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Economic, Financial and Social Inclusion in the New Technological Context

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This is a very big topic. It deals with perhaps the biggest challenge facing our economies and societies. I will confine myself to five specific points:

1. Inclusive growth has to be secured at the same time as innovative growth.
2. Innovation and new technology implies change. That has always been true and rapid or deep change is not unprecedented. The response has to be well focused.
3. The “digital/internet economy” *is* the economy.
4. “Inclusion” is achieved by facilitating and investing in adjustment to change, not by protection of the status quo.
5. We confront fast change in information availability and connectivity, but others faced deeper change in fundamental beliefs.

Inclusive and Innovative Growth should be sought together

APEC was right when in the Yokohama Declaration 2010 to nominate both “inclusive” and “innovative” as two of the characteristics of the growth the region should seek.¹ Innovation is the principal source of economic growth and higher living standards.

Innovation has many aspects. Some are very obvious such as the invention and successful implementation of projects like Google and Facebook, recent equivalents of the introduction of railways with which I began my studies as an economic historian.

Others are less obvious, just as in that economic history story, it was eventually noticed that the productivity of ironmaking advanced just as much between great inventions such as puddling and the hot blast as it did as a result of them. In the modern economy, we should look as much at the process innovations by which small and medium enterprises improve the productivity of international production networks as we do at the major advances in information and communication technology. Innovation is largely about marginal improvements to processes; disruption is about technological advances allowing firms to throw those processes out of the window and do things completely differently because the old process no longer serves its purpose as well as it might.

There can be no doubt that “inclusion” is one of major challenges in the international, regional and domestic economies at present. Like innovation, it covers many things. The greatest demonstrations of the importance of inclusion recently have been Brexit and the election of

¹ It was equally right to nominate “sustainable” as another chief characteristic. “Secure” is more dubious, reflecting obsession with the “war on terrorism” as much as enduring concerns. And “balanced” was distinctly questionable, reflecting political attitudes towards bilateral balances rather than the meaning of “balanced” which makes economic sense. (The *Leaders’ Statement* and *APEC Growth Strategy* from 2010 introduced some thoughts about “balanced” and “secure” which shows that the possibility of simplistic readings was recognised.) JANPECC’s resilience project continues the nuanced approach; *Towards a More Resilient Society: Lessons from economic Crises* (Tokyo: JIIA, 2016).

President Trump. The graph of changing shares of world income by income deciles² provides the context for those events.



There are several points about this which should be noted.

1. It refers to 1988-2008, although the general pattern has probably persisted in more recent years.
2. It shows growth across all incomes. Notions of growth only for the 1% or absence of growth are romantic nonsense. Past “golden ages” occur only in fairy tales.
3. It is a cogent contribution to explanation of Brexit and Trump although the full explanation is certainly more elaborate. It probably includes an element of disbelief at loss of a position of pre-eminence, whether being the richest and the most influential (much like the UK from the 1920s to the early 1950s), and it certainly includes a sense of loss of developed country control.
4. While we read much about a reorientation of politics from contest along a continuum from collectivist to individualist to one between inward-looking and outward-looking orientations, the discussion is nearly entirely³ about the US and Europe (including the UK). There is little sign of such a development in Asia.

Inclusion therefore refers to different phenomena. For our topic, it is a response to a declining relative share of world income and all that that implies in part of Asia-Pacific and it is a traditional issue of income distribution within countries in Asia even where their share of world income is rising. The US has certainly experienced change in which knowledge industries have grown relative to industrial goods, and that is mixed with more imports of industrial goods from developing economies. We are accustomed to thinking of US labour adjustment as fast relative to Europe, but it has not always been faster than in East Asia even though Japan is now experiencing

² James Watkins “The Economist who can explain the rise of populism in a single chart” *ozy.com* (19 December 2016, reprinted with revisions 5 May 2017). The reference is to Branko Milanović and “the elephant curve”. The gainers include many formerly poor in Asia, especially in China, and the losers, in the 80th and 90th percentiles of income, being largely working- and middle-class Americans and Europeans.

