

**Globalisation after the Financial Crisis:  
Structural Change and the Reconfiguration of Geography**

**Abstract**

Before the global financial crisis, globalisation was widely perceived to be an inexorable process. Economic convergence was predicted if the right policies and institutions were present - and conversely, the reverse was predicted if these were not (global) “market-conforming”. Some commentators did note distributional issues, but often asserting that these could be addressed with relatively standard policy packages.

This paper proposes that key globalisation processes have emerged. The drivers of these processes are technological changes and the entry of over a billion workers into the global economy. However, the resulting global flows also reflected a series of unsustainable developments. The dynamics of the shift in international production spread economic activity globally, but unevenly. This paper analyses these developments as part structural change with the shift in economic activity through global value chains. The developments in the global economy are understood as adjustment to a rapid phase of structural change. This paper sets out the shifts in international production and draws out their implications.

***Keywords:* globalisation; global financial crisis; global production networks; structural change**

***JEL Classifications:* F60; F62; F63**

## **Introduction**

Before the 2007/08 global financial crisis (GFC) globalisation was widely regarded in policy circles and, to a lesser degree, academic circles as an inexorable process and a broadly benign one. If appropriate policies were pursued globalisation held out the prospect of higher growth and global convergence. Change within economies could be managed with appropriate supply side policies; resistance to changes from globalisation would only lead to welfare losses. The drivers of globalisation processes were not always clear; blanket characterisations of globalisation tended to obscure different processes across different economic activities. In some accounts globalisation was seen as driven by transformational new technologies; elsewhere it was seen as the outcome of market processes. In either case this underplayed deliberate policy choices. During the “Great Moderation” period before the GFC global growth appeared to support this analysis.

There were some alternative perspectives sceptical of these claims. Some claimed that economic integration in practice fell a long way short of a truly global economy, with increased international economic activity largely between the “Triad” of developed economies. An alternative sceptical account queried how far globalisation was likely to lead to the predicted convergence, pointing instead to the lack of evidence for systematic catch-up between countries whilst noting increases in inequality within countries. Some noted that an earlier phase of globalisation before the First World War had ended following a backlash with a collapse of global flows during the Great Depression; historical experience indicates that globalisation processes are not inevitable.

None of these earlier accounts appear adequate to explain contemporary developments. Since the onset of the GFC, growth of global flows has slowed sharply or gone into reverse. This may be more than just a cyclical response to the “Great Recession”, instead reflecting structural shifts in globalisation processes. Whereas previous accounts had viewed globalisation in terms of inexorable processes this is now seen in part at least as the outcome of explicit policy choices in the context of an apparent political backlash today against globalisation. The policy framework underpinning globalisation has been threatened and the architecture of globalisation has come under strain. However, the structural and geographical shifts in the global economy over recent decades remain. Contemporary globalisation processes have gone beyond developed economies to incorporate major shifts in global economic activity, particularly but not exclusively in manufacturing. However, simple global convergence stories do not hold between countries, there are marked geographical patterns to this spread of global economic activity. Within major economies, developed and emerging, inequality has risen, albeit to varying degrees.

## **Flat World Globalisation?**

High profile analyses of globalisation processes during the “Great Moderation” period did prophesy that integrated markets and new information and communication technologies (ICTs) would lead to a “borderless world” (Ohmae, 1994), the “death of distance” (Cairncross 1998) or the “end of geography” (O’Brien 1992). Famously, Thomas Friedman’s *The World is Flat* asserted that contemporary globalisation processes are characterised by break-through technologies and political liberalisation that effectively eliminate the barriers to information flows (Friedman, 2006). Whereas previous phases of globalisation essentially entailed easing the mobility of physical goods through reductions in transport costs and protectionist barriers, the contemporary phase entails reductions in barriers to flows of

information, technology and ideas. Such accounts reflect a series of propositions that became increasingly common, in amongst economists, international agencies and governments. In the past the prosperity of developed countries rested on their superior technology and supplies of highly skilled labour; this was buttressed by high quality infrastructure and institutions. Whereas earlier phases of globalisation might largely have entailed increased interaction between developed countries, the combination of policy changes towards trade and capital market liberalisation, together with the spread of ICTs, has meant that developing and emerging countries can now access best practice technology and export to major global markets. Outsourcing through global production networks (GPNs) allows high skilled labour in developed countries to co-operate directly with producers in lower wage economies. The successful developing countries have oriented themselves to global markets and inward investment flows, investing heavily in human capital and infrastructure. In particular, the emergence of GPNs has enabled the spread of production and associated techniques to emerging economies. Technologically advanced inputs and the services of highly skilled labour can increasingly be organised across borders. Thus, the export-led growth of developing countries is predicated upon not just the expansion of basic technology/low skill goods, the production of which has largely long since disappeared from developed countries already, but now developing economies are increasingly up-grading into more sophisticated products and services long considered the sole preserve of developed economies. This growth is lifting millions out of poverty, with growth held as a necessary and, implicitly or explicitly, virtually sufficient condition for poverty reduction (Dollar and Kraay, 2004). These processes affect not just manufactured goods – earlier sceptical accounts saw increased tradability primarily affecting this (relatively) declining sector of the economy – but increasingly services too. Increasingly tradability affects not just basic routine services but a range of professional services that may be outsourced provided that they are not dependent upon face-to-face contact.

The impact of globalisation was thus hypothesised to be broadly benign both between and within economies. Globalisation would both promote convergence between economies by facilitating catch-up. More qualified academic versions of the flat world vision predicted that globalisation processes over time would lead to income convergence (Lucas, 2000) and/or that they are already doing so. Within developing economies growth was broadly expected to raise incomes of the poorest within economies (Dollar and Kraay, 2004); versions of standard trade theory predicted that relatively abundant low skilled labour would gain disproportionately from global trade (cf. Wood, 1994). Inequality was therefore expected to fall within developing economies with globalisation. The other side of such predictions was the expectation of rising inequality within developed economy (or proposed as an explanation for observed increases in inequality). The initial expectation, though, was that it would predominately be the lowest skilled workers at risk in some version or modification of trade theory approaches. The logic of this approach was that only the minority low skilled workers as the relatively scarce factor, would experience falling incomes from globalisation; much of the workforce would therefore be expected to gain from specialisation as well as standard consumption gains from trade.

This remained a conditional convergence hypothesis: there is no automatic tendency for global economic convergence and pursuit of inappropriate policies would see countries facing at least a relative decline in their income per head as others took advantage of the potential globalisation offers and forged ahead. Nor do these trends necessarily promote equality within countries; however, if inequality between countries is reduced so that global inequality between citizens becomes relatively more a within-country phenomenon then intra-country inequality can be tackled more easily through standard policy measures.

Globalisation proponents effectively proposed that pursuing Washington consensus policies would be necessary and sufficient for convergence. As Milanovic (2003, pp. 667-8) noted:

It is only a slight caricaturization of this naïve view to state that its proponents regard globalization as a *deus ex machina* for many of the problems, such as poverty, illiteracy or inequality that beset the developing world. The only thing that a country needs to do is to open up its borders, reduce tariff rates, attract foreign investment and in a few generations, if not less, the poor will become rich, the illiterate will learn how to read and write, and inequality will vanish as poor countries catch-up with the rich.

