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UNITEDNATIONSECONOMIC
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WORLDINTELLECTUAL
PROPERTYORGANIZATION

**WIPO-ESCWAARABREGI ONALCONFERENCEONR ECENT
DEVELOPMENTSINTHE FIELDOFINTELLECTUA LPROPERTY**

organizedby
theWorldIntellectualPropertyOrganization(WIPO)
and
theUnitedNationsEconomicandSocialCommissionforWesternAsia
(ESCWA)

incooperationwith
theMinistryofEconomyandTrade

Beirut,May 5and 6, 2003

ECONOMICCONSEQUENCESOFSOFTWAREPIRACY

*LecturepreparedbyMr. Charbel Fakhoury, GeneralManager,
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**The Economic
Consequences of Software
Piracy**

**Beirut,
Lebanon
May 5, 2003**

*Charbel Fakhoury
General Manager,
Microsoft Eastern Mediterranean*

Economic Importance of Reducing Software Piracy

**Intellectual Property Contributed
more than US\$ 1 trillion to Global
Commerce in 1998**

*- The Economist, The World in 1998
(September 1998)*

International Data Corporation Study

- *International Data Corporation IDC has conducted a study to measure the contribution of the packaged software industry to the economies of Africa and the Middle East in the year 2003;*
- *The results illustrate clearly that a reduction in software piracy results in clear economic gains, including greater fiscal contributions and employment opportunities.*

Middle East & Africa

The Middle East and Africa's small but growing \$11.8 billion IT sector already employs more than 160,000 people and generates \$3.8 billion a year in tax revenues. The region's IT sector could grow to \$20 billion in four years, employing 235,000 people, with a 10-point reduction in its software piracy rate.

A 10-point drop in piracy over 4 years would add:

- ✓ 11,000 new jobs
- ✓ \$4.7 billion in additional economic growth
- ✓ More than \$400 million in tax revenues

Latin America

Despite the global economic slowdown, Latin America's IT sector has grown into a \$24 billion industry that employs more than half a million people. A 10-point reduction in the region's 57 percent software piracy rate by 2006 would help the sector grow to \$38 billion in revenues, employing three-quarters of a million people.

A 10-point drop in piracy over 4 years would add:

- ✓ 25,000 new jobs
- ✓ \$6.4 billion in additional economic growth
- ✓ More than \$600 million in taxes

Eastern Europe

Eastern Europe's IT sector contributes more than \$14 billion a year to its economy, employs 350,000 workers, and delivers more than \$3 billion a year in tax revenues. A 10-point reduction in its software piracy rate would help Eastern Europe's IT sector grow 83 percent, to \$26 billion, in just four years.

- A 10-point drop in piracy over 4 years would add:**
- ✓ 50,000 new jobs
 - ✓ \$11.2 billion in additional economic growth
 - ✓ More than \$800 million in tax revenues

Asia Pacific

Asia-Pacific's IT sector, although feeling the impact of the global economic slowdown, already employs roughly three million people and generates \$95 billion a year in tax revenues. Its IT sector could double in size in just four years — growing from \$175 billion to \$330 billion — with the help of a 10-point reduction in software piracy.

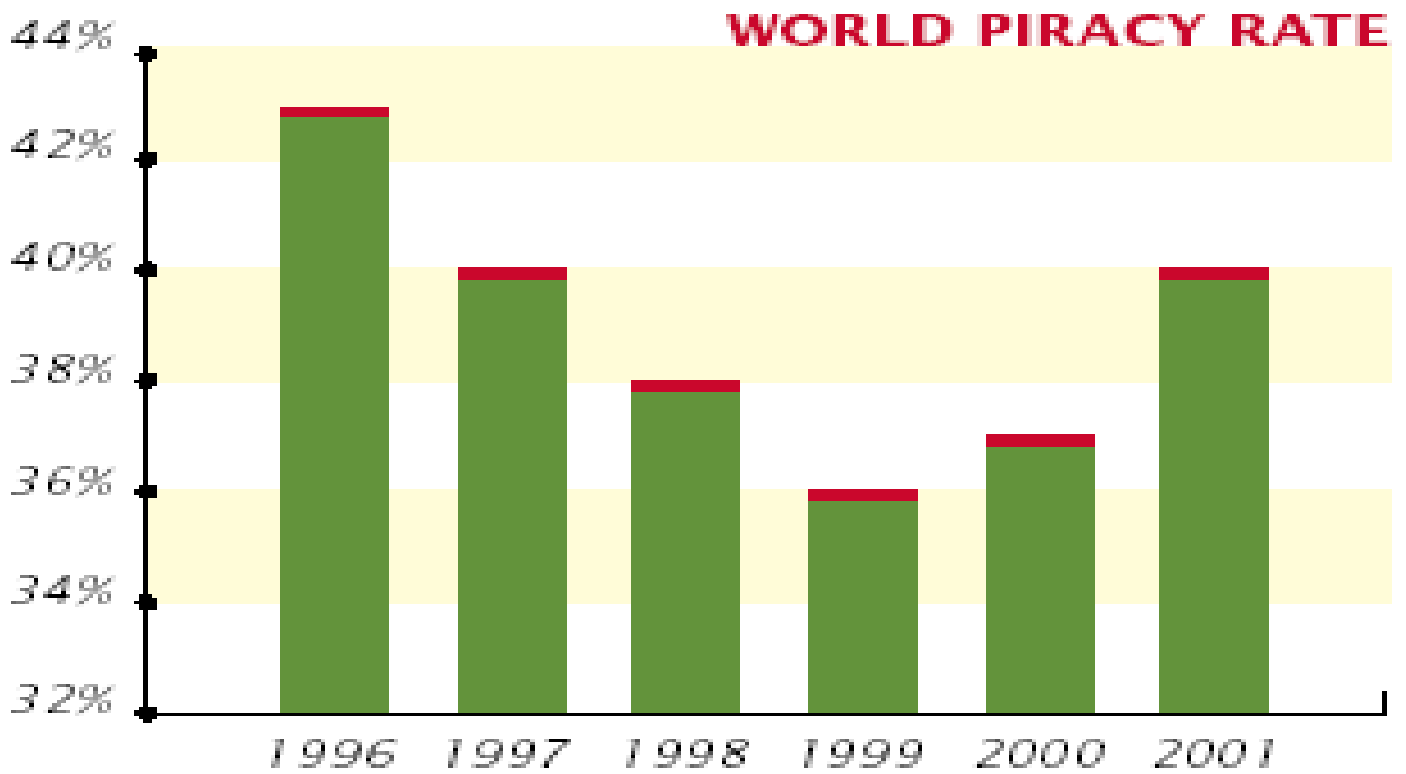
A 10-point drop in piracy over 4 years would add:

