

# The Economic and Policy Implications of Global Electronic Commerce

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The objective is to give an overview of the issues that government policymakers must address and a flavor of the challenges of how to formulate appropriate policy in the face of a rapidly changing environment of technology and information.

Specifically, to help policymakers understand:

- The potential for the Internet and e-commerce to increase macroeconomic growth through the transformation of business activities;
- The importance and nature of the policy environment to achieve these benefits;
- The extent to which the Internet and e-commerce change the economic framework underpinning policy design.

Policymakers have both a sense of urgency and concern about the Internet and e-commerce. What are the potential gains? What policy environment is most conducive to the effective use of the Internet and e-commerce? What policy areas are most affected by the Internet and e-commerce? How should policymakers respond?

Response by businesses, consumers, and government to the opportunities and challenges of the Internet and e-commerce is just unfolding. Therefore, the course addresses how existing economic frameworks for policy might be changing on account of the Internet and e-commerce and gives an early assessment of how economic actors are responding. In general, the course will raise more questions for further analysis than it will communicate concrete answers.

Each class addresses a particular policy issue. The class will start with simple theoretical economic and policy frameworks used to address that issue; this first part, therefore, should represent a review of basic economic principles and language. It will then discuss how (or whether) the Internet and e-commerce may change the economic frameworks underpinning the current approach to policy.

Who Am I:

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Dr. Catherine L. Mann has been a Senior Fellow at the Institute for International Economics since 1997. Previously, she served in policymaking institutions in Washington, including as Officer and Assistant Director in the International Finance Division at the Federal Reserve Board of Governors; as a senior staff member of the President's Council of Economic Advisors at the White House; and as a principal staff member for the Chief Economist of the World Bank.

Dr. Mann recently completed (with Daniel Rosen), "The New Economy and APEC" which was presented to the APEC Summit in Shanghai in October, 2001 and endorsed by Ministers. The book addresses what is the New Economy, how it is affecting APEC economies, and what should be APEC policymakers' agenda for action.

In 2000, the Institute published *Global Electronic Commerce: A Policy Primer* (jointly authored with Sue E. Eckert and Sarah Cleeland Knight). Using general analysis and specific examples from field research in more than 10 countries, it addresses how the Internet and electronic commerce affect policymaking and how businesses are affected by those policy choices.

Her previous book, "*Is the US Trade Deficit Sustainable?*" was published in 1999. This book answers perennial questions about the impact of global integration on the US economy, the prospects for sustained capital inflows, and the dollar's exchange value. An update is being prepared for the *Journal of Economic Perspectives* where, in part, she considers whether the title of the previous book asks the "right question". Instead, the right question may be, "Is the US capital account sustainable?" particularly in the context of global investors' portfolio preferences.

In addition to her work at the Institute, Dr. Mann is Adjunct Professor of Management at the Owen School of Management at Vanderbilt University, and is currently teaching at the Johns Hopkins School for Advanced International Studies. She has published widely in academic and economic policy journals and is a frequent guest on CNN and Reuters television, and BBC radio.

Dr. Mann received her PhD in Economics from the Massachusetts Institute of Technology and her undergraduate degree is from Harvard University.

## I: The Internet and E-Commerce: Definitions, Implications

### Discussion focus:

- How are the Internet and e-commerce changing the nature of the marketplace? Is it more competitive as better information fosters homogeneity of pricing and products or more competitive but with differentiated prices on account of greater variety or less competitive due to “winner-take-all” aspects of networks. In short, what is the best model of competition to describe the Internet and e-commerce: perfect competition, monopolistic competition, monopoly?
- What are the macroeconomic implications for growth of Internet and e-commerce? How important are information and communications technologies, or the Internet and e-commerce specifically, vs. effective use of these technologies?