On one level it is relatively easy to demonstrate that such accounts are overstated and partial. Distance, national borders and policies continue to provide barriers to international economic activity. As well as trade and foreign direct investment, even non-material financial and technological flows fell well short of a frictionless world economy and are significantly affected by geographical distance; “gravity” estimates of trade and other flows still appear to show a persistent effect of geographical distance on flows despite falling transport costs and protectionist barriers; poorer, distant economies often continue to face significant apparent. More broadly such accounts miss key spatial dynamics – ICTs reduce some costs associated with distance, but rather than leading to an even spread of economic activity, global patterns of activity are distinctly “lumpy” (Christopherson *et al.*, 2008).<sup>1</sup> Economic activity has not simply dispersed globally, a small number of new growth poles have emerged in certain countries and, in particular, concentrated around key cities.

Nevertheless, globalisation processes from the 1990s did produce a transformation in global economic activity that went beyond simply increased interaction between developed economies. Earlier assessments laimed that “the world economy is far from being genuinely ‘global’. Rather trade, investment and financial flows are concentrated in the Triad of Europe, Japan and North America and this dominance seems set to continue” (Hirst and Thomson 1999, 2). Thus, “globalisation” in this account was not primarily changing the role of non-Western economies in international activity and was as least as much a reflection of increased interaction *within* the core regions of the Triad as much as a rise in genuinely global activity (Hirst and Thompson, 1999; 2011). Such accounts can no longer be sustained. Global trading networks have emerged that have been underestimated in earlier studies (cf. Arribas *et al.*, 2009). The period from the 1990s until the onset of the GFC saw a phase of “hyper-globalisation” expansion in trade (Federico and Tena-Junguito, 2016; Subramanian and Kessler, 2013). Global value chains now account for around two-thirds of global trade. The share of developing country exports grew from around a third in 1980 to almost half by 2011 (WTO, 2013). Trade-GDP ratios rose within developing countries from around 10 per cent in 1970 to 33 per cent in 2007 on the eve of the crisis (Milberg and Winkler, 2010). Whereas much of the post-war growth of trade had been driven by intra-industry trade between developed countries, the growth in goods trade from the 1990s has been driven by trade in components as GPNs have spread. Services trade has expanded faster still, albeit from much lower levels, reflecting increased potential for outsourcing. Over the post-war period trade had typically risen faster than output, but with the spread of GPNs the trade-GDP elasticity rose (Escaith *et al.*, 2010; Milberg and Winkler, 2010; WTO, 2013). Trade integrated manufacturing, and increasingly business services, across the globe. Trade was also boosted by the pre-financial crisis commodities boom consequent on the industrial growth of China in particular.

Figure 1: Distribution of World Exports

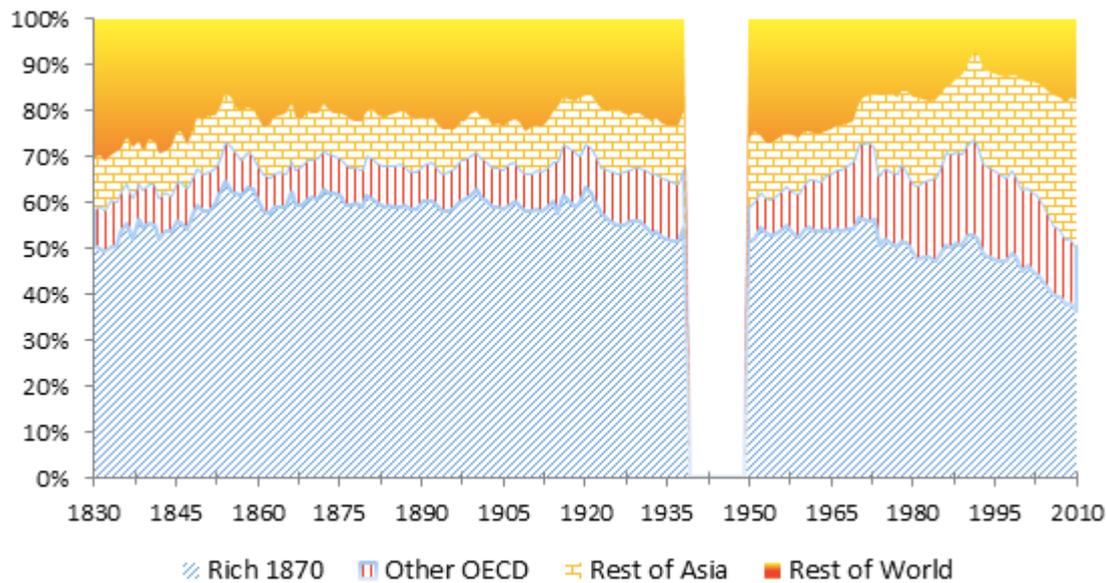
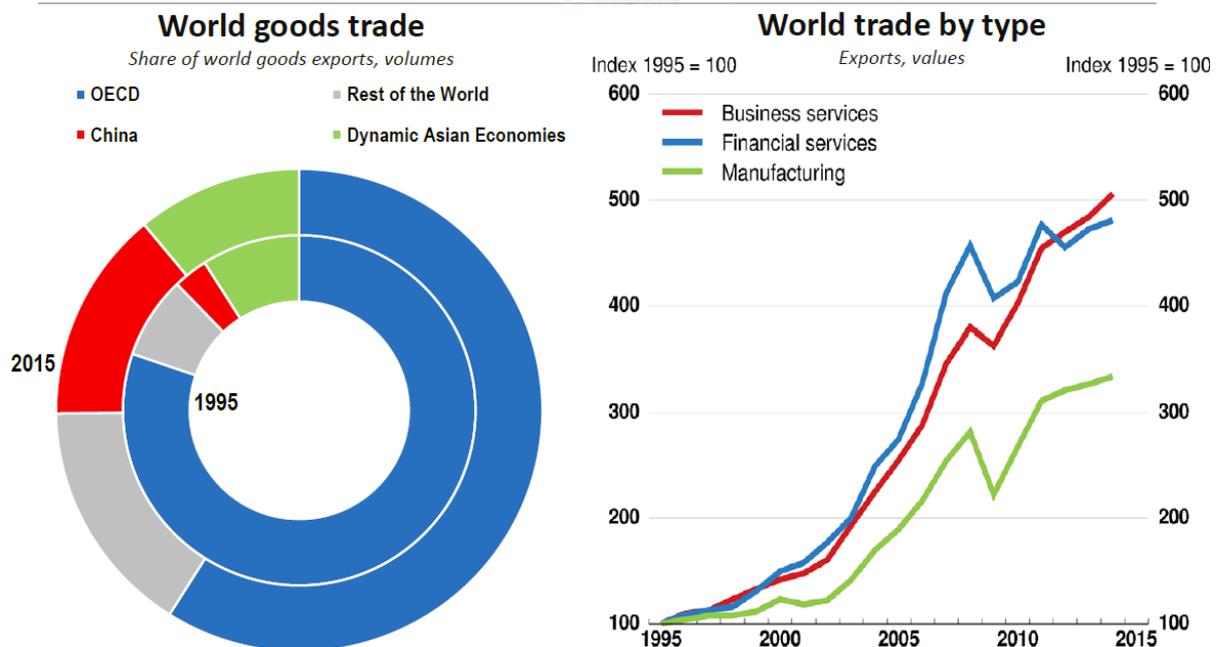


Figure 2: Shifting Trade Patterns

## Trade specialisation and patterns have shifted



Note: LHS – Dynamic Asian Economies includes Malaysia, the Philippines, Singapore, Thailand, Vietnam, Chinese Taipei and Hong Kong.

