Invited Article

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Some Kaleckian remarks on modern monetary theory in light of a paper by Drumetz/Pfister

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This paper provides remarks on modern monetary theory (MMT) from a Kaleckian perspective in response to a paper by Drumetz/Pfister. The distinction between initial financing and final financing is drawn up to argue for clear separation of how expenditure is financed and funded, and pointing to the confusions that have arisen. Some issues of crowding in and crowding out are raised. Some aspects of inflation and hyper-inflation are then discussed. The conditions for the establishment of full employment are elaborated. While MMT has focused on financing of government expenditure and aggregate demand, Kaleckians and post-Keynesians have analyses and theories on the operations of the whole economy which differ sharply from those of mainstream economists.

Keywords: *modern monetary theory, Kalecki, money, budget deficit, inflation*

JEL codes: *E11, E12, E40, E62*

1 INTRODUCTION

The purpose of this paper is to provide some Kaleckian thoughts on modern monetary theory (MMT) reflecting on issues on MMT raised by Drumetz/Pfister (hereafter DP) (2021a; and the extended version, DP 2021b). I do not attempt in general to evaluate whether DP provide an accurate account of the main themes of MMT, though I do comment occasionally where I feel there is a gross misinterpretation. I am interested in, but not a proponent of, MMT, and hence leave the defence of MMT in light of DP to others.[1] It has also to be recognised that there are variations between MMT theorists, and more so between amateur enthusiasts.[2]

The paper focuses on five topics related to the DP (2021a) evaluation of MMT. An absence of a topic should not be taken to mean it is not important, and more a reflection of space constraints.[3] In Section 2, I start on the distinction between initial financing and

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1. I have previously commented on MMT in Sawyer (2019) and Sawyer (2020).

2. Quiggin (2020) notes that two versions of MMT are circulating. One, labelled 'academic' MMT 'is the macroeconomic theoretical analysis and political program derived from a synthesis of Keynesian aggregate demand analysis, functional finance and support for public job creation to maintain full employment' (ibid.: 528). The other, 'vulgar' MMT is 'a movement in which the statement "taxes don't finance public expenditure" is interpreted to mean that governments can increase spending as much as they like, with no need for an offsetting increase in tax revenue' (ibid.: 528).

3. Sawyer (2022a) is a long paper discussing each of the 14 issues explicitly and four issues implicitly, raised by DP (2021a; 2021b) (their table 1).

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final financing (funding) and argue for a clear separation of how expenditure is financed and funded. Section 3 relates to issues of crowding in and crowding out. Some aspects of inflation and hyper-inflation are discussed in Section 4. I then move on (in Section 5) to unemployment and the issue of the achievement of full employment. In the final main section (Section 6), I point out that while post-Keynesians and Kaleckians (and MMT) have generally focused on aggregate demand, it is the case that they have analyses and theories on the operations of the whole economy which differ sharply from mainstream economists. Many of the comments of DP (2021a) on economic policies fail to realise that. A final short concluding section (Section 7) completes the paper.

2 THE FINANCING–FUNDING NEXUS

The distinction has to be drawn between initial finance and final finance (or funding) from the circuitist analysis (Graziani 2003), and Mehrling (2020) makes a similar distinction in terms of payment versus funding. Initial finance is required to cover the costs of planned production and purchase of inputs, and requires possession of money which may be provided through bank loans. Final finance refers to the funding in the sense of the sources and uses of funds relating (in this example) to the costs of production, and the sale of the production provides much of the funding. Just as firms cannot finance their 'initial spending by future revenues that do not yet exist and, therefore, must rely on bank credit, the same would apply to the state. In both cases, when firms and the state engage in spending, there must be money creation' (Bougrine/Seccareccia 2002: 66; see also Sawyer 2014).

The government requires initial finance if its expenditure plans are to proceed, and the source can, depending on the institutional arrangements, be from private banks as well as the central bank.[4] The macroeconomic analysis of the effects of government expenditure on economic activity has to assume, if implicitly, that bank credit is available to the government. Hence, for example, multiplier-type analysis of government expenditure has (often implicitly) adopted the assumption that banks have enabled it to be financed.