- ✓ 1.1 million new jobs
- ✓ \$170 billion in additional economic growth
- ✓ More than \$15 billion in tax revenues

Countries Already Experiencing Benefits

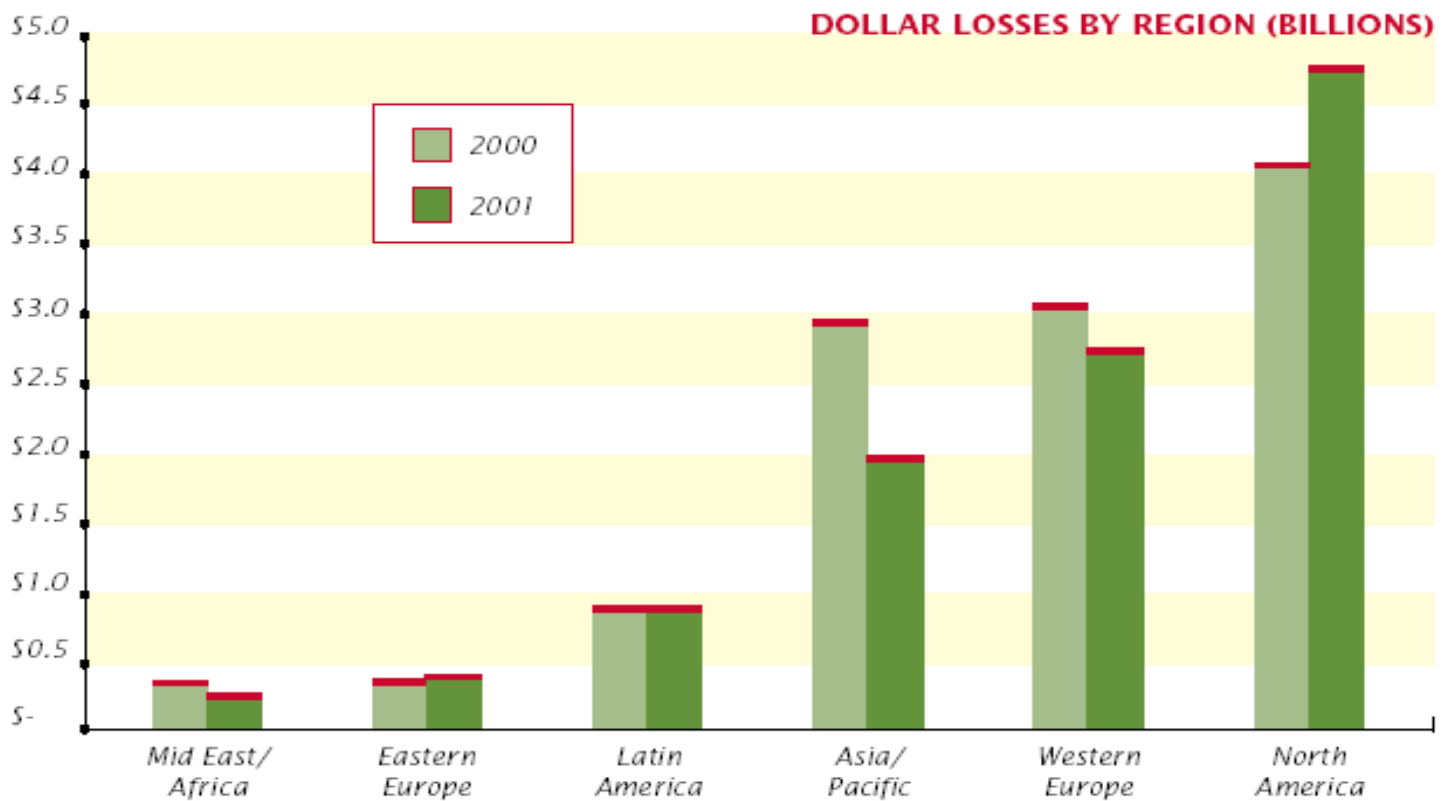
- Egypt reduced its piracy rate by 30 percent since 1996 allowing its software sector to grow 160 percent, the fastest software and IT sector growth in the Middle East region.
- In fact, Egypt's software growth helped it double its IT sector and with the help of a 10-point piracy reduction, the country could grow its IT sector another 50 percent by 2006.
- Kuwait lowered its piracy rate by 13 points since 1996, it tripled its software sector and doubled its IT sector.
- Turkey lowered its piracy rate by 27 points since 1996, Turkey is projected to see its IT sector more than double and its software sector triple between 2002 and 2006. It would enjoy the region's fastest software sector growth.

