PRELIMINARY ANALYSIS OF DENNIS CARLTON
REGARDING PRICE CAPS
FOR NEW gTLD INTERNET REGISTRIES

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I. INTRODUCTION

A. QUALIFICATIONS

1. I am the Katherine Dusak Miller Professor of Economics at the University of Chicago Booth School of Business. I received my A.B. in Applied Mathematics and Economics from Harvard University and my M.S. in Operations Research and Ph.D. in Economics from the Massachusetts Institute of Technology. I have served on the faculties of the Law School and the Department of Economics at The University of Chicago and the Department of Economics at the Massachusetts Institute of Technology.

2. I specialize in the economics of industrial organization, which is the study of individual markets and includes the study of antitrust and regulatory issues. I am co-author of the book <u>Modern Industrial Organization</u>, a leading text in the field of industrial organization, and I also have published numerous articles in academic journals and books. In addition, I am Co-Editor of the <u>Journal of Law and Economics</u>, a leading journal that publishes research applying economic analysis to industrial organization and legal matters, and serve, or have served, as an editor of a variety of scholarly journals.

3. In addition to my academic experience, I am a Senior Managing Director of Compass Lexecon, a consulting firm that specializes in the application of economics to legal and regulatory issues. From October 2006 through January 2008, I served as Deputy Assistant Attorney General for Economic Analysis, Antitrust Division, U.S.

Department of Justice, the most senior position in the Antitrust Division held by an economist. I also served as a Commissioner of the Antitrust Modernization Commission, created by the U.S. Congress in 2002 to evaluate U.S. antitrust laws. I have provided expert testimony before various U.S., state and federal courts, the U.S. Congress, a variety of state and federal regulatory agencies and foreign tribunals and have served as a consultant to the Department of Justice, the Federal Trade Commission and other government agencies.

B. SUMMARY OF CONCLUSIONS

4. The proposal that the ICANN Board of Directors recently approved to authorize new processes for introducing new generic top-level domains "gTLDs" holds the promise of increasing competition faced by the operators of the registries for the major current TLDs including .com, .net, and .org. I have been asked by counsel for ICANN to address whether price caps that limit future increases in prices charged to registrars of these new gTLDs would be necessary to insure the potential competitive benefits of the new gTLDs. I limit my analysis here only to issues associated with competition, and do not address issues associated with consumer confusion or intellectual property. Those issues are addressed in "Preliminary Report of Dennis Carlton Regarding Impact of New gTLDs on Consumer Welfare".

5. I conclude that price caps or ceilings on prices charged by operators of new gTLD registries are unnecessary to insure competitive benefits of the proposed process for introducing new gTLDs. I further conclude that imposing price caps on the registries for new gTLDs could inhibit the development and marketplace acceptance of

new gTLDs by limiting the pricing flexibility of entrants to the provision of new registry services without generating significant benefits to registrants of the new gTLDs.

II. COMPETITIVE IMPACT OF PRICE CAPS FOR gTLDs

A. PRICE CAPS LIMIT THE POTENTIAL COMPETITIVE BENEFITS OF NEW gTLDs.

6. Despite the introduction of TLDs in recent years, Internet activity today continues to be dominated by a small number of registries. For example, the .com TLD today has more than 77 million registered domain names while the .net TLD, the next largest registry for generic TLDs, has roughly 12 million.[1] Both of these registries are managed by VeriSign. The next biggest gTLD, .org, today accounts for roughly 7 million active domain names. While a handful of new gTLDs have been introduced in recent years, these have achieved only limited success in attracting registrants and Internet activity. For example, the .info gTLD, introduced in 2001, has attracted roughly 5 million domain names, while .biz, also introduced in 2001, has attracted about 2 million domain names.

7. In 2007, the Generic Names Supporting Organization (GNSO) completed a comprehensive report to ICANN with respect to new gTLDs. This report correctly recognizes that the development of a new process for introducing new gTLDs promises to encourage new competition into the provision of registry services with the potential to generate significant benefits to consumers. As noted in the recommendations to ICANN:

> …the introduction of a new top-level domain application process has the potential to promote competition in the provision of registry services, and

1. ICANN Registry Operator Monthly Reports June 2008. (http://www.icann.org/en/tlds/monthly-reports/)

> to add to consumer choice, market differentiation and geographic and service-provider diversity."[2]

8. The introduction of new TLD registries will enable new entrants to the provision of registry services to experiment with new approaches for attracting domains and Internet traffic. The introduction of new TLDs promises to enhance competition in the provision of registry services with respect to both price and service quality. The introduction of new TLDs also will enable operators of new registries to experiment with new marketing and pricing models.

