Labour power sets the neutral real rate

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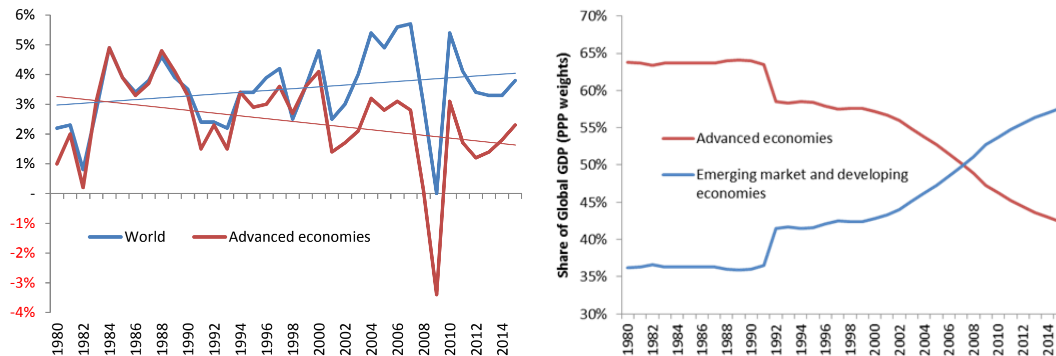
The recent remarkably low interest rates have puzzled economists, businesses and investors alike. But while the move on the part of some central banks into negative nominal territory breaks new historical ground, the decline is but the latest development along a trajectory that had been in train for almost three decades prior to the Global Financial Crisis. I argue that the role of globalisation and the associated collapse in labour power in the west, turbo-charged by domestic demographic developments, has played a significant role and that the factors that have been pulling rates down could be close to turning.

The Bank of International Settlements has been among the most prominent of the many critics warning that central banks are inflating asset prices irresponsibly and in so doing, set the scene for financial instability.[1] But the lack of inflationary boom associated with ultra-low rates in the west has prompted policymakers, academics, and industry figures to ponder whether we have entered an era of secular stagnation (Teulings and Baldwin 2014).
By contrast, I will argue that economic growth has been strong rather than subdued, and that the sustained fall in interest rates and rise in asset prices has been driven not by central bank policy but rather by international economic and demographic developments. To connect these statements we need to consider the way that the world has globalised over the past 30 years. Asset prices are a function of the size of future cash flows attached to an asset, and the discount rates attached to these cash flows. Let's consider each in turn.

Cash flows

Global economic growth has been stronger in the period since 2000 than in the two decades preceding it (Figure 1). However, economic growth of the Advanced Economies – a category that includes the United States, the Eurozone, Japan and the United Kingdom – has weakened over the same period. And this is despite – some would say because of – rising levels of debt and lower nominal monetary policy rates that might bring forward demand from the future.[2] We have though witnessed a change in the composition of global growth, which looks like a trend decline only from the perspective of the introspective Advanced Economy observer. Figure 2 shows how this transition has developed over the past thirty five years, with Advanced Economies accounting for around a two third share of global GDP in the 1980s but little more than 40% of global GDP today.

Figures 1 & 2: Global & Advanced Economy Economic Growth 1980-2015; Advanced and Emerging Economies Share of Global Economy 1980-2015

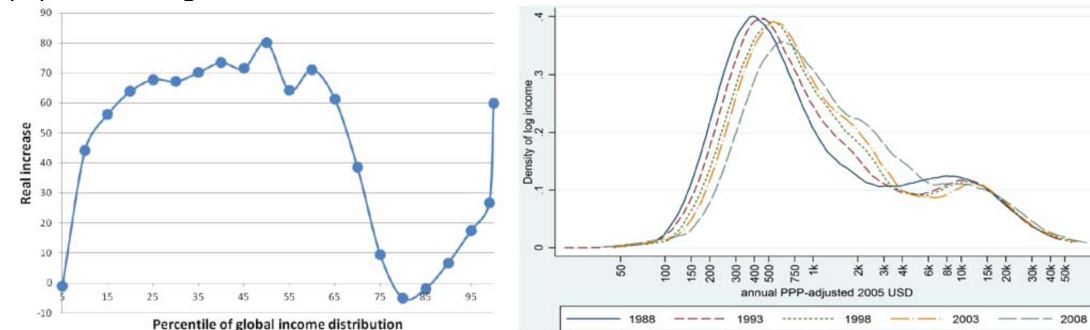


Source: IMF, March 2015.

