

The Paradoxes of the Digital Age

Richard Kozul-Wright, 19 March 2018

It feels like an appropriate moment to be discussing the links between trade and structural transformation; with growing concerns about secular stagnation, technological unemployment and a looming trade, war many pundits are looking anxiously back to the 1930s for historical parallels.

I suspect they are a decade out; the current circumstances look more like the 1920s (which is just as worrying). That was a decade of trying to get back to business as usual after a big shock; austerity was the default macroeconomic policy regime, and while trade was recovering, attracting cross-border capital flows was the avenue of choice to return to normal; market forces (the revival of the golden standard and flexible labour markets) and independent central banks were the preferred institutions to manage the job (because they were deemed to be self-correcting and non-political); high unemployment was seen as an inevitable, and by some a necessary, part of establishing a new normal; growth recoveries were heavily debt dependent and accompanied by spectacular increases in inequality in many countries; it was also a period with a declining hegemon and emerging powers but with insufficient coordination among them; blaming the outsider was becoming part of political narratives; and it was, of course a period of rapid technological change the use of oil and electricity was fuelling new systems of mass production and transforming the geography of production and consumption, with a whole new range of spin-off activities and related products.

Rapid technological change is certainly part of our hyperglobalising world and for much of the past 30 years trade has grown quickly though not as spectacularly as capital flows. Growth has become heavily debt dependent and global imbalances have persisted in the face of weak policy coordination; it has also been a period of rising inequality, not only big wealth and income gains for the top one per cent but also a massive shift in functional income distribution from wages to profits. Developing economies in East Asia have successfully exploited these circumstances through successful industrialization strategies but elsewhere the picture is a good deal more mixed; we have seen booms along with falling poverty levels but also busts along with rising levels of social distress; economic diversification has stalled accompanied by premature deindustrialisation and growing informalisation; heightened competition has made economic life at the bottom of supply chains increasingly challenging while upgrading has run into increased market concentration at the top of those chains; UNCTAD has examined these trends in past *Trade and Development Reports*.

When, at the end of the second world war, it came to the design of multilateral rules and support mechanisms to avoid a repeat of inter-war economic inequalities, instability and turmoil, the trade issue was handed over to the UN and negotiations began in 1947 at a conference on trade and employment culminating in the Havana Charter.

The Charter is remarkable in its scope and ambition, setting out a blueprint for a more "balanced and expanding world economy" through a combination of increased domestic spending, open markets, the spread of industrial development, long-term capital flows, and strengthened worker rights. It insisted that countries should be protected against external

shocks and predatory corporate behaviour, that their international commitments should be commensurate with their level of economic and social development and that the full use and equitable distribution of the world's human and material resources would be managed through strong public action, at both the national and international levels.

Despite being signed by 56 countries, both developed and developing, the Charter eventually fell victim to the sharp turn in the US Congress away from New Deal internationalism. Still, its influence persisted in the GATT's abiding efforts to reduce tariffs and through the flexibilities and safeguards that became part of the wider post-war multilateral consensus.

That consensus, to varying degrees and with some glaring gaps, delivered the international public goods needed to underpin a relatively stable and peaceful world order without unduly compromising the domestic policy space needed to meet the ambitious post-war economic and social agenda.

UNCTAD was founded on the belief that developing countries needed more support at the international level (including on commodity and debt markets and technology transfer) to bring about inclusive and sustainable outcomes. The underlying economics of this were straightforward.

Given that developing countries face incomplete markets, underemployed resources and limited productive capacities, the consequences of opening up to trade cannot be modelled as a 2(good)x2(factor)x2(county) level playing field populated by small competitive firms with perfect information and a common technology; in reality, first mover advantages and scale economies translate in to massive and persistent productivity advantages enjoyed by firms in advanced economies and constrain the possibilities of latecomers to diversify into manufacturing and to catch-up. Active policies and international cooperation would be needed to correct these structural distortions that, if left to market forces, could push countries further behind.