World Piracy Rate



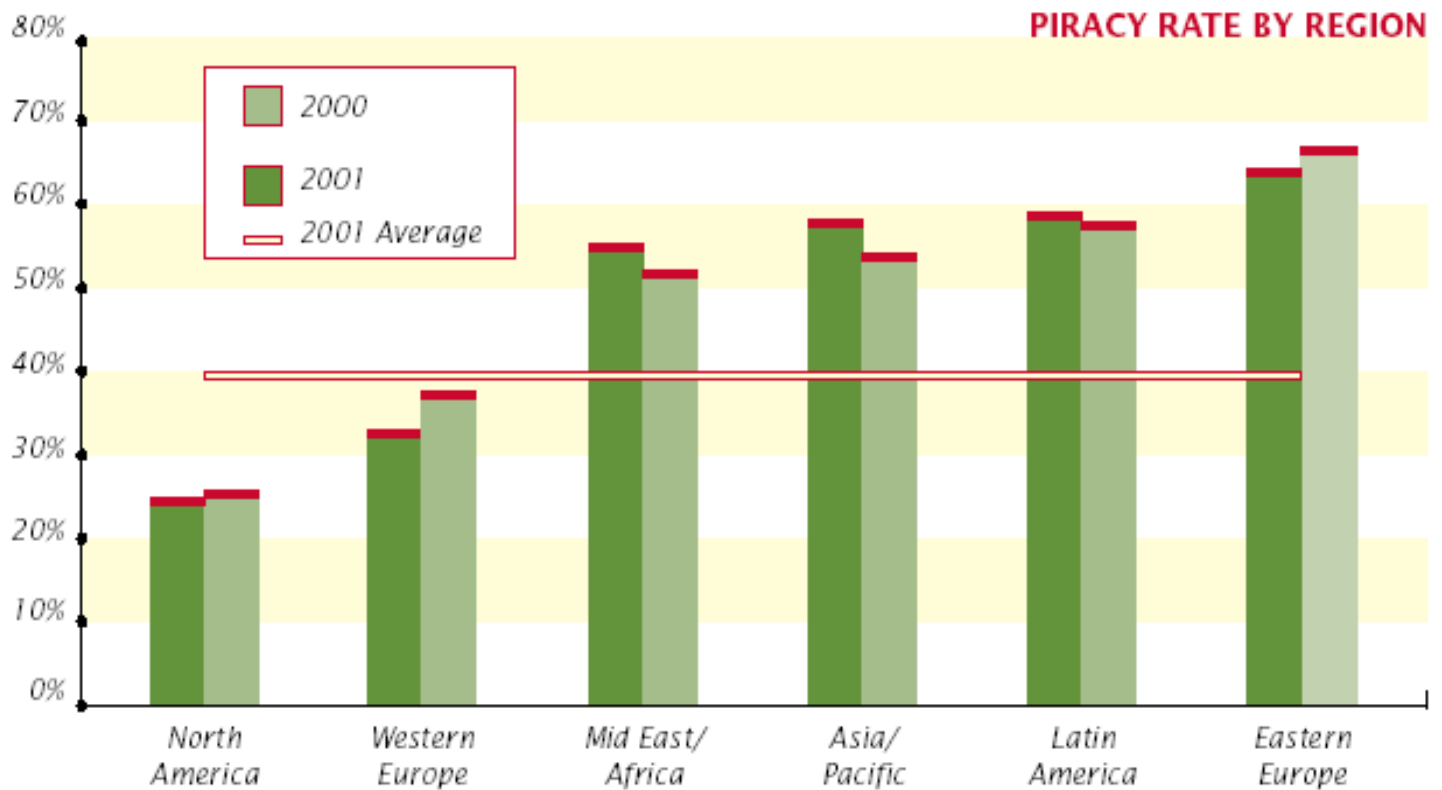
Source: Business Software Alliance

Dollar Losses By Region



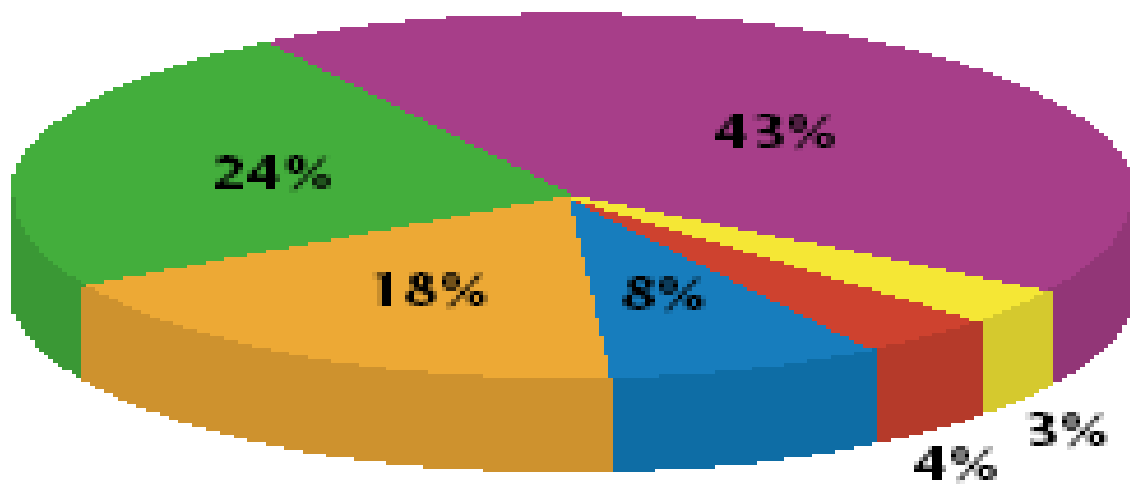
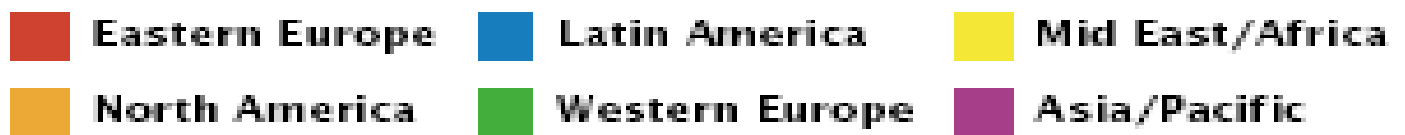
Source: Business Software Alliance

Piracy Rate By Region



Source: Business Software Alliance

Revenue Losses By Region



Source: Business Software Alliance

Piracy Rates/Losses in ME/Africa

	Piracy Rates						Retail Software Revenue Lost to Piracy (1000)					
	1996	1997	1998	1999	2000	2001	1996	1997	1998	1999	2000	2001
MIDDLE EAST/AFRICA												
Bahrain	90%	89%	89%	82%	80%	77%	\$4,495	\$3,576	\$3,012	\$6,021	\$4,745	\$1,179
Cyprus	70%	68%	68%	67%	63%	61%	\$2,540	\$1,809	\$1,518	\$3,345	\$2,382	\$1,301
Israel	69%	54%	48%	44%	41%	40%	\$77,261	\$57,060	\$63,239	\$72,487	\$66,256	\$45,429
Jordan	83%	80%	80%	75%	71%	67%	\$2,659	\$1,883	\$1,584	\$3,276	\$2,116	\$1,021
Kuwait	89%	88%	88%	81%	80%	76%	\$10,817	\$7,889	\$6,644	\$13,200	\$8,143	\$5,468
Lebanon	88%	93%	93%	88%	83%	79%	\$1,708	\$1,322	\$1,119	\$2,059	\$1,600	\$1,347
Malta	70%	64%	63%	58%	56%	53%	\$1,956	\$1,299	\$1,090	\$2,220	\$1,667	\$969
Mauritius	88%	77%	78%	70%	66%	65%	\$1,646	\$1,070	\$902	\$1,263	\$1,482	\$2,085
Oman	95%	93%	93%	88%	78%	77%	\$7,905	\$5,682	\$4,784	\$9,780	\$6,535	\$3,148
Qatar	89%	87%	87%	80%	81%	78%	\$3,206	\$2,760	\$2,325	\$4,451	\$3,736	\$2,705