Real income gains amongst the world's poor have been startling: more people have moved out of poverty more quickly than at any time in human history. But while the world economy has grown markedly and with this the cash flows attached to 'real' assets, the gains of globalisation have not been shared with uniformity. Figure 3 shows the distributional developments using household level data constructed by the World Bank. Four features are

striking. First, the biggest winners have been the ‘global middle’ which is largely accounted for by China’s meteoric rise. Second, the very top of the income spectrum has done almost as well as the global middle. Third, there is a hard core of poverty that has not been touched by globalisation at the very bottom of the income spectrum. Fourth, and most interestingly, there is a large section of people who are well-off in global terms who have largely not participated in global growth over the past 20 years. That section is populated largely by the Western lower middle and working classes.

Figures 3 & 4: Change in real income 1988-2008 at various percentiles of global income distribution (2005 PPP USD); global distribution of income over time – logarithmic scale, population-weighted

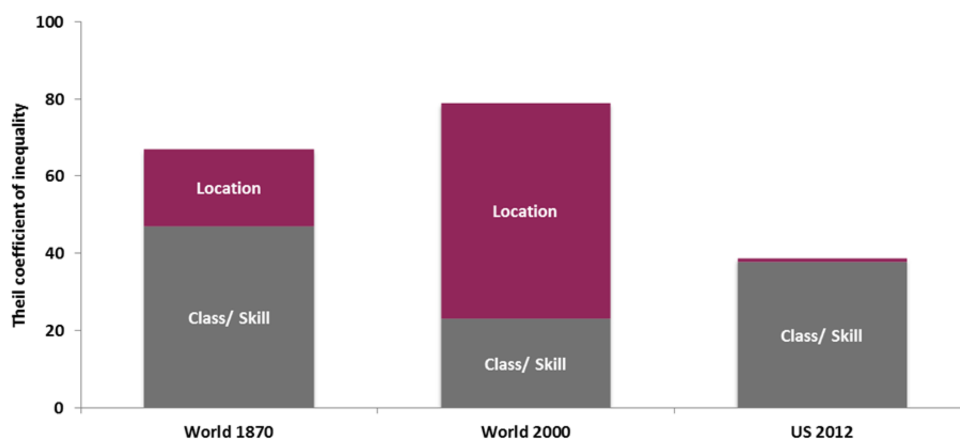


Source: Milanovic (2012); Lakner & Milanovic (2013).

Western lower middle and working classes (what Marxist-Leninists would call the global labour aristocracy) have been left behind as a global labour market arbitrage/convergence trade has fuelled income developments at the top and the middle of the income distribution.[3]

Put this together and we can speak of a large labour supply shock – the Great Doubling as Richard Freeman (2007) put it – that has served to reduce the capital/ labour ratio at a global level and with it labour bargaining power. The labour market convergence trade can be seen clearly in Figure 4. It shows a rolling avalanche of labour supply over the 20 years to 2008 – and the extraordinary move out of poverty on the part of developing country populations, with the modal real income per household increasing from just under $400 per annum to just under $700 per annum. Under globalisation, location becomes less relevant to household income, while skills and endowments become more important.

Figure 5: Level and composition of inequality in 1870 and 2000: World (disaggregated by countries) and the United States (disaggregated by States)



Source: Milanovic (2012), Hisnanick & Rogers (2007), Columbia Threadneedle Investments March 2015.