### Topic 1: What are the Internet and electronic commerce?

- Extends information and communications technologies
- Changes processes, products, marketplaces
- Yields speed, global, information-rich, network-based infrastructures and markets

#### Selected Background Readings:

1. Chapter 1: Catherine L. Mann, Sue E. Eckert, Sarah Cleeland Knight, Global Electronic Commerce, Washington DC: Institute for International Economics, 2000.
2. Chapter 1: UNCTAD, Building Confidence Electronic Commerce and Development, Geneva: UNCTAD, 2000. UNCTAD/SDTE/MISC.11
3. Chapters 1, 2, 3: Carl Shapiro and Hal C. Varian, Information Rules, Boston: Harvard Business School Press, 1999.
4. “Untangling E-economics,” *Economist Survey*, September 23, 2000.

### Topic 2: Measurement and potential for impact on growth

- Measurement challenges, and interpreting what data there are
  - Potential for impact on economic welfare through improved cost efficiency, higher productivity growth (the New Economy), elevated national and global growth rates
  - Potential implications for trade competitiveness

#### Selected Background Readings:

1. Robert Shapiro, “Thoughts on Growth in the New Economy,” *iMP*, September 2000, [http://www.cisp.org/imp/september\\_2000/09\\_00shapiro.htm](http://www.cisp.org/imp/september_2000/09_00shapiro.htm)
2. Shane Greenstein, “By the Numbers: Musings about Numerical Challenges in the Information Age,” *iMP*, November 2000, [http://www.cisp.org/imp/november\\_2000/11\\_00greenstein-insight.htm](http://www.cisp.org/imp/november_2000/11_00greenstein-insight.htm)

3. Martin Brookes and Zaki Wahhaj, "The Shocking Economic Effect of B2B," Goldman Sachs Global Economics Paper no. 37, 2000.
4. Browse, especially Chapter III and V: APEC (written by Catherine L. Mann and Daniel H. Rosen), The New Economy and APEC, Singapore: APEC Secretariat, 2001.
5. Stephen Oliner and Daniel Sichel, "The Resurgence of Growth in the late 1990s: Is Information Technology the Story?" forthcoming *Journal of Economic Perspectives*, < <http://www.federalreserve.gov/pubs/feds/2000/200020/200020abs.html> >
6. David Gruen, "Australia's Strong Productivity Growth: Will It Be Sustained?," Reserve Bank of Australia *Bulletin*, February 2001.
7. OECD (2000) A New Economy? The Changing Role of Innovation and Information Technology in Growth
8. Browse: Robert E. Litan and Alice M. Rivlin eds., The Economic Payoff from the Internet Revolution, Report of the Brookings Task Force on the Internet, Washington DC: Internet Policy Institute and The Brookings Institution Press, 2001.

## II: Creating a Facilitating Environment: Services

### Discussion focus:

- Why are the services sectors so important? How have governments been involved with these sectors (that is, what have been their objectives and approaches)? For example, in some cases, government ownership and/or development of a national champion has been the approach, in other cases, the government is principally a regulator of activities (of either government owned or private sector owned).
- How have the technological changes of the Internet and e-commerce affected the policy approach to achieve the objectives? Technology has changed both the production function of the services sector and the demand function for the services.
- Do the Internet and e-commerce give an enhanced role for cross-border trade and investment, privatization and competition to achieve objectives?

### General Background Readings:

- Chapters 3, 4, 5: Global Electronic Commerce: A Policy Primer (and sources cited there).
- Chapter 2, 3: OECD, The Economic and Social Impact of Electronic Commerce: Preliminary Findings and Research Agenda, OECD 1999.
- Chapter 2, Sections III, IV: Building Confidence Electronic Commerce and Development
- OECD, The New Economy: Beyond the Hype, Paris: OECD, 2001.

