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How can the NI economy become more competitive in the 21st century global economy?

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Summary

The Northern Irish economy is part of an increasingly complex global economic situation. Since the financial crisis of 2007/08 the global economy seems to be in a perpetual state of volatility. I address how recent developments in economic theory can help understand how economic wealth is created; businesses and economies compete in the global economy; and how these insights can inform policy decisions to promote growth in and competitiveness of the Northern Irish economy.

In particular, I conclude that there is a very important role for the NI government in the development of the economy and that policies should be focussed on the development of skills and knowledge through educational reform. This should be supplemented with direct support for start-up entrepreneurs and the creation of an inviting environment for entrepreneurial activity.

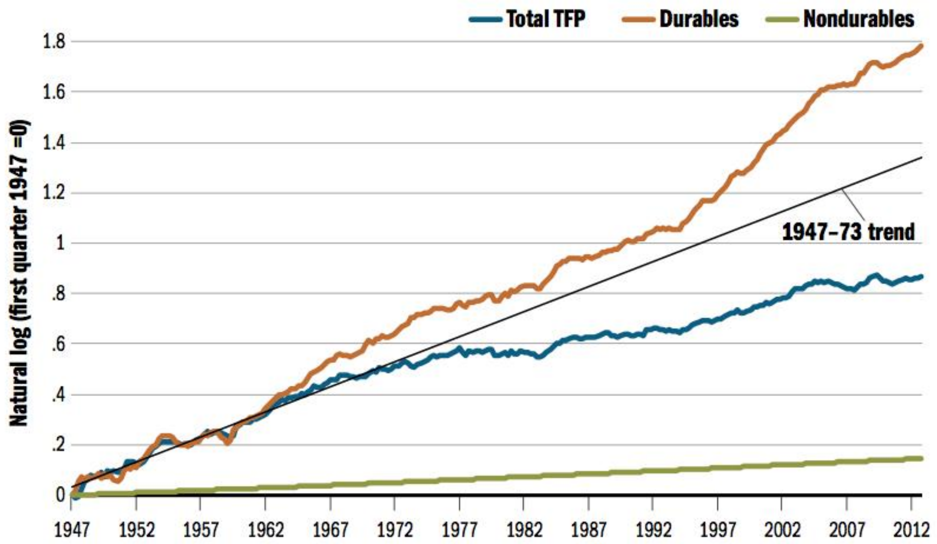
The state of the global economy

The global economy seems to be in a state of high volatility as well as stagnation after the financial crisis of 2007/08. The financial crisis transformed into the EU sovereign debt crisis after which there has been little recovery. Most recently, the crisis has again flared up in the form of the stagnation of global economic growth, in particular, a significant weakening of the outlook for growth in the Chinese economy and even recession in the other BRIC economies. This has triggered warnings for another global economic crisis and has already affected the global stock markets, inducing a severe downturn at the beginning of 2016.

The current state of the global economic outlook has been referred to as “Secular Stagnation”, which is identified by insufficient growth of productivity in the economy to maintain average income levels. Such productivity is measured through the “Total Factor Productivity” (TFP), which is an indicator how the different productive factors, mainly labour and capital assets, interact with each other and generate economic wealth. The interaction between labour and capital occurs within the global *social division of labour*. The social division of labour has been the organisational arrangement through which human beings have generated economic wealth since pre-historic times.

Measurement of TFP over time shows that the western economies have been in Secular Stagnation since the crises of the 1970s. The chart below, taken from a Federal Reserve Publication, shows that US TFP has been lagging its long-term trend since the mid 1970s, with a pronounced slowdown after the dot-com crisis of 2000.

U.S. Total Factor Productivity (TFP)



Source: John Fernald, “A Quarterly, Utilization-Adjusted Series on Total Factor Productivity,” Working Paper 2012-19, Federal Reserve Bank of San Francisco, September 2012

Economists have identified that the uptake of innovative information technologies and automation has had rather disappointing effects on productivity in the service sector of our contemporary global economy. This is clear from the measured TFP values for the service sector of the economy, which have shown a very modest increase during the past decades. Since the contemporary western economies, including the UK and NI economies, have significant service sectors, the low productivity growth from the adoption of information technologies depresses the TFP growth.

