

Does E-Commerce Demand International Policy Co-ordination? The Okinawa Charter on Global Information Society Srcutinised

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1. Introduction

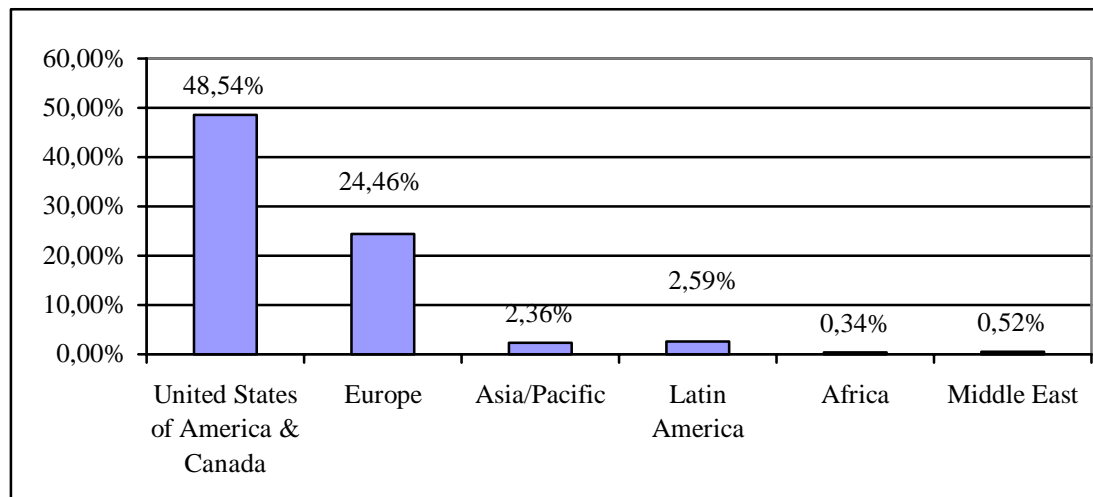
The introduction of the internet to the public in 1991 marks a turning point in the way people work and live in most industrial countries. The explosive growth of the internet and other digital networks is fuelling a revolution of the way commerce is conducted. Increasingly, consumers and entrepreneurs are making use of networks and information technology to electronically design, produce, market, buy, sell and even deliver products and services throughout the world. In this respect, e-commerce is dramatically changing transactions on the markets for goods and services. Products and services can be ordered online and downloaded immediately and the location of both the seller and the buyer seems to become irrelevant. The New Economy will to be a ubiquitous economy. This has raised growing concern about the regulation of global IT activities in general and e-commerce in particular. Recently, the G8 on its summit in Okinawa has discovered the global information society as a field of activity, expressed in the Okinawa Charter on Global Information Society¹ (hereafter Okinawa Charter). In line with its focus in the late 1990s, it has addressed this field from a development perspective. At first glance, this seems to make sense.

Although the sheer potential of e-commerce is enormous as “web shopping” is on the rise, there is a huge difference as regards the question of who makes use of IT. According to the OECD, 250 million people were connected to the internet in 1999 and goods and services to an amount of 100 Billion US\$ were sold (OECD 2000). The World Trade Organisation (WTO) estimated that by the year 2001, there will be more

¹ For the text of the Okinawa Charter see the Website of the University of Toronto G8 Information Centre, in particular: <http://www.library.utoronto.ca/-g7/summit/-2000okinawa/gis.htm>.

than 300 million Internet users world-wide and the value of e-commerce transactions will amount to US\$300 billion per annum (WTO 1998, p. 25).² However, despite the forces of market liberalisation and globalisation and despite efforts regarding public policy reform, the goal of achieving universal access to IT and the global information infrastructure has remained elusive, and the disparities concerning access to IT are great (*Figure 1*). Whereas in the US and Canada almost half of the population uses the internet, it is only a quarter in Europe. This is still a high share compared with the rest of the world, where the penetration rate is less than 1 per cent in Africa and Middle East and only slightly more in Asia and Latin America. Today about 95% of internet users reside in the highest income nations, resembling only 16% of the world's population. For example, there are more Internet hosts in Finland than the whole of Latin America and the Caribbean, and more in New York City than on the entire continent of Africa (UNDP 2000).

Figure 1 World Wide Internet Connectivity, share of population



Source: own calculations, based on: <http://www.nua.ie/surveys> (2000).

On the G8-summit in Okinawa, Japan, the G8 members have tried to tackle this discrepancy for the first time. They agreed on the Okinawa Charter to foster the world-wide use of IT. In particular, developing countries are in the focus of this initiative. According to the Charter, the application of the new technologies should be increased. Among others, one final objective is ‘encouraging participation in global e-commerce networks’ (Okinawa Charter, paragraph 18). For this purpose, a Digital Opportunity Taskforce called “dot force” has been installed to make recommendations on how to proceed. The Okinawa Charter itself consists of some – rather generally defined – recommendations on initiatives to be introduced and on measures to be taken.

² The reason for this increase in electronic commerce is a considerable cut in transaction costs. It has been suggested that e-commerce has already reduced these by 5% and companies realised efficiency gains to the extent of 0.75% of GDP (OECD 1999, chapter 2).