Reunion	66%	59%	59%	54%	49%	46%	\$1,860	\$1,232	\$1,036	\$1,458	\$1,881	\$474
Saudi Arabia	79%	74%	73%	64%	59%	52%	\$65,192	\$46,156	\$38,768	\$39,900	\$21,671	\$20,013
Turkey	85%	84%	87%	74%	63%	58%	\$90,717	\$64,306	\$55,823	\$98,257	\$96,472	\$27,440
UAE	50%	50%	49%	47%	44%	41%	\$6,026	\$4,420	\$3,637	\$7,624	\$5,393	\$7,596
Other Middle East	73%	73%	73%	69%	63%	56%	\$7,534	\$5,538	\$4,661	\$19,103	\$16,372	\$17,287
TOTAL MIDDLE EAST	79%	72%	69%	63%	57%	51%	\$285,522	\$206,003	\$190,139	\$284,445	\$240,451	\$137,463
Egypt	88%	85%	85%	75%	56%	58%	\$18,128	\$12,890	\$10,858	\$33,197	\$12,232	\$17,663
Kenya	77%	72%	72%	67%	67%	77%	\$443	\$302	\$254	\$372	\$2,805	\$2,684
Morocco	77%	72%	72%	64%	60%	61%	\$6,675	\$4,559	\$3,829	\$5,267	\$6,045	\$5,531
Nigeria	77%	72%	72%	67%	67%	71%	\$3,673	\$2,509	\$2,107	\$2,951	\$3,247	\$4,952
South Africa	49%	48%	49%	47%	45%	38%	\$43,783	\$69,833	\$94,241	\$84,149	\$54,447	\$40,595
Zimbabwe	70%	66%	67%	63%	59%	68%	\$717	\$699	\$810	\$845	\$508	\$1,701
Other Africa	83%	71%	69%	66%	62%	69%	\$151,814	\$94,715	\$77,781	\$66,966	\$56,607	\$74,046
TOTAL AFRICA	70%	60%	58%	56%	52%	53%	\$225,234	\$185,507	\$189,880	\$193,747	\$135,892	\$147,172
TOTAL MIDDLE EAST/ AFRICA	74%	65%	63%	60%	55%	52%	\$510,756	\$391,510	\$380,019	\$478,192	\$376,344	\$284,634