This focus on TFP and the adoption of new technology, however, is too simple an explanation for the global economy’s secular stagnation, since stagnation now clearly has affected the manufacturing sectors of the global economy as well: Most recently the collapse in prices of oil and other commodities as well as the slowdown in China and the other BRIC economies seems to point to an extension of the acute economic crisis to the manufacturing sectors of the global economy that commenced with the financial crisis of 2007/08. The underlying causes of the global stagnation cannot be attributed to technology alone, but has to be found in the very institutional organisation of the social division of labour in the capitalist global economy.

Furthermore, I point out that the current episode of Secular Stagnation is very similar to the period known as the "Long Depression" that affected western economies from 1873 through 1899. The Long Depression was triggered by a severe financial banking crisis, known as the "Great Panic of 1873", which was in nature very similar to the financial crisis of 2007/08. This period in history was also one of extreme innovation and the birth of consumer capitalism.

It should be clear that only extreme innovation, technological as well as institutional, would liberate us from the Secular Stagnation that plagues our contemporary global economy. The next discussion focuses in more detail on the function of the social division of labour based on Gilles (2016) and the lessons that can be drawn from this for effective economic policy in these times of economic crisis.

Economic wealth creation and the social division of labour

Recent research (e.g., Acemoglu and Robinson, 2012) shows that institutions play a critical role in the global processes of economic wealth creation. Economic wealth is created through a social division of labour in which fully specialised individuals and firms trade their generated outputs of economic goods. Wealth creation is, therefore, founded on two fundamental principles: (1) The specialisation of production results in increased productivity and higher output levels; and (2) The trade of economic goods results into higher levels of wealth, which is known as the "gains from trade" principle.

The resulting global social division of labour consists of consumers, self-employed individuals, firms, markets and trade networks in which specialised individuals and firms trade their generated outputs. Markets have a relatively minor role in our contemporary global social division of labour. Instead, most trade is conducted through direct trade relationships between firms as well as between firms and their customers. Therefore, our global economy mainly is conducted through trade *networks* rather than markets. Consequently, the global economy can best be understood as a complex trade infrastructure made up of networks. Our global social division of labour is defined by how persons, firms and governments interact through relationships that make up supply-chains, trade networks and interactive platforms, including markets.

This indicates that there is a third fundamental principle that determines the functioning of the social division of labour: The institutional support of the social division of labour. Indeed, behavioural norms, heuristics, accepted practice, pricing mechanisms, laws and government regulations determine and guide the interactions that take place in the trade infrastructure of our networked global economy. This institutional factor has been rather neglected in the discourse concerning the ongoing stagnation in the global economy.

Recent economic research shows how the social division of labour is guided through such institutions and the various pricing rules and how these institutions play a critical role in determining the performance of the social division of labour. Consequently, an insufficiently functional institutional framework hampers economic development and growth. This also includes the political institutions in the economy and the role of government, as shown by Acemoglu and Robinson (2012). Since the industrial revolution the role of the nation-state has been critical in the creation and development of the capitalist social division of labour founded on the organization of production through firms rather than trade networks of specialised individual artisans and merchants (Mazzucato, 2014).

The institutional elements mentioned above make up what we may best describe as the *institutional governance system* in the economy. Our understanding is now that the institutional governance system largely determines the level of economic development that is achieved through the networks that make up our social division of labour. It is in particular our *trust* in the institutional governance system that determines the success of our economic interactions and the global processes of economic wealth creation.

Every financial crisis, economic recession and/or depression actually has to be understood as an institutional trust crisis. From this perspective, the current episode of Secular Stagnation can be understood as such an institutional trust crisis. A proper response should not only be based on fiscal and monetary policies, but should therefore also include the modification and change of the institutional governance of the global social division of labour. Again, governments have a crucial role in this process and form the key to any response to alleviate the current episode of Secular Stagnation.