Throughout the Okinawa Charter, it is argued that developing countries are unable to benefit from the prospects of IT without international assistance. It is implied that information technologies (IT) also have the potential to empower developing countries as they lower the entry costs for their citizens, who can then begin to realise the various and multiple positive impacts on their productivity. Thus, it can be expected that e-commerce will gradually contribute to a change in the economic life in developing countries. Prior to the question of whether or not access to IT and the implementation of e-commerce is crucial for development, the necessity of international co-ordination between governments, international organisations (IOs) and the private sector should be assessed. In general, economic theory suggests that international economic co-ordination makes sense if, and only if, one can expect significant (and certain) spillovers in the relevant policy area. In case there are no significant spillovers, it is inappropriate to solve the underlying economic problems, both in industrialised and developing countries. If there are no or only uncertain spillovers, the development issue boils down to a mere financial problem. Then it is sensible to analyse additional motives of the G8 to address the topic.

Therefore, the paper will focus on two questions. After a short introduction of the Okinawa Charter in section 2, we first we investigate potential international spillovers in electronic commerce³, which make global collaboration inevitable (section 3). We find some theoretical and empirical evidence for spillovers, which have to be assessed very carefully in order to avoid a welfare decreasing policy of the G8. Given the confidence of the Okinawa Charter, inferior policy outcome cannot be excluded. However, the issue of development will not be analysed here. In a second step, we discuss alternative motives for the G8 to undertake steps to facilitate IT, using a political economy framework (section 4). Here, the development issue will be taken into the consideration. It turns out that it may pay off for policymakers to concentrate on e-commerce as a policy area. Conclusions with a preliminary answer to the question of whether international policy co-ordination of e-commerce related topics raised in the paper round it off.

2. *The Okinawa Charter: Towards a Global Virtual Marketplace*

The G8 does not have a track record as an international agency promoting technological progress. The Okinawa Charter on Global Information Society is indeed the first official document on that topic in the history of the G8.⁴ Since its first meeting in 1975, the then G7 has been primarily concerned with the macroeconomic development of its members

³ IT is an extremely broad area with different applications. In order to analyse the topic as precisely as possible, we restrict the analysis to electronic commerce. E-commerce is generally regarded as being among the most promising IT applications. This is reflected in the Okinawa charter where e-commerce also is in the spotlight.

⁴ Foundations were laid in a Report by G7 Finance Ministers for the Heads of State and Government, entitled "The Impact of the IT Revolution on the Economy and Finance", published in Fukuoka, Japan, 8 July, 2000.

as well as political instability, terrorism and related issues.⁵ During the 1980s and 1990s, the economic situation in the developing countries increasingly became a major issue. Today, the G8 is more concerned with problems of global governance than with purely domestic economic problems.⁶

Thus, the consideration of IT at the Okinawa Summit does not come as a complete surprise. The actual debate on the New Economy and the contribution of IT to the possibility of higher growth rates without cycles are reasons for the G8 to consider the role of information and communications technologies. In addition, the economic prospects in many less and least developed countries are still very dissatisfying. In such a situation, fostering IT seems very attractive as an effective means to combat poverty while at the same time it is a chance to increase the use of electronic commerce and other applications in the G8 countries.

In the following, we discuss how the G8 plans to facilitate global participation in e-commerce in the Okinawa Charter.⁷ It contains five sections divided into 19 paragraphs. The first five paragraphs praise the virtues of IT and claim the necessity of global partnership. This is best summarised in paragraph 5.⁸

The following section deals with “Seizing Digital Opportunities” where IT is incorporated into the overall economic policy and seen as a bottleneck to further development (paragraph 6). The division of labour between the public and the private sector is discussed in depth, including the role of the WTO and the OECD. These organisations and national governments are correctly identified as being responsible for the rules of the game, rather than being directly responsible for the outcome which is left to private initiatives.

The third section entitled “Bridging the Digital Divide” identifies some critical areas which restrict the access of people in developing countries to global communication. In particular, inappropriate regulations, a lack of facilities and poor education seem to impede global access. From an economic point of view it is not clear which role the state should take in overcoming these problems. An example illustrates this ambiguity (paragraph 10):

“We will continue to:

- Give priority to improving network access, especially in underserved urban, rural and remote areas;
- Pay particular attention to the needs and constraints of the socially under-

⁵ See the Website of the University of Toronto G8 Information Centre where all official documents as well as academic comments are collected. See also Hajnal (1999).

⁶ See the collected papers in Kirton, Daniels and Freytag (eds.) (2000).

⁷ See also Bayne (2001).

⁸ “5. Above all, this Charter represents a call to all, in both the public and private sectors to bridge the international information and knowledge divide. A solid framework of IT-related policies and action can change the way in which we interact, while promoting social and economic opportunities worldwide. An effective partnership among stakeholders, including through joint policy co-operation, is also key to the sound development of a truly global information society.” All quotes from the Charter are left unchanged.

privileged, people with disabilities, and older persons and actively pursue measures to facilitate their access and use;

– Encourage further development of “user-friendly”, “barrier-free” technologies, including mobile access to the Internet, as well as greater utilisation of free and publicly available contents in a way which respects intellectual property rights.”