³ There are variants in Australia, New Zealand and Latin America.

tensions about inter-generational income distribution and a decline of small establishments. In ASEAN, the principal adjustment has been from the agricultural and informal sectors to industrial and formal sectors, thereby alleviating poverty. There are still tensions about the super-rich and about appropriate design of formal social protection but a special feature of ASEAN is that labour adjustment assists poor. Globalization does not necessarily worsen income distribution even without redistribution.⁴

Inclusion for Asia continues to involve poverty alleviation. But it is much more than promotion of SMEs as sources of employment. All economies have masses of SMEs; their size gets bigger with development but the middle of the distribution of establishments by size remains a major source of employment. For their contribution to innovation and progress, what they do matters much more than their relative size. We know that those which participate in international production networks tend to be more innovative than others.

That extends to financial inclusion. Availability of credit owes much more to the existence of plausible projects than to the size of establishments. Micro-finance plays an important role in enabling women to participate in developing and maintaining establishments. It contributes to sound social policy. But it is not a major element in securing an inclusive or an innovative economy.

Nor is much of the thrust on education. In Asia⁵, as in developed countries, from time immemorial to the present, employers have complained about their inability to find employees with the skills and attitudes that they require. But serious studies rather than complaints found in surveys have consistently found that employers want a formulation of what education is about:

"to stimulate students' imagination, to increase their motivation for worthwhile forms of success and personal satisfaction, to make them aware of how knowledge and understanding have been added to by the great discoverers and innovators within particular fields, to secure their commitment to accuracy, care of expression, meticulousness in experimental design, caution in the drawing of conclusions, to develop sound judgement; and to do all these things as much *through* subjects, as *in* subjects".⁶

"Soft skills" and "employability skills" overlap. In the 1980s, I made a list of what informed employers identified as their needs:

- numeracy and literacy skills
- knowledge about the world in which young employees live, including the world of work
- understanding of, sensitivity towards, concern for others
- self-management skills, eg the ability to work without supervision
- the ability to communicate with and relate to others
- life skills, including budgetting, parenting etc.
- a range of skills, manual and creative, as well as academic
- decision making and problem solving skills
- self-esteem, recognition of individual worth

Little has changed in the last 30 years. We can see this in advice on the preparation of CVs to impress potential employers.

⁴ Fukunari Kimura "Globalization and Income Disparity", Presentation to an ERIA-IDE symposium, Jakarta, March 2017.

⁵ Tan Kim Song "Skill Gaps in the ASEAN Economic Community". Presentation to IDE-ERIA Symposium, Jakarta, March 2017.

⁶ OECD *Universities under Scrutiny* (Paris, 1987) p.15.

"Vocational" education is demanding. It should not be confused with subject-knowledge that employers think they need (usually on the basis of their own half-remembered school and tertiary experiences). Employers should be reminded that "lifetime education" is the objective, which implies that every employing organization should be a learning institution.

The *New Zealand Curriculum* provides for employability skills and aptitudes. So do other modern educational systems.⁷ The regional economic discussion is remote from regional education developments and the gap should be narrowed. Both education and social inclusion would be facilitated.

The critical point is that inclusion and innovation have to be sought together. The task is to reconcile innovation with inclusion.

Innovation and new technology implies change: change can be uncomfortable

The coexistence of inclusion and innovation means that inclusion has to accommodate change.

The innovative change which now most threatens our ideas of inclusion is to employment. We have become accustomed to the automation of routine tasks, especially those consisting essentially of manual labour. We are apprehensive about redundancy of managerial and professional employment in the face of networked sensors and artificial intelligence.

Policy communities are well aware of the idea that we are experiencing rapid change. The "great constants" of economics proved less than enduring, but Moore's Law, which originated around 1970, and which in its simplified version states that processor speeds or overall processing power for computers will double every two years is still popular even if computing experts think it is undesirably loose and although there are continual questions about its future. Teachers will be aware of how difficult it is to persuade students what the world was like before more or less unlimited copying of documents was possible – remember how valuable was the typist who could generate more than an original and six carbon copies, even more a typist who did not mind generating such outputs for several revisions, and recall how status was recognised in the order of priority for circulation of each copy. That change was followed by the linking of computers, and the revolution in access to information. To take the example of teachers again, the profession had to adapt to being not a source of information but a facilitator of turning information into knowledge. We now stand on the threshold of exploiting technology in the form of sensors which permit interconnection of processes. Automation of routines is giving way to coherent linking throughout a production network. "Industry 4.0" or the "Internet of Things" label how technology is impacting on value chains and is changing business strategies.

- There is "reshoring" as low wages become less important for business success, and also fewer staff are required for a given level of output.
- We see moves towards shorter supply chain, locations closer to customers and better able to protect intellectual property rights.
- Changes in business strategies pose problems to government, not least in the need to review tax and tariff regimes.