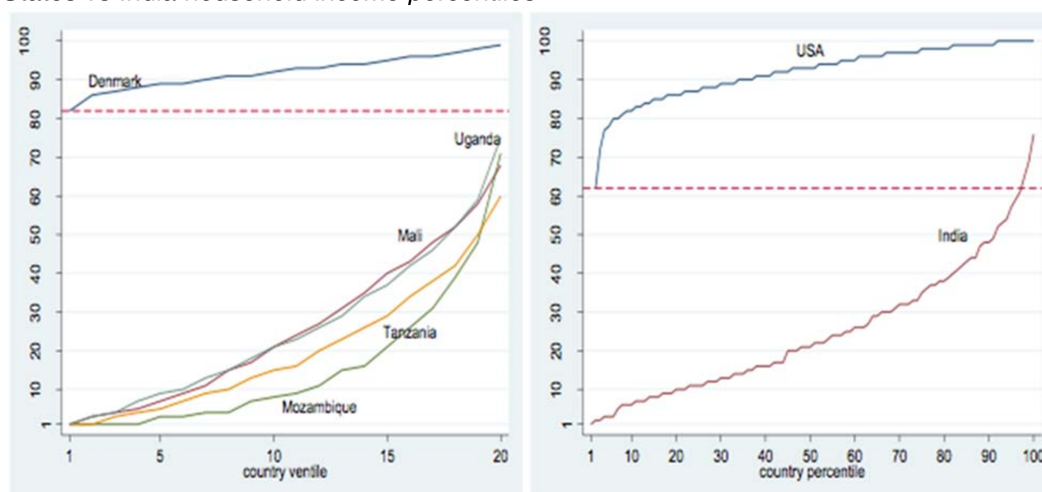
Marx’s Das Capital (1867) resonated with people in a way that it doesn’t today because class/ endowment largely determined your place in the global income hierarchy; location was less important. Things have changed, and radically so (Figure 5). Disaggregating the Theil coefficient of inequality, we see that the main determinant of household income at the

beginning of the 21st century is the country in which you were born. The huge 'citizen's premium', enjoyed by citizens of rich countries, has been more recently challenged by the rise of the NICs, the fall of the Iron Curtain and advent of China to the global trading system.

While the US has high Gini and Theil coefficients of inequality when compared to other developed countries, these are low when compared to inequality amongst households globally. Within the US there are rich states and poor states. But in disaggregating the Theil coefficient of inequality we can see that location plays a very small role in your likely level of US household income. Things like inheritance (broadly defined), and the skills you acquire are much more important. If globalisation is to succeed, the world should look a lot more like the United States.

The future could look, politics permitting, a lot like America, but we are a long way from getting there. A couple of quick examples: the poorest Danes are better off than the 95th percentile of sub-Saharan Africans; most of India's higher earners earn less than the minimum wage in the United States (Figures 6 and 7).

Figures 6 & 7: Denmark vs Selected African Country household income ventiles; United States vs India household income percentiles



Source: Milanovic (2011).

In a globalised world these vestiges of geography are being challenged by trade and migration, leaving developed countries with a quandary: should they drop the safety nets that they have spent decades constructing to ensure domestic harmony and allow wages to collapse at the bottom of their own income distributions, or should they invest more in education to equip their populations to be the middle and upper management of the globalised world? The cosmopolitanism of globalisation attacks the state's communitarian *raison d'être*. So far this has resulted in an increase in both government debt to support welfare systems, and political heat around economic immigration. Rising income inequality in the West has furthermore fuelled interest in works such as Thomas Piketty's *Capital in the Twenty First Century* – a work that takes an introspective Western perspective in which inequality is increasing rather than a global perspective in which inequality has begun to fall. It furthermore mistakes recent returns to asset-holders as proof of structurally high discount rates rather, as we will now see, as a function of falling discount rates.[4]