The first two points promote the issue of universal service which is an important topic in network economics. In other words: nobody should be excluded from access to the information society in general, and e-commerce in particular. Such an obligation has to be made very carefully since it can be used to discriminate on the domestic market against foreign suppliers. The universal service obligation has to follow certain rules to avoid discrimination (Fredebeul-Krein and Freytag 1999, p. 642). The third point leaves additional room for manoeuvre for governments since ‘encouragement’ can imply quite different things, e.g. an appropriate set of rules for technological competition, financial help for selected technologies, or public provision of such a technology.

The fourth section on “Promoting Global Participation” is rather short. It stresses once again that the participation in IT is crucial for development (paragraph 12), admits that the task to enhance participation of developing countries is demanding (paragraph 13), and emphasises (paragraph 14) that

“There is no “one-size-fits-all” solution.”

This warning is important as it reveals the limits of global collaboration. It also shows that the governments of the G8 members are well aware of these limits.

The fifth section “The Way Forward” is the most ambitious one. The need for “...Bilateral and multilateral assistance...” is repeatedly highlighted (paragraph 15). The Okinawa Charter also welcomes private initiatives such as the Global Digital Divide Initiative of the World Economic Forum (WEF 2000) or the Digital Opportunity Initiative (a partnership with Accenture, Markle Foundation, the World Bank and UNDP). International organisations, the private sector and non-governmental organisations (NGOs) should collaborate, since (ibid.)

“...IT, in short, is global in dimension, and thus requires a global response.”

This is an important statement which will be discussed further in section 3 of this paper since it has to be assessed economically whether the alleged global dimension really has implications which demand for global action. It well may be the case that an economic judgement differs considerably from a political one. The focus of this section, and probably of the whole Okinawa Charter is on the establishment of a “dot force”. The Taskforce has no mandate for political action, but an active consulting status. It has two objectives: first, it organises and facilitates the discussion of all relevant groups, i.e. the G8, developing countries, IOs, NGOs, the private sector (paragraph 18). Second it has to search for concrete policy recommendations for a number of priorities (paragraph 19).

In general, the Okinawa Charter implicitly makes two very important claims, the first being that IT contributes to development. In general, throughout the Okinawa Charter the importance of IT for the process of development is emphasised. This is in line with latest research on factors relevant for development (Goldstein and O’Connor 2000 and Hiemenz 2001). Nevertheless the fact that the mechanism by which IT reduces poverty

in the least and less developed countries is not described in the Charter is disturbing. One reason can be that the knowledge about such a mechanism is very low, which makes policy recommendations very difficult.

Second, in the Charter it is obviously taken for granted that there is a need for global collaboration to foster IT in general and electronic commerce in particular. Given that this impression is correct, it is very likely that the G8's plans for political action will become more concrete in due course. Activities on the level of G8 certainly will have an enormous influence on the technological and economic development in less developed countries as well as the G8 members themselves. Therefore, it is necessary to assess the possibilities of IT policies pursued along the lines of the Okinawa Charter to foster world-wide electronic commerce. These crucially depend on whether or not international spillovers in electronic commerce are likely to occur. If they do, international policy co-ordination makes sense economically, otherwise not. This problem will be addressed in the following section.

The Okinawa Charter seems to document the willingness of the industrialised G8 countries to support the development process everywhere. Since it is the first official statement of the G8 concerning technology policy published on a G8 Summit, detailed and concrete policy recommendations cannot be expected. Rather, the Charter is general in nature.⁹ Therefore, one could argue that it will not have any consequences in the near future. Notwithstanding, IT has become attractive for governments who want to demonstrate their modernity and their ability to address actual policy problems and to care for the future. Moreover, there is much discretionary leeway in the Okinawa Charter for governments willing to intervene in information and communications markets. Finally, it may deflect public attention away from other –potentially more important – issues of economic policy. These aspects will be further discussed in section 4.

3. *Are International Spillovers in Electronic Commerce Likely?*

After introducing the Okinawa Charter, we now focus on an economic analysis of international policy co-ordination in IT, particularly e-commerce, from a welfare economic perspective. Does the world-wide electronic marketplace demand for global action from an economic perspective? We have identified at least four reasons to consider this question: (1) The mechanism of IT enhancing development is not clear, making economic policy in this field difficult. (2) The knowledge on future policy concerning e-commerce is rather poor. (3) The network economic effects of e-commerce have to be clarified. (4) Consequently, international co-ordination may not only be beneficial, but also may worsen the situation.

In general and on a high level of abstraction, economic theory suggests that the application of and penetration with new technologies is best organised privately. As for

⁹ This makes sense as a charter represents the lowest level in the hierarchy of international agreements. It can be interpreted as an expression of purpose rather than a concrete plan of action.

innovations, the distinction between basic and applied research is crucial for the role of public intervention. Basic research has the characteristics of a public good. Thus, without public funding, investment in basic research will be below the social optimum. This does not hold as regards applied research. Profits arising from it can be fully exploited by the firm undertaking applied research. Therefore, the government should be very careful when supporting investments in a special technology. Innovations in electronic commerce can be categorised as applied research as opposed to basic research. Nevertheless, there may be reasons for governments to be involved in the creation of the virtual marketplace.

