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COMMENTARY

COMMENTARY: THE GREAT DIVIDES

Jagjit S. Chadha*

National Institute of Economic and Social Research
*Corresponding author. Email: J.Chadha@niesr.ac.uk

> Democracy is unstable as a political system as long as it remains a political system and nothing more, instead of being, as it should be, not only a form of government but a type of society, and a manner of life which is in harmony with that type. To make it a type of society requires an advance along two lines. It involves, in the first place, the resolute elimination of all forms of special privilege which favour some groups and depress others, whether their source be differences of environment, of education, or of pecuniary income. It involves, in the second place, the conversion of economic power, now often an irresponsible tyrant, into a servant of society, working within clearly defined limits and accountable for its actions to a public authority.
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> R. H. Tawney, *Equality*, 1931.

Introduction

Countries, societies and families can, of course, be divided. The UK has often been described as being divided along a North-South line running from The Wash to the Severe, or from the River Tees to the River Exe. Indeed the North-South divide once again became an enduring feature of the economic and cultural landscape in the late 1970s and early 1980s. At least initially this divide was related to the decline of traditional primary (for example, mining) and secondary (manufacturing) industries and the rise of the service sector in London, which increasingly provided legal, financial, accounting and educational services to the rest of the world. Oddly enough both sets of industries, whether in decline or still growing by the later twentieth century, had deep roots in the industrial revolution. This simple observation tells us that we cannot know today which sorts of industries will necessarily thrive into the twenty-first century: Hoxton hipsters making furniture might dominate the pricing of credit default swaps. And the problem then facing the design of political institutions is to create some form of risk sharing that means, at least to some extent, all can benefit from individual success without damaging the prospects for that success. Failure to manage that change recently lies at the heart of rising populist momentum.

The existence of a divide such as the North-South is, of course, no new phenomenon. Nineteenth-century literature made much of the changes wrought in society from the recent and ongoing industrial revolution. Aidt and Franck (2015) make the point that the Swing riots of 1830-1 induced voters to support pro-reform politicians after experiencing direct experience of riots, which led to the Great Reform Act of 1832. Shortly afterwards, the Dickens of *Hard Times* encouraged Elizabeth Gaskell to develop the tensions between north and south and between the labouring and educated classes in her 1855 novel, *North and South*. The criticism set in train significant social reforms. But literature also encourages us to think of the south, in particular, London as the revolving door to a better future. Who can forget the failure of *Billy Liar* to get on that train to London from Leeds and start life as member of the London set, which is now called the metropolitan elite? The question that faces us is whether divisions are a necessary part of specialisation or whether they act as barriers to development. The pattern of votes in recent referenda and elections tell us that a divide is alive and kicking (McCann and Ortega-Argilés, 2021, discuss spatial discontent) but we do not yet know whether our political leadership will respond in a sufficiently consistent manner to promote a better settlement.

Inequality

The problem we also face with any form of involvement with inequality is to face squarely the problem of *ex ante* and *ex post* inequality in regions. Whilst it may be clear, in so far as the regional data allows us to understand, that there is considerable inequality in economic outcomes and while there is evidence of differentials in educational attainment across the North-South divide, we cannot be quite sure there is still the same inequality of opportunity as there was in the distant past once we control for socio-economic and ethnic factors; see, for example, Dunatchik *et al* (2018) on early years attainment. And if we look further down the educational timeline, for example, nearly 50% of young people now go to university compared to less than 15% a generation ago. At face value this change suggests a considerable increase in opportunity. But many have argued that we have not developed the kind of education excellence in vocational skills required for modern industry and there is a severe structural mismatch. And that educational failure had the unintended consequence, in the first decades of the of the twenty-first century, by creating a demand for workers with those skills from the European Union just at the time that our relative economic prospects encouraged the tapping of its supply.

A further and more subtle point is also often made that even if we think we are doing all we can to level out opportunity in outcomes across incomes and regions and yet there are still inequalities across the distribution, there may be a case of *ex post* re-distribution because it may not be possible to get past initial constraints in a single lifetime or generation. The problem might be seen most obviously if we turn to the favourite topic of the British: house prices. For example in this *Review* in 2018, I wrote: ‘In 2004 the average house price in the North East was just under £100,000 and it is now around £128,000, which implies an annual rate of return of around 2 per cent. Over the same period, the average house in London has gone from £219,000 to £482,000, which is an annual rate of return of some 6 per cent. This relative rate of return represents a huge divergence.’ So how do workers start owning property or move from poor to rich regions on current incomes without support from the previous generation of homeowners?