Familiar ideas easily become outdated. Local storage of data is not always desirable. It was noticeable after the Christchurch earthquake that the regional university had a great deal of difficulty recovering its data from its local servers, whereas a commercial bank was able to

⁷ Norman Longworth *Lifelong Learning in action: Transforming Education in the 21st Century* (London and Sterling VA: Kogan Page, 2003); Anne Jones *The Education Roundabout* (Washington Tyne and Wear: The Memoir Club, 2015)

resume business immediately, drawing on data which had been stored in Hong Kong. Regulators need to define more carefully the access to information they need rather than rely on the idea that local data will be that which is most accessible to them.⁸

It is, however, a mistake to think that having to face change is new. For example, Europeans and Americans in the first half of the nineteenth century mostly began in an environment where many people lived their whole lives within 30 miles of their birthplace, and experienced the change by which railways made land travel possible at something not unlike the speed of intercity surface travel today. They began life believing in the literal truth of a bible history in which the earth was 4000 years old and confronted the reality of evolution. (Some Americans missed out on this experience.) They began by believing in the reality of angels and the resurrection of the body, and ended by accepting cremation as a reasonable response to the rising price of urban land. Other civilizations faced challenges to accepted thought which were equally demanding. We face only the latest phase, faster in some respects such as information availability and widespread connectivity, but less in others such as revisions required in basic values systems.

Technology has long impacted on employment. *The Economist* recently disseminated the warning, “EXPERTS warn that ‘the substitution of machinery for human labour’ may ‘render the population redundant’. They worry that ‘the discovery of this mighty power’ has come ‘before we knew how to employ it rightly’.”⁹ Those words are 200 years old. I shall refer below to the impact of mechanised weaving on the “labour aristocracy” of the early nineteenth century. We can also think about how railways destroyed a whole set of skills associated with horses. They first changed the market for skills in managing horses; railways provided long distance transport services and trades concerned with horses experienced increased demand for local services connecting with railways and local services stimulated by growth associated with better long-distance communications. Then the railway network became more intensive taking some of the local demand, and was supplemented by trams and other forms of light rail, taking more of the total market. But it was motor vehicles which finally killed the horse-based sector of economies. A similar story can be told about electricity, first changing where handlers of coal were employed, but eventually rendering local steam appliances redundant.

Even in more recent times, as we think about information processing supplanting copy typists, ATMs replacing bank tellers, the emphasis tends to be on relatively low-level jobs. (They were the jobs which in western societies permitted social mobility as agricultural populations moved to cities.) However, it takes only a little reflection to realise that higher-paid jobs were also affected. There are not many lawyers now who can live a comfortable professional life, even in secondary and smaller cities, depending mostly on conveyancing. Accountants and engineers have experienced similar change. Job losses to automation will certainly be white collar as well as blue and we have to expect robots which think, but problems have solutions, probably using ICT and AI! It has been suggested that robots should be taxed to level the playing field with human employees, but of course they are; robots are a form of capital which has owners and owners pay tax on the earnings of their assets. There are problems of tax design, but they are not much changed by the existence of robots.

Others faced deeper challenges to their fundamental beliefs.

⁸ This is only one of many data issues facing negotiators. “The EU is still struggling with its own proposal for trade language that allows companies to send data back and forth and yet respect strict data protection rules.” *Nelson Report* (9 May 2017).

⁹ “March of the machines: What history tells us about the future of artificial intelligence—and how society should respond” *The Economist* (25 June 2016)

The “digital/internet economy” is the economy.

One implication of change is that it is becoming increasingly untenable to distinguish the “digital/internet economy” from the economy. “E-commerce” is coming to encompass commerce. Digitalization and use of the internet are becoming pervasive if not universal.

Arun Sundararajan of NYU’s Stern School of Business argues that “crowd-based capitalism” is replacing the corporation.¹⁰ Sites like You-Tube and e-bay introduced direct transactions but “Uber and Airbnb, monetize the most expensive assets that most consumers own: homes and cars.” We also now see crowd-based platforms in business lending and philanthropy. How far will it go? I doubt if short stays in private houses will invade residences as much as “boarding” once did, especially as young men migrated to cities. While “capitalism as we know it” might be at least much changed, what will arrive is probably a new form of networked corporations mobilising individual contractors and customers. There will be many more adjustments as the digital/internet economy is fully integrated into the economy.