The problem can be treated analytically by analysing potential network externalities of e-commerce and their implications for economic policy. The problem is relevant for both industrialised and developing countries: first, do firms and customers in the electronic marketplace today need the inclusion of a growing number of firms and customers from developing countries? The second problem is whether or not the existence of a functioning network in the industrialised countries is essential for new participants from developing countries. In particular, it is open to discussion whether or not it makes sense to transfer existing standards to developing countries. Of course, these problems are closely related. They boil down to the question of whether or not international spillovers exist in electronic commerce. Such international spillovers make the case for international co-ordination, since without co-operation and collaboration, not all the possible benefits of electronic commerce can be exploited.

To answer this question appropriately, some remarks on the economics of e-commerce are inevitable. E-commerce are commercial activities conducted in electronic networks, often on the internet, which lead to the purchase or sale of goods or services. Moreover, it is a medium where an increasing amount of new services and products are being generated. E-commerce activities are carried out by three main communities: business, consumers and governments. The two relationships considered most are business-to-business and business-to-consumer. In business-to-business commerce the partners communicate across electronic networks known as extranets.¹⁰ Most extranets support ongoing relationships in private networks using established Electronic Data Interchange (EDI). Another network is the intranet. An intranet is a company's internal use of internet technologies to connect the various elements of its business organisation. Usually, the intranet is the interface between the company and its trading partners across the extranet (EITO 1999, p. 169). Business-to-consumer trade is a form of electronic commerce carried out over the public internet. It allows individual consumers to purchase, pay for and, depending on the possible form of distribution, receive goods and services over electronic networks (EITO 1999, p. 170). At present, approximately 80% of the e-commerce transactions are carried out business-to-business with a high, but uncertain, potential of growth (Mai 2000).

Certain aspects of the internet related phenomena are characterised by what is defined as "network effects". It is argued that competition in IT industries is heavily influenced by positive network externalities – the notion the value of that a product or service

¹⁰ The term extranet may be used to describe networks of business partners regardless of the applied network technology.

increases as more users adopt the product (Katz and Shapiro 1985 and Shapiro and Varian 1999). Consumers value many products and services not only based on their features, but also based on the number of a product's users, or the size of the network. Economists refer to these types of products as network goods, and the positive relationship between the perceived value of a product and its network size is attributed to positive consumption network externalities (Farrell and Saloner 1985, Katz and Shapiro, 1985). These effects can be found in various networks. Research literature has suggested that positive network externalities exert influence on a number of IT applications including spreadsheet software markets (Gandal 1994, Brynjolfsson and Kemerer 1996, Gröhn 1999), shared electronic banking networks (Katz and Shapiro 1985) and carrier reservation systems (Chismar and Meier 1992). Recent research suggests that in addition information systems and e-commerce applications exhibit the characteristics of network goods and hence should be subject to network externalities (Downes and Mui 1998, Shapiro and Varian 1999). However, the opinions in the literature on how the economic effects of network externalities are judged differ considerably:

- Models presented by Farrell and Saloner (1986), for example, conclude that network goods have a greater tendency towards a monopoly and the strength of the network externalities created since a by-product of an existing installed base may lead to a bandwagon effect, resulting in choices of inferior technologies.¹¹ These are also called lock-in-effects which are generally identified as a necessity for the government to intervene (e.g. Arthur 1996 and Cowan 1991). In addition, the ability to harness network externalities is vital for start-ups seeking to pioneer new markets and for established firms seeking to transfer dominance from one market to the next. As such, network externalities represent a key force in business transformation as it relates to the establishment of market leadership. Network externalities, thus, have strategic implications for technology adoption, predatory pricing, and product pre-announcements. Katz and Shapiro (1986) suggest that the net benefit derived from a network product or service depends in part on the number of consumers who adopt compatible products in the future. Thus, consumers' expectations may determine the outcome of competition in the network market.
- On the other hand, there are positive associations between consumer value and the number of participants in e-commerce. This is due primarily to the impact of three critical factors – exchange, stranding concerns, and extrinsic benefits (Gallaughier and Wang 1999). In terms of exchange, users are attracted to a technology that is compatible with a greater network of equal users, as they have more options of value-enhancing exchange (e.g. of information, money, programs). Secondly, users of IT are highly concerned about being stranded in an unsupported standard (Fichman and Kemerer 1993). Hence, users favor products that they believe will continue to dominate in the future. Also, the dominant product is likely to attract extrinsic benefits (Shurmer 1993). These may include add-on products, books and

¹¹ For the virtual case, see Chou and Shy (1990) and Church and Gandal (1992). The latter shows that suboptimal standardization is most likely to occur when consumers place a relatively high value on software variety.

manuals, and skilled workers. The implied significance of stranding concerns and extrinsic benefits are particularly important for e-commerce firms, as these factors suggest that network externalities can be generated even in environments that support open standards – e.g. the internet.¹²

However, despite broad theoretical research,¹³ there has been little but growing literature investigating the existence and extent of this phenomenon in IT and e-commerce contexts. As such, the extent and impact of network externalities on inter-firm IT competition remains largely unknown (Liebowitz and Margolis, 1994). Pioneering empirical research on network externalities has focused on the context of the market for spreadsheet software (Gandal 1994, 1995; Brynjolfsson and Kemerer 1996; Gröhn 1999; Gandal, Greenstein and Salant 1999). Gandal (1994) used hedonic pricing models (attribute variables regressed against price) to demonstrate that compatibility with a dominant standard yielded measurable value among spreadsheet products. In a later study (Gandal 1995), this work was extended to examine standard compatibility across product categories – in this case database management systems and spreadsheets. The higher price premium placed on standards was taken as evidence of network externalities, since products complying with the standard could access a broader network (Gallaughar and Wang, 1999).