### On telecoms and logistics (delivery):

- See extensive set of indicator data at: OECD Internet Access Price Comparisons and Internet and Electronic Commerce Indicators, at <http://www.oecd.org/dsti/sti/it/index.htm>
- Petrazzini, Ben. "Competition in Telecoms—Implications for Universal Service and Employment," Public Policy for the Private Sector, note no. 96 World Bank Group, October 1996.
- Susmita Dasgupta, Somik Lall, and Davie Wheeler, "Policy Reform, Economic Growth, and the Digital Divide: An Econometric Analysis, Working Paper 2567, March 28, 2001, World Bank, <http://econ.worldbank.org/view.php?topic=14&type=5&id=1615>
- Ian Alexander and Antonio Estache, "Infrastructure Restructuring and Regulation: Building a Base for Sustainable Growth," Working Paper 2415, August 1, 2000, World Bank Group, <http://econ.worldbank.org/view.php?topic=14&type=5&id=1170>
- Scott J. Wallsten, "An Empirical Analysis of Competition, Privatization, and Regulation in Telecommunications Markets in Africa and Latin America," Working Paper 2136, May 1999, World Bank Group, <http://econ.worldbank.org/view.php?topic=14&type=5&id=553>

### *On Financial Systems*

- Claessens, Stijn, Thomas Glaessner, Daniella Klingebiel, “Electronic Finance: Reshaping the Financial Landscape Around the World,” Financial Sector Discussion Paper no. 4 World Bank, September 2000.
- Eric K. Clemons and Lorin M. Hitt, “Financial Service: Transparency, Differential Pricing, and Disintermediation,” in Litan and Rivlin, eds. The Economic Payoff from the Internet Revolution
- Vice Chairman US Federal Reserve Board Roger W. Ferguson Jr., “E-Commerce: Lessons Learned to Date,” at the Owen Graduate School of Management, Vanderbilt University, February 14, 2001.
- Julia Angwin, “And How Will You Pay for That?” Special Report: E-Commerce Wall Street Journal Interactive Edition, October 23, 2000.
- O’Shea, Margaret and Candice Stevens, “Governments as Venture Capitalists,” The OECD OBSERVER No. 213 August/September 1998:  
[http://www.oecd.org/publications/observer/213/Article7\\_eng.htm](http://www.oecd.org/publications/observer/213/Article7_eng.htm)
- Gunseli Baygan and Michael Freudenberg, “The Internationalisation of Venture Capital Activity in OECD Countries: Implications for Measurement and Policy,” OECD STI Working Papers - 2000/7, December 2000,  
[http://www.oecd.org/dsti/sti/prod/wp2000\\_7e.htm](http://www.oecd.org/dsti/sti/prod/wp2000_7e.htm)

### III: New Challenges for Government

#### Discussion focus:

- Internet and e-commerce present new challenges for policymakers in their own domains and highlight tensions between the global economic marketplace and the national jurisdiction of policy.
- Policymakers find increased overlap among their authorities, consider in particular, the overlap between taxation and privacy; free speech and content filtering; privacy and national security; trade classification and tax regime.
- Policymakers find tensions between domestic and international orbits: Domestic tax jurisdiction increasingly undermined by virtual cross-border business transactions. Increased openness to cross-border content and transactions could change or erode the relationship between the state and the citizen—to what extent do citizens want this to happen vs. does the international marketplace foist it on them?

#### Special topic 1: Taxes

##### Issues:

- The economics of tax administration and how the Internet undermines tax regimes, including growing cross-border incompatibilities of tax regimes.
- Should policymakers use technology to administer existing regimes or respond to technological pressures and evolve the tax regime?

##### Selected Background Readings:

- Goolsbee, Austan, “In a World Without Borders: The Impact of Taxes on Internet Commerce,” <http://gsbadg.uchicago.edu/internet.htm> forthcoming, *Quarterly Journal of Economics*.
- Goolsbee, Austan and Jonathan Zittrain, “Evaluating the Costs and Benefits of Taxing Internet Commerce” <http://gsbadg.uchicago.edu/internet.htm>, *National Tax Journal*, 52(3), September 1999, pp. 413-428.
- Jeffrey Owens, “Taxation In A Wired World,” May 2000. [http://www.oecd.org/subject/e\\_commerce/](http://www.oecd.org/subject/e_commerce/)
- Aaron Lukas. “Tax Bytes: A Primer on the Taxation of Electronic Commerce,” Center for Trade Policy Studies no.9, CATO Institute, December 17, 1999.
- Stefan Bach, Markus Hubbert and Walter Muller, “Taxation of E-Commerce: Persistent Problems and Recent Developments,” *Vierteljahrshefte zur Wirtschaftsforschung* 4/2000, pp 657-678.
- Vito Tanzi, “Globalization and the Future of Social Protection,” IMF Working Paper WP/00/12. [www.imf.org](http://www.imf.org)
- Chapter 6: Global Electronic Commerce: A Policy Primer