The sense of distributional failure helps us understand the populist political pressures that many countries face. These tend coalesce in pressure to adopt policies that are economically interventionist alongside forms of social conservatism (Pabst, 2021). So much so that the referendum vote, and populist pressures elsewhere, as well as those that have emerged under Covid-19 might be best understood in broad socio-cultural terms as acting to constrain future political choices. The level of schooling, the extent of professional occupation, age, jobs vulnerable to imports, the recent change in the level of immigration and those identifying themselves as English were all significant factors in vote choice at the EU referendum in 2016. Income distribution played a significant role and one recent academic paper (see Becker *et al*, 2017) suggested that ‘All across the board, more deprivation is associated with a larger Vote Leave share or, vice versa, less deprivation is associated with a lower Vote Leave share. The important point to observe here again is that the tightest relationship between the support for the Leave side is stemming from the sub-index capturing deprivation in education and skills.’

Risk-Sharing

Aggregate shocks also have distributional or regional consequences. For example, the economy-wide inflation shock resulting from an exchange rate depreciation and increasing prices for food and energy will lead to differences in the way each family, with its own consumption basket, will experience inflation. Low income households devote a larger share of their total expenditure towards items of necessity such as food, drinks and clothing and paying for their housing rent than higher income households. Higher income households devote a larger chunk of their expenditure to their mortgage, health, transport, communication and recreation and cultural items.

The fall in sterling and increase in food and energy costs raises the prices of traded compared to non-traded goods, and as a by-product may also exacerbate wage inequality in domestic wage terms. Thus, we need to know which expenditure categories make most intensive use of traded goods and services to get a clue as to which categories will be most vulnerable. We need to examine the import penetration rate of

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each expenditure category, where import penetration rate is defined as the percentage of expenditure accounted for by imports. It turns out that those categories that comprise necessity items, such as food and clothing, are the ones that make most intensive use of imports. As a result, we may expect these categories to be the ones that experience the largest increases in prices: so low income households may experience higher rates of inflation than high income households over the next few years but perhaps more importantly it is likely as a result that such households will have less income left over for discretionary expenditure and may find their savings exhausted.

The problem is that macroeconomics has traditionally been dominated by the view that there is a representative agent: a yeoman farmer or a Robinson Crusoe character. This person produces, receives income and spends all income. Theory tends to proceed by taking microeconomic problems seriously such as the household consumption problem is evaluated with reference to a utility function and a budget constraint, which accounts for income and expenditure. The solution to the optimisation problems are then analysed numerically with parameters derived from microeconometric studies. But most analysis, at least until relatively recently, did not account for regional or individual heterogeneity.

Co-ordination Failure

Accordingly, many have criticised the reduction of a complex economy into a single agent, arguing that co-ordination by the market cannot be assumed. Indeed it is often argued that important macroeconomic phenomena, such as unemployment or regional depressions, are really the result of co-ordination failure (Howitt, 2001). And that representative agent models cannot capture the essence of financial markets and asymmetric information and help us understand government policies aimed at distribution. If we go on to argue that collective or aggregate choice cannot be represented by a single individual and that aggregate behaviour is best understood as a process involving interactions, we need to concentrate on facilitating those transactions (see, Allen and Gale, 2000).

There are many assumptions required to arrive at a representative agent model but perhaps the most important is that markets are complete. This is an assumption about risk sharing across different agents. And it suggests that there are at least as many assets with linearly independent payoff as there are states of nature (Arrow, 1953; Arrow and Debreu, 1954). If an agent has access to these assets then it is possible to create securities that provide consumption insurance in those different states of nature. In an optimal outcome, individuals will then be able to share risk perfectly. If these individuals have the same initial endowments (wealth) they will have equal consumption and hence equal utility in all those states of nature.

Let me just explain risk-sharing with a simple example. Let us suppose that two agents, or regions, have the same wealth endowment at time 0. If they face specific shocks (positive or negative) to income over time their consumption paths will not tend to move together. But if they can agree to trade the outcomes of those shocks so that they both get the average of these two shocks, they can eliminate their personal or spatial risk. As a macroeconomist I can then think in terms of this average, representative agent or unitary state alone. This construct is very useful for thinking about simple time series representations of the economy in terms of the standard series such output, inflation and interest rates but may not allow us to understand extreme outcomes well or points of tension or stress. It is though ultimately rather difficult to justify the assumption of complete insurance markets for idiosyncratic or individual household or regional risk. And in the context of regional policy, this leads us to question whether unitary nations can provide perfect, or at least an acceptable level, of insurance to their constituent regions.