Source: Business Software Alliance

Software & IT Services vs. Hardware

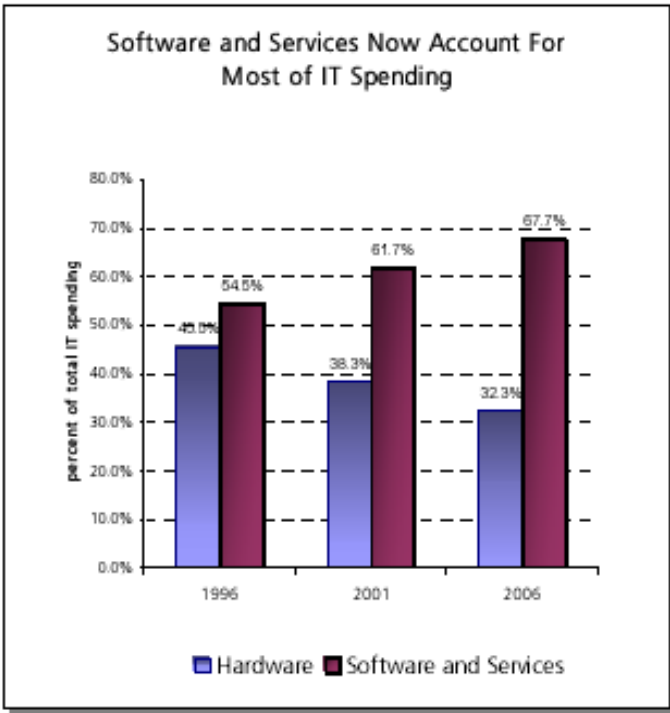


Figure 1 Source: IDC data

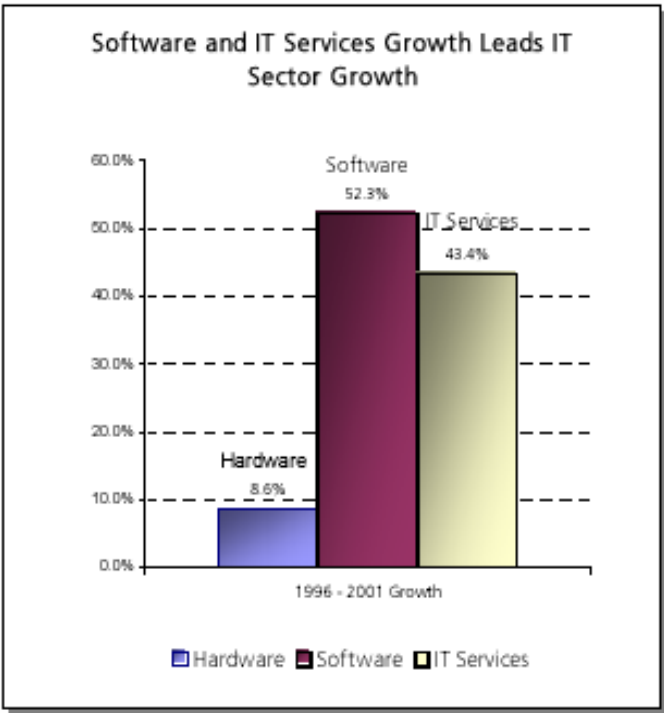


Figure 2 Source: IDC data

Piracy Rates vs. Tax Benefits

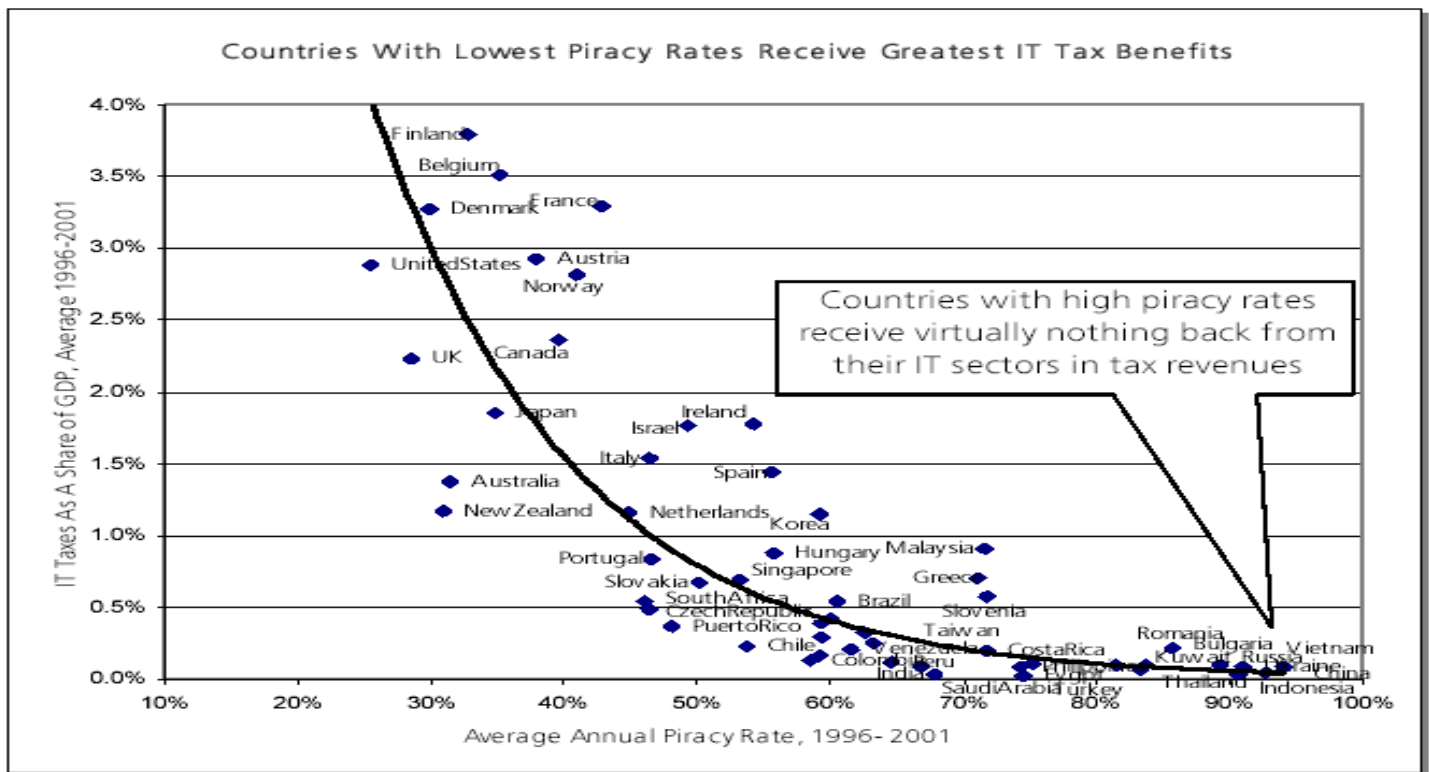


Figure 3 Source: IDC data

Piracy Reduction vs. IT Growth

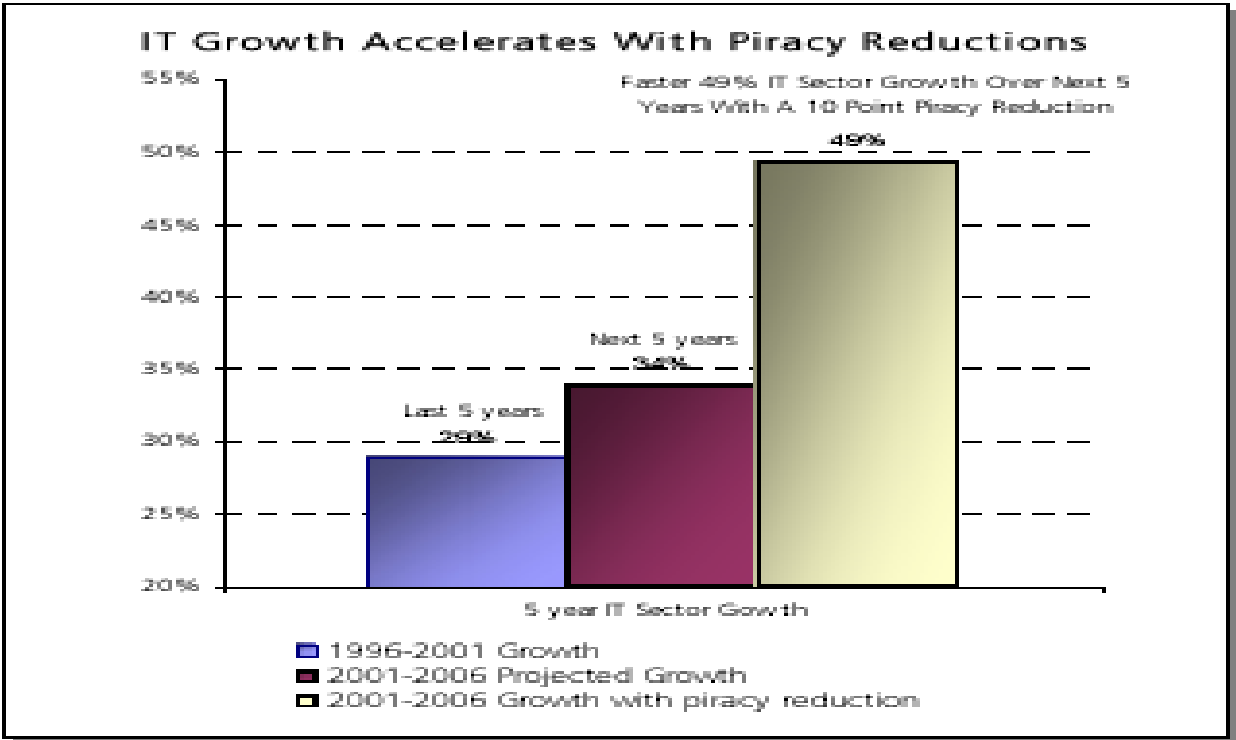


Figure 4

Source: International Data Corporation

Greater Reduction = Greater Benefits

Larger Piracy Reductions Bring Greater Benefits									
Region	5-Point Reduction			10-Point Reduction			20-Point Reduction		