Adding binding macroeconomic constraints and shocks to this landscape, magnified the policy challenges facing developing countries, in particular with respect to foreign exchange and labour markets. Reform of the Bretton Woods system was called for, in terms of its governance, access to its financial resources, policy coordination and surveillance efforts, while noting that increased effective demand in the South would of also be good for the economic health of advanced economies.

When financial flows are introduced in to the analysis, as UNCTAD has been doing since 1964, and their interdependence with trade and structural factors examined, instability and a high level of uncertainty become systemically important challenges with profound consequences for investment strategies which are always and everywhere a critical element of successful economic development; when those flows become highly speculative and footloose as has been the norm since the 1980s the policy and regulatory challenges intensify.

This is not the economic policy narrative promoted by the supporters of hyperglobalisation. Rather the old ideological wine of the 1920s has been dusted down, rebottled and sold as a tonic for a new age. So-called "free trade" would, more or less automatically, align price

changes with structural adjustments and quickly correct any misalignments arising from unexpected shocks, so when facing the kind of changes linked to a technological revolution the basic policy message is leave these to business (or entrepreneurs) and markets -- in that sense at least the digital revolution was born neo-liberal. There is some hand wringing about those “left behind” but the response has been more about adding adjectives (of which the favourite is inclusive) than any serious analysis of underlying growth and distributional dynamics.

This narrative seems to be oblivious to the fact that many of the basic technological building blocks of the digital revolution, as writers like Mariana Mazzucato and Bill Janeway have shown, were created in the public sector with tax payers money; it is also narrow-minded, avoiding comparisons across countries in the way innovation is organised and connected across private and public sectors and learning lessons from success stories.

But more importantly it gets the big policy questions wrong; in particular, what we need to ask is not which of trade or technology is the bigger source of disruption but rather, in our hyperglobalized world how do non-marginal changes in trade patterns or technology, interact with real world macroeconomic and financial dynamics and play out in the political and policy realms, both national and international. Such a reframing was offered in the *Trade and Development Report 2017*.

Technology is the focus of our discussions in this expert meeting and, in particular, the changes involved in the digital revolution. The background paper reviews some broad definitions of this revolution but, essentially, we focus on two key overlapping and interlinked areas of technological change.

The first involves the substitution of human by artificial intelligence, going from simple forms of automation such as computer programmed machine tools to 3-dimensional printing. Drawing on work in the last Trade and Development Report we focus on robotics in the background note. Here we encounter our first policy paradox, where liberating technologies with the potential to alleviate the drudgery and physical demands of work have become viewed as a threat to work more generally (we might call this the Frankenstein paradox). We have tried to avoid more alarmist accounts attached to end of work scenarios or the idea that reshoring puts an end to industrialisation efforts in the south, given that the technological feasibility of substituting capital for labour in routine and abstract tasks and the economic viability of doing so are not the same thing. As a result, to date, there are large variations in the use of robots across sectors and countries. That said we recognise the potential for significant destructive consequences, particularly linked to the possible hollowing out of middle-class occupations. Moreover, a developmental impact is already being felt in some middle-income countries where entry in to industries with strong robot use, like automobiles, is becoming more difficult and, although not yet significant, the possible shortening of the time in which manufacturing can provide the basis for diversification in low wage economies.

The second area involves the collection, processing and dissemination of data; information revolution focused on the internet but involving software applications, cloud computing, big data, etc. This has tended to be accompanied by a more optimistic, indeed utopian, technological narrative; these technologies will make everything easy and more inclusive