The role of entrepreneurship

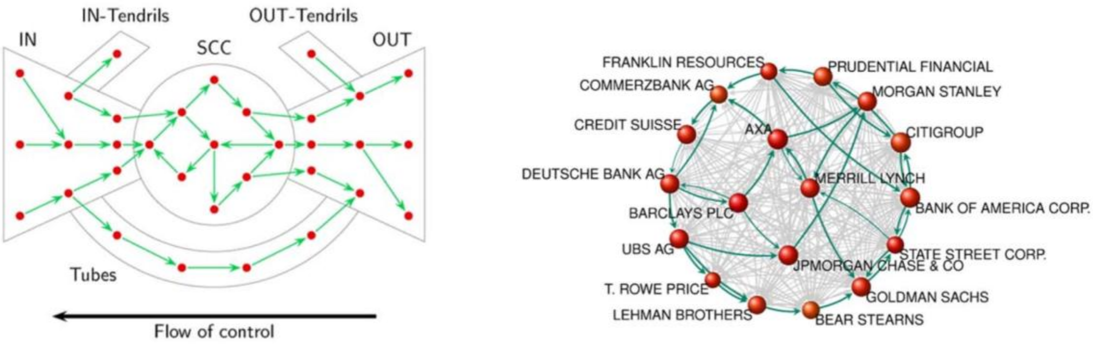
There are two fundamental ways in which the economic wealth can grow. Both of these refer to the expansion of the social division of labour. First, economic wealth grows through *technological progress* and the adoption of more efficient production technologies. This refers to the ability to increase output levels from production processes within the firms that make up the social division of labour. Technological progress has been recognised as a fundamental factor for economic growth and government policies have focussed mostly on this factor.

Second, and more importantly, economic wealth grows through the *deepening* of the social division of labour. This is also referred to as *Smithian development*, after Adam Smith's 1776 account. This refers to the introduction of new goods, innovative production technologies and specialisations to extend the chains and networks in the social division of labour. Such Smithian development creates new sources of economic wealth based on deeper specialisation and the use of novel products.

This growth factor normally weakens the cohesion of the networks that make up the social division of labour, as shown in the financial crisis of 2007/08, which was caused by the failure of financial networks founded on innovative financial products ("derivatives") and affiliated specialisations. Thus, Smithian development requires a strong institutional guidance and foundation to support the integrity of the extended networks in the social division of labour.

In this context, entrepreneurship refers to the activities that support the deepening of the social division of labour and that facilitate Smithian development. The reward for such entrepreneurial activity is the capturing of shares of the newly created economic wealth from the expanded social division of labour. This is usually based on the positions in the networks that make up the social division of labour that these entrepreneurships acquire through their activities.

Vitali et al. (2011, 2014) have identified corporations that have acquired critical middleman positions in the networks that make up our global social division of labour. The graphs below show that in particular financial transnational corporations (TNCs) occupy controlling positions in the global corporate ownership networks. The entrepreneurial activities of these financial TNCs have focussed on the creation of new networks for innovative financial products. This allowed them to create controlling middleman positions (SCC in left panel, expanded in the right panel) in these networks and to acquire global control of wealth generating processes throughout the global economy.



Source: Vitali, S., J. B. Glattfelder, and S. Battiston (2011): "The Network of Global Corporate Control," *PLOS One*, 6(10), e25995.

This new understanding of entrepreneurship combined with the notion of Smithian development in the social division of labour has consequences for the understanding of competition in the global economy as well: Competition has to be understood as being founded on actions surrounding the *contestation* of corporations controlling middleman positions in trade networks. As such, competition concerns the struggle for power that emanates from the control of trade networks in the global economy.

Sims and Gilles (2015) show that competition consists of two balancing acts, namely the act of contesting an established corporation in a trade network and the act to counter such contestation by strengthening one's network position. The latter refers to the expansion of a corporation's middleman control by merging with or acquiring of corporations that potentially could contest one's position in the future. This explains the numerous corporate takeovers undertaken by corporate giants such as Alphabet (Google), Apple and Facebook.

A strategy for the NI economy

The perspective on the global economy discussed in the previous sections can be used to formulate an effective strategy of economic development that the government of Northern Ireland (NI) can strive to implement.

At the moment the NI economy is rather marginal in the context of the UK, the EU and the global economy. Since the financial crisis of 2007/08, the NI economic growth has lagged significantly in comparison with the UK (Danske Bank 2015, 2016) and average income levels are significantly lower than those in the UK (Mac Flynn, 2015). Furthermore, the labour force in NI has relatively low basic skills in mathematics and linguistic comprehension as shown in the recent study by Kuczera et al. (2016).

The NI government has implemented an economic policy that is based on several strategies, including capping the tuition fees to support broad access to higher education of its citizens, the investment of funds to stimulate entrepreneurship in the narrow sense and the stimulation of foreign direct investment in to the NI economy through subsidies from InvestNI. Unfortunately, these strategies seem less effective as indicatedfrom the indicators investigated in the studies referred to above. The debate on the lowering of the NI corporation tax rate focusses on the attraction of investment from TNCs in the NI economy. There is no evidence that such investment indeed will be forthcoming without effective policies to address the quality of the NI workforce.

