

SHADOW MARKET

2011 BSA GLOBAL SOFTWARE PIRACY STUDY

NINTH EDITION, MAY 2012

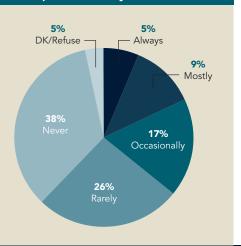
IN BRIEF

Over half of the world's personal computer users — 57 percent — admit to pirating software. Thirty-one percent say they do it "all of the time," "most of the time," or "occasionally," and another 26 percent admit to having stolen software, but only "rarely." These are among the findings of a survey of nearly 15,000 computer users across 33 countries conducted as part of the ninth annual BSA Global Software Piracy Study. Among the findings:

- The global piracy rate for PC software hovers at 42 percent.
- The commercial value of this shadow market of pirated software climbed from \$58.8 billion in 2010 to \$63.4 billion in 2011, a new record, propelled by PC shipments to emerging economies where piracy rates are highest.
- The gap in spending on legal software in emerging and mature economies is stubbornly persistent. China, for example, spends less than a quarter of the amount that Russia, India, and Brazil spend on a per-PC basis — and just 7 percent of the amount the United States spends.
- Users who say they pirate the most software are disproportionately young and male — and they install more software of all types on their computers than other users do.
- Business decision makers admit to pirating software more frequently than other computer users do.
- Public opinion continues to support intellectual property (IP) rights: Seven PC users in 10 support paying innovators to promote more technological advances.

Global Self-Reported Piracy

"How often do you acquire pirated software or software that is not fully licensed — all of the time, most of the time, occasionally, rarely, or never?"



Top 20 Economies in Commercial Value of Pirated PC Software, 2011

	Pirated Value (\$M)	Legal Sales (\$M)	Piracy Rate
US	\$9,773	\$41,664	19%
China	\$8,902	\$2,659	77%
Russia	\$3,227	\$1,895	63%
India	\$2,930	\$1,721	63%
Brazil	\$2,848	\$2,526	53%
France	\$2,754	\$4,689	37%
Germany	\$2,265	\$6,447	26%
Italy	\$1,945	\$2,107	48%
UK	\$1,943	\$5,530	26%
Japan	\$1,875	\$7,054	21%
Indonesia	\$1,467	\$239	86%
Mexico	\$1,249	\$942	57%
Spain	\$1,216	\$1,548	44%
Canada	\$1,141	\$3,085	27%
Thailand	\$852	\$331	72%
South Korea	\$815	\$1,223	40%
Australia	\$763	\$2,554	23%
Venezuela	\$668	\$91	88%
Malaysia	\$657	\$538	55%
Argentina	\$657	\$295	69%