Optimistic theories of globalisation predicted gains from trade would lead convergence. Sachs and Warner (1995) provided one of the clearest statements and predictions, boldly asserting that:

open economies tend to converge, but closed economies do not. The lack of convergence in recent decades results from the fact that the poorer countries have been closed to the world. This is now changing with the spread of trade liberalization programs, so that presumably the tendencies toward convergence will be markedly strengthened.... We suggest that the

most parsimonious reading of the evidence is that convergence can be achieved by *all* countries, even those with low initial levels of skills, as long as they are open and integrated in the world economy. (Sachs and Warner 1995, pp. 3 & 41; emphasis in original)

Significantly they did not find that countries required some threshold level of human capital to benefit from openness. Major caveats apply to the study's methodology (cf. Rodriguez and Rodrik, 2001), and Sachs himself subsequently proposed a more nuanced analysis of the possibilities of growth and convergence under globalisation emphasising the role of geographical factors (Sachs, 2000). Their sample period predated the global shift to liberalised trade regimes with domestic policy changes and the establishment of the WTO. Subsequently the move towards trade liberalisation amongst developing and emerging economies has become close to universal. However, as developing and transition economies did embark on trade liberalisation programmes, the confident predictions of Sachs and Warner have not clearly been borne out. Notwithstanding major caveats over Sachs and Warner's approach, their estimates did appear to show not just a significant growth premium for open economies but also that this premium was larger for initially poorer economies; thus, trade liberalisation did appear to have contributed towards convergence over the post-war period up to the 1980s. Subsequently, although there is some evidence of a pick-up in convergence rates during the 2000s during the period of rapid export growth before the GFC, the longer term evidence is much more ambiguous. Subsequent estimates found that the apparent gains to trade liberalisation fell during this period (Dowrick and DeLong, 2003; Dowrick and Golley, 2004; Wacziarg and Welch, 2008). Further, rather than trade openness benefitting the poorest economies and boosting convergence, from the 1980s its benefits appeared to have been concentrated amongst relatively rich economies (Dowrick and DeLong, 2003; Dowrick and Golley, 2004). Trade liberalisation does not necessarily enable initially poor countries to overcome poverty traps. Moreover, key economies that achieved export-led growth from the 1990s, notably China and India, were not classed as operating open trade regimes at the start of the 21<sup>st</sup> century whilst also operating capital controls including restrictions on FDI.

Nor did other global flows clearly lead to growth and convergence either. There was a widespread shift to greater openness to FDI and financial openness amongst developing countries. However, this did not lead to developmental flows in the "Great Moderation" period; on the contrary, following the late 1990s emerging market crises, rapidly growing developing economies typically ran current account surpluses, whilst the US in particular ran an external deficit – the phenomenon of "up-hill" capital flows. Capital flows to developing economies did not merely fall short of those predicted on the basis of simple convergence stories, the "allocation puzzle" emerged in this period highlighting that those countries with the most rapid productivity growth were typically net capital exporters. Capital accumulation in developing countries was not predominately financed by global flows. Investment rates were relatively low by historic standards in Latin America and sub-Saharan Africa (Kozul-Wright and Rayment, 2004); China apart, investment rates fell significantly in East Asian economies following the 1997 financial crisis (Felipe *et al.*, 2006). Developing countries were net recipients of FDI, but it remained limited and heavily concentrated on a small number of economies, with China dominating inflows. Foreign direct investment, far from operating to spread economic activity to developing countries is even more unequally distributed globally than income. Half or more of the FDI flows are estimated to have been in the form of M&A, which limits their net contribution to capital formation. Kozul-Wright and Rayment (2004) noted that whereas a number of Asian economies did see both significant FDI inflows and high levels of domestic investment, elsewhere – particularly in Latin

America – FDI inflows increased whilst domestic investment fell as a share of GDP. FDI inflows did not consistently underpin broadly-based development over this period.

By the start of the 21<sup>st</sup> century expectations of convergence between countries appeared to have been confounded. Milanovic (2005, ch. 7) found that more countries experience relative decline than upward movements over the last two decades of the 20<sup>th</sup> century with the effect that by 2000 the club of rich countries had become smaller and more Western. Overall, at that stage Milanovic (2005, p. 78) concluded then that “the hope of non-Western countries catching up has effectively been dashed over the past quarter of a century”. Such a conclusion is now subject to some qualifications discussed below.