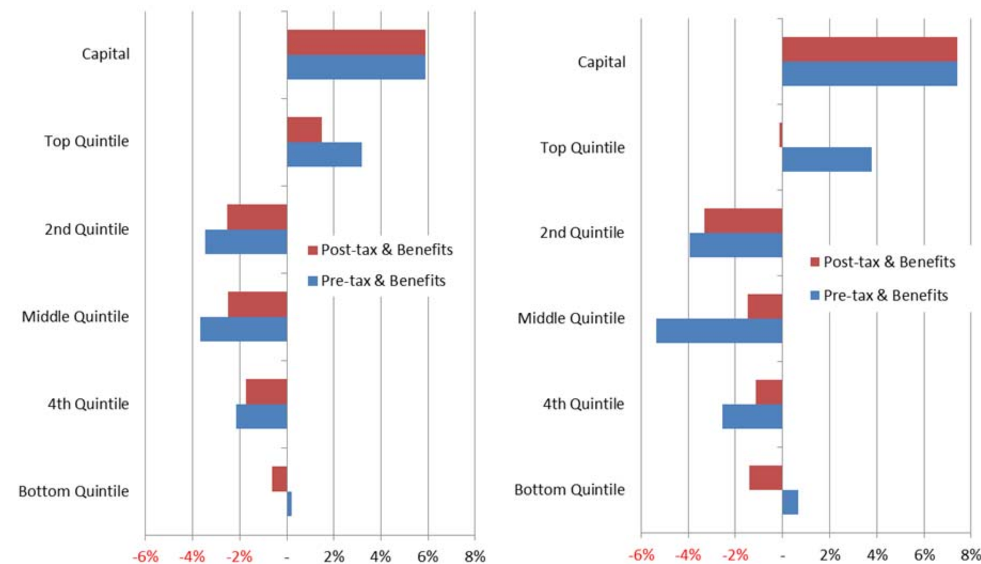
Discount rates

The globalisation story to date has had two huge implications for asset markets. The first implication is felt at firm level – how companies understand that they must respond to these changes. These are well known, and will not be covered here. The second concerns the impact on the real rate of interest. This is less well understood, but much more important for policymakers, and investors.

As central bankers have frequently reminded us, the neutral real interest rate is set by the economy, not by the central bank.[5] Globalisation and associated labour market convergence

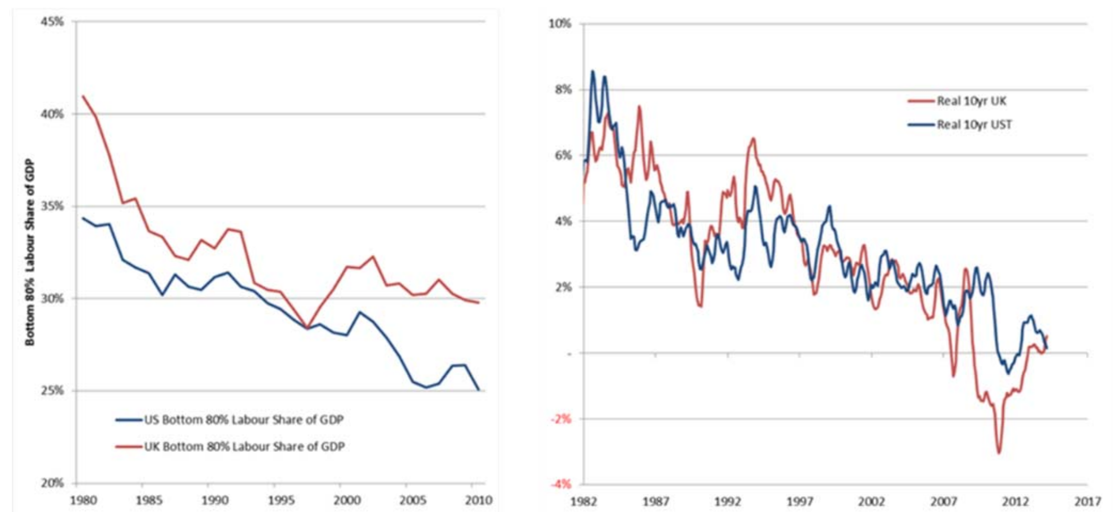
have been associated with a collapse in labour power in Advanced Economies. When labour had power, the marginal costs of labour were high. As such, there was a big incentive to invest in capital so as to substitute labour with capital, and this brought the cost of capital higher. But as the world experienced a massive rolling supply shock of labour (as Emerging economies joined the world trading system with a lower capital-to-labour ratio), labour lost power; wage pressures in the west collapsed.[6] This led to a falling labour share of GDP, especially in the bottom 80% of Western households (Figures 6 and 7).[7] With lower labour costs, a reserve army of global workers whose size grew as trade barriers dropped and Emerging countries developed, companies have increasingly been incentivised to substitute capital with labour, reducing the requirement for capital, and bringing the cost of capital lower in the west (Figures 8 and 9).[8]

Figures 6 & 7: Change in US (LHS) and UK (RHS) share of GDP, split by capital and labour income quintile 1980-2010



Source: Bank of England, Congressional Budget Office, Office of National Statistics and Columbia Threadneedle Investments, March 2015.