MMT argues that public expenditure has to precede tax revenues which are paid to the government in money which has to have been created through prior public expenditure, and that taxes do not finance public expenditure; and, further, that taxes 'drain' money from the economy. This overstates the case as a stock of (central-bank) money already exists, and tax rates could be raised and more tax revenue raised without any prior increase in government expenditure, with the payment of the taxes coming from the money already in existence.

Central-bank money can be 'produced' at virtually zero cost. Thereby, government expenditure can always be (initially) financed by the creation of central-bank money. The issue is not whether government expenditure can be (initially) financed, but whether the resources would be available, whether the resources would then be deployed to good effect, and how far resources would be drawn from other activities. And of particular significance is the effect of government expenditure on government deficit and borrowing.

Funding at the level of central government (excluding the central bank) in terms of a simplified form as budget deficit (BD) equals government expenditure (G) minus tax revenue (T) equals net sale of government bonds (ΔB), and hence $G = T + \Delta B$, is the basic funding relationship. At a consolidated level of government and central bank, $G = T + \Delta Bh + \Delta R$, where Bh are government bonds held by the private sector and R are central-bank reserves. Interest is paid on bonds and in many cases on central-bank reserves.

4. See Cesaratto (2016) for much more extensive discussion on these points.

The notion of a government budget constraint is denied by many MMT authors. 'MMT rejects the mainstream concept of a government budget constraint (GBC). The GBC conceptualised the government as a currency-user, which might finance its spending by taxation, borrowing (debt issuance) and "printing money"' (Armstrong 2019: 32). Mitchell (2020: 570) states that 'the GBC asserts that governments are financially constrained, a priori, and have to fund spending via taxation, bond issuance, or "money printing". Which all have negative consequences (taxes distort behavior, bonds drive up interest rates (crowding out), and money finance is inflationary). As a result, fiscal deficits are largely eschewed'.

A constraint indicates the limits on what can be done. There is a basic budget relationship that current receipts equal current expenditure plus changes in wealth (positive or negative). It would form a constraint on current expenditure if current receipts were predetermined and no borrowing allowed. But when receipts can be varied and when borrowing is allowed then there is a 'flexible' constraint on expenditure.

The budget relationship can be approached in *ex ante* terms when the three items relate to intentions. It may be viewed in *ex post* terms of outcomes. A broader view would treat all three items as subject to variation. The position of a government is more complex but still subject to the budget relationship. The expenditure decisions of government obviously have impacts on the level of economic activity and thereby on tax revenues and the scale of any budget deficit. A government borrows from the private sector, and its borrowing is limited by what the private sector is able and prepared to lend. In a closed economy, the well-known relationship of $G - T = S - I$ applies (where S is private saving and I is private investment). The limit on government borrowing is then the maximum difference between saving and investment, and that is generally taken to be the levels of saving and investment which would be forthcoming at full employment. It is, of course, the case that the saving and investment are influenced by the level of economic activity which is itself influenced by government expenditure. The budget deficit should aim to be at a level which secures full employment, and at full employment sufficient saving would be generated to fund the budget deficit (Kalecki 1943).

The limitations on the scale and nature of public expenditure and of budget deficits comes through the availability of resources. Kelton (2020: 48) portrays the limitations on government expenditure and budget deficits in terms of an inflation limit: 'A fiscal deficit isn't evidence of overspending. For evidence of overspending, we must think of inflation'. This appears to accept that inflation is demand-driven, and ignores the cost, conflict and global natures of inflation. The appropriate (if difficult) way to judge whether the budget deficit is 'too large' is (for a closed economy) whether saving forthcoming at capacity exceeds investment forthcoming at capacity. The appropriate level of budget deficit is equal to capacity saving minus capacity investment.