But it is also more than dealing with transitory shocks. This is because individuals (or regions) with a larger income endowment will have higher consumption in all states than those with a smaller endowment. So regions that have better initial conditions may be permanently better off even under risk sharing. And even if the complete market assumption does not hold very well it might be that the aggregate behaviour in models where the distribution is taken seriously may still behave in a close

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approximation to the representative agent model (see Krussel and Smith, 1998). Some researchers have extended a standard model to include substantive heterogeneity in income and wealth and because there is no full insurance in these models, the distribution of wealth is endogenous to the set of shocks, as the given level of wealth interacts with macroeconomic aggregates. And even if we can show that aggregate variables can still be described by the mean of wealth and the aggregate productivity shock, in order to understand issues such aggregate consumption we may still need to understand that although aggregate wealth tends to be held by one part of the distribution, poorer households can explain a significant fraction of the fluctuations in consumption because they live 'hand to mouth'. By the same token much of the variance in aggregate data may be explained by regional variations in poorer incomes at the household level.

The issue is still not fully resolved. Bender (1978) is one example of understanding the evolution from hunter-gatherer to farming as part of a changing social structure. But that change itself changes the narrative of those designing insurance. On the one hand the model of risk sharing that treats agents as hunters says that returns from any given state of nature are idiosyncratic and so we ought to be writing risk sharing contracts as a society. This leads to a clear normative notion for *ex post* redistribution. But on the other hand if we play a direct role in the determination of our own state of nature, in the manner of a farmer, and the returns are a function of our own labour supply, then the role for *ex post* redistribution is somewhat over-ridden by concerns about distorting incentives to innovate and bear risk for which we might expect high returns. In setting, any form of insurance such as a regional policy we need to separate the innate from those who innovate.

Decomposing Aggregates

The analysis of alternate policies in macroeconomic models depends heavily on evolution of factors such as the variance of inflation and output. We tend to argue that better policy, in the face of shocks and a given economic structure, will tend to produce lower variances. This is because we tend to assume that households prefer lower to more variance as they do not like accepting more risk without a compensating payment. But aggregate variance may mask considerable changes in variance for individual households or regions at different parts of the income distribution.

Let us consider income at the regional level. The variance of regional income growth for the average or representative region is simply the expectation of the squared deviation of each region's growth from its average. If there is one representative region, we simply calculate variance for that single individual region. Now consider that the representative region is a construct based on two regions who face negatively correlated shocks. By which I mean, when one region booms, the other one goes bust. The variance of this construct then is a function of each region's expectation of the squared deviation from its mean and the covariation of each region's income with the other.

Now if we are told that the covariation of income across the two households is negative and will drive down the overall variance of the construct, and we can imagine that if the correlation is significantly negative, then the construct might even have a lower variance than each individual region. That is the key reason why the distribution might matter. Sure, our imaginary construct is better off but the two real regions may not be at all! Poorer households might well be concentrated in a sub-set of the regions, that is those that we think need to catch-up, level up or regenerate (Department for Levelling Up, Housing and Communities, 2022). Macro-prudential policies that limit the access to credit for poorer households might be an example of policies that make us all better off by reducing overall risk but may induce greater variance for poorer households who find their credit lines cut at key moments as income fluctuates. Equally insufficiently supportive local fiscal policies may have precisely the same effect (McCann, 2022). The bust region may not recover, its wealth may be permanently driven lower and will interact with future shocks in such a manner as to prevent a catch-up.

Concluding Thoughts

There are perhaps two ways to think about the case for regional reform. One is that we offer subsidies to poorer areas to compensate them for negative shocks. This form of risk sharing may not make sense if the regional or local depression is structural and requires an injection of dynamism. But to thaw out frozen areas of the economy may require strong doses of heat and light and so the alternative approach is to recognise that there are long run gains from trade, promote specialisation and ensure that each region can trade with others within and without the nation at minimal costs. This approach requires more thought to how to allocate funds through the financial system, the role of government in infrastructure development and will have to accept considerable uncertainty in long run outcomes.

Country's regions and sectors will continue to show an economic divide for some time to come. One may even be tempted to argue that regional issues may be the dominant theme of this century. The forces of globalisation have asked questions of the national political settlements in many countries. The current configurations of fiscal transfers may reflect the old patterns of work and employment and have yet to evolve radically to deal with the challenges of the New Economy. The European Monetary Union is facing severe regional problems, as large Target 2 imbalances suggest. There are severe regional questions posed in most established nations but those faced by the UK seem particularly stubborn (UK2070 Commission, 2020). Indeed a recent prominent survey populism (Guriev and Papaioannou, 2020) could have been written with the UK as a case study as they highlight the importance of the spatial determinants of populism and the consequent need for place-based policies to staunch its rise. Post-industrial poets have asked a similar question.

> Victory? For vast, slow, coal-creating forces
> that hew the body's seams to get the soul.
> Will Earth run out of her 'diurnal courses'
> before repeating her creation of black coal?
>
> Tony Harrison, V., 1985.

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