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## Conclusions and Recommendations

### Prerequisites

#### **Electronic commerce depends on synergies among infrastructures.**

Electronic commerce depends on different service-sector infrastructures, namely communications systems, financial payment systems, and distribution and delivery. The synergies among these infrastructures are critical.

Generally, a liberalizing environment that includes privatization, competition, and independent regulation will ensure that Internet access is cheap and of high quality, that online payments take place in a secure and real-time environment, and that products bought online move from seller to buyer quickly and reliably. Removing barriers in only one or two of these infrastructures is not sufficient for electronic commerce to grow and flourish. Governments need to embrace across-the-board reforms.

#### **Electronic commerce depends on the public-private partnership.**

With a diminished role for government in the Internet marketplace, the private sector is ultimately responsible for growing electronic commerce. Arms-length governance generally will ensure that the current dynamism continues and that maximum benefits accrue to the greatest number of users. At the same time, government policymaking does affect the speed and direction of electronic commerce development, whether by the removal of existing barriers or the facilitation of correct incentives.

One area where governments and the private sector should work together is the evolution and interoperability of technical and process standards. Governments that prematurely set standards run the risk of being rendered obsolete by technological developments and of constraining innovation by the private sector. Government standard-setting bodies and international groups should therefore work closely with industry groups to set voluntary and flexible standards for electronic commerce.

### **Government support of key legal reforms will foster electronic commerce.**

Beyond removing barriers, there are areas where government intervention is appropriate and can have a positive effect on electronic commerce with minimum intrusion on the private sector. A clear and predictable legal framework will increase certainty and trust in electronic commerce. Governments should work to achieve international interoperability of domestic rules, regulations, standards, and protocols as they apply to electronic commerce so as to encourage the growth of the Internet marketplace. In addition, government can help ensure that people know their rights and responsibilities under the laws.

### **Human capital and entrepreneurship are more critical than ever.**

While the market creates compelling incentives for businesses and individuals to become active in electronic commerce, some people are unfamiliar with the benefits of the Internet, and some businesses do not know how to apply the Internet to their activities. Governments can help. Education in general and in technical areas like computer software and Web development will ensure that individuals have the skills and the interest necessary to participate in the Internet marketplace. Encouraging flexibility and supporting entrepreneurship will enable people to take advantage of the dynamic environment. Sponsoring education, trade fairs, and Web site competitions and the like, jointly with the private sector can also encourage the use of electronic commerce, and help close the divide between those with Internet access and those without.

## **Policymaking in an Environment of Rapid Technological Change**

### **Define objectives, not technological solutions.**

In the electronic world, the only certainty is change. Given that no one can predict how the technology will evolve, it is important to avoid

absolute rules that crowd out potential solutions. Governments can define objectives to govern behavior in the Internet marketplace, but they should refrain from choosing among technological solutions. The watchword is flexibility.

For example, policymakers should be wary of mandating particular digital signature, certification, or encryption technologies; private-sector innovation in the marketplace will stay ahead of whatever governments demand. The benefits of network effects will encourage interoperable approaches by the private sector. Mandating a particular solution could lock in a suboptimal choice, reducing private-sector incentives and possibly limiting network benefits.

### **Use technology to meet local needs and applications.**

The technologies that make up the Internet marketplace are global. Cross-border trade of finished products, as well as the fragmentation of the value-added chain to locations around the world, are now the norm rather than the exception. Thus it is possible to access research, commercial effort, and management expertise online.

Network effects in the Internet marketplace mean that the benefits of joining are immediate and large, while the costs are relatively low. The individual participant does not bear the costs to set up the network, just the costs to link in. When global technologies are exploited by local talent to meet local needs and fill local interests, the costs of Internet access will be lower and the benefits to the country greater. Overall, the Internet marketplace becomes more diverse and therefore more valuable to all users. It therefore makes sense for many countries and firms to “draft in” behind global technology leaders rather than start from scratch.

### **Technology is a solution for policymakers, but it is not the sole solution.**

The Internet and electronic commerce, as part of the IT sector, is both a source of macroeconomic growth and can underpin solutions to public policy challenges. In the United States, the IT sector has been largely responsible for the decade-long economic boom with low inflation. Similar economic effects are beginning to be felt in other parts of the world, including Europe.