9. The absence of price caps would likely facilitate experimentation by new gTLD registries with respect to pricing mechanisms.[3] For example, some new gTLD operators might offer significantly lower initial prices without restricting their ability to increase prices in the future (whereas the existence of price caps likely would inhibit the introduction of extremely low initial prices). Some consumers may prefer to trade off a lower initial price for a potential future price increase. Alternatively, new registry operators may choose to experiment with usage based pricing. Other new gTLD registries might attempt to attract new registrars and/or end users by offering long-term contracts that limit future price changes.

10. Placing price caps on new TLD registries limits pricing flexibility and reduces the ability of entrants to innovate and succeed.

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2. ICANN Generic Names Supporting Organization Board Report: Introduction of New Generic Top-Level Domains, September 2007, p. 28.
3. I understand that ICANN is also considering whether to require separation between operators of new gTLD registries and registrars, as is required under current agreements. My analysis considers the competitive effects of price caps for both sets of potential consumers of registry services.

B. PRICE CAPS ARE UNLIKELY TO GENERATE SIGNIFICANT CONSUMER BENEFITS.

1. Switching costs create incentives for “ex ante” competition among suppliers.

11. Registrants that adopt a particular Internet domain name face costs from switching registries because the use of the TLD in the domain name prevents Internet addresses from being ported across registries. That is, the holder of a domain name that wants to switch registries must, at a minimum, adopt a new TLD. Switching costs arise for a variety of products and industries and the existence of such costs can make customers, to some degree, beholden to their suppliers. This can create an incentive for registry operators to act opportunistically by raising prices above levels consumers might reasonably expect. Proponents of incorporating price caps for registry services into registry contracts might argue that such caps eliminate the risk of such opportunistic behavior by registries.

12. However, competition among suppliers to attract new customers in markets characterized by switching costs limits or eliminates the suppliers’ incentive and ability to act opportunistically. For example, a supplier that imposes unexpected or unreasonable price increases will quickly harm its reputation making it more difficult for it to continue to attract new customers. Therefore, even in the absence of price caps, competition can reduce or eliminate the incentive for suppliers to act opportunistically.

13. The economic literature recognizes the role of “ex ante” competition in discouraging opportunistic behavior by suppliers of products that embody switching costs. For example, a leading academic study of switching costs notes:

> The monopoly power that firms gain over their respective market segments leads to vigorous competition for market share before consumers have attached themselves to suppliers.[4]

14. The economic literature further recognizes that a firm that acts opportunistically in dealing with customers facing switching costs is likely to suffer harm to its reputation, which limits its ability to attract new customers in the long-run:

> … every seller has “captive” buyers in the short run. We should not worry about slight degrees of monopoly power; the free market will take care of them faster than antitrust law could do. The seller who exploits its “monopoly” over replacement parts will find himself without many purchasers of his original equipment in the next period.[5]

15. This sentiment is also echoed by Shapiro (1995) in his analysis of the U.S. Supreme Court’s decision in *Eastman Kodak Co. v. Image Technical Services, Inc.*[6] This case involved claims that Kodak violated antitrust laws by limiting its customers’ ability to obtain replacement parts from firms other than Kodak. Shapiro concludes that suppliers in growing markets face the strongest incentives to preserve their reputation and thus to avoid opportunistic behavior.[7] This is because, in a growing market, an opportunistic firm risks greater future losses than do similar firms in stable or declining markets. Thus, the rationale for imposing price caps is weakest in rapidly growing industries.

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4. Klemperer, Paul. “Markets with Consumer Switching Costs” *Quarterly Journal of Economics* 102 (1987), 375-394, p. 377. I reached similar conclusions in my own analysis of the *Kodak* case. Carlton, Dennis. “A General Analysis of Exclusionary Conduct and Refusal to Deal – Why *Aspen* and *Kodak* are Misguided,” *Antitrust Law Journal* 68 (2001), 659-683, p. 679.
5. Posner, Richard. Antitrust Law, 2nd Edition. Chicago: University of Chicago Press, 2001, p. 230.
6. Shapiro, Carl. “Aftermarkets and Consumer Welfare: Making Sense of *Kodak*,” *Antitrust Law Journal* 63 (1994), 483-511.
7. Shapiro (1994), p 490.

16. Ex ante competition serves to protect both uninformed consumers, which face greater risk of opportunistic price increases, as well as better informed consumers because both sets of consumers pay the same prices. In addition, other contractual mechanisms can be negotiated to avoid opportunistic behavior by suppliers. For example, firms and customers may enter into long-term contracts with renewal provisions that specify a supplier's ability to change prices over time.

