Study of the Factors Behind the Demand for Country Code Domain Names

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Overview of Presentation

[1] Domain name growth trends worldwide.

[2] Factors behind ccTLD domain registrations worldwide.

[3] Generalizable factors behind ccTLD domain registrations for participating APTLD member registries.

[4] Price elasticities of demand for specific APTLD member registries.

A Note on Methodology

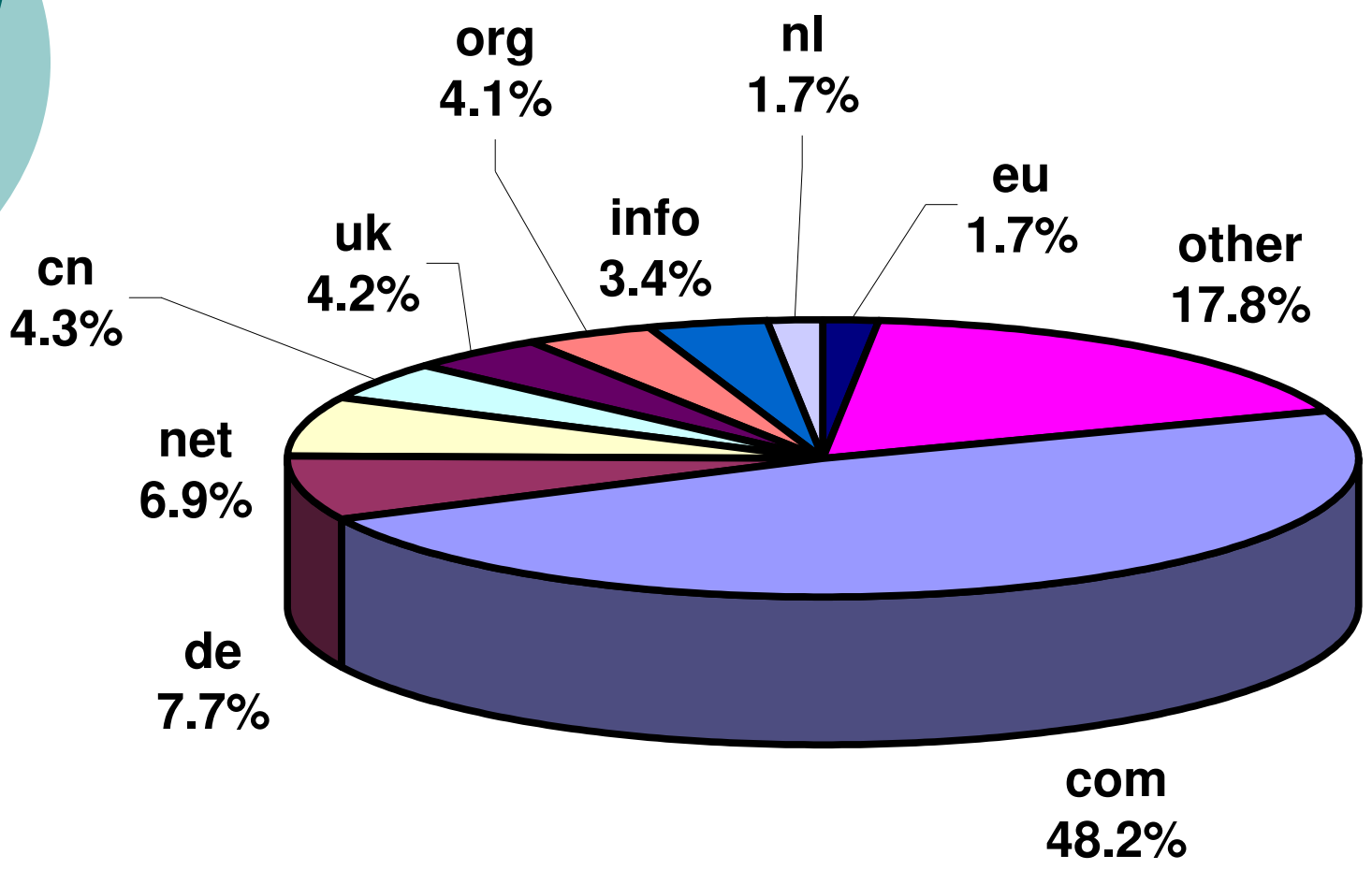
- Academic research sensibility based on continuous data collection and analysis of the domain name industry since 1998.

- APTLD member registries provided data on number of registrations, price changes and policy modification.

