-1989</b>	<b>0%</b>	<b>6%</b>	<b>20%</b>
<b>1990-1998</b>	<b>4%</b>	<b>11%</b>	<b>31%</b>
<b>1999-2000</b>	<b>8%</b>	<b>26%</b>	<b>122%</b>
<b>2001-2020</b>	<b>3%</b>	<b>13%</b>	<b>42%</b>
<b>1980-2020</b>	<b>3%</b>	<b>11%</b>	<b>50%</b>

The sample used in this table is described in Table 6.



**Table 8** (updated Dec. 28, 2020)**Number of Offerings, Average First-day Returns, and  
Gross Proceeds of Initial Public Offerings in 1960-2020**

Data from 1960-1974 is taken from Table 1 of Roger Ibbotson, Jody Sindelar, and Jay R. Ritter's 1994 *Journal of Applied Corporate Finance* article "The Market's Problems with the Pricing of Initial Public Offerings" Vol. 7, No. 1 (Spring 1994), pp. 66-74. Data from 1975-2017 are compiled by Jay R. Ritter using Thomson Financial, Dealogic, and other sources. The 1975-1993 numbers are different from those reported in the 1994 *JACF* article because the published article included IPOs that did not qualify for listing on Nasdaq, the Amex, or NYSE (mainly penny stocks). Unlike other tables, **bank and S&L IPOs are included in the counts in this table.**

<b>Year</b>	<b>Number of Offerings<sup>1</sup></b>	<b>Average First-day Return<sup>2</sup></b>	<b>Gross Proceeds, \$ Millions<sup>3</sup></b>
1960	269	17.8%	553
1961	435	34.1%	1,243
1962	298	-1.6%	431
1963	83	3.9%	246
1964	97	5.3%	380
1965	146	12.7%	409
1966	85	7.1%	275
1967	100	37.7%	641
1968	368	55.9%	1,205
1969	780	12.5%	2,605
1970	358	-0.7%	780
1971	391	21.2%	1,655
1972	562	7.5%	2,724
1973	105	-17.8%	330
1974	9	-7.0%	51
1975	12	-0.2%	261
1976	26	1.9%	215
1977	15	3.6%	128
1978	19	13.3%	197
1979	39	8.9%	309
1980	71	14.3%	905
1981	193	5.9%	2,313
1982	79	10.7%	1,012
1983	521	9.0%	11,306
1984	213	3.0%	2,566
1985	217	6.6%	4,749
1986	478	6.1%	15,489
1987	337	5.7%	12,568
1988	132	5.3%	4,089
1989	124	7.7%	5,886
1990	116	10.4%	4,334
1991	293	11.8%	16,464

1992	416	10.2%	22,750
1993	527	12.7%	31,654
1994	410	9.6%	17,418
1995	465	21.3%	28,022
1996	689	17.1%	42,428
1997	485	14.0%	32,547
1998	308	20.6%	34,411
1999	484	70.0%	64,816
2000	382	56.1%	64,931
2001	79	14.2%	34,241
2002	70	8.6%	22,136
2003	68	11.9%	10,075
2004	181	12.4%	31,663
2005	167	10.0%	28,578
2006	162	12.0%	30,648
2007	160	14.0%	35,704
2008	21	5.7%	22,762
2009	42	10.6%	13,307
2010	101	9.2%	30,742
2011	82	13.8%	27,750
2012	104	17.2%	32,065
2013	162	20.9%	39,093
2014	225	15.0%	46,967
2015	125	18.7%	22,296
2016	79	14.0%	13,234
2017	118	12.5%	24,044
2018	143	17.8%	34,027
2019	115	23.0%	39,479
2020	165	41.6%	61,860
1960-69	2,661	21.2%	7,988
1970-79	1,536	7.1%	6,663
1980-89	2,365	6.9%	60,881
1990-99	4,193	21.1%	294,826
2000-20	2,756	21.8%	665,608
<b>1960-2020</b>	<b>13,511</b>	<b>17.2%</b>	<b>1,035,966</b>

<sup>1</sup> Beginning in 1975, the number of offerings excludes IPOs with an offer price of less than \$5.00, ADRs, small best efforts offers, units, Regulation A offers (small issues, raising less than \$1.5 million during the 1980s and \$5 million until 2012), real estate investment trusts (REITs), SPACs, natural resource limited partnerships, and closed-end funds. Banks and S&L IPOs are included. From 2012 and later, Regulation A offerings (issues raising up to \$50 million are eligible) are included.