Another important issue in the context of e-commerce and network externalities is standards compliance. It is difficult to measure the network benefit, as standards can also enhance brand perception and act as a measure of intrinsic product quality. Brynjolfsson and Kemerer (1996) extended the hedonic test for network externalities, using market share as a proxy for the extent of the installed base of the network. This work further supported the network externalities hypothesis by showing that firms with a larger market share (or network) exhibited standards and quality adjusted price premiums over competitors with smaller market shares (Gallaughar and Wang, 1999). Again, the net welfare effect of network externalities is not easy to figure out. It may depend on the way standards are developed. There are several possibilities for organising electronic commerce markets to achieve the necessary standardisation.

- One could leave it to the market. However, competition may be restricted as a firm – monopolising the entire market – would set „de facto“ standards by internalising the process of interoperability.¹⁴It cannot be excluded, but is not necessarily the case, that such standard is inferior (see above).

¹² The emergence of network externalities in the contemporary managerial zeitgeist is suggested by the inclusion of the term in *Wired's Encyclopedia of the New Economy* (Wired Staff, 1998), and broader referral to the concept as “Metcalfe's Law” in business bestsellers (Downes and Mui, 1998) and the trade press (see Gallaughar and Wang 1999).

¹³ To name a few: Oren and Smith (1981); Farrell and Saloner (1985, 1986); Katz and Shapiro (1985, 1986); Economides (1996).

¹⁴ The dominance of the Microsoft operating system over several product generations owes much to the network effects inherent in the software market. Once the Microsoft system gained dominance over the Apple and other operating systems, the market tipped in its favour. A large percentage of consumers became locked-in to the Microsoft standard. They did not want to pay the switching costs in order to change systems.

- Another option is the private standard setting scenario. The potential efficiencies of networks may inextricably be linked to collaborative behaviour by competitors to set the standards by which the network can operate. In many high-tech industries, collaboration is necessary to share the risks of innovation and to combine technologies and products that may be complementary. From a purely technical perspective, without agreement on technical interface standards, such networks cannot be made compatible. For instance, there would be no electronic commerce without routers and switches compatible with internet service providers and their search engines on one end, and the consumers' personal computers on the other (Balto 1999). A difficulty with private standard setting is the traditional principal-agent-problem. The risk of potential competition must be weighed against the potential to enhance efficiency and innovation by agreeing on standards that may make new products, or – even more important – new industries possible. The competitive risks of private standardisation setting in e-commerce occurs where it is not open to all firms in the industry.
- Finally the government could set the standards and require all participants in the electronic market to produce products compatible with the standard. The danger of this modus is easy to see. Due to the government's lack of knowledge, in particular about the exact level of R&D and the speed of technology standard-setting. Thus, there is a danger that an inferior standard could be set. This is even more relevant given that governments act in the political arena and are subject to political pressure by interest groups.

Thus, it remains unclear how much the government should intervene in the creation of standards, as is also revealed in paragraph 7 of the Okinawa Charter, where among others the following key principle is identified:

“...– Promotion of market-driven standards including, for example, interoperable technical standards;...”.

This statement leaves room for interpretation, since the Charter allows technical standards to either evolve spontaneously with the best ones being discovered ex-post, or to be set up ex-ante by the government or another institution. The danger then is that the chosen standard is not necessarily the superior one (see above). Both ways can be supported by economic policy: either through e.g. appropriate competition rules or through e.g. financing a standard with public funds. It is not clear what promotion exactly means in this context. However, this does not imply a general preference of the G8 for state action in this area.