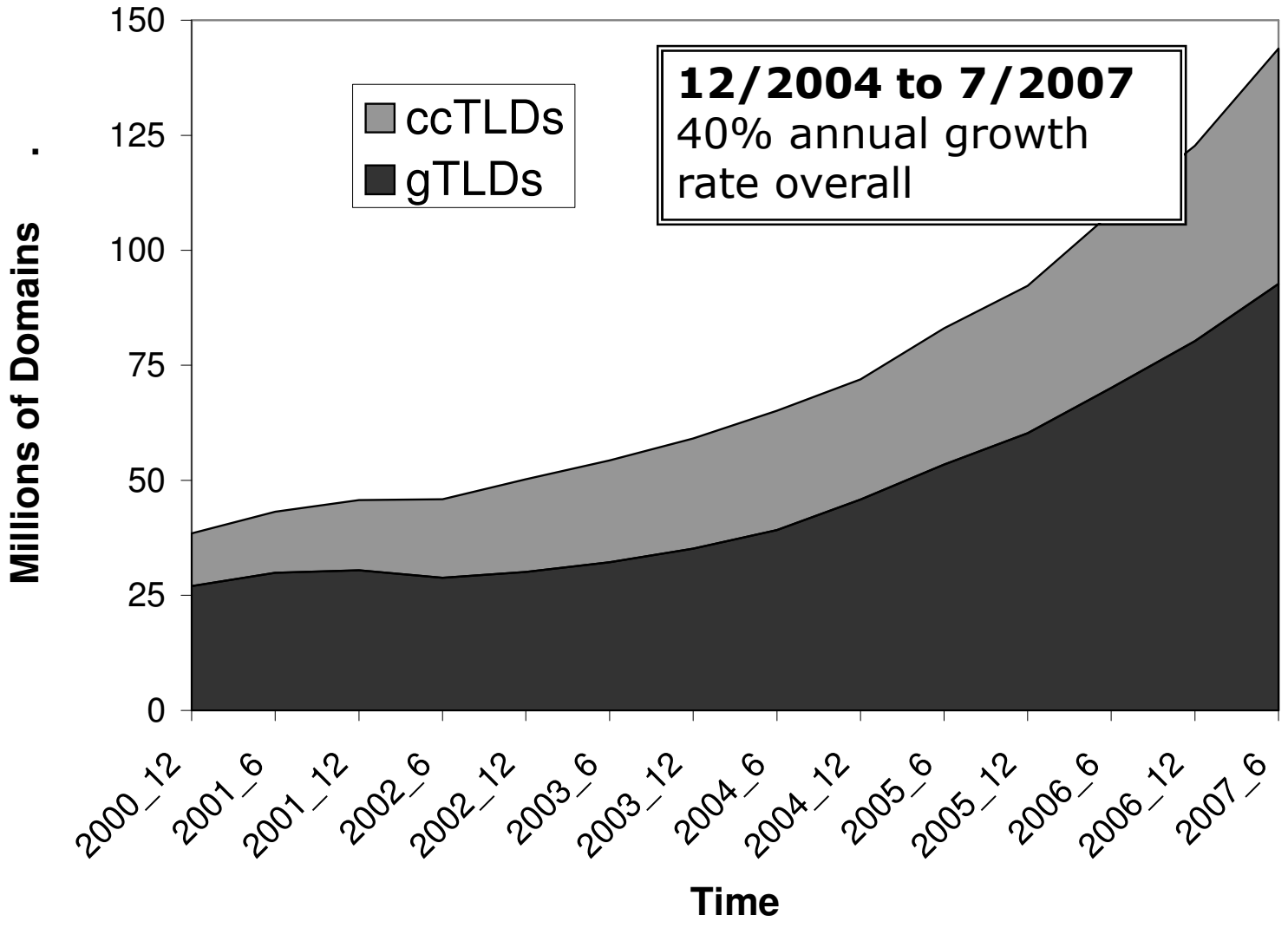
- Supplemented with outside data sources (World Bank, etc.) and ZookNIC's proprietary database on the distribution of com/net registrations.

[1] Distribution by TLD (July 2007)

143 million domains worldwide



[1] Historical Growth



[2] ccTLDs Worldwide Model (July 2007)

Dependent Variable: Number of ccTLD Domain Registrations			
Number of Obs.	108		
F	81.6		
Adj. R-squared	0.749		
Independent Variable	**Coef. (ß)**	***t***	
GDP	-549.2	-2.63	***
Internet Users	0.022	2.53	**
Com/Net Registrations	1.45	11.83	***
Price of ccTLD Domain	708.0	0.52	
Constant	(139,289)	-1.17	

* significant at the 90 percent confidence interval
** significant at the 95 percent confidence interval
*** significant at the 99 percent confidence interval

[2] ccTLDs Worldwide Findings

- Com/Net registrations positively related
  - Complementary vs. substitute goods
- GDP negatively related
  - Unexpected, Tied to close correlation with Com/Net Domains
- Number of Internet Users positively related
- Price of domain is **NOT** significant
  - Tied to the great diversity within registries
  - Limits of the data in a worldwide model

[3] APTLD Registries

- Diverse Registries and Dates
  - Hong Kong (hk), Iran (ir), Japan (jp), South Korea (kr), Malaysia (my), New Zealand (nz), Taiwan (tw), Vietnam (vn)
  - 54 months of data (Jan. 2003 to July 2007)
- Individual registries exhibited action and effect relationships resulting in increase demand.
  - Allowing 2nd Level Domains; Allowing IDN Domains; Marketing Campaigns; Price reductions
- Unsurprisingly a wide diversity in the magnitude of effects.
  - Modeling to statistically test policy and price changes in a general model that includes all eight registries.