<sup>2</sup> First-day returns are computed as the percentage return from the offering price to the first closing market price.

<sup>3</sup> Gross proceeds exclude overallocation options but include the international tranche, if any. No adjustments for inflation have been made.

**Table 9 (updated December 28, 2020)****Fraction of IPOs with Negative Earnings, 1980-2020**

IPOs with an offer price below \$5.00 per share, unit offers, ADRs, closed-end funds, partnerships, acquisition companies, REITs, bank and S&L IPOs, and firms not listed on CRSP within six months of the offer date are excluded. When available, I use the earnings per share for the most recent twelve months (commonly known as LTM for last twelve months) prior to going public. When a merger is involved, we use the pro forma numbers (as if the merger had already occurred). I am not completely consistent in the use of earnings before or after extraordinary items. Some extraordinary items are associated with the IPO, including gains or losses on conversion of convertible securities at the time of the IPO, or writeups or writedowns associated with mergers. I usually use the before extraordinary items EPS if the one-time charges are associated with the IPO. When the trailing twelve months EPS number is unavailable, I use the most recent fiscal year EPS number. Missing numbers are supplemented by direct inspection of prospectuses on EDGAR, EPS information from Dealogic for IPOs after 1991, and Howard and Co.'s *Going Public: The IPO Reporter* from 1980-1995. Remaining missing numbers have been found in the Graeme Howard-Todd Huxster collection of IPO prospectuses and the Stanford Business School microfiche collection of prospectuses from the 1980s. Don Patton of UC-Davis has tracked down a couple of remaining missing numbers. Tech stocks are defined as internet-related stocks plus other technology stocks, not including biotech. Loughran and Ritter (2004) list the SIC codes in their appendix 3 and sources of founding dates in appendix 1.

Year	Number of IPOs	No. with missing EPS	Percentage Tech Stocks	Percentage of IPOs with EPS<0	Mean First-day Returns	
					EPS<0	EPS≥0
1980-1989	2,047	1	29%	19%	9.2%	6.8%
1990-1998	3,614	0	34%	32%	16.0%	14.3%
1999-2000	856	0	74%	78%	71.1%	41.6%
2001-2020	2,258	0	32%	59%	18.1%	14.6%
<b>1980-2020</b>	<b>8,775</b>	<b>1</b>	<b>36%</b>	<b>40%</b>	<b>26.3%</b>	<b>12.9%</b>

(year-by-year on the next page)

