



Statement of

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on

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I'm Hanns Kuttner, a Visiting Fellow at Hudson Institute. From Hudson's founding in 1961, it has been an organization of people with an interest in the nature of the future. I appreciate this opportunity to offer a perspective on the future of buying and selling.

Within the past year we provided a view of the future of buying and selling with a focus on issues that relate to today's hearing: how advances in technology will change the role of place in where buyers and sellers are located. We gave this report the title, "Future Marketplace: Free and Fair" because that title reflects how technology and the sales tax are one force giving shape to the future of the marketplace.

Before turning to some of the details of the report, let me start with a discussion of innovation, something that might be seen as a digression, but to me is essential to understanding the issues you are sorting through.

Innovation is the source of improvement in our standard of living. We live different lives than those who came before us because of innovations in technology and how technology gets put to use.

In the late 1960's, Herman Kahn, who founded the Hudson Institute, along with Hudson colleagues, published a look at the future entitled, "The Year 2000: A Framework for Speculation on the Next Thirty Three Years." Now that it is past the year 2000, we have the ability to look back and see what they got right and what didn't turn out as they expected. They made it easy to assess their work by including a list of 100 innovations they thought possible.

Looking over the list, the ones that were most likely to be realized were those that had to do with communications and information technology. "Personalized pagers" have both come about and been surpassed. Similarly with "home computers." Those that have not turned out as expected are in such categories as energy and transportation.

One thing I see in looking at the list of innovations realized and not is how important changes in relative prices are for innovations that have come about and those that have not.

The whole world of information technology and its role in our economy is overshadowed by Moore's Law. When first propounded in the 1960's, it expressed a relationship between the number of transistors on integrated circuits and the time it takes to develop a circuit with twice as many transistors. For our purposes, what is important is the impact on prices. When you can double capacity without increasing price, there is a strong effect on relative prices. Whatever gets made cheaper, you'll buy more of; what's been made relatively more expensive, you'll buy less.

The areas where the possibilities seen in the late 1960s have been realized have been those where the changes in relative prices have been the greatest. We got the "personal pagers," and a lot more. We didn't get the innovations in sources of energy because changes in relative prices have not occurred. Had improvements in solar collectors occurred at the same pace as integrated circuits, we would have been more likely to be a world in which solar power dominated electricity generation.

Developments in technology determine what is possible; changes in relative prices determine how extensively those technologies get used.

Today I can use a search engine to find more references in a second than I could in a whole year in a library a generation ago. I used Google to search for “relative prices” and got 714,000 results in .45 seconds. And the cost to me was free. Lewis Strauss, who chaired the Atomic Energy Commission in the 1950s, got it right with his formulation that the children of that generation would experience a world with something that would be “too cheap to meter,” except it would turn out to be information, not electricity.

It is change in relative prices which is behind the degree to which we adopt new technologies. Many generations of integrated circuits ago, a smart phone would have cost \$2,500 rather than a tenth or less of that price. At that price, many fewer people would have adopted this technology.

Were my Hudson colleagues and I to revisit Herman Kahn’s 1967 project and offer our musings about the world 33 years hence, many of the possibilities would no doubt embody an element of information technology. While one reason to do that would be seeing the potential for new technologies, the more important reason would be changes in relative prices. Technology that involves information will be both quicker and faster, but more importantly, cheaper.

Concepts that require vast amounts of information are at the core of many of the most interesting innovations of our time. The challenge for thinking about what might be possible in the future is thinking through how those vast amounts can be put together in a way that users find simple and attractive.

This brings me back to the topic of your hearing today.

Like all other sectors, the buying and selling of services has felt the impact of the change in relative prices of information. The early innovations reflected the technological possibilities of the times. Benjamin Franklin is said to have been America’s first catalog seller. Catalogs made it possible to sell things to people without buyer and seller meeting up, either via a buyer coming into a store or a seller, such as the country peddler, knocking on the buyer’s door.

It’s easier to adapt existing categories to explain a new innovation. The use of the Internet to bring buyers and sellers together through that medium could initially have been described as “electronic catalogs,” but anyone who has bought something via a catalog and looked at what is possible through the Internet now would find “electronic catalog” an inadequate way to describe what is possible through the Internet.