[3] General APTLD Models

- Multivariate Regression
  - Observations (*n*) = 432 (8 registries * 54 months)
- Price is NOT included in these general models due to lack in variation (*i.e.*, relatively small number of price changes).
- Dependent variable is "Total number of Registered ccTLD domains".
- Independent variables
  - Built upon the earlier worldwide model
  - Basic demographic data, measures of technology and Internet use, economic and social indicators, ccTLD registry policies
- Country specific dummy variables to capture unique ccTLD market conditions.
  - Significant in all the models but are NOT included in the following slides for legibility reasons.

[3] Model 1 (GDP)

Dependent Variable: Number of ccTLD Domain Registrations

Number of Obs.	345		
F	5717		
Adj. R-squared	0.945		
Independent Variables	**Coef. (ß)**	***t***	
GDP	0.08	21.26	***
Constant	87,483	36.78	***

* significant at the 90 percent confidence interval
** significant at the 95 percent confidence interval
*** significant at the 99 percent confidence interval

[3] Model 2 (GDP & Internet Users)

Dependent Variable: Number of ccTLD Domain Registrations

Number of Obs.	297		
F	4556		
Adj. R-squared	0.979		
Independent Variables	**Coef. (ß)**	***t***	
GDP	0.07	20.24	***
Internet Users	11,557	14.26	***
Constant	34,174	7.94	***

* significant at the 90 percent confidence interval
** significant at the 95 percent confidence interval
*** significant at the 99 percent confidence interval

[3] Model 3 (GDP, Internet Users & Com/Net Registrations)

Dependent Variable: Number of ccTLD Domain Registrations

Number of Obs.	297		
F	10226		
Adj. R-squared	0.985		
Independent Variables	**Coef. (ß)**	***t***	
GDP	0.06	23.79	***
Internet Users	5,754	5.51	***
Com/Net Registrations	0.19	7.81	***
Constant	-8,751	-2.00	**

* significant at the 90 percent confidence interval
** significant at the 95 percent confidence interval
*** significant at the 99 percent confidence interval

[3] Model 4 (GDP, Internet Users, Com/Net Registrations & 2nd Level Domains Allowed)

Dependent Variable: Number of ccTLD Domain Registrations

Number of Obs.	297		
F	9713		
Adj. R-squared	0.986		
Independent Variables	**Coef. (ß)**	***t***	
GDP	0.06	24.01	***
Internet Users	5,758	5.66	***
Com/Net Registrations	0.19	8.09	***
2nd Level Reg. Allowed	17,233	2.77	***
Constant	-10,218	-2.28	**

* significant at the 90 percent confidence interval
** significant at the 95 percent confidence interval
*** significant at the 99 percent confidence interval

[3] Model 5 (GDP, Internet Users, Com/Net Registrations, 2nd Level Domains Allowed & IDN domains)

Dependent Variable: Number of ccTLD Domain Registrations

Number of Obs.	297		
F	9713		
Adj. R-squared	0.986		
Independent Variables	**Coef. (ß)**	***t***	
GDP	0.06	24.09	***
Internet Users	5,871	5.76	***
Com/Net Registrations	0.18	7.89	***
2nd Level Reg. Allowed	17,232	2.80	***
IDN Reg. Allowed	10,087	0.86	
Constant	-9,293	-2.07	**

* significant at the 90 percent confidence interval
** significant at the 95 percent confidence interval
*** significant at the 99 percent confidence interval

