

Fellows' Plenary Panel at the EIBA conference, Western Lecture Theatre, Leeds Business School, 10:30am-12noon on Sunday 15th December

From regional convergence to divergence: the changing economic geography of international business activities and connections

Outline of topic

In both Europe and North America, a growing body of evidence suggests that a long term process of convergence in income levels across sub-national regions in the postwar period has given way to divergence since the 1980s. In particular, internationally well connected urban areas have tended to experience better economic performance than areas that are less well connected through international business linkages. This divergent economic geography within countries appears to be related to social factors and to differing systems of values, attitudes and perceptions of opportunity that have been created and recreated at a local level, and which have contributed to political polarization. Our panel will present some perspectives on this increasing interface between international business, economic geography, and public policy.

Abstracts

International business from the 2nd to the 3rd industrial revolution: the perspective from economic geography by **Michael Storper**, Luskin School of Public Affairs, UCLA (USA); Department of Geography and Environment, London School of Economics (UK)

A number of features of international business can be framed in terms of time and space dynamics. The period from 1880 to 1980 centred on the Second Industrial Revolution, and the leading companies that were built in that period were mostly dominant in 2nd IR activities. Those, in turn, had a geographical dynamic involving an initial period of intense geographical concentration in the leading manufacturing cities of the day, associated with the leading logistical hubs of the day. Subsequently, that revolution entered its maturity phase, with its technologies becoming less cutting-edge and more codified, and more scaled-up. This enabled changes in the spatial scale of production systems involving de-agglomeration at the national scale and – to a lesser extent – at global scale, accompanied by strong internationalization of certain markets and ownerships, especially in the post-1945 period. Even the core and geographically concentrated “control” functions of international business witnessed declining skill-based rents and returns to geographical concentration in the post-1945 period. And in older industries, industry-leading entrepreneurship could emerge from a wide variety of places. This was the phase of the 2nd IR’s geography associated with spatial income convergence and international business played a role in that process. The Third Industrial Revolution began in a context of more developed globalization, potentiated by better physical transportation technologies and policies for trade liberalization. Its technology shock has yet to yield place to a broad maturity phase. It has led to the creation of a new set of industry-building global firms, whose key innovation and business control

activities are highly spatially concentrated, even as their supply chains and markets are globalized. Industry-leading entrepreneurship has become more spatially concentrated and dependent on geographically-concentrated ecosystems. As a consequence, international business is now an integral part of the two-sided geography of income divergence between regions, but also the geography of global spread of development and innovation.

Regional income disparities: agglomeration economies and monopoly power by Simona Iammarino, Department of Geography and Environment, London School of Economics

(Based on Maryann Feldman, Frederick Guy and Simona Iammarino, Regional income disparities, monopoly & finance, working paper, Birkbeck College, University of London, 2019, <https://eprints.bbk.ac.uk/29484/1/29484.pdf>.)

In the most advanced economies – like the U.S., our focus here – we live with powerful and rapidly changing technology accompanied by stagnating wages and a general malaise. Many have shared little of the economic growth of the past forty years. Moreover, prosperity and stagnation have a distinct geography, with some places enjoying astonishing rises in income and wealth, while many others are left behind.

We are concerned with the interaction of three phenomena which have been treated as distinct, one geographical, one of market structure, and one financial. The first of these is that many of the places of prosperity have become important nodes in multinational production networks, with agglomeration economies enhancing the productivity of firms located there. Second, it has become clear that the years since 1980 have seen a substantial rise in the market power in the U.S due to a combination of new network technologies and the retrenchment of both regulation and anti-trust enforcement. This has occurred in many industries, but is particularly striking in the case of global companies in ICT. Third, the financial sector has come to exert much greater influence over firms, a phenomenon sometimes called “financialization”.

We argue that market power interacts with, and magnifies, agglomeration economies, turning the prosperous clusters and regions into fortresses which prevent the entry of geographical as well as corporate rivals. Moreover, in a world with growing and spatially concentrated monopolies, the power of finance to extract free cash flow from less profitable firms implies stripping assets from the left behind places and investing them in the clusters of monopoly.