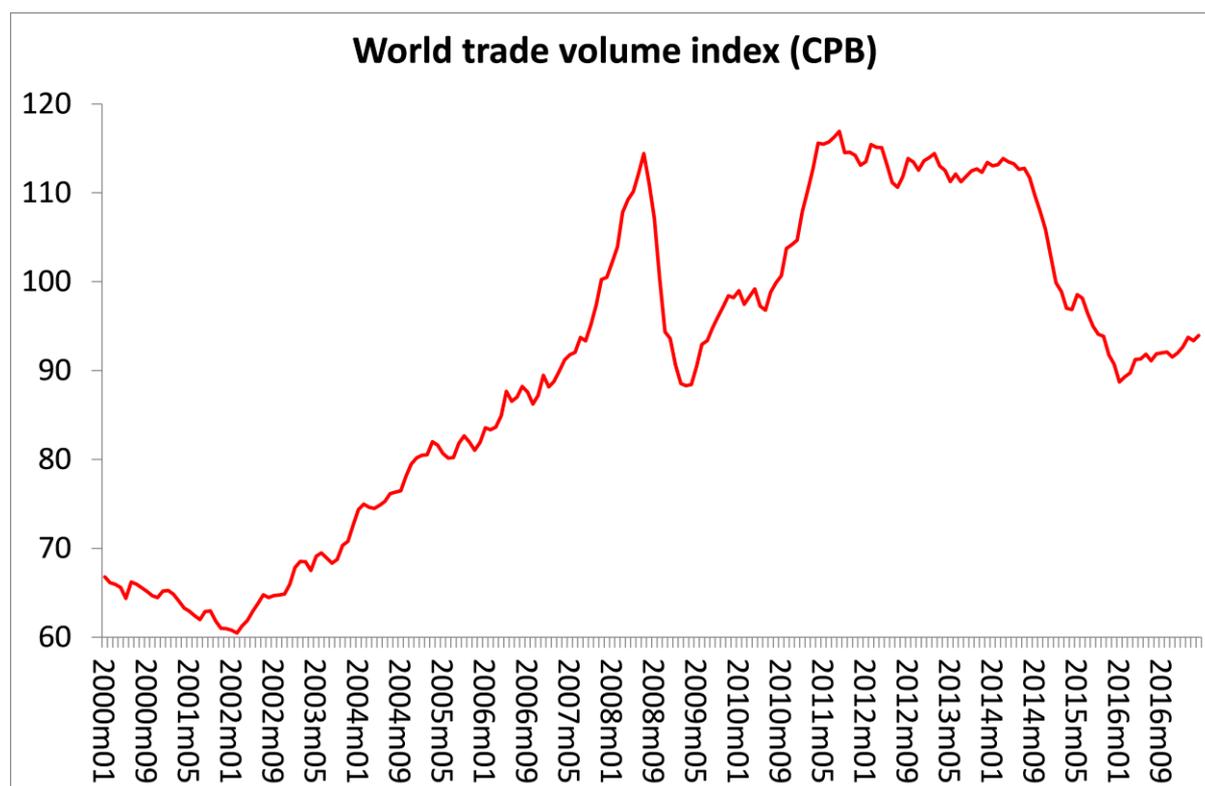
Trade liberalisation did not lead to expected growth and convergence; successful export-led growth was associated with investment growth but trade liberalisation programmes did not systematically lead to this in practice. The shift to greater openness to trade and FDI flows had not universally produced the expected gains; many economies outside Asia had failed to achieve sustained improvements in investment and productivity from this (Kozul-Wright and Rayment, 2004; Ocampo and Parra, 2006; Rada and Taylor, 2006). Outside Asia, growth in developing countries was not systematically associated with industrialisation. Simple adherence to Washington consensus policies did not guarantee developing country success under “actually existing globalisation”; rather, the countries that did sustain growth – mostly in East Asia – pursued explicit development strategies, utilising a range of policy tools.

### **A Crisis of Globalisation?**

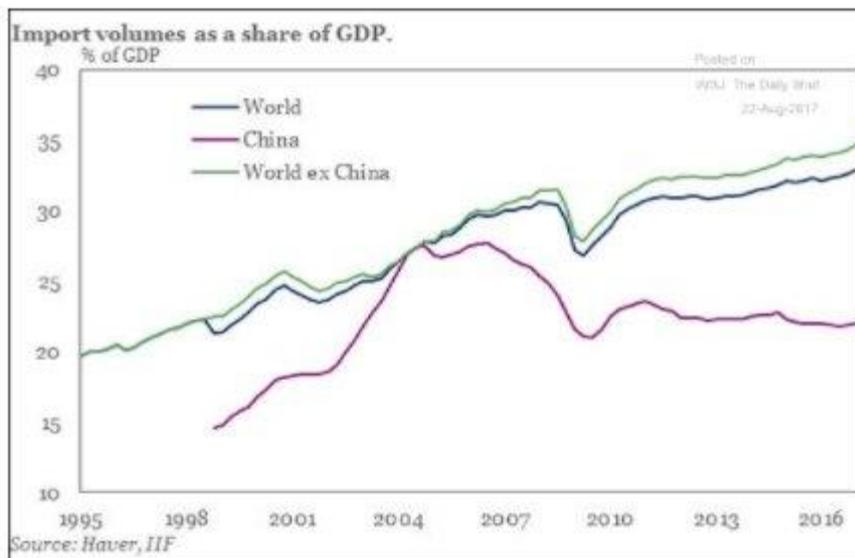
The global character of the 2007/08 financial crisis is clear, problems of mortgage lenders in the UK and US rapidly spread throughout the global financial system. A decade on, economic activity remains subdued and developed countries have not resumed their pre-crisis growth paths, although recovery is more sustained amongst emerging economies. The major global flows have declined sharply or reversed since. The persistence in the downturn of global flows appears to be more than simply a cyclical response to the Great Recession and partly reflects a more structural shift away from pre-crisis globalisation. It was not simply the decline of global flows, but the perception that the international architecture that underpinned globalisation processes may be being eroded.

Initially international cooperation provided a framework for short term management of the GFC and prevented a return to 1930s style protectionism (Drezner, 2014). This must be qualified in key respects. Particularly following the 2010 G20 Toronto summit, the macroeconomic policy mix promoted emphasised monetary policy as the main tool of expansion combined with fiscal consolidation or austerity. With monetary policy reaching the limits of its effectiveness this macroeconomic policy mix has dampened global demand; the lack of an effective fiscal response is particularly problematic when interest rates are around zero (Eggertsson *et al.*, 2016). Whilst there has been no return to 1930s tariffs, non-tariff barriers have risen since the onset of the GFC. Latterly a backlash against globalisation, and trade agreements in particular, has manifested itself in the US and elsewhere. Even before the GFC, the Doha round of the WTO had become dead-locked, not least because of the lack of agreement between emerging economies and Western powers. Since then both the TPP and TTIP trade agreements have been abandoned by the Trump administration.

Figure 3: Global Trade Slump



The initial slump in global trade was the largest since the Great Depression; since the initial recovery from the effects of the 2007/08 crisis trade growth has been slow and no longer outpaces GDP growth (IMF, 2016, ch. 2; WTO, 2013). It is too early to clearly discern cyclical from any structural shifts and trade through GPNs proved resilient through the crisis with new patterns of South-South trade emerging (Milberg and Winkler, 2010). Services trade also proved more resilient than trade in goods. Nevertheless, evidence indicates that there is a structural slowdown in the growth of trade and the hyperglobalisation phase of rapid trade growth before the crisis has now passed (Constantinescu *et al.*, 2015; ECB, 2016). The rise of non-tariff barriers may only have limited effects on trade, whilst the consequences of the demise of recent trade agreements should not be exaggerated – the major barriers to trade had already been eliminated and recent trade agreements have been more concerned with bargaining over the distribution of gains from trade than removing any major impediments. However, the major phase of expansion of GPNs may now be passing. Imports as percentage of Chinese GDP fell even before the crisis and, after some recovery, have flat-lined since. The import component of Chinese production is falling as they upgrade their production. Even before the crisis there was evidence that offshoring had plateaued amongst the major developed economies (IMF, 2007, ch. 5) and have levelled off since the crisis (OECD, 2017: ch. 2). The increased application of robotics has reduced the labour cost advantages of China and other developing economies at a time when their growth has raised wages, leading to reshoring of manufacturing production (Livesey, 2017; this issue?).