The perspective of the global economy through the functionality of its social division of labour indicates that economic development and growth rests mainly on the effective deepening of the social division of labour. In practice, this refers to the development of entrepreneurial activity in the local economy. This entrepreneurial activity should be focussed on the development of the advanced technologies that have been identified as central to economic development in the 21st century. This includes advanced green technology, a sustainable food sector and advanced information technologies.

It is the role of the government to provide a framework to support the development of effective entrepreneurship in Northern Ireland. At the moment there seems to be insufficient support provided for making a sufficient advance in this respect. This refers to fundamental aspects such as a lack of an effective entrepreneurial spirit and identified deficiencies of basic skills in the NI labour force.

Brownlow (2015) describes the unproductive entrepreneurship of DeLorean and its causes. This case refers basically to viewing entrepreneurship as opportunism rather than the pursuit of true innovation. Referring to the perspective of entrepreneurship in the context of the global social division of labour, truly successful entrepreneurship concerns the development of fundamental, innovative ideas, regardless of success. This is exemplified by the entrepreneurship of TNCs like Google (Alphabet) and Apple, which were founded on innovative ideas that were pursued without reference to profit taking and self-enrichment.

The recent OECD report on education and skills of the labour force (Kuczera et al., 2016) compares the basic skills of recent graduates in NI in an international context. One of the main conclusions is that recent graduates from the NI education system have deficiencies in basic comprehension and mathematics skills in comparison with graduates in other countries. This refers to the lack of primary and secondary education to provide students with basic skills and deficiencies in higher education to provide students with sufficient advanced knowledge and skills to be competitive in the global economy.

I suggest, therefore, that the NI government pursues the development of entrepreneurial activities in the NI economy by employing a variety of instruments:

- ✓ Investment in primary and secondary education to address the observed deficiencies in the OECD report. In particular, to steer educators away for “training for exams” rather than to pursue the learning of basic knowledge and skills. Entrepreneurship can only succeed if a sufficient part of the population is interested in knowledge and the pursuit of knowledge by itself.
- ✓ The enhancement of higher education in NI with internationally competitive programmes in green energy technologies, sustainable food supply chain management, and information technologies and computer science. The consideration of supplementing all higher education programmes with an American-styled “Core Curriculum” could also be considered.
- ✓ Entrepreneurship can be supported by direct investment through InvestNI into innovative ventures. This should be complemented with support for entrepreneurs in start-up incubation centres such as the Science Park. The (internationally accepted) model that such incubation centres are closely affiliated with the NI universities should be supported further.
- ✓ The support of entrepreneurs should also extend to providing an institutional framework in which such activities can be pursued successfully. This includes the consideration of a legal framework to support such activities and the introduction of services to facilitate the establishment of incorporated firms.

References

Acemoglu, D., and J. A. Robinson (2012): Why Nations Fail: The Origins of Power, Prosperity and Poverty. Profile Books, London, UK.

Brownlow, G. (2015): "Back to the failure: an analytic narrative of the DeLorean debacle." *Business History,* 57, 156-181.

Danske Bank (2015), Quarterly Economic Overview−Q3 2015. Danske Bank, Belfast, UK.

Danske Bank (2016), Quarterly Sectorial Forecast−Q1 2016. Danske Bank, Belfast, UK.

Gilles, R.P. (2016), *Economic Wealth Creation and the Social Division of Labour: Institutions, Trust and Networks*. Queen's Management School, QUB, Belfast, UK.

Kuczera, M., S. Field and H. C. Windisch (2016), *Building Skills for All: A Review of England−Policy Insights from the Survey of Adult Skills*. OECD Skills Studies, OECD.

Mac Flynn, P. (2015), "Incomes in Northern Ireland: What's driving the change". NERI Working Paper 2015/30, NERI, Dublin, Ireland.

Mazzucato, M. (2014): *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. Anthem Press, London, UK.

Sims, O., and R.P. Gilles (2015), "Extractive Structures in Networks: Definition and Measurement". Working Paper, Queen's Management School, QUB, Belfast, UK.

Vitali, S., and S. Battiston (2014): "The Community Structure of the Global Corporate Network". *PLOS One*, 9(8), e104655.

Vitali, S., J. B. Glattfelder, and S. Battiston (2011): "The Network of Global Corporate Control". PLOS One, 6(10), e259