ECONOMICS OF ENDOGENOUS SPECIALIZATION:
INTRODUCTION

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Division of labour presents itself ubiquitously in economic activities, especially in knowledge economies of which a remarkable feature is the increasing specialization at the individual level, as well as at firm, industry, region and even economy and world levels. A central theme in classical economics, most prominently in the writings of Smith, Turgot, Marx and even in Marshall (Sun, 2005a), has been specialization and the division of labour. However, this virtually disappeared from economic analysis after the famous debate initiated by Piero Sraffa on the incompatibility between Marshall’s external economies and competitive equilibrium in the late 1930s. This was partly due to the lack of analytical frameworks that encompassed increasing returns to specialization and competitive equilibrium. However, things have changed dramatically in the last two decades. In fact, the rapidly growing literature on this subject matter, of which an up-to-date literature survey is Cheng and Yang (2004), is indicative of the point that the study of the division of labour may well, and should, be brought back to the core of the economics discipline.

The central notion underlying most of the burgeoning literature is the concept of increasing returns to the division of labour, namely that the production possibility frontier (PPF) of the economy as a whole expands – and consequently the per capita income increases – with the nexus of exchanges and economic interdependence between its differing parts (for more involved elaborations, see, e.g. Buchanan and Yoon, 2000, p. 45; Sun, 2005b, pp. 16–17). Increasing returns to the division of labour are not the same thing as the concept of increasing returns to scale at the individual firm’s level that is conventionally adopted in the textbooks. Increasing returns to the division of labour are rooted in interdependence between the division of labour, which often occurs in the production sphere, and the extent of the market, which is of course associated with the process of market exchange. The so-called Smith Theorem (Stigler, 1951) that the division of labour is limited by the extent of the market is perhaps one of the best-known propositions to economics students. Less known, but no less important, however, is that the extent of the market is also dependent on the division of labour, which indeed largely determines productivity, and hence how much ‘surplus’ one can dispose of in the market exchange for other products/services. Each market participant’s choice of specialization in the exchange-nexus doesn’t just determine what and how

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much he demands from the market, but also affects the extent of the market for others. The circular causality between the division of labour and the market process, so germane to the concept of increasing returns to the division of labour, would be simply missed by only looking at the scale of operation of any particular firm or even any particular industry. No wonder such a reciprocal demand approach to economic development has been deliberately referred to as generalized increasing returns (Buchanan, 1994), the macroeconomic concept of increasing returns (Currie, 1997), and the network effect of the division of labour (e.g. Lavezzi, 2003; Yang, 2003).

Enlargement of the nexus of the division of labour and exchange allows for higher degrees of specialization at the microeconomic level of production, resulting in higher productivity for the society as a whole, hence economic development. Significantly, it also often renders structural changes in ways in which the economy is organized in general. In fact, it is precisely the catch-all nature of the division of labour and the central role that the division of labour plays in economic activity that result in remarkable breadth and depth of the newly emerged scholarship on endogenous specialization (Cheng and Yang, 2004; Gilles and Diamantaras, 2005). For the same reason, much remains to be done in the study of the division of labour (Ng, 2005), particularly in understanding specialization-related structural changes in the market over the course of development and industrialization, in patterns of interregional/national trade and in firms. This special issue aims to present current research on these topics. The five research articles selected herein can be grouped under three themes: the role of the extent of the (expanding) market in economic development, particularly in demographic transition over the course of industrialization; specialization and international trade; and organizational issue and theory of the firm. We summarize briefly the articles in what follows.

1. THE EXTENT OF THE MARKET, INDUSTRIALIZATION AND POPULATION DYNAMICS

Liu and Yang’s article ‘The Effects of Political Monopoly on the Economic Development’ focuses on a grand issue, which has been and is most likely to continue to be a topic inviting a great deal of attention from historians, economists and political scientists, as well as from lay people – what effect political monopoly may have on economic performance and how? They developed an essentially Smithian analysis of the mechanism through which political monopoly by the ruling elite is channelled into economic outcomes. Monopoly in politics by a small group necessarily results in an excessively high (shadow) price of the public services monopolistically provided by the ruling group. It is often in the form of rent, resulting in severe income inequality between commoners and the small ruling elite, which in turn has important consequences on the extent of the market. The major consequence is that the buying power of the majority is fairly limited and hence the social division of labour and aggregate productivity are both caught in an underdevelopment trap. But rivalry between sovereigns, even if each sovereign is politically monopolized
by a small elite, helps to reduce the inequality and enlarge the market volume. Certainly the relationship between the political monopoly and economic development is a very complicated one, neither one-way causality nor an exclusively market expansion story, as pointed out by the authors themselves. Nonetheless, Liu and Yang’s article contains quite a few thoughtful points that remain to be fully developed.