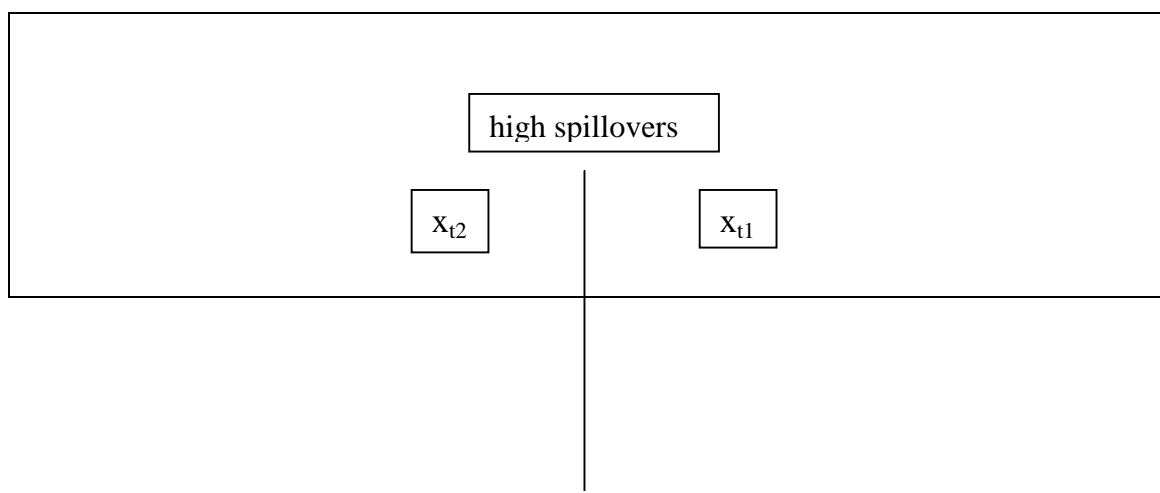
If networks are efficient, they bring together many users to create economic products and markets where none have existed before. It has been suggested that with the rise of a global information infrastructure, firms from all over the world gain access to a means for creating network externalities through the low transaction costs of new products, increased access to consumers, and by generating exchange-based added value (Hagel and Armstrong 1997, Shapiro and Varian 1999). However, the very existence of the network may promote dominance by one firm once the market tips in favour of that firm. As we have seen, network effects have potentially contradictory consequences. They may enhance efficiency and innovation and thus contribute to the rapid of growth

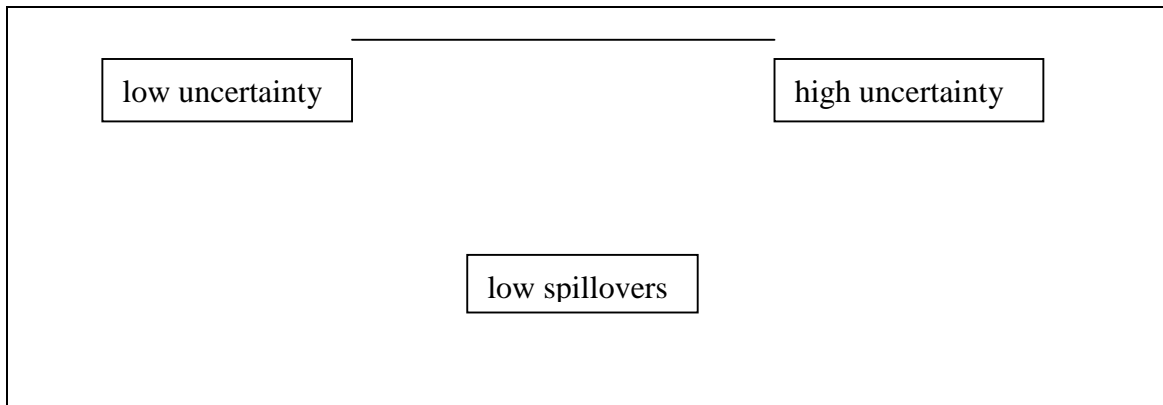
of the IT industries. At the same time, positive network externalities may fuel adoption cycles, raise barriers to market entry, generate switching costs, and allow dominant firms to exploit monopolistic rents.

To summarise, it is certain that network externalities in electronic commerce occur. These reach cross national boundaries. Thus, the question raised at the beginning of this section can now be answered: there is a necessity for international policy co-ordination. And so, the Okinawa Charter is justified from both a political as well as an economic point of view. However, it is not clear to what extent and in which direction these spillovers exist. The latter will be demonstrated using *Figure 2*. Following Klodt (1999), international co-ordination makes sense in those policy areas where international spillovers are great and where uncertainty about extent and direction of these is low. To demonstrate this thought, Klodt (1999, p. 8) applies a system of co-ordinates (4 quadrants) with international spillovers on the x-axis and the degree of uncertainty on the y-axis. The policy areas with high spillovers and a low degree of uncertainty are located in the upper left quadrant. Thus, international policy co-ordination is welfare enhancing for these areas. In the upper right quadrant, uncertainty about the adequate policy is high, although there is a case for co-ordination due to international spillovers. More knowledge is required before taking political action. In the lower right quadrant, international policy co-ordination is rather dangerous, as spillovers do not occur and uncertainty is high. It follows that policy co-ordination leads to welfare losses, the level being unknown. In the lower left quadrant, there are definitely no spillovers. Governments should refrain from it. This is a very precise and appealing analytical concept.

The interpretation of *Figure 2* for the case of e-commerce is straightforward. Currently ($t1$), international spillovers in electronic commerce can be taken for granted. What cannot be said is whether or not their overall net welfare effect is positive, not even whether the spillovers in e-commerce are global as opposed to regional in nature (Lawton 2001). Moreover, it has to be clarified to what extent the support of developing countries in creating network capacities is necessary to reap the benefits of world-wide network externalities. Thus the uncertainty about the adequate extent and direction of international policy co-ordination in electronic commerce is high. This situation is shown by X_{t1} in the upper right quadrant. However, it can be hoped that by the time the knowledge about the net welfare effect of the world-wide network externalities in electronic commerce improves, so that in some years ($t2$) uncertainty is low. This is expressed in the upper left quadrant (X_{t2}).