The Internet improves how governments and businesses perform their core functions and allows policies to be customized to fit local preferences and priorities. Information on best practices can be more easily compiled, disseminated, and taught so that smaller countries and underserved groups can leapfrog stages of economic development. Programs that culti-

vate human capital with little monetary investment have a high probability of success.

But technology cannot solve all problems of development, big and small, and blindly promoting technology is a mistake. Interventionist programs like publicly financed technology parks carry high sunk costs and are less flexible; they often compete against private efforts. Governments should beware of “build it and they will come.”

### **Policymakers should embrace the liberalizing force of electronic commerce.**

Policymakers need to make choices about how to treat electronic commerce, whether to allow its liberalizing forces to shine through or to limit them. Although the objective of technological neutrality—treating transactions via the Internet no more or less favorably than transactions via other means—seems reasonable, it actually does not make sense in today’s world where no field is “level.” In the WTO, e-commerce transactions can be a force for deeper liberalization of international trade and faster domestic growth if members embrace the original liberalizing principles behind the WTO.

### **Policymaking in the Global Environment of Overlapping Jurisdictions**

#### **With electronic commerce, policy must be interoperable, though not “one size fits all.”**

There is no one “right” answer regarding the role of government in the electronic world, because resources as well as societal values and priorities differ. Privacy, consumer protection, and content on the Internet are issues where governments are coming to very different conclusions as to what combination of self-regulation and governmental intervention is best for their constituents. To garner the maximum network benefits of the Internet, it is critical that decisions by governments, businesses, and individuals be interoperable.

#### **Intervention to meet society’s needs must maintain private incentives.**

In certain areas, including privacy, conflicting incentives may argue for an enhanced governmental role. The economic theory of the second best demonstrates that self-regulation (or the market approach) and interven-

tion (or the mandated approach) cannot be ranked as to which achieves the highest welfare. In neither case will the needs of all individuals be met. Nor can we be sure that society's needs are met. However, the market-oriented approach preserves the incentives for the private sector to innovate to find superior solutions; innovation is a critical need in this dynamic environment.

### **Global, regional, and sectoral forums should promote deeper interchange.**

The Internet changes government's role in the international arena. Standards, laws, taxes, and policies implemented by national jurisdictions will be hard to enforce over cross-border transactions. Governments working with common principles and deeper understanding of different implementations are more likely to find approaches that are interoperable across international boundaries.

Because the Internet marketplace affects so many policy areas, countries should rely more on their regional groups for representation at multilateral bodies and as clearinghouses of information, expertise, and best practices within the region and around the world.

Private-sector participation and dialogue with society's advocates should be welcomed by all these forums and incorporated into any recommendations and action plans.

### **Policymakers need to be proactive in how they perform their core functions.**

The new marketplace of the Internet and electronic commerce is changing the relationships between government, business, and consumers. Governments need to be forward looking in determining how to best perform core functions, especially procurement and taxation.

In particular, certain characteristics of the Internet marketplace—global, information-rich, diversity in products, fragmented production—strain existing tax and tariff regimes. Indirect taxes like VAT and direct taxes that are allocated internationally on the basis of permanent establishment will be undermined and will become increasingly administratively burdensome, or simply will not make sense. Policymakers should consider now a plan to redesign a regime to more efficiently and effectively raise revenues including a focus on labor income, not transactions.

### **As policy issues converge and policy choices are not independent.**

Increasingly, the choices that policymakers make on one set of policy concerns impinge on their policy choices on other issues.

For example, the classification of all cross-border electronic transactions as services has implications for the choice of tax regime. Maintaining the current tax regime and supporting it by using the technology of trusted third parties has implications for privacy. Pursuing privacy protection through a mandated approach has implications for cross-border trade.

Consequently, policymakers need to pursue a consistent strategy. An “e-commerce czar” or minister-without-portfolio with the mandate to look across agencies at the cross-cutting aspects of electronic commerce will help maintain momentum for reforms as well as help encourage consistency of approach. This person should embody the guiding principles of interoperable and heterogeneous policies that preserve private incentives.