Year	Number of IPOs	No. with missing EPS	Percentage Tech Stocks	Percentage of IPOs with EPS<0	Mean First-day Returns	
					EPS<0	EPS≥0
1980	71	0	31%	24%	7.1%	16.5%
1981	192	0	38%	17%	8.0%	5.4%
1982	77	0	55%	19%	6.4%	12.1%
1983	451	0	38%	22%	14.0%	8.8%
1984	171	0	29%	16%	11.1%	2.2%
1985	186	0	20%	15%	5.2%	6.6%
1986	393	1	20%	21%	8.8%	5.4%
1987	285	0	20%	17%	5.1%	5.8%
1988	105	0	27%	18%	6.0%	5.3%
1989	116	0	30%	22%	8.3%	7.9%
1990	110	0	28%	15%	9.5%	11.0%
1991	286	0	24%	24%	9.4%	12.7%
1992	412	0	28%	29%	10.2%	10.3%
1993	510	0	25%	28%	12.6%	12.8%
1994	402	0	29%	26%	8.0%	10.2%
1995	462	0	44%	30%	22.5%	21.0%
1996	677	0	40%	41%	16.7%	17.6%
1997	474	0	36%	36%	12.6%	14.9%
1998	281	0	40%	46%	32.2%	13.2%
1999	476	0	78%	76%	81.0%	40.2%
2000	380	0	68%	81%	59.4%	43.8%
2001	80	0	29%	49%	15.3%	12.8%
2002	66	0	30%	45%	5.6%	12.0%
2003	63	0	29%	44%	10.0%	13.2%
2004	173	0	35%	50%	11.9%	12.7%
2005	159	0	28%	45%	7.3%	12.8%
2006	157	0	31%	40%	7.3%	15.4%
2007	159	0	48%	55%	13.8%	14.3%
2008	21	0	29%	43%	1.8%	8.7%
2009	41	0	34%	29%	12.8%	8.6%
2010	91	0	36%	41%	6.9%	11.1%
2011	81	0	44%	57%	11.0%	17.7%
2012	93	0	43%	46%	22.4%	13.7%
2013	158	0	29%	63%	20.2%	21.9%
2014	206	0	25%	71%	17.1%	11.4%
2015	118	0	32%	70%	19.1%	19.6%
2016	75	0	28%	67%	13.2%	17.0%
2017	106	0	28%	77%	12.4%	14.8%
2018	134	0	29%	81%	20.4%	10.5%
2019	112	0	32%	77%	25.2%	17.9%
2020	165	0	25%	80%	45.3%	26.9%
<b>1980-2020</b>	<b>8,775</b>	<b>1</b>	<b>36%</b>	<b>41%</b>	<b>26.3%</b>	<b>12.9%</b>

**Table 15a** (updated December 29, 2020)

**IPO Volume and Average First-day Returns with Banks, LPs, and ADRs Included**

In the last two columns of the table, the net number of IPOs is expanded to include LPs, banks and S&Ls, and ADRs. Only CRSP-listed IPOs that have first-day return information are included, and therefore the number of IPOs added is slightly less for many years than if the “net” IPO count is added to the LP count, the bank and S&L count, and the ADR count. CRSP covers IPOs that are listed on Nasdaq, NYSE, and NYSE Market (formerly Amex). If a stock takes more than six months before CRSP-listing, it is not included in the count. The sample size of 14,315 IPOs from 1980-2020 includes the 8,775 IPOs from 1980-2020 used in most tables, plus 519 ADRs with a first-day return, 227 natural resource industry limited partnerships, and 577 bank and S&L IPOs (6 of which are ADRs). There are also 11 ADRs with a missing first-day close (1 in 1988, 1 in 1993, 3 in 1997, 1 in 1999, 2 in 2000, 1 in 2004, 1 in 2009, and 1 in 2017).

As with Table 15, the net number of IPOs in the first column excludes Special Purpose Acquisition Companies (SPACs), closed-end funds (not including interval funds), Real Estate Investment Trusts (REITs), unit offers (typically composed of a share plus a warrant to buy a share), IPOs with an offer price of less than \$5.00, commercial banks and savings and loans, companies not promptly listed on the Amex, NYSE, or Nasdaq, natural resource master limited partnerships, small best efforts offers (included in the other exclusions column), and foreign companies issuing American Depositary Receipts (6 of which are banks). SPACs that are unit offers are classified as SPACs rather than units.

Table 15a also differs from Table 15 in that the category of SPACs, closed-end funds, and REITs in Table 15 is decomposed into the three component parts. Blind pool offerings from the pre-2004 era are not included as SPACs. These blind-pool offers are almost always screened out of the net number of offerings because they are either unit offers, penny stocks (offer price below \$5 per share), small best efforts deals, or were not CRSP-listed. The remaining blind pool offers are excluded in the “other reasons” category. A typical blind pool offering raised a few million dollars and investors never received anything in return.

The average first-day return on 577 bank and S&L IPOs is 6.1%, with a range of -20% to +57.5%. In most of my tables, I exclude Bank and S&L IPOs because, among other reasons, it is not always clear how many shares are sold to the general public versus sold to depositors and employees, since most of these offerings are demutualizations. The same can be said of some insurance IPOs, which I include.