Figure 2 International Spillovers in E-Commerce





Source: Klodt (1999, p.8) own changes.

Given the current state of knowledge, the Okinawa Charter seems to be rather optimistic or even naive at least in one respect. This will become evident when scrutinising the fifth section which deals with the introduction of a dot force to enhance the global participation in e-commerce. In particular, the concrete policy recommendations (paragraph 19) are worth a second look. These are:

- “...Fostering policy, regulatory and network readiness...”. (1)
- “...Improving connectivity, increasing access and lowering cost...”. (2)
- “...Building human capacity...”. (3)
- “...Encouraging participation in global e-commerce networks...”. (4)

The first point is more or less restricted to policy advice and consulting. The Taskforce is requested to bundle widespread knowledge on IT and e-commerce and to pool intellectual and financial resources. The efforts of developing countries to combat poverty via IT are to be supported. Point (2) aims at direct policy intervention. The information and communication infrastructure is to be improved, costs of connectivity are to be reduced, the interoperability of networks is to be enhanced, R&D in developing countries is to be supported etc. Again, the text is very general and unclear. Neither the objectives are defined precisely, nor the means to meet these objectives are elaborated on. Thus, this part of the Okinawa Charter leaves much room for political manoeuvre. Part (3) emphasises the role of IT skills for life-long learning. Ways are listed to help developing countries with efforts to make education compatible with this necessity of the information society. Point (4) concerns electronic commerce and, therefore, is of special interest as regards our paper:

“...– assessing and increasing e-commerce readiness and use, through provision of advice to start-up businesses in developing countries, and through mobilisation of resources to help businesses to use IT to improve their efficiency and access to new markets.

– ensuring that the “rules of the game” as they are emerging are consistent with development efforts, and building developing country capacity to play a constructive role in determining these rules.”

This is not a very precise recommendation concerning electronic commerce in developing countries. Rather, it reveals that the G8 members do not know exactly how to judge the potential of international policy co-ordination in electronic commerce (X_{IT}).

It seems easier to formulate topics such as key principles on a high level of abstraction. The more the issue demands for concrete judgements and policy measures, the more difficult the tasks becomes. This makes an improved knowledge of the benefits of international policy co-ordination in this field (X_{I2}) inevitable.

These shortcomings, however, lead to another line of argument. It may well be the case that they do not play an important role in the calculus of the incorporated policymakers and governments. From a political economy perspective, therefore, it seems appropriate to search for additional motivations of the governments involved in the G8 process to agree on the Okinawa Charter.

4. *The Political Economy of the Okinawa Charter*

Public choice analysis has taught us to think of policymakers as being individually rational actors. This view allows to assume that the G8's outcome in general is far from naive. Instead, one can expect that it is the result of a process of utility maximisation under constraints, the most important constraint being to find a compromise. Unfortunately, the G8 has not been in the focus of international political economy analysis. There is no tradition of G8 assessment from this perspective. One of the few recent critical accounts from a political economy perspective can be found in Sally (2001) who compares the G8 with other IOs. He comes to the conclusion that the increasing width of issues treated by the G8 will reduce the concentration on core issues of international economic relations. Economists normally discuss whether or not the G8's outcome is beneficial from a welfare economic point of view along the lines of the foregoing section. On average, economists are sceptical that the G8's efforts to harmonise economic policy on an international level is welfare enhancing. Besides, the effectiveness of the G8 is doubted in general. To summarise, the G8 has been regarded as being neither very important nor very beneficial.¹⁵

There are at least two reasons to adapt this view and examine the political economy aspect a little closer. On the one hand, the new focus on the digital divide can be interpreted as a sign that the G8 these days thinks more positively on globalisation. On the other hand, bringing together IT and development bears the danger of neglecting other important development issues. In what follows these two arguments will be analysed.

Globalisation and IT are closely related. The increase in the international division of labour and the surge in capital flows can be assigned both to multilateral agreements on liberalisation of trade and capital flows in the last fifty years and to decreasing transaction costs, in particular communication costs due to technological progress and increasing use of IT, mainly in industrialised countries. It seems that the process of globalisation cannot be reversed. Therefore, it makes sense both politically and economically to search for ways to cope with and benefit from globalisation. The

¹⁵ Political scientists have a different point of view: the majority argues that the G8 takes a leading role in world-wide economic policy. With reference to the issue of electronic commerce it is argued that globalisation and the increasing use of IT application call for a newly shaped concept of global governance (e.g. Kirton and von Furstenberg 2001).

Okinawa Charter can be interpreted as a first step towards a positive recognition which is also important considering the recent history of the G8's treatment of globalisation.

As Bayne (2001) shows, in the last few years, the G8 focused on what he calls the "...evil spirits of globalisation". These are mainly domestic import penetration, international financial distortion, development problems and international crime. The negative perception of globalisation by the governments surely had a negative effect on the general public perception of globalisation. Consequently, the efforts to set up the Millenium Round failed, not least fuelled by enormous resistance in civil society but also due to the timidity of both the US and the EU to address relevant topics such as investment, competition policy and further liberalisation of agriculture (Hindley 2000).