	Contribution to GDP (\$M)	New Jobs	Additional Taxes (\$M)	Contribution to GDP (\$M)	New Jobs	Additional Taxes (\$M)	Contribution to GDP (\$M)	New Jobs	Additional Taxes (\$M)
Asia-Pacific	\$ 138,920	733,155	\$ 12,354	\$ 169,088	1,100,430	\$ 15,130	\$ 313,791	1,487,264	\$ 29,363
North America	\$ 118,580	77,909	\$ 18,942	\$ 150,922	146,792	\$ 24,444	\$ 400,768	263,102	\$ 64,012
Western Europe	\$ 71,947	108,094	\$ 17,729	\$ 91,289	202,709	\$ 22,472	\$ 239,945	360,505	\$ 59,132
Eastern Europe	\$ 9,169	29,191	\$ 647	\$ 11,192	49,279	\$ 799	\$ 24,169	75,806	\$ 1,831
Latin America	\$ 5,104	13,719	\$ 490	\$ 6,414	25,392	\$ 614	\$ 16,456	44,196	\$ 1,580
Middle East-Africa	\$ 3,695	6,042	\$ 326	\$ 4,714	11,192	\$ 412	\$ 11,914	19,528	\$ 1,073
Worldwide	\$ 347,415	968,110	\$ 50,488	\$ 433,619	1,535,793	\$ 63,872	\$ 1,007,043	2,250,402	\$ 156,992

Table 2 Cumulative benefits from piracy reductions, 2002 to 2006. GDP contribution does not include imports or exports.

Piracy Reduction Relative Benefits

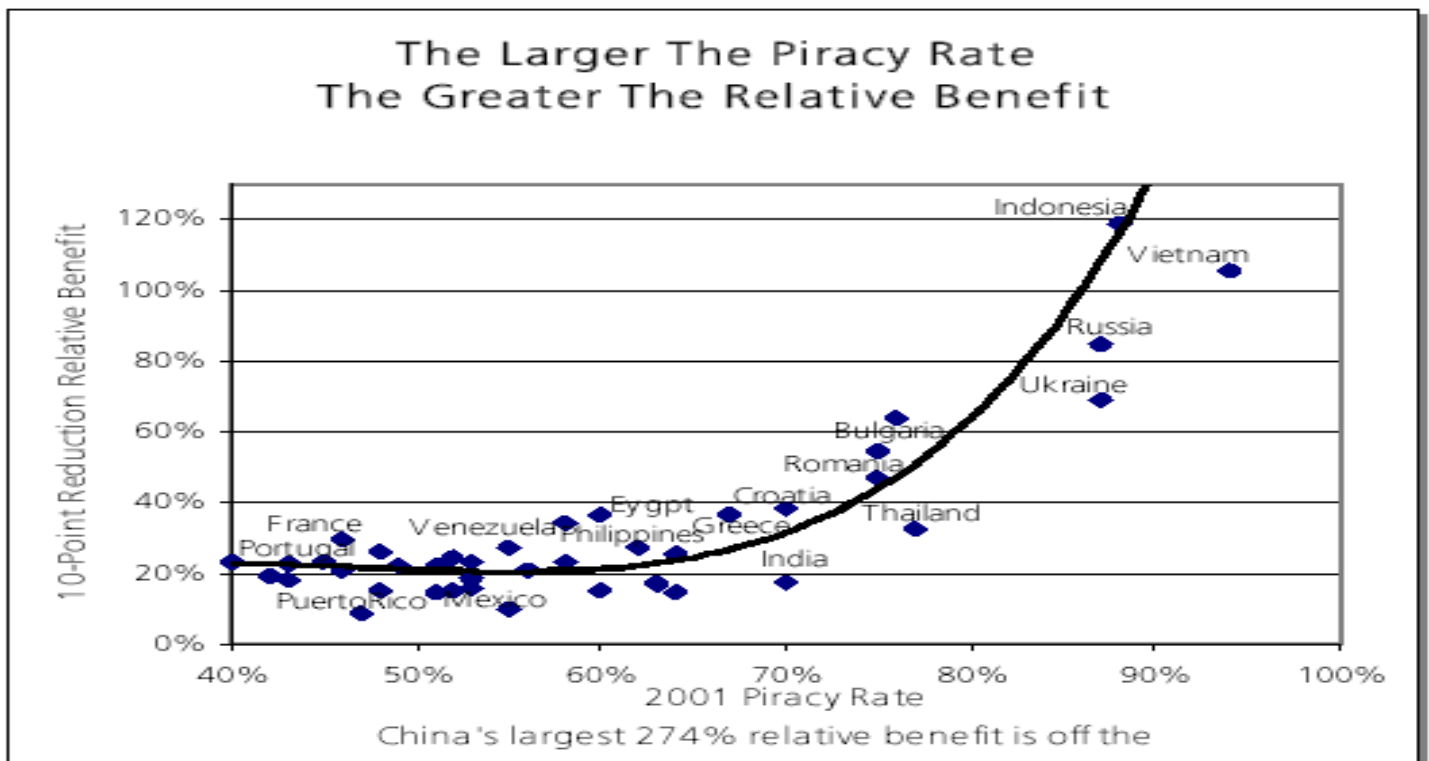


Figure 5 Source: IDC data. Data for countries with piracy rates above 40% shown

Piracy Reduction Benefits By Region

Largest Relative Value of Benefit	
Asia-Pacific	44.4%
Eastern Europe	13.9%
Western Europe	8.1%
Middle East-Africa	6.9%
North America	5.2%
Latin America	4.8%