PC SOFTWARE PIRACY RATES AND COMMERCIAL VALUE OF UNLICENSED SOFTWARE

			Piracy Rates			Comme	rcial Value	of Unlicense	d Software	(\$M)
	2011	2010	2009	2008	2007	2011	2010	2009	2008	2007
sia Pacific										
Australia	23%	24%	25%	26%	28%	\$763	\$658	\$550	\$613	\$492
Bangladesh	90%	90%	91%	92%	92%	\$147	\$137	\$127	\$102	\$92
Brunei	67%	66%	67%	68%	67%	\$25	\$19	\$14	\$15	\$13
China	77%	78%	79%	80%	82%	\$8,902	\$7,779	\$7,583	\$6,677	\$6,664
Hong Kong	43%	45%	47%	48%	51%	\$232	\$227	\$218	\$225	\$224
India	63%	64%	65%	68%	69%	\$2,930	\$2,739	\$2,003	\$2,768	\$2,025
Indonesia	86%	87%	86%	85%	84%	\$1,467	\$1,322	\$886	\$544	\$41
Japan	21%	20%	21%	21%	23%	\$1,875	\$1,624	\$1,838	\$1,495	\$1,79
Malaysia	55%	56%	58%	59%	59%	\$657	\$606	\$453	\$368	\$311
New Zealand	22%	22%	22%	22%	22%	\$99	\$85	\$63	\$75	\$5!
Pakistan	86%	84%	84%	86%	84%	\$278	\$217	\$166	\$159	\$12
Philippines	70%	69%	69%	69%	69%	\$338	\$278	\$217	\$202	\$14
Singapore	33%	34%	35%	36%	37%	\$255	\$233	\$197	\$163	\$15
South Korea	40%	40%	41%	43%	43%	\$815	\$722	\$575	\$622	\$54
Sri Lanka	84%	86%	89%	90%	90%	\$86	\$83	\$77	\$97	\$93
Taiwan	37%	37%	38%	39%	40%	\$293	\$252	\$227	\$201	\$21!
Thailand	72%	73%	75%	76%	78%	\$852	\$777	\$694	\$609	\$46
Vietnam	81%	83%	85%	85%	85%	\$395	\$412	\$353	\$257	\$20
Other AP	91%	91%	90%	91%	91%	\$589	\$576	\$303	\$69	\$5
TOTAL AP	60%	60%	59%	61%	59%	\$20,998	\$18,746	\$16,544	\$15,261	\$14,090
entral and Eastern Euro	pe									
Albania	75%	75%	75%	77%	78%	\$6	\$6	\$8	\$9	\$1
Armenia	88%	89%	90%	92%	93%	\$26	\$23	\$14	\$7	\$
Azerbaijan	87%	88%	88%	90%	92%	\$67	\$57	\$52	\$55	\$5
Belarus	87%	88%	87%	-	72 /o —	\$87	\$126	\$55		40
Bosnia	66%	66%	66%	67%	68%	\$15	\$13	\$14	\$15	\$1
Bulgaria	64%	65%	67%	68%	68%	\$102	\$113	\$115	\$139	\$6
Croatia	53%	54%	54%	54%	54%	\$74	\$70	\$71	\$77	\$6
Czech Republic	35%	36%	37%	38%	39%	\$214	\$195	\$174	\$168	\$16
Estonia	48%	50%	50%	50%	51%	\$25	\$23	\$174	\$100	\$20
FYROM	66%	66%	67%	68%	68%	\$22	\$19	\$15	\$14	\$1
Georgia	91%	93%	95%	95%	—	\$52	\$46	\$54	\$59	- IΨ
Hungary	41%	41%	41%	42%	42%	\$143	\$131	\$113	\$146	\$12
Kazakhstan	76%	76%	78%	78%	79%	\$123	\$89	\$74	\$125	\$110
Latvia	54%	56%	56%	56%	56%	\$32	\$30	\$24	\$31	\$29
Lithuania	54%	54%	54%	54%	56%	\$44	\$38	\$31	\$40	\$3
Moldova	90%	90%	91%	90%	92%	\$45	\$36	\$28	\$40	\$4
Montenegro	79%	79%	81%	83%	83%	\$7	\$7	\$11	\$8	\$
Montenegro Poland	53%	54%	54%	56%	57%	\$618	\$553	\$506	\$648	\$58
Romania	63%	64%	65%	66%	68%	\$207	\$195	\$183	\$249	\$15
Russia	63%	65%	67%	68%	73%	\$3,227	\$2,842	\$2,613	\$4,215	\$4,12
Serbia	72%	74%	74%	74%	76%	\$104	\$95	\$67	\$99	\$7,12
Slovakia	40%	42%	43%	43%	45%	\$68	\$63	\$65	\$62	\$54
Slovenia	46%	47%	46%	47%	48%	\$51	\$47	\$39	\$51	\$3
Ukraine	84%	86%	85%	84%	83%	\$647	\$571	\$272	\$534	\$40
Rest of CEE	90%	89%	88%	88%	88%	\$127	\$118	\$56	\$191	\$17
TOTAL CEE	62%	64%	64%	66%	68%	\$6,133	\$5,506	\$4,673	\$7,003	\$6,35
	- JE /0	U-7/0	3470	- 5576			40,500	\$ 1,075	\$7,005	30,33
atin America										
Argentina	69%	70%	71%	73%	74%	\$657	\$681	\$645	\$339	\$37
Bolivia	79%	80%	80%	81%	82%	\$59	\$54	\$40	\$20	\$19
Brazil	53%	54%	56%	58%	59%	\$2,848	\$2,619	\$2,254	\$1,645	\$1,61
Chile	61%	62%	64%	67%	66%	\$382	\$349	\$315	\$202	\$18
Colombia	53%	54%	55%	56%	58%	\$295	\$272	\$244	\$136	\$12
Costa Rica	58%	58%	59%	60%	61%	\$62	\$55	\$33	\$24	\$2
Dominican Republic	76%	76%	77%	79%	79%	\$93	\$87	\$66	\$43	\$3
Ecuador	68%	67%	67%	66%	66%	\$92	\$79	\$65	\$37	\$3
El Salvador	80%	80%	80%	80%	81%	\$58	\$55	\$46	\$28	\$2
Guatemala	79%	80%	80%	81%	80%	\$116	\$106	\$74	\$49	\$4
Honduras	73%	73%	74%	74%	74%	\$24	\$22	\$17	\$9	\$
Mexico	57%	58%	60%	59%	61%	\$1,249	\$1,199	\$1,056	\$823	\$83
Nicaragua	79%	79%	79%	79%	80%	\$9	\$8	\$5	\$4	\$
Panama	72%	72%	73%	73%	74%	\$74	\$68	\$42	\$24	\$2
Paraguay	83%	83%	82%	83%	82%	\$73	\$55	\$29	\$16	\$1
Peru	67%	68%	70%	71%	71%	\$209	\$176	\$124	\$84	\$7
Uruguay	68%	69%	68%	69%	69%	\$85	\$78	\$40	\$25	\$2
Venezuela	88%	88%	87%	86%	87%	\$668	\$662	\$685	\$484	\$464
		0070	37,73	-070	01/0	4000	4002	4000	₩ 70T	Ψ-10·
Other LA	84%	84%	83%	84%	83%	\$406	\$405	\$430	\$319	\$195