“Inclusion” requires adjustment to change, not protection of the status quo.

Attempts to frustrate change are futile. Substitution of mechanised weaving for handloom weavers in the early nineteenth century gave us the term “Luddites” to describe those who take direct action to protect themselves from change. Their efforts were futile and recent attempts to present their efforts in a more positive light are not persuasive. The claim that “History, in one of its callous twists, recast their story from a workers’ revolt for fair treatment to a short-sighted war against technology and progress”¹¹ cannot be sustained. It rests on an article¹² which is subtitled “What a 19th-century rebellion against automation can teach us about the coming war in the job market” and which is an attempt to present comic-book history with plenty of romantic nostalgia. mobilised for modern rhetoric – culminating in taxidrivers blocking their Uber applications. It is somewhat curious that it is written by the author of a book advertised as “In *Smarter Than You Think* Thompson shows that every technological innovation—from the written word to the printing press to the telegraph—has provoked the very same anxieties that plague us today. We panic that life will never be the same, that our attentions are eroding, that culture is being trivialized. But as in the past, we adapt—learning to use the new and retaining what’s good of the old.”¹³ That is persuasive. The background of handloom weavers, was a rural society in which landlords varied from benevolent aristocrats or gentry to bankrupt aristocrats and decayed gentry seeking to solve their financial difficulties at the expense of tenant farmers and employees with annual contracts. The idea that they contemplated a modern welfare state is anachronistic. Luddhism was mindless violence, comprehensible, but no model for contemporary society.

It is not hysteria we need but reasoned responses: “John Stuart Mill wrote in the 1840s that ‘there cannot be a more legitimate object of the legislator’s care’ than looking after those whose livelihoods are disrupted by technology. That was true in the era of the steam engine, and it remains

¹⁰ James Watkins “Will the Sharing Economy end Capitalism as we know it” *ozy.com* (14 April 2017)

¹¹ Michael J. Coren “Luddites have been getting a bad rap for 200 years. But, turns out, they were right” *qz.com* (30 April 2017)

¹² Clive Thompson “When Robots Take All of Our Jobs, Remember the Luddites” *Smithsonian Magazine* (January 2017).

¹³ *Smarter Than You Think: How Technology is Changing Our Minds for the Better* (New York: Penguin, 2013).

true in the era of artificial intelligence”.¹⁴ Government-sponsored Luddism is unlikely to be any more successful than the private version although it may be less violent.

The “Asian miracle” demonstrated that governments were most successful in generating growth, innovation and inclusion when they facilitated change. Textiles had to give way to shipbuilding and motor vehicles which in turn gave way to electronics; services had to be recognised as ranking with manufacturing and like agriculture had to adapt to more efficient production. The relevant “Washington consensus” certainly included effective institutions but it required better regulation rather than minimal government. Assistance to adjust rather than protection of the status quo was the key. Innovation implies change; for achieving innovation and inclusion together, the solution cannot be frustration of change.

The task is now harder than it was in the years of “flying geese” and using integration of East Asia and South-east Asia as a way to smooth change in industrial structures. Populations are aging. Not all innovations originate with young people but there can be little doubt that the aged embrace change less enthusiastically than the young. Matt Ridley has advocated an “innovation principle” to balance the “precautionary principle”. “At its best the precautionary principle is a good thing, preventing future thalidomide tragedies. It says: think about the risks before you adopt something new. At its worst, it does huge harm, because it says: banish potential hazards without considering the benefits of an innovation, while ignoring the hazards of an existing technology, and therefore don’t do anything new.” Ridley proposes an innovation principle as “scrutinize proposed regulations for adverse impact on innovation and drop any proposals which have that effect” which is clearly in the realm of political rhetoric rather than analysis. But a modified form could be along the lines of “ensure regulation has minimal adverse effect on innovation, and especially that it is directed towards facilitating change rather than frustrating it.”¹⁵

Conclusion

The task is to secure inclusive and innovative growth. In the modern economy, that requires utilising rather than constraining international production networks, and discarding other outdated ideas. Securing inclusive and innovative growth starts with facilitating adjustment to change.

¹⁴ Quoted in ‘March of the machines’, *op.cit.* n.8.

¹⁵ Matt Ridley “Innovation should be the hot election topic” *The Times* (1 May 2017).