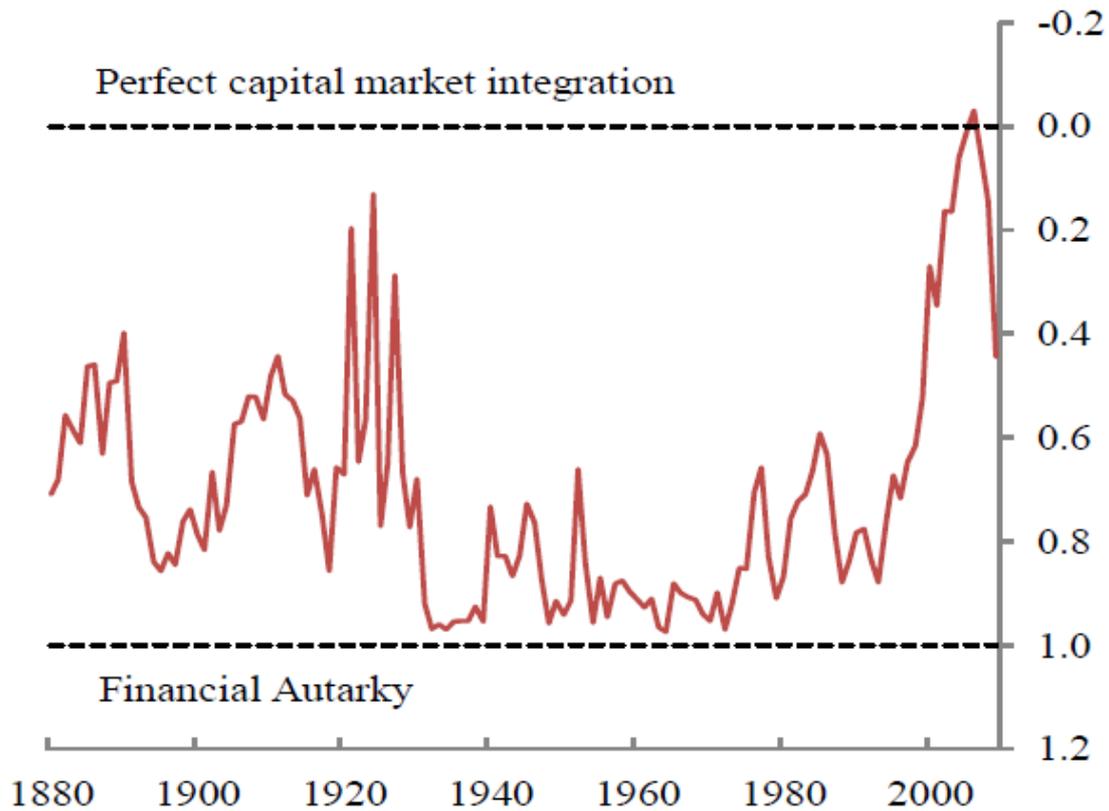
Source: @IIF, @josephncohen

FDI fell back too following the GFC and although it staged some recovery it has fallen back since; flows to developing countries have been particularly hit and much of the growth of FDI flows has been to financial centres (UNCTAD, 2017). The FDI stocks remain at similar pre-crisis levels relative to GDP, but, as with trade, there has been no resumption of flows exceeding GDP growth.

The most dramatic case of “deglobalisation” since the crisis can be seen with financial flows. As already noted, financial globalisation in practice was heavily based in developed countries; the majority of flows were between developed economies and developing economies had become net creditors since the late 1990s emerging market crises. Global financial flows had grown exponentially since the 1970s, but have collapsed since to around 60 per cent below their pre-crisis peaks (BIS, 2017: ch. VI; Forbes, 2014; McKinsey, 2017). External assets and liabilities have fallen relative to GDP. On some indicators financial integration has fallen back to levels comparable to the mid-1980s. Retrenchment has been particularly marked in European banking. Rather than seeing this as a simple case of deglobalisation, these trends can be interpreted in the development and aftermath of the GFC. An influential view sees this in terms of a supposed global “savings glut”, but this interpretation has major empirical and conceptual shortcomings (Borio and Disyatat, 2011; Shin, 2012). It is more appropriate to interpret this in terms of global credit boom rather than a savings glut. Payments imbalances did emerge between high net savers amongst emerging Asian economies and the US current account deficit on the other (e.g. French *et al.*, 2009). In the face of stagnant incomes for swathes of US households – examined further in the next section – the US was able to sustain a housing and private consumption boom at low interest rates (e.g. Schwartz, 2009). Whilst the Eurozone overall was in external balance, albeit with a large German surplus, European banks were central to the growth of global credit. Wealth inequality grew in this period, with wealth owners increasing demand for financial products which supported this growth of credit (Goda and Lysandrou, 2014). Since the financial crisis broke there has been attempted consolidation, albeit with only limited reductions in outstanding debt levels globally (McKinsey, 2015a). Rather than returning to national capital markets, this is extended consolidation following the crisis. The payments imbalances have

persisted since the crisis, indicative of a lack of effective demand in the global economy as major surplus countries have resisted expansion.

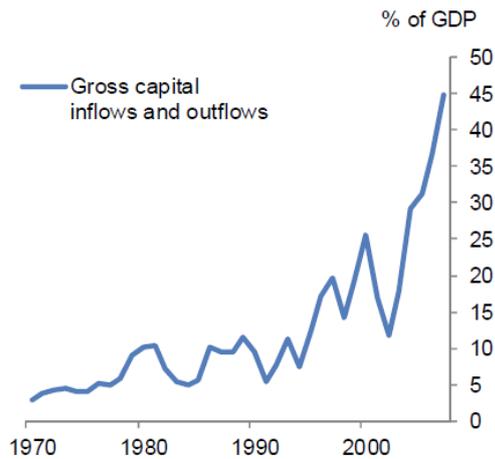
### Chart 3: Global capital market integration<sup>(a)</sup>



Source: Taylor (2002), IMF WEO, Obstfeld and Taylor (2004) and Bank Calculations.

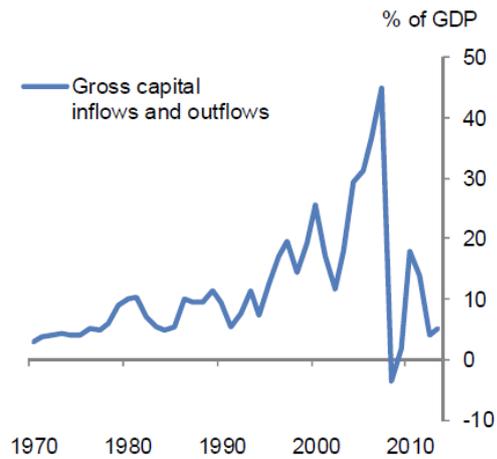
(a) Global capital market integration is the correlation coefficient between domestic savings and investment for 15 countries (the sample varies slightly over the period)