Davis’s paper on ‘Industrialization and Demographic Transition’ is also based on a Smithian perspective wherein the expansion of the market, as induced by a reduction in market transaction costs, plays a central part in both industrialization and demographic transition – family size declines as a concomitant of market-led industrialization. It is particularly worth emphasizing that a unified analysis is offered in Davis’s study that treats falling fertility rates and growth in the exchange nexus, often analysed separately, as two aspects of the market-led industrialization story. Other important aspects include accumulation in human capital. Moreover, an interesting policy relevant point implied by Davis’s study is the role played by market transaction costs in population growth, a pressing issue for overpopulous economies like China and India. Needless to say, the determinants of transaction costs include both physical infrastructures such as telecommunications and public transportation facilities and institutional quality such as a well-developed private ownership system and commitment by the government to the protection of property rights. As such, there emerges from Davis’s analysis an alternative approach to China’s ‘one family one child’ policy in controlling population growth (whether or not decline in fertility rates in these countries is desirable for their long-term development is another issue, not addressed here).

2. INTERNATIONAL TRADE AND SPECIALIZATION

Outsourcing and emergence of China and India as potentially great economic powers have sparked intense debates. The short exchange of views between Professor Paul Samuelson on one side and Professor Jagdish Bhagwati and his collaborators on the other is particularly eye-catching (Bhagwati et al., 2004; Bhagwati, 2004; Samuelson, 2004, 2005; Dixit and Grossman, 2005). Perhaps one point needs to be highlighted as to what Samuelson’s (2004) article conveys regarding protectionism. Contrary to the misunderstandings by many in the lay community, it is in no way a piece that defends and advocates protectionism (Samuelson, 2005). However, there exists some room to further clarify Samuelson’s analysis of the consequence that technological progress in a developing country may have for the developed trading partner country. Wenli Cheng and Dingsheng Zhang’s (2007) article extends Samuelson’s (2004) analysis of a three-commodity Ricardian model, confirming Samuelson’s insights into changes in trade patterns as caused by dramatic growth in productivity in one country, but revealing some weakness in his analysis of the long-run welfare implications. In particular, they examine all the possible trade patterns for Samuelson’s (2004) example and conclude that, contrary to what is suggested by his original discussion, continuing growth in
productivity in one country is likely to benefit the other two trading partner countries in the long run.

Another important issue related to international trade is whether globalization and freer trade, particularly the associated larger imports, have led to greater inequalities in the domestic economy, particularly the relative wage inequality between skilled and unskilled labour, as observed in countries including the USA over the last few decades. Christis Tombazos’ paper examines this problem. Moreover, instead of using the traditional trade analysis, Christis uses an improved method that he himself has helped to develop over the past decade. This includes the recognition of the prevalent cross-country specialization in production and that imported goods consist not only of final goods but also of intermediate goods. Contrary to the widely accepted view that higher imports increase the wage differential between skilled and unskilled labour in the USA, Tombazos’ paper shows that higher imports and the resulting decreases in import prices increase both wage rates, while compressing their differential. The increase in wage dispersion between skilled and unskilled is explained by skill-biased economy-wide dynamic processes of capital accumulation and technical change. Obviously, this result has important real world policy implications.

3. ORGANIZATION AND THEORY OF THE FIRM

There are two alternative ways to coordinate production: one is using the market, which is decentralized and achieves resources allocation through the price mechanism; the other is through the internal organization of the firm, which suppresses the price mechanism with central planning and direct control. Coase (1937) and Cheung’s (1983) theory of the firm emphasizes the role of saving transaction costs. Yang and Ng (1993; 1995) and Yang (2001) formalized Coase and Cheung’s theory and put forward an indirect pricing theory of the firm. The institution of the firm can achieve activity with the lowest transaction efficiency involved in the division of labour, while avoiding direct pricing and marketing of outputs and inputs of that activity. The residual returns claimed by the employer are the indirect price of her efforts. The paper by Guoqiang Li and Yew-Kwang Ng extends Yang and Ng’s model by examining not only the emergence of firms, their growth and contraction, but also the relevant conditions for the existence of technology entrepreneurs and professional management.

We are profoundly grateful to the editor of the *Pacific Economic Review*, Ken Chan, who graciously suggested a special issue to further promote the scholarship on the endogenous division of labour. We also appreciate very much the contribution of professionalism from the referees. All the articles were evaluated by anonymous referees and accordingly revised, although not all the points raised by the referees, as well as by ourselves, have been taken by the authors. Last, not least, we would like to make some personal remarks on our former colleague, long-term coauthor and close friend (also a great mentor for Guang-Zhen Sun) Xiaokai Yang, who had been playing a leading role in reviving the research interest into the economics of specialization and
the division of labour until he passed away due to lung cancer in July 2004 (Chen, 2004). The best way to pay tribute to such an inspiring and original scholar and a deeply beloved friend, we believe, is to carry forward his legacy in scholarship. This special issue may well be understood this way.

REFERENCES