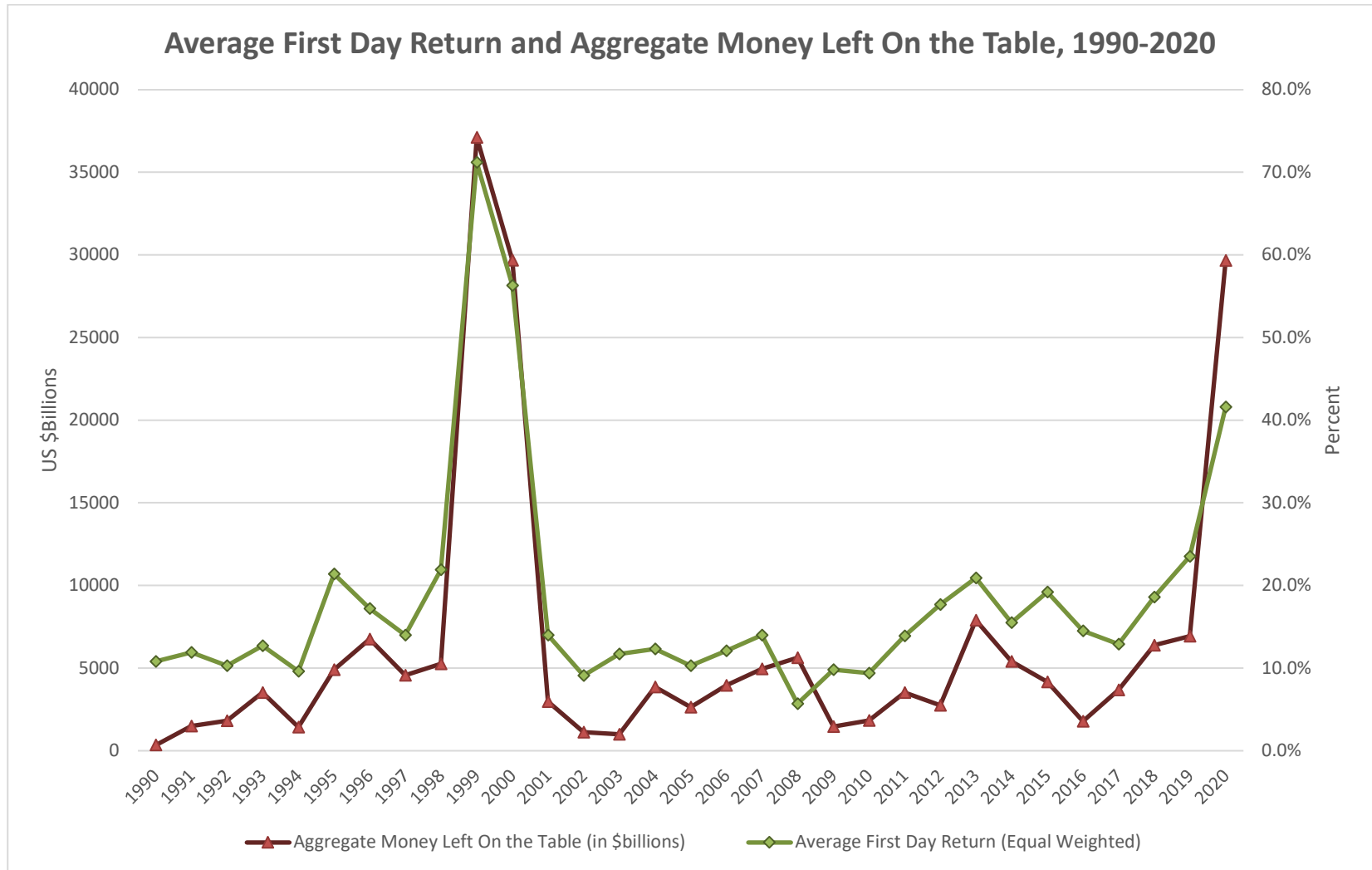
The average first-day return on 525 ADR IPOs with a closing market price, including banks, is 16.7%, with a range of -37.2% to 414.3%, with the 2000 internet company Crayfish Co. Ltd IPO having the highest return, at 414.3%. In most of my tables, I exclude ADRs because, among other reasons, the accounting data is not always reliable (SDC sometimes makes translation mistakes) and the U.S. tranche may be a small part of a larger offering, especially in the home country of the company.