Figures 8 & 9: US & UK bottom 80% labour share of GDP 1980-2010; 10-year US Treasury and 10-year Gilt minus respective 12-month changes in Core Consumer Price Indices



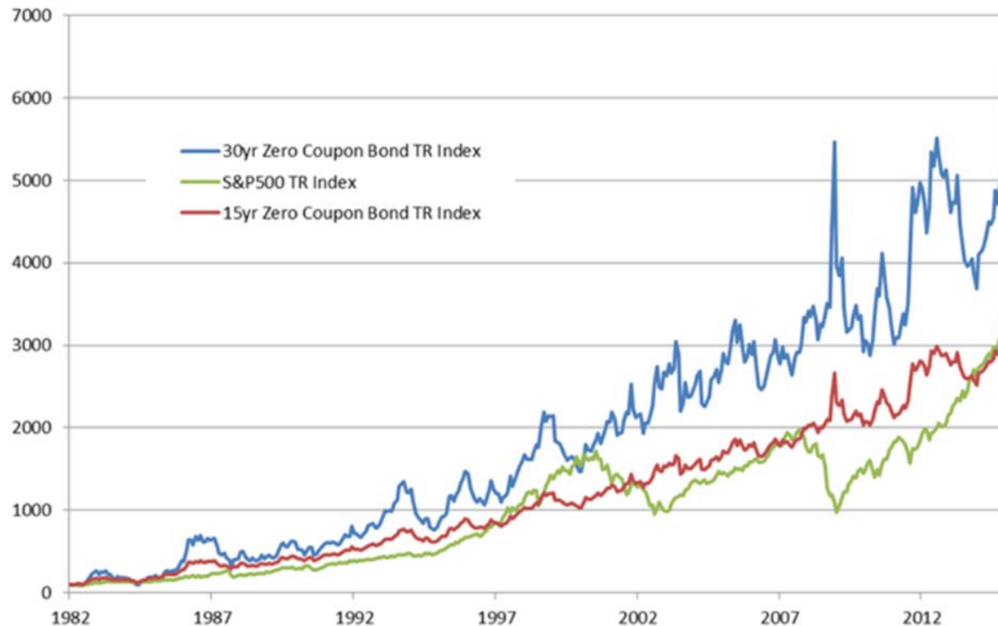
Source: Columbia Threadneedle Investments and Bloomberg, March 2015

The fall in the neutral real rate of interest in the west has been textbook. It does not signify secular stagnation in economic growth rates, but instead the loss of labour power. And as the neutral rate has fallen, the present value of future promised cash flows has gone up in value.

Figure 10 shows the total returns from investing in 15-year and 30-year zero-coupon US Treasury bonds (red and blue, respectively), and the S&P500 index of US stocks (green line). Over the past 35 years, assets have rallied largely in accordance with their sensitivity to changes in the neutral rate of interest.

From an asset market perspective, the implications of slow economic growth in the west have been less negative (in reducing the growth of cash flows) than the implications of weak labour pricing power have been positive (in reducing the discount rate used to value these diminished cash flows).

Figure 10: 15-year, 30-year zero-coupon US Treasury bond total returns versus S&P 500 index total returns, 1982-2015



Source: Columbia Threadneedle Investments and Bloomberg, March 2015.

What happens next to labour pricing power is therefore extremely important for asset markets. Labour market globalisation has largely been a China story to date. Some IMF work suggests that demographic developments and the emptying of cheap mobile rural labour may lead to labour shortages in around five years (Figure 11). Supply of non-Chinese cheap labour into the global trading system is dependent upon governance – the delivery of higher education standards, the introduction of market-based economics, and the delivery of trade openness. India has plenty of untapped human potential as has Africa and South America, but the governance challenge is immense and the path by which these populations join the global labour market is unlikely to be a straight line.

Figure 11: IMF Scenarios for China surplus labour (millions)

Source: Das & N'Diaye (2013), Columbia Threadneedle Investments and Bloomberg, March 2015