	Piracy Rates					Commercial Value of Unlicensed Software (\$M)				
	2011	2010	2009	2008	2007	2011	2010	2009	2008	20
liddle East and Africa										
Algeria	84%	83%	84%	84%	84%	\$83	\$69	\$55	\$96	\$
Bahrain	54%	54%	54%	55%	57%	\$23	\$22	\$21	\$27	\$
Botswana	80%	79%	79%	80%	82%	\$16	\$15	\$11	\$14	\$
Cameroon	83%	82%	83%	83%	84%	\$9	\$7	\$7	\$6	
Egypt	61%	60%	59%	59%	60%	\$172	\$196	\$146	\$158	\$1
Iraq	86%	85%	85%	85%	85%	\$172	\$147	\$129	\$205	\$1
Israel	31%	31%	33%	32%	32%	\$192	\$170	\$148	\$172	\$1
Ivory Coast	81%	79%	79%	80%	81%	\$16	\$13	\$14	\$15	9
Jordan	58%	57%	57%	58%	60%	\$31	\$28	\$26	\$22	9
Kenya	78%	79%	79%	80%	81%	\$85	\$85	\$66	\$31	9
Kuwait	59%	60%				\$72	\$68			
			60%	61%	62%			\$62	\$69	
Lebanon	71%	72%	72%	74%	73%	\$52	\$49	\$46	\$49	
Libya	90%	88%	88%	87%	88%	\$60	\$74	\$25	\$22	
Mauritius	57%	56%	56%	57%	57%	\$7	\$5	\$4	\$5	
Morocco	66%	65%	66%	66%	67%	\$91	\$75	\$64	\$70	9
Nigeria	82%	82%	83%	83%	82%	\$251	\$225	\$156	\$132	\$
Oman	61%	62%	63%	62%	61%	\$36	\$33	\$39	\$26	9
Qatar	50%	49%	51%	51%	54%	\$62	\$52	\$50	\$26	9
Reunion	40%	40%	40%	40%	40%	\$1	\$1	\$1	\$1	
Saudi Arabia	51%	52%	51%	52%	51%	\$449	\$414	\$304	\$272	\$
	78%	78%		79%	80%	\$9	\$7			Ф
- · · · J ·			78%					\$5	\$7	.
South Africa	35%	35%	35%	35%	34%	\$564	\$513	\$324	\$335	\$
Tunisia Turkev	74%	72%	72%	73%	76%	\$51	\$52	\$44	\$48	
Turkey	62%	62%	63%	64%	65%	\$526	\$516	\$415	\$468	\$
UAE	37%	36%	36%	36%	35%	\$208	\$173	\$155	\$170	:
Yemen	89%	90%	90%	89%	89%	\$15	\$12	\$10	\$14	:
Zambia	82%	82%	82%	82%	82%	\$3	\$3	\$2	\$2	
Zimbabwe	92%	91%	92%	92%	91%	\$4	\$6	\$4	\$4	
Other Africa	86%	87%	86%	86%	85%	\$363	\$418	\$260	\$95	:
Other ME	87%	88%	88%	87%	87%	\$536	\$630	\$294	\$438	\$4
TOTAL MEA	58%	58%	59%	59%	60%	\$4,159	\$4,078	\$2,887	\$2,999	\$2,4
orth America Canada	27%	28%	29%	32%	33%	\$1,141	\$1,066	\$943	\$1,222	\$1,0
Puerto Rico	42%	42%	46%	44%	44%	\$44	\$42	\$46	\$36	, ,
United States	19%	20%	20%	20%	20%	\$9,773	\$9,515	\$8,390	\$9,143	\$8,0
TOTAL NA	19%	21%	21%	21%	21%	\$10,958	\$10,623	\$9,379	\$10,401	\$9,
	1770	2170	2170	2170	2170	\$10,730	\$10,023	Ψ7,377	\$10,401	Ψ7,
estern Europe										
Austria	23%	24%	25%	24%	25%	\$226	\$209	\$212	\$184	\$