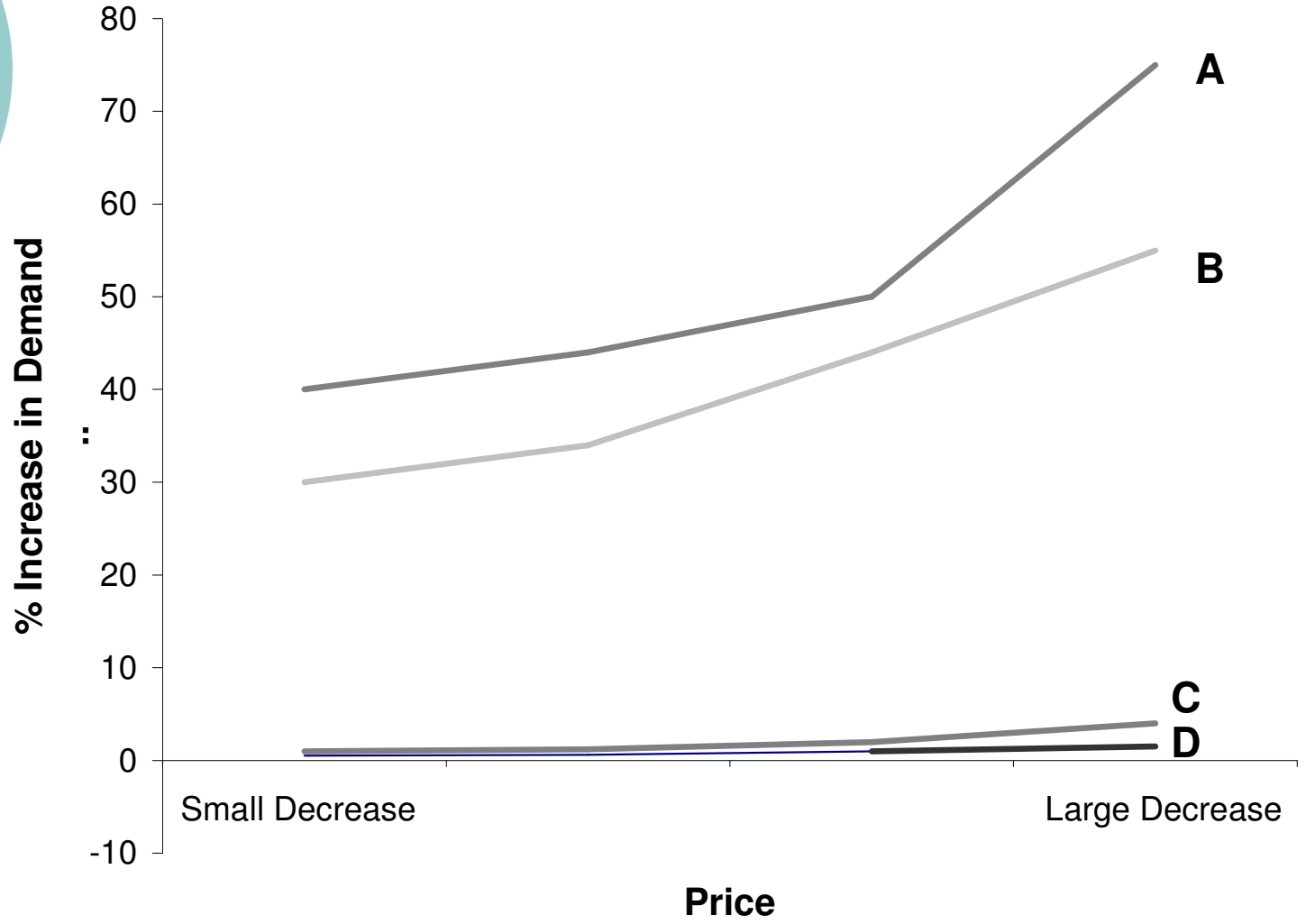
[3] APTLD Model Findings

- All models are robust and explain most of the variation within the number of domain counts.
- GDP, Internet Users, and com/net domains registered are all significant factors associated with the number of ccTLD domain registrations.
- Allowing 2nd level registrations produces an initial demand but effect tapers off over time.
- Allowing IDN domains cannot be statistically tied to new demand for domains.
- BUT price effects remains elusive at the general model level
  - Need to construct registry specific models

[4] Price Elasticity for selected ccTLDs

- Price elasticity of demand measures the relationship between changes in a product's price and demand for that product.
  - Goods with increased demand when price drops are elastic.
  - Products in which demand remains steady regardless of price are said to be inelastic.
- Not possible (or useful) to provide an overall price elasticity model for all ccTLDs given diversity.
  - Focus on specific ccTLDs where there is sufficient variation in price.
  - Models include changes in GDP, Users, com/net registrations, etc. as well as price

[4] Stylized Model of Price Elasticities for Selected ccTLDs



[4] Elasticity Findings

- Countries with longer histories of Internet development have higher elasticities than those shorter histories.
  - Developed vs. Developing economies
- Domain buyers are more price sensitive in developed than developing countries. And this sensitivity to price increases as price increases.
- Likely tied to the make up of buyers
  - Individuals and small organizations in the former category vs. institutions and/or corporations.

Conclusions

- GDP, Users and com/net use are key factors in determining demand for ccTLD domains.
- Price of domain is also central but elasticity of demand is registry specific.
  - Developed and Developing economies
- Marketing campaigns also correlated with pricing changes but data issues prevent more specific findings.
- Allowing 2nd level domain registrations has a statistically identifiable effect.
  - Land rush effect
- Allowing IDN domains does not have an effect.

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