2. Competition among existing and new TLD registries limits concerns about opportunistic behavior.

17. As early as 1998, the Federal Trade Commission ("FTC") concluded that the existence of switching costs faced by holders of domain names did not raise a significant impediment to the privatization of the Internet Domain Name System. In response to the National Telecommunications and Information Administration's request for comments on this issue, the FTC concluded:

> It would appear plausible that the absence of domain name portability across registries could impose a switching cost on users who change registries... It is theoretically possible, therefore, that a supplier could raise the future prices to locked-in customers…
>
> The economic analysis of markets with switching costs has identified a number of factors that, in appropriate circumstances, can diminish the ability and the incentive of a supplier to act opportunistically with respect to its locked-in customers….
>
> Overall, we would conclude that while the possibility of supplier opportunism exists, the potential benefits to customers from enhanced competition – such as possible price reductions and quality improvements – argue in favor of [assignment of registries to for-profit firms].[8]

18. Today, competition among a variety of TLDs reduces concerns about opportunistic behavior by new gTLD registries that may result from switching costs faced

8. Comment of the Staffs of the Bureaus of Economics and Competition of the FTC – In the Matter of Improvement of Technical Management of Internet Names and Addresses" March 23, 1998, p. 3-4.

by registrants of new domain names. First, new gTLD registries face competition from a wide variety of alternatives, including the major existing TLDs (.com, .net, .org), less established existing TLDs (e.g., info, .biz), country-code TLDs, sponsored TLDs (such as .museum, .aero), and other new gTLD entrants. The existence of these alternatives implies that new gTLDs are unlikely to be successful in attracting a significant number of new registrants if they engage in opportunistic behavior that harms their reputation. Under these circumstances, price caps are not necessary to protect registrants using the new gTLD registries.

19. Concerns about opportunistic behavior by registry operators are further limited to the extent that new gTLDs provide services using registrars. It would be expected that registrars' on-going involvement in the provision of domain-name related services leaves them well informed about potentially opportunistic behavior by registry operators and in a position to shift potential customers away from new gTLDs that act in this manner.

20. The fact that major TLDs are currently subject to price caps further constrains the ability of new gTLD registry operators to charge non-competitive prices. More specifically, the current agreements between the U.S. Department of Commerce, ICANN, and VeriSign cap the price increases that VeriSign can charge registrars for both the .com and .net TLDs. Several other non-sponsored TLDs (such as .info and .biz) are also subject to price caps. While the appropriateness of these price caps may be debatable, the existence of the caps limits the prices that new gTLDs can charge by capping the price that the major registry operators can charge.

21. While the major TLDs are subject to price caps, a number of the new sponsored TLDs, such as .museum, .travel, and .tel, are not. I am unaware of any complaints from registrars or end-users that obtain services from these new sponsored TLDs that their registries have acted opportunistically by raising prices significantly to existing customers. This provides further evidence that price caps are not necessary to protect registrants from opportunistic behavior by new gTLD registries.

22. Finally, the continuing growth of Internet services further reduces concerns about opportunistic behavior by operators of the new gTLD registries. As noted above, incentives for opportunistic behavior are lower in rapidly growing industries. The number of registered domain names as well as aggregate Internet usage has grown dramatically in recent years and is expected to continue its rapid growth. In addition, the number of Internet users in the U.S. has grown from roughly 31 million in 1997, to 90 million in 2000 and to more than 143 million in 2006.[9] The Internet is projected to continue this growth in the future. For example, total IP traffic is projected to increase sixfold from 2007 to 2012.[10] Under these circumstances, operators of new gTLD registries that acted opportunistically would face the loss of significant future business.

III. CONCLUSION

23. There are a variety of market mechanisms that protect consumers who face switching costs, such as holders of domain names of new gTLD registries. In the absence of price caps, operators of new gTLD registries that attempt to act opportunistically by raising prices above levels that can be reasonably expected face

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9. Statistical Abstract of the United States 2006: Internet Usage and Online Services (http://www.census.gov)
10. See "Cisco Visual Networking Index – Forecast and Methodology, 2007-12" available at http://newsroom.cisco.com/dlls/2008/prod_061608b.html

significant risk of harming their reputation and the loss of future customers. These risks are heightened by the availability of domain names from a wide variety of alternative registries, by the fact that prices charged by the major registries are already subject to price caps, and by the expected continued growth of the Internet. At the same time, requiring new gTLDs to cap their prices limits their flexibility in attempting to attract new customers, conflicting with ICANN's well-considered goal of fostering competition in the provision of registry services by facilitating the introduction of new gTLDs.