How paradigm change has transformed the geographic structures of international knowledge networks by John Cantwell, Rutgers Business School, Rutgers University

(Based on work with Salma Zaman, see below.)

The nature of international business (IB) activities has distinctive features in each of the three major techno-socio-economic paradigms observed since the advent of modern capitalism in the 18th century, sometimes referred to as the three industrial revolutions. We have moved from arms' length international trade and natural resource-seeking FDI in the mechanical age (in the late 18th century to the late 19th century); to administrative coordination by managerial hierarchies in the large industrial MNE and market-seeking

FDI in the science-based mass production age (in the late 19th century to the late 20th century); to the orchestration of IB networks or global value chains and knowledge-seeking FDI in the information age (since the late 20th century). Each later form has incorporated the essential elements of the earlier ages in a new synthesis. Major shifts in the spatial distribution of IB activities have accompanied the emergence and evolution of each new industrial age. With the arrival of the information age geographic areas that have become more internationally connected have benefited to an even greater extent than in the past, while areas that have lacked trans-local connectivity are more likely to have suffered. On average, urban areas have gained relative to non-urban areas, but so too some urban areas have fared much better than others. In the information age there has been a substantial rise in international knowledge flows or connections. Most notably, some cities in the emerging market economies have now become important nodes in international knowledge networks as a global expansion of the technological knowledge system has widened the structure of connectivity, and the overall network has become ever denser. Some cities have gained in their trans-local knowledge connectivity relative to others, but it is also interesting to observe the variation across sectors or fields in the spatial evolution of international knowledge network structures.

Cantwell, J. A. (2019). The philosophy of paradigm change in the history of social evolution. In: J. A. Cantwell & T. Hayashi (eds.), *Paradigm Shift in Technologies and Innovation Systems*, Singapore: Springer, 1-15.

Cantwell, J. A., & Zaman, S. (2018). Connecting local and global technological knowledge sourcing. *Competitiveness Review*, 28(3), 277–294.

Zaman, S. (2019). Paradigm changes in technological knowledge connections in urban innovation systems. In: J. A. Cantwell & T. Hayashi (eds.), *Paradigm Shift in Technologies and Innovation Systems*, Singapore: Springer, 17-55.

The divergent impact of ICTs on technological and locational complexity of knowledge sourcing by Lucia Piscitello, Henley Business School, University of Reading (UK); Politecnico di Milano (Italy)

(Based on work with John Cantwell and Jessica Salmon.)

Knowledge creation simultaneously relies on sourcing from different innovation systems (i.e. locations) and different technological fields. Thus, increasing knowledge complexity – either in the form of cross-field complexity in knowledge sourcing or cross-location complexity in knowledge sourcing – has been associated with the influence of ICTs. However, the effects of ICTs impact differently on the two dimensions of knowledge complexity.

On the one hand, ICT facilitates the matching of modularization to locational sites, thus negatively constraining cross-location knowledge complexity. The modularization effect is in essence weakening the linkages between modularized parts; locations have become more specialized, or less diversified in their technological specialization also because international technology sourcing by MNEs has led locations to focus on what they do best. In fact, MNEs have gradually become means of linking different clusters of innovation in geographically separated areas through the organization of the exchange of knowledge across national boundaries. In addition, the ICT technologies themselves are

more highly geographically clustered in a few distinct places, bringing together especially the six focal ICT fields in these key hubs of activity. As these ICT activities have become more centrally provided to a modularized system, there has been a weakening of cross-location knowledge complexity.

On the other hand, however, ICTs have also facilitated more distant technology (re)combinations, and they have positively influenced cross-field knowledge complexity. While ICTs fuse or bring together previously unrelated (or formerly more weakly related) knowledge types, and so raise the dimension of cross-field complexity, such fusion capabilities also make it more feasible to combine knowledge components across geographic space, and so ICTs interact with cross-location complexity to increase cross-field complexity over time. Although these effects are especially observed in the presence of ICT knowledge, the increased level of cross-field knowledge complexity and cross-location knowledge complexity, is also a general feature of the ICT age.