**Figure 1a: Gross capital inflows and outflows for selected advanced economies<sup>(a)</sup> 1970-2007**



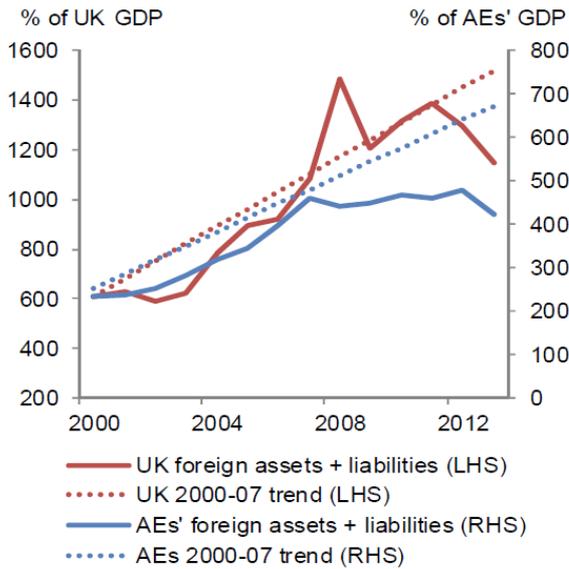
(a) Sample of countries: Australia, Austria, France, Israel, Italy, Netherlands, Sweden, United Kingdom, United States.  
Source: IMF International Financial Statistics, OECD

**Figure 1b: Gross capital inflows and outflows for selected advanced economies<sup>(a)</sup> 1970-2013**



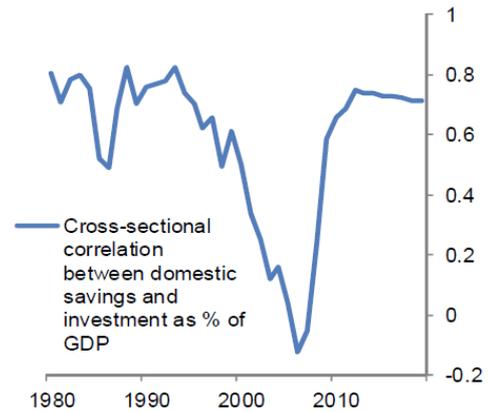
(a) Sample of countries: Australia, Austria, France, Israel, Italy, Netherlands, Sweden, United Kingdom, United States.  
Source: IMF International Financial Statistics, OECD

**Figure 4: Sum of foreign assets and liabilities of advanced economies and UK, scaled by GDP (2000-2013)**



Sample includes 21 advanced economies.  
Sources: Lane and Milesi-Ferretti (2007), IMF IFS, IMF WEO, ONS

**Figure 5: Home bias in advanced economies**



Note: Home bias is greater if the correlation between domestic savings and investment is higher. The correlations from 2014 onwards are based on latest WEO forecasts for savings and investment. Sample of advanced countries includes: Australia, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Germany, Greece, Hong Kong, Iceland, Ireland, Israel, Italy, Japan, South Korea, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Taiwan, United Kingdom, United States.

Source: IMF World Economic Outlook October 2014

The shock of global financial crisis, slow recovery amongst developed countries and a “populist” backlash against globalisation has led to some dark prophesies of a crisis of globalisation leading to a reversion to nationalism (e.g. King, 2017). This appears premature, but the pre-crisis phase of rapid growth of global flows appears to have passed. The recent structural changes in the global economy remain and these are examined in the next section.

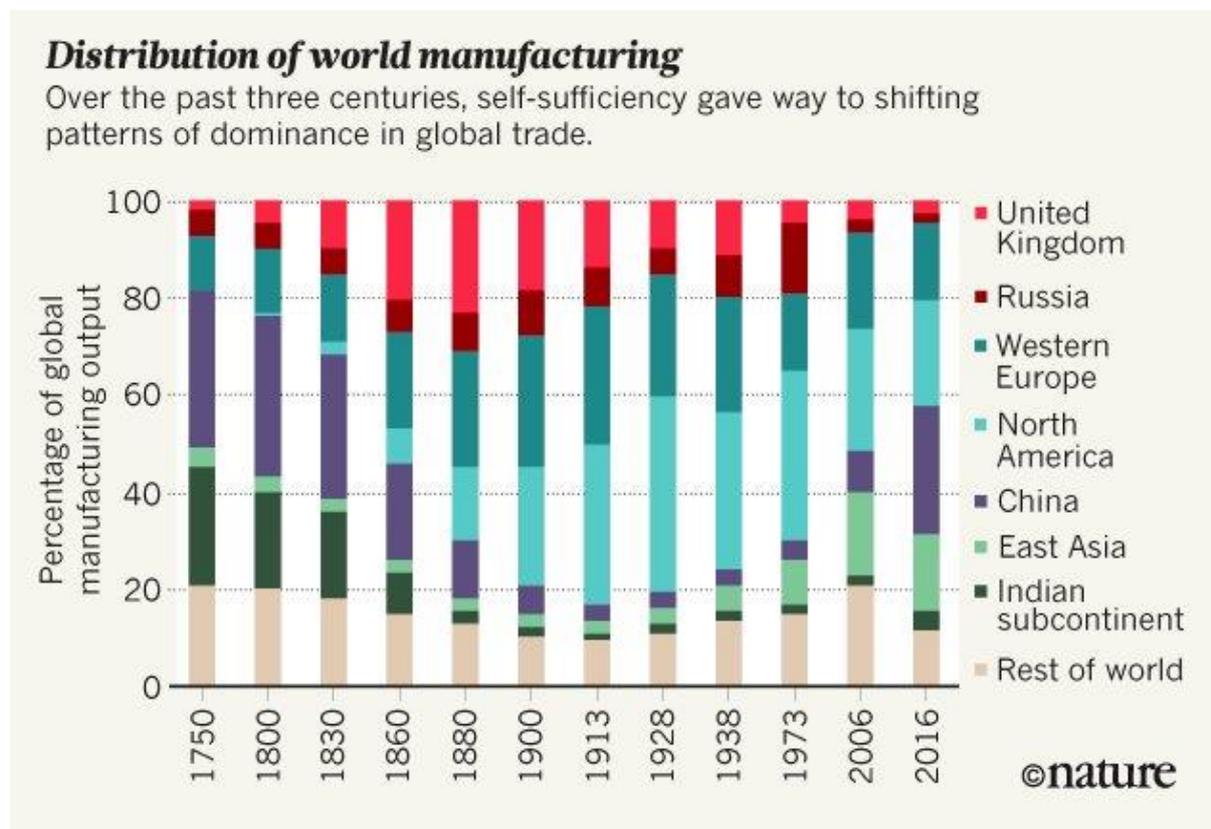
### Structural Change and the Global Spread of Economic Activity

The poor growth and productivity performance of developed economies since the onset of the GFC point to longer term developments. Over past quarter century there have been profound

shifts in the global economy which have fundamentally altered patterns of production and income distribution.