We have the same challenge in thinking about what is yet to come. Information technology is making physical location less important across many domains. Buying and selling is one of those. In our report, we offered some possibilities. Beyond those, there are possibilities whose shape is yet difficult to discern that involve the implications of “big data” and monitors and sensors. While all is in the range of speculation, an example could involve methods that learn how fast we use up household commodities and automatically order more. Running out of toilet paper would then be a thing of the past. These kinds of purchases would be made possible by

information technology, but in ways very different from the idea of someone going to a web site and following a process to make a purchase.

This notion of changes in relative prices and how information in particular has a relatively lower price is central to the issues you are grappling with today.

Differences in relative prices can be seen in the structure of the sales tax that states adopted in the 1930s. In the throes of the Depression, state governments began to introduce a general sales tax.

While the tax is a tax on those who purchase goods and services, the structure of the tax reflects the fact that the sellers have much larger scale and hence could collect and remit the sales tax much more efficiently. While I owe tax, the seller collects it and sends it to the state.

One could imagine a sales tax collected in a much different way. This alternative sales tax would be collected via returns completed by buyers. This alternative would be much more administratively burdensome than the sales tax we actually have. Buyers would be responsible for keeping receipts and periodically totaling up receipts and remitting the tax owed. The yield from the same tax rate would be much lower as individuals didn't remember all their purchases; to produce the same amount of revenue would require a higher tax rate. Enforcing the tax might involve individual audits that would be intrusive and not produce much revenue per return audited.

Comparing this version of the sales tax to the version we have, we can see how much more efficient it is to have sellers keep track of sales and remit the sales tax amount on behalf of purchasers. The society-wide burden of administering the current tax is much lower than the alternative way of administering the sales tax I've described.

For reasons relating to the history of the Supreme Court's interpretation of the Commerce Clause, the presence or absence of a state line between the location of the buyer and seller has become important for the administration of the sales tax.

States felt they could not use the same approach for collecting the sales tax when buyer and seller were in different states. Rather than favor out-of-state sellers, they adopted a use tax which follows the less-efficient "buyer collects" approach.

The weaknesses of the use tax include the higher burden on the taxpayer per unit of revenue collected and the spotty pattern of tax collection. Corporations which have tax departments staffed with skilled professionals carefully monitor tax obligation and pay taxes owed. Individuals are not much bothered to pay the tax nor do they appear to invest much effort in trying to comply.

As we noted in our report on the future of the marketplace for goods and services, in a market that is both free and fair, everybody plays by the same rules. The effect of the history of the Commerce Clause has been to create two sets of rules, one for sales where the sellers are in the same state and another where they are in different states.

The distortion that results from having two sets of rules is the difference in prices between the two sets of rules. In one, the buyer acts based on a price that includes the sales tax. In the other, the buyer may not see the sales tax.

This year, we estimate that this distortion will impact \$330 billion worth of sales. In future years, that amount would likely be higher because of the continued change in relative prices. Innovation, in information technology and logistics, will expand the potential of what can be bought and sold through the Internet and other communications technologies. However, one pattern that has become clearer since we completed our report is that more sellers are losing their “out of state” status and becoming responsible for collecting the sales tax in more and more states.

As the Supreme Court framed the issue, the Commerce Clause raises the question of what is an “undue burden” on out-of-state sellers. The ongoing decline in the cost of information is reducing the cost of compliance.

The year in which the Supreme Court last considered this empirical question was 1992. At that time, the Internet was just emerging from the research community, search engines had not yet been invented, and a cell phone had the size that approached that of a loaf of bread.

Among the pieces of information whose price has declined since that time is the cost of learning what the sales tax is in any particular jurisdiction or in what jurisdiction a particular Zip Plus Four mailing address is located. “Google it,” is a common phrase of our era. While a piece of information may be embedded in a complex table, our ability to get at it through search engines has made the complex seem simple.

Ensuring that the future marketplace is both free and fair requires taking into account the ongoing decline in the relative price of this information.