through e-commerce, e-finance, e-governance, etc. The economics of information should make us a bit more cautious: information is rife with market failures in part because it has the qualities of a public good with attendant externality and free rider problems and in part because the production and dissemination of information lends itself to advantages of scale and scope. The consequences are potentially troubling in terms of rising monopoly power and growing inequalities. According to Martin Sandbu of the *Financial Times* "There are deep structural features of the digital economy that makes many online markets prone to concentration, with rent extraction and abusive market power as a consequence". This might be called the Marx paradox, whereby a technology with apparently democratising or potential to include more people becomes the source of growing divisions and inequality. This is a familiar and troubling world for many developing countries, recalling in particular the problems of commodity exports, who have been held back by such features for decades. Raúl Prebisch, UNCTAD's first Secretary-General, argued (in the pre-digital era) that such concentration effects had hampered catching up in the South after the end of the Second World War, and had systemically tilted the gains from international trade and investment in favour of the North, and warned about "the drainage of income through the transnational corporations, as they came to play a more and more active part in industrialization, often sheltering behind an exaggerated degree of protection"(Prebisch, 1986: 198).

There is a final policy paradox surrounding the digital economy we should consider here; the Lauderdale paradox, named after the Earl of Lauderdale, an early 19th century contemporary of David Ricardo. Lauderdale identified an inverse correlation between public wealth and private riches such that an increase in the latter often served to diminish the former. Behind this Lauderdale essentially saw a drive by private actors to control and profit from an abundant resource (such as land or water) by finding ways to make it artificially scarce by throwing up barriers to access of one kind or another. From this perspective, the corporate control over data, which has the qualities of a public good, is being converted in to a private resource and a source of surplus profits. The danger, as sketched for example by the McKinsey Institute, is a polarised digital world of disconnected superstar firms and sectors and the rest of the economy.

The developmental consequences of these paradoxes and the required policy responses are not yet fully understood. However, hyperglobalisation is already pushing the policy discussion in a clear direction. Cutting taxes, tightening intellectual property rules and raising tariffs is one avenue of response (currently being pursued by the US). But as the *Financial Times* journalist Rana Foroohar recognises this strategy not only avoids the problem of monopoly power it also fails to address some of the basic constraints on building a more sustainable and inclusive digital economy. These include a secular weakening of investment finance in the real economy, particularly for small and medium-sized enterprises and the lack of any coherent strategy to build synergies between the physical and the digital economies and retrain displaced workers.

Cutting taxes and signing free trade agreements has been put forward as an alternative strategy (particularly by European governments). But this does not address Foroohar's concerns either (and, Europe is behind the US in the digital race). Moreover, as Dani Rodrik has recently written in a paper asking "what do trade agreements really do?" this strategy may prove even worse given that the latest generation of trade agreements "are shaped

largely by rent-seeking, self-interested behavior on the export side. Rather than rein in protectionists, they empower another set of special interests and politically well-connected firms, such as international banks, pharmaceutical companies, and multinational corporations...they are as likely to produce welfare-reducing, or purely redistributive outcomes under the guise of free trade.”

The obvious point is that the disruptive and distributional consequences of these new technologies will be sufficiently significant to require a well-rounded and pragmatic policy response in all countries, but particularly developing countries. We argued in last year’s *Trade and Development Report* with respect to the robot challenge that what is needed is a new “new deal”, with a mix of reflationary, regulatory and redistributionary measures tailored to local conditions but with a strong multilateral dimension to mitigate the systemic pressures leading to greater polarisation, and to make that deal global through enhanced international cooperation and policy cooperation.

This would include a new industrial policy to deal with the building and adjustment challenges of the digital era. As UNCTAD has long insisted, and again examined in some detail in its 2016 *Trade and Development Report*, industrial policy is less about picking winners (in the digital case this is anyway a mute point) and more about mobilising underutilised resources, raising productivity and building linkages across firms, activities and sectors to support a more diversified economy. But it is also and always about managing rents in ways that can bring about wider public goals rather than simply reinforcing narrow private interests. The details of such policies and the accompanying institutional reforms are under discussion in this meeting, I will simply note here by way of conclusion that countries will need the requisite policy space and a supportive international environment, including through regional and south-south arrangements, if the digital economy is not to reinforce the structural differences and add to the constraints that have long held back catching up across much of the developing world.