Baldwin (2016) details how since 1990 the share of the G7 in global GDP and manufacturing has fallen from around two-thirds to less than half today (46-47 percent); this is comparable to their share of global economic activity around 1860. The decline has been almost entirely taken up by just six countries (albeit populous ones). Of these six countries, five are Asian (China, India, Indonesia, Korea and Thailand) and one European (Poland). China alone now accounts for almost a fifth of global manufacturing (up from around 3 percent in 1990). Other countries, mostly in Asia and Eastern Europe, have experienced rapid export growth over this period but it is these that effectively account for the shift in economic power. As GPNs emerged through the application of ICTs and the emergence of new management techniques it became possible to integrate production processes globally (cf. Milberg and Winkler, 2013). Earlier phases of globalisation effectively reduced costs of moving goods. What is unprecedented here is the combination of trade openness with the ICTs enabling the flow of ideas and technological know-how. Offshoring enabled the transfer of advanced technology and the organisation of production globally leading to the rapid evolution of manufacturing in emerging economies; this drove the unprecedented growth and catch-up in Asia. Emerging economies were able to access leading-edge technology; multinational companies were able to transfer production to lower wage economies.<sup>2</sup> The new ICTs effectively eliminated many of the barriers to diffusion of advanced technological know-how, enabling this shift in manufacturing. The effective monopoly rich countries had on technology and skilled labour through the 20<sup>th</sup> century was broken.

Figure 4; From Allen, Nature, 2017



This wholesale global shift in industrial production has created a profound pattern of winners and losers. Milanovic refers to this as the “greatest reshuffle of individual incomes since the industrial revolution”. The wholesale shift in economic activity to emerging Asian economies

has boosted the incomes of the global middle class. Over 2003-2013, the global median level of real income nearly doubled. This was essentially an Asian effect, the only region to experience sustained productivity growth and catch-up this century (Hellebrandt and Mauro, 2015). These processes have also enriched the global business elite. Conversely the stagnation of real incomes amongst swathes of the workforce in developed countries predated the GFC, with around two-thirds of households seeing stagnant or falling real incomes since 2005 (McKinsey Global Institute, 2016), reflecting the structural changes in these economies. This is consistent with more specific evidence of the labour market impact of Chinese imports (e.g. Autor *et al.*, 2013). Milanovic (2016) sets out the changes in global income distribution in the two decades before the GFC; a combination of rising inequality within major economies with catch-up by China and India led a small fall in overall global inequality. Within this there are a number of clear patterns. The bottom 5 percent saw virtually no real income growth over this period and gains for the bottom 20 per cent were modest. The fastest growth in income was between the 40<sup>th</sup> and 60<sup>th</sup> percentile – overwhelmingly the urban middle class of Asian economies. The other group to see major gains were the global one per cent, the “global plutocrats”; whilst predominately located in the US and other developed countries a significant number also reside in key emerging economies. Conversely, groups around the 80<sup>th</sup> percentile saw almost no growth in real incomes over this period; this group was essentially those in lower and middle income groups amongst developed countries. Developments since the GFC have not substantially altered this picture. Emerging Asian economies have also experienced significant rises in inequality since 1990. Historically Asia’s labour-intensive export-led industrialisation based on strong investment in human capital produced relatively egalitarian outcomes through strong growth of formal employment, including of women (Aurelie *et al.*, 2011). Although Asia remains on average more equal than Africa or Latin America the general forces that have raised inequality elsewhere within economies have also acted to raise it across emerging Asian economies (ADB, 2012; Balakrishnan, 2013).

Thus, within both developed and developing economies, the actual income distribution effects of globalisation have differed from initial predictions. Inequality rose within developed and developing economies from the 1980s; this can be seen from changes in Gini coefficients and in wage inequality (Galbraith, 2007). Within this there were important variations reflecting national institutions, but it does suggest common global factors were at work and more detailed work indicates that globalisation flows were associated with rising inequality in both developed countries (Alderson and Nielsen, 2002; Cornia, 2004; Baddeley, 2006; Goldberg and Pavcnik, 2007). Within developed countries, applications of standard trade theory had led to expectations that rises in inequality from globalisation would be confined to the minority lowest skilled as countries became more specialised in skill-intensive products. Within developing countries the expectation had been that increased specialisation through trade would reduce inequality by increasing demand for relatively low skilled labour.

A key source of this rise in income inequality is the shift in income from labour to capital across the globe (ILO, 2015; Karabarbounis and Neiman, 2014), belying earlier expectations that factor shares would remain roughly. Profitability rose, particularly amongst the most productive multinational corporations (McKinsey Global Institute, 2015b); profits also became more dispersed between countries which, with the decline of collective bargaining arrangements, tended to raise wage inequality. Freeman (2006) estimates that the “great doubling” led to over a billion workers effectively joining the global labour force as China, India and others opened up to trade, and reduced the capital-labour ratio globally by

approximately one third. Further, this was not a simple case of a rise in the global supply of low skilled labour, which would have been expected to have standard trade theory effects so that only a minority of the developed country labour force would experience a fall in income. The “great doubling” has not simply increased the supply of low skilled workers but also added around 250 million graduates and other skilled workers to the global labour force (McKinsey Global Institute, 2012). The spread of technology globally combined with outsourcing strategies has created global labour markets for groups beyond just the low skilled – it is no longer the case that skilled labour and advanced technology are the sole preserve of developed economies.

Initially forecasters predicted a relatively rapid recovery of developed economies from the GFC. The persistence of weak growth and productivity indicates that the underlying problems go beyond a crisis in the financial system. The weak performance of developed economies may be understood in terms of the structural changes here. In particular, Greenwald *et al.* (2012) interpret the persistent weakness of developed country performance in terms of incomplete structural change. Developed countries are in the process of a historical transition from manufacturing to services; this process preceded the global shift in economic activity but has been accentuated by it. Excess capacity has emerged globally in key manufacturing industries. The arithmetic is clear: productivity growth in manufacturing is still growing at around twice the rate of demand for manufacturing products. In the absence of perfect inter-sectoral mobility resources, particularly labour, remains effectively trapped in manufacturing (or have dropped into inactivity or relatively low productivity sectors). Greenwald *et al.* (2012) compare this to the Great Depression and the transition from agriculture to manufacturing following rapid growth in the latter; market forces alone they argue are insufficient to effect resource reallocation on this scale – in effect World War II operated as an industrial policy, pulling labour out of agriculture into industry. Across developed countries since the mid-1990s high skilled jobs have risen as a share of employment; typically the low skilled jobs rose too, by a lesser amount – these were overwhelmingly in non-tradable services, but globalisation and technological change did not destroy such jobs overall. Universally, the share of medium skill jobs *fell* in developed countries (OECD, 2017: ch. 3). This hollowing out of middle skilled jobs has meant the effects of structural change have gone beyond those forecast in earlier analyses of globalisation. High skilled jobs remain concentrated in particular locations, particularly leading cities. The expected combined effects of technological change and globalisation have led to an incomplete structural transformation with resulting stagnating productivity and incomes for swathes of the workforce. The emergence of a dualistic labour market is most pronounced in the US (Temin, 2017), but can be observed across developed economies.

The sheer scale of this global transformation of production and the sheer numbers involved in the rise of China and India are in danger of obscuring a number of key issues here. This process, though global, is highly uneven. It also does not simply indicate that development is a simple matter of opening up to global flows.

In the first place global production networks are not truly global – effectively there are three regional networks around European factories, North American factories and Asian factories. Large parts of the developing world – particularly in Africa and Latin America – lie outside these networks. Whilst economic production has shifted globally from developed to emerging economies, this may be partially misleading in terms of shifts in economic power. Federico (2016) found that value added by the G7 estimated by ownership was 10-25 per cent higher than when measured by location. McKinsey Global Institute (2015b) estimated that developed country companies still account for around two-thirds of global profits.