In that respect, the Okinawa Charter marks a (slight) turn, directed towards the "...good spirit of globalisation" (Bayne 2001). Following this line of reasoning, it can be hoped that the issues related to globalisation mentioned above (agriculture and the like) will be treated more enthusiastically in due course. Instead of quarrelling about the risks, governments in industrialised countries may begin considering the chances associated with globalisation.

The alternative view is less positive. Vaubel (1991, pp. 32-36) argues that the G8 summits and their outcome mainly reflects collusive behaviour by the governments. Following him, from this perspective the G8 is useful for the government for three reasons:

- It gives governments a competitive advantage over domestic rivals due to prestige gained on the summit.
- Domestic critique can be blocked by an international and mutual approval of national policies through the participating heads of government.
- International co-ordination also can shift responsibilities for unpopular policies (dirty work hypothesis).

Applied to the Okinawa Charter, the hypothesis of collusive behaviour of the G8 governments cannot be rejected. First, it can be taken for granted that the integration of IT, the "New Economy" and e-commerce in the agenda of the G8 is perceived positively by the public, i.e. in the media as well as in academia (e.g. Bayne 2001 and Lawton 2001). Governments can give the impression of being modern and able to cope with new developments. The second argument is related to this. With a common charter on the digital divide, the G8 governments minimise the risk of being isolated. They are all aware of the important issues and certify one another this fact. Third, a common declaration of the virtues of a new technology protect from the consequences of failure. In case of a – complete or part – crash of the IT industry and a reversed development, the governments can argue that the charter was written given the existing knowledge and that the development was not foreseen by anybody.¹⁶ However, it has to conceded

¹⁶ The crash in the stock market for dot.coms can be seen as an example for such a situation. Governments in G8 member countries have not been blamed for not foreseeing the development yet.

that these arguments do hold for the Okinawa Charter as well as for any other outcome of the G8.

So why bother? There is another argument to be sceptical and to believe in harmful collusive behaviour – albeit not necessarily on purpose – of the G8 governments. With a focus on developing countries, the Okinawa Charter deflects the public discussion of the truly relevant topics in the relations between industrialised and developing countries as well as in the domestic economic policy of the former.

To begin with, G8 governments can employ the new activity as a means to reduce the efforts for developing countries in other policy areas such as further trade liberalisation. There are a number of industries in industrialised countries which are relatively highly protected from imports from developing countries. Two examples may suffer: as mentioned earlier, the European Union is interested only peripherally in liberalising their agricultural markets. The same holds for the markets for textiles and apparel, where the US take a leading position as protectionist. Liberalising these markets is politically difficult in industrialised countries. Therefore, it makes sense politically for the G8 governments to behave collusively and to shift their focus in the development debate to a modern, but in the short course rather irrelevant issue.¹⁷ It may even be possible to sell this charter as a serious effort to enhance growth in developing countries and trade it against the further liberalisation measures.

However, given the bad economic situation in sub-Saharan Africa for instance, the initiative to bridge the global digital divide may even sound bizarre.¹⁸ Nevertheless, there is the danger that this development initiative will also deflect the efforts in the developing countries themselves. Bauer (1982) argues that development aid has frequently caused governments in these nations to become corrupt. As opposed to using the aid for subsidiary development activities, they have increased the army budget or started to build new capitals – often with the approval of the donor countries. In analogy to this argument one may fear that a development initiative concentrating on IT is likely to induce governments in developing countries to spend many scarce resources on the implementation of a network in cities instead of enhancing the economic situation in rural areas.

On the same token, initiatives to enhance the global use and world-wide dissemination of electronic commerce shift focus in the public debate on domestic economic policy in the G8 countries. The governments in G8 countries can claim that they – commonly – address the most fascinating topics in today's economic policy. Given the enormous attention the "New Economy" and "dot.com"-enterprises have in the public, the strategy seems to pay off. The attention the Common Agricultural Policy in the EU (before the outbreak of the BSE crisis on the Continent) and the Multi-Fibre-Agreement in the public obtain is negligible.

To sum up, there are two contradicting vies regarding the Okinawa Charter from a political economy point of view. It is impossible to give an impression of which of these

¹⁷ This holds particularly for least developed countries.

¹⁸ In a personal conversation, Brian Hindley made the point that instead of a 'global digital divide' there rather is a 'global potato divide'.

views is more realistic. It is also possible that both of them can be applied. An industrialised country's government can think increasingly positive of globalisation while at the same time it tries to avoid facing the consequences of globalisation in Heckscher-Ohlin industries.

5. Conclusions

The answer to the question raised in the title of this paper is rather clear. Electronic commerce exhibits cross border network externalities, which demand international policy co-ordination. However, currently it is unclear in which direction any measures taken on the international scale should go. Do the network externalities call for competition policy or does e-commerce positive externalities? Which is the correct way to set standards in electronic commerce? From a welfare economic perspective, these uncertainties should be eradicated before action is taken.

A political economy explanation of the charter focuses on political rationality of G8 governments. It may well be the case that the Okinawa Charter reflects a growing awareness of the virtues of globalisation in the G8 countries. It cannot, however, be excluded that the charter is meant to deflect the actual discussion on development and globalisation. A solution to the puzzle cannot be given today. It will be interesting to see which direction the G8's policy towards developing countries will take in the future.

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