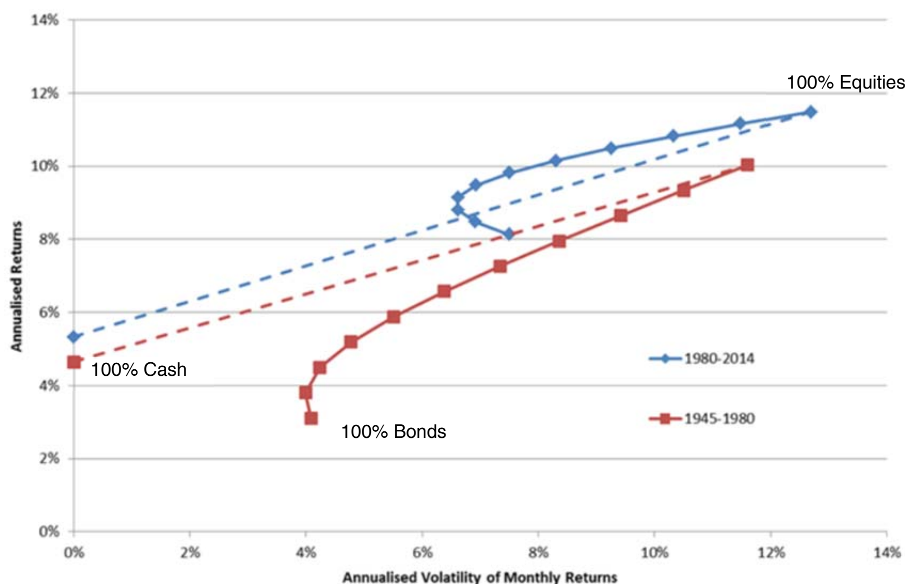
Even if, structurally, the rise of China and emergence of the world has fundamentally changed the bargaining power of labour in Advanced Economies, cyclically, labour's bargaining power is likely to still be a function of labour scarcity. It is hard to call a turn in the pricing power of labour, and there has been no significant real wage response to date. But it is unlikely that we will need to wait until unemployment rates reach zero percent, and on current trajectories, they are on course to hit zero in the US by 2019 and the UK by 2021.

What this means for portfolio construction

Institutional investors have typically held significant exposures to government bonds in their strategic asset allocations despite expectations that long-term returns will be below equity returns. Their inclusion in portfolios has been (correctly since 1980) understood as being an efficient way to reduce aggregate portfolio volatility and increase risk-adjusted returns. The blue curve in Figure 12 plots the ex post volatility and annualised level of returns from different mixes of government bonds and domestic equities – from 100% government bonds to 100% equities, with each point representing a 10% asset mix interval (eg, 90% government bonds, 10% equities; 80% government bonds, 20% equities etc). The dotted blue line connects the average cash rate during the period to the average annualised equity return over the period: it represents the risk adjusted returns that the range of portfolios consisting solely of equities and cash would have experienced over the period. A portfolio of 50% government bonds and 50% equities held from 1980 to 2014 experienced the same level of asset volatility as a portfolio of 100% government bonds given the poor level of return correlation between equities and bonds, but a return 2% per annum higher than a portfolio of 100% government bonds. In short, bonds have worked during a period in which labour power has ebbed during the globalisation of the labour market.

The last time we witnessed a sustained increase in labour power in Advanced Economies was between 1945-1980. The red line in Figure 12 plots the ex post efficient frontier for bonds and equities in this period. Three features stand out. Firstly, returns from bonds are low (given the low starting yields. Secondly, the correlation between bonds and equities was higher during a period of rising real rates (seen by the lesser curvature of the line). Thirdly, the returns from cash were somewhat higher than the returns from government bonds, and so portfolios of equities and cash (dotted red line) were superior to portfolios of bonds and equities (solid red line). Looking into the future in 2016, it is more than conceivable that government bonds will lose their place in institutional portfolios as they stop providing portfolio insurance to volatile equity holdings (as correlations rise) and returns to incremental interest rate duration turn negative (as per 1945-1980).

Figure 12: Ex-post efficient frontiers between government bonds and equities, and average cash rates, 1945-1980 and 1980-2014



Source: Columbia Threadneedle Investments and Bloomberg, March 2015

Why this matters

As discussed, there are clearly significant implications for financial markets. But unconstrained investor implications aside, a world of rising labour bargaining power and rising Wicksellian interest rates have a variety of meaningful real world implications.

First, we may well have passed peak inequality on a global basis some years ago, although the political and economic ramifications of a globalised labour market will still be felt domestically in Advanced and Emerging economies for decades to come. Internal measures of inequality for Advanced Economies could begin to recede as labour bargaining power reasserts itself.