## Special topic 2: Privacy (protection of personal data)

### Issues:

- The economics of information--social vs. private value of information. Market vs. non-market approaches to intervention.
- Conflict between law enforcement and individual freedoms, esp. security/encryption policies
- Implication of rapid technological change for policy strategy

### Selected Background Readings:

- “Internet Everywhere; Privacy Nowhere; The Importance of Privacy by Design in the Personal Data Environment,” Alan Davidson, *iMP*, June 2000, [http://www.cisp.org/June\\_2000/06\\_00davidson.htm](http://www.cisp.org/June_2000/06_00davidson.htm)
- Chapter 4: L. Jean Camp, *Trust and Risk in Internet Commerce*, Cambridge: MIT Press, 2000.
- Catherine L. Mann, “Oh What a Tangled Web We Could Weave: Global Internet Governance,” *Georgetown Journal of International Affairs*, Fall 2001.
- Henry Farrell, “Negotiating Privacy Across Arenas—The EU-US “Safe Harbor” Discussions,” Chapter 5 in ...
- Browse: Peter Swire and Robert E. Litan, *None of Your Business: World Data Flows, Electronic Commerce, and the European Privacy Directive*, Washington DC: The Brookings Institution, 1998.

### **Special topic 3: Intellectual Property Rights**

#### Issues:

- The economics of IPR: Social gains to limited IPR vs creating incentives to innovate via strong IPR. Implications for domestic following companies vs. for international following economies
- What to protect IPR vs. technology to protect
- Tension of overlapping jurisdictions and different social attitudes towards government intervention

#### Selected Background Readings:

- “Design and Evaluation of a Trust-Based Advisor on the Internet,” Glen Urban, Fareena Sultan, William Qualls, <http://ecommerce.mit.edu/forum/papers/ERF141.pdf>
- “Cyber-Activism: The Rise of Civil Accountability and Its Consequences for Governance,” Allen Hammond and Jonathan Lash, *iMP*, May 2000, [http://www.cisp.org/imp.may\\_2000/05\\_00hammond.htm](http://www.cisp.org/imp.may_2000/05_00hammond.htm)
- Chapter 3: Keith Maskus, Intellectual Property Rights in the Global Economy, Washington DC: Institute for International Economics, 2000.
- Executive Summary and passim: National Research Council Report, The Digital Dilemma Intellectual Property Rights in the Information Age, Washington DC: National Academy Press, 2000.
- Henry M. Gladney, “Are Intellectual Property Rights a Digital Dilemma? Controversial Topics and International Aspects,” *iMP*, February 2000, [http://www.cisp.org/imp/february\\_2000/02\\_00gladney.htm](http://www.cisp.org/imp/february_2000/02_00gladney.htm)

#### **Special topic 4: Trade issues and the trade agenda**

##### Issues:

- Classification (GATS vs. GATT) and implications for trade liberalization
- Extension of the moratorium on new tariffs on digital products
- Relationship between classification issues and taxation issues

##### Selected Background Reading:

- Catherine L. Mann and Sarah Cleeland Knight, “Electronic Commerce and the WTO,” in Jeffrey J. Schott (ed), The WTO After Seattle, Institute for International Economics, 2000.
- Michael Hart and Ramesh Chaitoo, “Electronic Commerce and International Trade Rules,” *The Journal of World Intellectual Property*, November 1999.
- Aaditya Mattoo and Ludger Schuknecht, “Trade Policies for Electronic Commerce,” World Bank working paper, 20 June 2000.  
<http://econ.worldbank.org/view.php?type=5&id=1133>
- M. Bachetta, P. Low, A. Mattoo, L. Schuknecht, H. Wagner, and M. Wehrens, Electronic Commerce and the Role of the WTO, Geneva: WTO, 1997.