Belgium	24%	25%	25%	25%	25%	\$252	\$233	\$239	\$269	\$:
Cyprus	48%	48%	48%	50%	50%	\$19	\$17	\$16	\$15	
Denmark	24%	26%	26%	25%	25%	\$222	\$208	\$203	\$215	\$
Finland	25%	25%	25%	26%	25%	\$210	\$193	\$175	\$194	\$
France	37%	39%	40%	41%	42%	\$2,754	\$2,579	\$2,544	\$2,760	\$2,
Germany	26%	27%	28%	27%	27%	\$2,265	\$2,096	\$2,023	\$2,152	\$1,
Greece	61%	59%	58%	57%	58%	\$343	\$301	\$248	\$238	\$
Iceland	48%	49%	49%	46%	48%	\$17	\$16	\$11	\$23	:
Ireland	34%	35%	35%	34%	34%	\$144	\$137	\$125	\$118	\$
Italy	48%	49%	49%	48%	49%	\$1,945	\$1,879	\$1,733	\$1,895	\$1,
	40 /0	47/0								
Luxembourg	20%	20%	21%	21%	21%	\$33	\$31	\$30	\$21	
	20%	20%				\$33 \$7				;
Malta	20% 43%	20% 43%	45%	45%	46%	\$7	\$6	\$7	\$8	
Malta Netherlands	20% 43% 27%	20% 43% 28%	45% 28%	45% 28%	46% 28%	\$7 \$644	\$6 \$591	\$7 \$525	\$8 \$563	\$
Malta Netherlands Norway	20% 43% 27% 27%	20% 43% 28% 29%	45% 28% 29%	45% 28% 28%	46% 28% 29%	\$7 \$644 \$289	\$6 \$591 \$261	\$7 \$525 \$195	\$8 \$563 \$229	\$
Malta Netherlands Norway Portugal	20% 43% 27% 27% 40%	20% 43% 28% 29% 40%	45% 28% 29% 40%	45% 28% 28% 42%	46% 28% 29% 43%	\$7 \$644 \$289 \$245	\$6 \$591 \$261 \$228	\$7 \$525 \$195 \$221	\$8 \$563 \$229 \$212	\$! \$ \$
Malta Netherlands Norway Portugal Spain	20% 43% 27% 27% 40% 44%	20% 43% 28% 29% 40% 43%	45% 28% 29% 40% 42%	45% 28% 28% 42% 42%	46% 28% 29% 43% 43%	\$7 \$644 \$289 \$245 \$1,216	\$6 \$591 \$261 \$228 \$1,105	\$7 \$525 \$195 \$221 \$1,014	\$8 \$563 \$229 \$212 \$1,029	\$! \$: \$: \$:
Malta Netherlands Norway Portugal Spain Sweden	20% 43% 27% 27% 40% 44% 24%	20% 43% 28% 29% 40% 43% 25%	45% 28% 29% 40% 42% 25%	45% 28% 28% 42% 42% 25%	46% 28% 29% 43% 43% 25%	\$7 \$644 \$289 \$245 \$1,216 \$461	\$6 \$591 \$261 \$228 \$1,105 \$411	\$7 \$525 \$195 \$221 \$1,014 \$304	\$8 \$563 \$229 \$212 \$1,029 \$372	\$: \$ \$: \$:
Malta Netherlands Norway Portugal Spain Sweden Switzerland	20% 43% 27% 27% 40% 44%	20% 43% 28% 29% 40% 43% 25% 26%	45% 28% 29% 40% 42%	45% 28% 28% 42% 42% 25% 25%	46% 28% 29% 43% 43% 25% 25%	\$7 \$644 \$289 \$245 \$1,216	\$6 \$591 \$261 \$228 \$1,105	\$7 \$525 \$195 \$221 \$1,014	\$8 \$563 \$229 \$212 \$1,029	\$: \$ \$: \$:
Malta Netherlands Norway Portugal Spain Sweden Switzerland	20% 43% 27% 27% 40% 44% 24%	20% 43% 28% 29% 40% 43% 25%	45% 28% 29% 40% 42% 25%	45% 28% 28% 42% 42% 25%	46% 28% 29% 43% 43% 25%	\$7 \$644 \$289 \$245 \$1,216 \$461	\$6 \$591 \$261 \$228 \$1,105 \$411	\$7 \$525 \$195 \$221 \$1,014 \$304	\$8 \$563 \$229 \$212 \$1,029 \$372	\$: \$ \$ \$: \$:
Malta Netherlands Norway Portugal Spain Sweden Switzerland	20% 43% 27% 27% 40% 44% 24% 25%	20% 43% 28% 29% 40% 43% 25% 26%	45% 28% 29% 40% 42% 25% 25%	45% 28% 28% 42% 42% 25% 25%	46% 28% 29% 43% 43% 25% 25%	\$7 \$644 \$289 \$245 \$1,216 \$461 \$514	\$6 \$591 \$261 \$228 \$1,105 \$411 \$424	\$7 \$525 \$195 \$221 \$1,014 \$304 \$344	\$8 \$563 \$229 \$212 \$1,029 \$372 \$345	\$! \$1 \$1 \$3 \$3 \$1,8
Malta Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom	20% 43% 27% 27% 40% 44% 24% 25% 26%	20% 43% 28% 29% 40% 43% 25% 26% 27%	45% 28% 29% 40% 42% 25% 25% 27%	45% 28% 28% 42% 42% 25% 25% 27%	46% 28% 29% 43% 43% 25% 25% 26%	\$7 \$644 \$289 \$245 \$1,216 \$461 \$514 \$1,943	\$6 \$591 \$261 \$228 \$1,105 \$411 \$424 \$1,846	\$7 \$525 \$195 \$221 \$1,014 \$304 \$344 \$1,581	\$8 \$563 \$229 \$212 \$1,029 \$372 \$345 \$2,181	\$! \$ \$! \$! \$1,6
Malta Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom TOTAL WE	20% 43% 27% 27% 40% 44% 24% 25% 26% 32%	20% 43% 28% 29% 40% 43% 25% 26% 27% 33%	45% 28% 29% 40% 42% 25% 25% 27% 34%	45% 28% 28% 42% 42% 25% 25% 27% 33%	46% 28% 29% 43% 43% 25% 25% 26% 33%	\$7 \$644 \$289 \$245 \$1,216 \$461 \$514 \$1,943	\$6 \$591 \$261 \$228 \$1,105 \$411 \$424 \$1,846 \$12,771	\$7 \$525 \$195 \$221 \$1,014 \$304 \$344 \$1,581	\$8 \$563 \$229 \$212 \$1,029 \$372 \$345 \$2,181 \$13,023	\$! \$ \$? \$! \$1,8 \$11,6
Malta Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom TOTAL WE	20% 43% 27% 27% 40% 44% 25% 26% 32%	20% 43% 28% 29% 40% 43% 25% 26% 27% 33%	45% 28% 29% 40% 42% 25% 25% 27% 34%	45% 28% 28% 42% 42% 25% 25% 27% 33%	46% 28% 29% 43% 43% 25% 25% 26% 33%	\$7 \$644 \$289 \$245 \$1,216 \$461 \$514 \$1,943 \$13,749	\$6 \$591 \$261 \$228 \$1,105 \$411 \$424 \$1,846 \$12,771	\$7 \$525 \$195 \$221 \$1,014 \$304 \$344 \$1,581 \$11,750	\$8 \$563 \$229 \$212 \$1,029 \$372 \$345 \$2,181 \$13,023	\$5 \$7 \$7 \$3 \$3 \$1,6 \$11,6 \$12,3 \$14,4