Second, an increase in capital intensity to meet renewed labour bargaining power is likely to lead to accelerating productivity growth after a prolonged pause. The rise of the robots and threat of technology to employment[9] is at once real, but also contingent upon being more cost effective than employing real people. But this is as it ever was. It is not clear that lump of labour arguments that have defeated past concerns about technological progress will not prove once again ill-founded.

Third, a return to the toolbox of old for monetary policymakers could be on the horizon. Although whether a return of labour bargaining power stemming from Chinese demographic developments will prove sufficiently timely to help monetary authorities to avoid the embrace of a more novel set of heterodox policy instruments (even when helped by domestic demographic developments observed by some analysts)[10] is open to question.

References

Bario, C, P Disyatat and M Juselius (2013)m “Rethinking potential output: embedding information about the financial cycle”, Bank of International Settlements Working Paper, No 404.

Bean, C (2015), “Are Low Rates Natural?”, Speech given to Monetary and Financial Policy Conference, September.

Bernanke, B (2015), “Why are interest rates so low?”,Brookings.edu, 30 Mach.

BIS 84th Annual Report (2014), Chapter 4: “Debt and the financial cycle: domestic and global”.

Bonnet O, P Bono, G Chappelle, E Wasmer (2014), “Capital is not back: A comment on Thomas Piketty’s ‘Capital in the 21st Century’”, VoxEU.org, 30 June.

Broadbent, B (2014), “Monetary policy, asset prices and distribution”, Speech given at the Society of Business Economics Annual Conference.

Das, M and P N’Diaye, (2013), “Chronicle of a Decline Foretold: Has China Reached the Lewis Turning Point?”, IMF Working Paper WP/13/26.

Ford, M (2015), Rise of the Robots, Oneworld Publications.

Freeman, R (2007), “The Great Doubling: The Challenge of the New Global Labor Market”. Ending Poverty In America: How to Restore the American Dream. NY: The New Press; Ch 4.

Goodhart, C and P Erfurth, (2014a), “Monetary policy, asset prices and distribution”, VoxEU.org, 3 November.

Goodhart, C and P Erfurth, (2014b), “Demography and economics: Look past the past”, VoxEU.org, 4 November.

Haldane, A (2015), “Labour’s Share”, Speech given at the Trade Union Congress, November.

Hisnanick, J and A Rogers, (2007), “Household Income Inequality Measures Based on the ACS Data: 2000-2005”, United States Census Bureau.

Lakner, C and B Milanovic, (2013), “Global Income Distribution, From the Fall of the Berlin Wall to the Great Recession”, World Bank Policy Research Working Paper 6719.

Lenin, V (2010), Imperialism – the Highest Stage of Capitalism, Penguin Classics.

Milanovic, B (2011), “Global inequality: from class to location, from proletarians to migrants”, World Bank Working Paper 5820.

Milanovic, B (2012), “Global Income Inequality by the Numbers: in History and Now, An Overview”, World Bank Working Paper 6259.

Piketty, T (2014), Capital in the Twenty-First Century, Harvard University Press.

Teulings C and R Baldwin eds. (2014), Secular Stagnation: Facts, Causes and Cures, VoxEU.org eBook, CEPR Press.

Visco, I (2015), “The times they are a-changing’…”, Speech given at the Society of Business Economics Annual Dinner, November.

Footnotes

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[1] See Bario et al. (2013) for an extremely thoughtful analysis.

[2] See Chapter 4 BIS 84th Annual Report.

[3] Lenin (2010) being the classical example.

[4] This debunking of Piketty was first laid out in relation to housing in Bonnet et al. (2014).

[5] See, for instance, Broadbent (2014) and Bernanke (2015) on the Wicksellian rate of interest in a contemporary setting.

[6] Goodhart and Erfurth (2014a).

[7] It is interesting to note that three-quarters of the gain in share of GDP from top decile earners in the UK and about half of the gain in the GDP share from top quintile earners in the US is redistributed down the income spectrum. Pre-distribution real income of the median US household is almost flat, but after the impacts of taxes and benefit changes are felt it is up nicely; participation in US economic growth for the masses has largely been manufactured by the state, somewhat in contradiction to the traditional narrative.

[8] In terms of education standards, governance systems, infrastructure, etc.

[9] See Visco (2015), Haldane (2015), Ford (2015)

[10] See Goodhart and Erfuth (2014b), Bean (2015)