The average first-day return on 227 limited partnerships is 3.7%, with a range of -6.8% to +33.3%. In most of my tables, I exclude natural resource company limited partnerships because it is frequently difficult to discern the founding date of the underlying business, since most of these IPOs are spinoffs partly motivated by tax minimization strategies. Also, most of these LPs are created at the time of the IPO, and identifying whether the LP is profitable, what its trailing sales are, and what its assets are, is sometimes problematic. The same can be said of rollups, which I include. I also include newly created reinsurance companies.

**Table 15a**

Year	Number of IPOs		CEFs, SPACs, and REITs	Closed -end funds	REITs	SPACs		LPs	Banks and S&Ls	Including LPs, Banks, & ADRs	
	Gross	Net				Non- unit	Unit			No.	Mean IR
1980	234	71	1	0	1	0	0	0	0	71	14.3%
1981	439	193	0	0	0	0	0	0	0	193	5.9%
1982	198	77	1	0	1	0	0	0	4	80	10.5%
1983	850	451	1	0	1	0	0	0	75	526	8.9%
1984	518	171	4	0	4	0	0	1	46	222	3.1%
1985	326	186	18	3	15	0	0	6	42	223	6.4%
1986	710	393	28	25	3	0	0	20	100	498	5.8%
1987	531	285	36	32	4	0	0	15	52	351	5.5%
1988	293	105	73	65	8	0	0	3	26	140	5.2%
1989	254	116	42	42	0	0	0	2	8	129	7.6%
1990	213	110	41	41	0	0	0	1	5	118	10.3%
1991	408	286	44	42	2	0	0	2	7	297	11.7%
1992	602	412	103	98	5	0	0	1	4	421	10.1%
1993	772	510	167	121	46	0	0	3	17	547	12.4%
1994	594	402	78	37	41	0	0	3	8	432	9.4%
1995	574	462	9	2	7	0	0	2	3	483	20.8%
1996	845	677	11	5	6	0	0	5	11	729	16.8%
1997	601	474	30	7	22	1	0	1	11	521	13.6%
1998	379	281	39	24	15	0	0	2	31	331	20.1%
1999	565	476	36	34	2	0	0	3	8	515	67.8%
2000	431	380	2	2	0	0	0	0	1	423	54.8%
2001	130	79	38	38	0	0	0	4	0	87	13.7%
2002	157	66	81	77	4	0	0	6	4	78	7.8%
2003	131	63	56	49	6	0	1	0	5	71	13.1%
2004	304	173	95	55	28	0	12	5	8	203	11.8%
2005	283	159	88	50	11	4	23	9	7	190	11.5%
2006	261	157	63	23	5	0	35	18	5	195	11.4%
2007	326	159	116	47	4	0	65	14	2	205	14.0%
2008	53	21	22	3	2	0	17	4	0	28	4.1%
2009	80	41	22	13	9	0	0	0	2	52	9.7%
2010	198	91	37	22	8	0	7	7	10	144	11.2%
2011	166	81	50	25	9	0	18	18	1	113	11.6%
2012	174	93	45	28	9	1	8	16	13	125	15.8%
2013	255	158	59	29	20	3	7	20	5	192	20.2%
2014	305	206	30	13	6	0	11	19	19	264	14.2%
2015	182	118	34	8	7	1	19	9	7	142	17.4%
2016	113	75	13	1	3	0	13	1	5	89	13.7%
2017	201	106	50	9	8	0	34	5	11	143	12.7%
2018	240	134	51	1	6	0	46	1	9	176	16.4%
2019	226	112	67	6	2	0	59	1	7	142	19.4%
2020	464	165	257	4	4	11	237	0	0	198	38.1%
Total	14,122	8,775	2,038	1,081	334	21	608	227	579	10,041	17.3%

Figure 4: See Table 1 for details.



**Figure 5. See Table 1 for details. A PowerPoint of this slide can be downloaded from elsewhere on Jay Ritter’s IPO Data page.**