^{*}BRIC Countries are Brazil, Russia, India, and China.

THE BSA BLUEPRINT FOR REDUCING SOFTWARE PIRACY

The gradual progress many countries are making in lowering piracy rates demonstrates the value of sustained anti-piracy efforts that build equity over time. There are proven steps that governments around the world can take to effectively reduce software theft:

- Increase public education and raise awareness about software piracy and IP rights in cooperation with industry and law enforcement.
- Modernize protections for software and other copyrighted materials to keep pace with new innovations such as cloud computing and the proliferation of networked mobile devices.
- Strengthen enforcement of IP laws with dedicated resources, including specialized enforcement units, training for law enforcement and judiciary officials, improved cross-border cooperation among law enforcement agencies, and fulfillment of obligations under the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- Lead by example by using only fully licensed software, implementing software asset management (SAM) programs, and promoting the use of legal software in state-owned enterprises, and among all contractors and suppliers.

ABOUT THE STUDY

The BSA Global Software Piracy Study, conducted in partnership with IDC and Ipsos Public Affairs, incorporates 182 discrete data inputs for each of 116 national and regional economies studied. IDC analysts in nearly 100 countries spend more than six months collecting and evaluating PC and software trend data, while Ipsos surveys approximately 15,000 consumer and business PC users around the world. The study covers piracy of all software that runs on PCs, including desktops, laptops, and netbooks. It measures operating systems, systems software (such as databases and security packages), and applications software. Legitimate free software and open-source software are included.

For more information about the methodology and a copy of the complete report, visit **www.bsa.org/globalstudy**.

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