Table 4 Regional ranking of relative benefits from 10-point piracy reduction

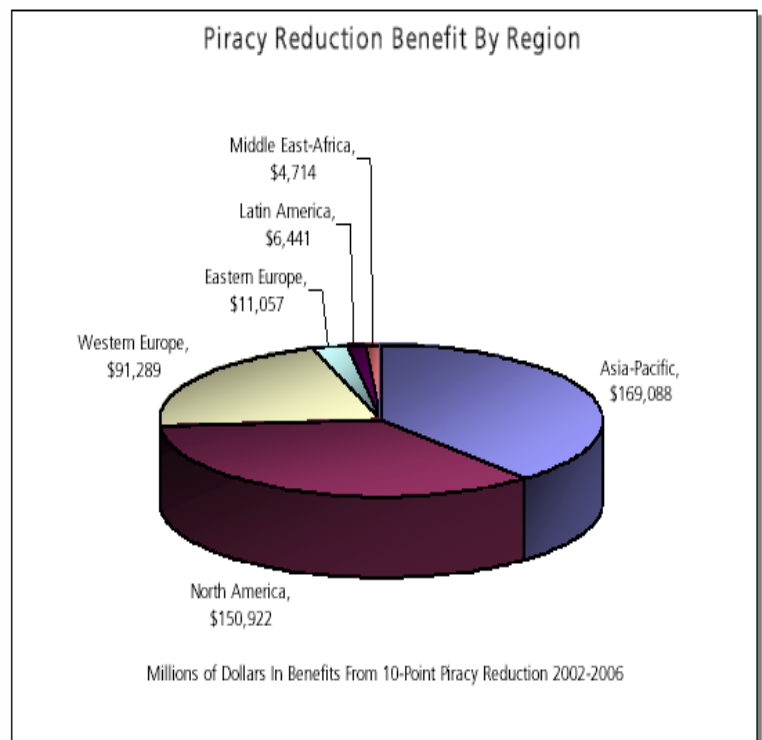


Figure 6 Source: IDC data

Source: International Data Corporation

Who Wins - How And Why

Reducing Piracy Delivers Benefits In Many Ways:

- Entrepreneurs Benefit from New Opportunities for New Innovations**
- Workers Benefit from More Jobs that Pay Higher Wages**
- Consumers Benefit from More Choices and More Competition**
- Governments Benefit from New Revenues for Needed Services**

MAJOR IMPLICATIONS OF PIRACY REDUCTIONS

- More than 30 million computers for schools
- Health care for 32 million people
- College degrees for 6.9 million people
- Internet access for more than 20 million people for four years (including phone and ISP charges)
- Primary education for roughly 4 million children
- Economies benefit from greater productivity leading to higher standards of living

What Governments Can Do To Take Advantage Of These Benefits

- **Leading by example** - Since governments are among the largest purchasers of software around the world, many governments have taken concrete steps to send the message that the government itself won't tolerate piracy.
- **Education and Awareness** - To reduce piracy, governments can increase public awareness of copyright laws, encourage legal use of legitimate software and explain the consequences of software piracy. They can appeal to business owners to adopt proper corporate internal guidelines for using legal software and remind them of the legal liabilities and potentially high cost of illegal software use.
- **Combating Digital and Internet Piracy** - To reduce piracy, governments need to adopt stronger laws specifically tailored to address digital and online piracy and those laws must have workable mechanisms that can be vigorously enforced.
- **Reducing Optical Piracy** - As part of each country's WTO TRIPS obligation to provide deterrent enforcement against piracy on a commercial scale, every country whose optical disc production facilities are producing significant pirate product must consider creating and enforcing a specialized regulatory framework for tracking the growth of optical disc production capacity, including the cross-border traffic in production equipment and raw materials.
- **Fighting Piracy By Organized Crime** - Governments can fight organized piracy crimes by 1) increasing the priority of criminal intellectual property investigations and prosecutions, 2) making it easier for industry to provide referrals, 3) providing specialized training for investigators and prosecutors for high-tech crimes, and 4) providing further assistance to foreign law enforcement officials in order to get at the borderless nature of these crimes.

Conclusion

- The software and IT sectors are dynamic engines for economic growth around the world.
- By reducing software piracy rates the IT sector's rapid rate of growth will not only continue, but can accelerate.
- Software piracy reduction can be a powerful tool for jumpstarting economic growth – creating new jobs, taxes and business opportunities.
- Countries with the highest piracy rates today can unleash the greatest economic benefits tomorrow. Harnessing these benefits requires critical decisions today.
- If a country is to achieve the full economic potential of its IT sector and the vast benefits that accompany it, then software piracy reductions can be a strategic tool for achieving that goal.
- When piracy is reduced consumers, local entrepreneurs, workers, governments, and economies win.

Conclusion (cont'd)

- The Arab World has great potential in terms of human resources;
- Human resources are the backbone of the IT revolution;
- If piracy rates are reduced significantly throughout the Arab World, the software industry will flourish to the benefit of national economies.
- Microsoft hopes to be able to help the Arab World realize its IT potential.