As already noted, key successful economies did not conform to simple Washington consensus policies and effectively operated state capitalist regimes (Kurlantzick, 2016), although state strategies have evolved in response to both internal and external changes. Success through export-led industrialisation was based on sustained capital accumulation and upgrading around a coherent economic strategy (UNCTAD, 2016). Crucially, countries have developed not through narrow patterns of specialisation, but through upgrading into increasingly complex and sophisticated production (Hausmann *et al.*, 2013; Felipe *et al.*, 2012a). China's continuing successful development reflects this process (Felipe *et al.*, 2012b).

In the context of manufacturing productivity rising faster than demand globally clearly there is only space for some countries to grow through industrialisation strategies. The countries that have achieved sustained growth through rapid industrialisation specialised in increasingly sophisticated manufacturing exports (Ocampo and Parra, 2006; Rada and Taylor, 2006; McMillan and Rodrik, 2012). As noted, those countries have developed the domestic capacity for upgrading. Elsewhere the lack of growth based on industrialisation raises inter-related problems. The apparent payoff to industrialisation appears to have fallen (Arrighi *et al.*, 2003); simply participating in GPNs is not a substitute for a development strategy and participating in the middle stages of value chains may be limited gains. This can be seen in the case of Mexico, a middle income country geographically and politically close to the US (Levy and Ortiz, 2016: part 3). Upgrading within GPNs requires a coherent strategy and negotiating arrangements with global companies (Coe and Yeung, 2015; Milberg and Winkler, ch. 7).

Countries beyond those achieving rapid industrialisation based on export growth face the related problems of “premature deindustrialisation” and the “middle income trap”. Historically manufacturing generated mass employment and was central to absorbing labour from agriculture; in the Asian developmental states the process generated relatively egalitarian outcomes. In the current period manufacturing output and, particularly, employment are peaking at much lower shares than historically. Successful development requires the generation of mass employment; if manufacturing is no longer capable of doing then the development path may be significantly more difficult today (Felipe *et al.*, 2015). Asia dominated the growth of global manufacturing, although even India show symptoms of premature deindustrialisation (Dasgupta and Singh, 2006). Manufacturing productivity shows marked convergence globally; the much weaker tendencies to overall convergence reflect weaker wider growth. The ability to upgrade to more sophisticated production remains crucial to sustained growth and depends on human capital and effective development strategy; escaping the “middle income trap” of growth of plateauing at a certain income level requires this upgrading (Felipe *et al.*, 2012a).

Overall the global shift in industrial production is leading to structural adjustment across both developed and developing economies – productivity growth exceeding demand growth in manufacturing has led to a shake out of labour that has yet to be effectively absorbed elsewhere in economies.

### **Conclusions: The “Crisis of Globalisation” and Beyond**

During the “great moderation” globalisation was widely seen an inevitable and broadly benign process that would tend to promote convergence globally; within developing countries it was expected to promote equality through boosting demand for low skilled labour. Within developed economies, although the least skilled faced potential losses in the context of

overall gains from trade resulting changes in inequality were predicted to be limited and these could be addressed by supply side policies.

The global financial crisis brought to an end the expansion of global flows. The earlier phase of hyper-globalisation growth of trade appears to have passed; FDI flows have slumped and financial flows have fallen back sharply with the decline in cross-border bank lending. Despite this the patterns of global payments imbalances that emerged before the crisis have persisted. Akyüz (2017) shows that the conditions to this have persisted – a lack of effective demand in the global economy reflecting high levels of inequality and a division between surplus economies unwilling to expand and deficit countries experiencing periodic credit booms.

The changes in the global economy go beyond the “great moderation” period and subsequent financial crisis. From the 1990s structural changes in the global economy led to a global industrial revolution. Policy shifts led to the “great doubling” of the global labour force; technological change enabled the establishment of GPNs across a range of industries. The effect of this has been a profound shift in global income distribution – boosting incomes around the global median, overwhelming in Asia, and amongst the global one per cent. Elsewhere in developed countries incomes stagnated for swathes of lower and middle income households. Labour markets in developed countries have become increasingly polarised with the decline of middle skilled jobs.

There a huge geographical variations in this global shift. It is overwhelmingly based in Asia and some Central and East European economies. Latin America and Africa have only seen modest gains, partly from the commodities boom before the GFC. Clear convergence is thus confined to a relatively small number of countries, albeit ones accounting for much of the global population. Systematic convergence was not observed in Latin America or Africa; whilst Poland and some other East European economies did experience convergence through participation in GPNs, most former Eastern bloc economies did not (Milanovic, 2015). Success in the new global economy is not neatly explained by the application of standard Washington consensus policy packages, particularly in the key cases of China and India. Financial globalisation did not boost growth in these economies; following the late 1990s currency crises rapidly growing developing countries typically ran current account surpluses. Simply opening up to trade, FDI and financial flows in lieu of a development strategy did not guarantee growth and convergence.

Structural change in developed economies following the shift in global economic activity remains incomplete and this appears to underlie their continued sluggish recovery from financial crisis. A situation of excess capacity across a range of industries, productivity growth exceeding demand and domination of global manufacturing by a limited number of large producer nations shapes the possibilities for other developing countries. The hyperglobalisation phase of export growth, which did stimulate developing country growth, may now have passed. Developing countries, particularly outside Asia, appear to have experienced “premature deindustrialisation” in output and, especially, employment. The payoff to industrialisation appears to have fallen. Historically, successful development strategies were broadly based as economies increased the breadth and sophistication of their production. Growth based on finding niches within GPNs may not provide the basis for sustained upgrading.

The shock of global financial crisis, slow recovery amongst developed countries and a “populist” backlash against globalisation has led to some dark prophesies of a crisis of globalisation leading to a nationalist reverse; the historical precedent of the inter-war years is regularly invoked. Less dramatically, the growth of global flows appears unlikely to resume

earlier rates in the foreseeable future. Nevertheless, a collapse of global integration and a reversal of the structural changes in the world appears to be unlikely. The inequalities generated by “actually existing globalisation” should be addressed.<sup>3</sup> Moving on from the “crisis of globalisation” is likely to require a shift towards a more multi-polar architecture for the global economy, reflecting the shifts in global economic activity. The architecture of global economic governance still reflects Western-dominated Bretton Woods institutions and the dollar retains its hegemonic position. However, emerging economies have co-operated to reshape the governance of global trade relations Juutinen, M. and Käkönen, J. (2016)..

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<sup>1</sup> See Christopherson *et al.* (2008) and papers in “The World is Not Flat: Putting Globalisation in its place”, *Cambridge Journal of Regions, Economy and Society*, Volume 1, Issue 3, November 2008.

<sup>2</sup> For an account of these processes in the auto industry see Bailey *et al.* (2010).

<sup>3</sup> For a strong analysis and set of proposals, see Michie (2017) and UNCTAD (2016).