DP (2021a) claim that MMT authors believe that public debt sustainability cannot be an issue. A primary budget deficit (government expenditure other than interest payments minus tax revenues) relative to GDP of d would, if maintained, lead to a debt-to-GDP ratio of $b = d/(g - r)$ where g is the growth rate and r the interest rate on government borrowing, with both expressed in nominal terms. If $g > r$ then the debt ratio stabilises. If $g < r$ the debt ratio would rise continuously, and this is the case where a primary deficit could not be sustained. The case where the growth rate is above the rate of interest (on government bonds) may often be the relevant one. Blanchard (2019: 1227) argues that the safe interest rate being less than the growth rate 'has been the norm rather than the exception in the United States in the past'. Schmelzing (2020: 32) reports that the spread between the rate of interest on 'safe assets' and the growth rate 'has narrowed rather

continuously over a 700-year horizon', and his figure XI, which covers 1317–2018, suggests the rate of interest has often, but not always, been below the rate of growth in the post-World War II period.

A total budget deficit relative to GDP of d' is the one relevant for demand management purposes, and leads to a debt ratio of $b' = d'/g$. A budget deficit set to achieve full employment (or another objective) would lead to a stable debt ratio, provided the nominal growth rate is positive. However, the total budget deficit d' equals $d + r.b'$, and that can involve either a primary budget deficit or surplus depending on the relative values of g and r. Insofar as the continuing budget deficit leads to a rising debt ratio, the wealth of the private sector as holders of government bonds is also rising. If rising wealth leads to a decline in the savings ratio, then the budget deficit required to secure full employment would diminish. Overall, a total budget deficit (relative to GDP) is sustainable leading to a stable debt ratio, whereas the sustainability of a primary budget deficit depends on the relationship between the growth rate and the interest rate on government borrowing.

A high public-debt-to-GDP ratio can be argued to have consequences for growth. The study by Reinhart/Rogoff (2011) arguing for a substantial negative effect of debt ratios particularly above 90 per cent has been largely debunked – notably by Herndon et al. (2014). Heimberger (2021) undertook a meta study of 48 studies (involving 826 estimates) of the effects of public debt levels on economic growth. He finds that the unweighted mean of reported results suggests a 10 percentage-point increase in public debt to GDP associated with a decline of the annual growth rate of 0.14 percentage points. 'However, we cannot reject a zero effect after correcting for publication bias. Furthermore, the meta-regression analysis makes estimates lean less towards the negative side' (ibid.: 1).

3 CROWDING IN AND CROWDING OUT

DP portray MMT as claiming that crowding out cannot be an issue. A Kaleckian perspective is that capitalist economies typically operate with spare capacity of production and unemployment of labour, and hence that an increase in public expenditure would tend to raise overall income and output, and crowding out is not a general issue in the sense that an increase in public expenditure will tend to 'crowd in' rather than 'crowd out'. The 'crowding in' may take the form of a rise in incomes and thereby increased consumer expenditure, and through enhanced investment. There may be a specific issue of 'crowding out', in that an increase in public expenditure in an area requires resources to be drawn into the public sector and away from the private sector. When the economy is operating at full capacity there would be crowding out. It is an empirical question of how far an increase in public expenditure would have longer-term 'crowding in' effects, for example through enhanced investment. Estimates of 'the multiplier' of government expenditure and tax rates on the level are generally positive, and the scale of the multiplier effect dependent on the general state of the economy. Gechert (2015), in a meta study of 104 papers, reports that spending multipliers average about 1, though there is much variation with study design and the country sample. Tax multipliers were rather smaller, averaging around 0.7 (and hence an incomplete degree of 'crowding out'), while public investment spending multipliers were higher, at around 1.5 (hence 'crowding in'). Gechert/Rannenberg (2018) find that spending multipliers are particularly large in recessions, while tax cuts on average have smaller effects and are not sensitive to economic regimes.

4 INFLATION AND HYPER-INFLATION

4.1 Monetary policy and inflation

DP (2021a) portray MMT as saying that it is wrong to regard inflation as a monetary policy issue and right to regard inflation as a fiscal policy issue, which appears to view inflation in terms of demand, and that its control can come from monetary control or fiscal policy control. It could, of course, be neither and have strong cost elements, with global and distributional struggles.

Monetary policy in the form of the policy interest rate has in many countries been assigned the objective of 'inflation targeting'. There are doubts on the effectiveness of inflation targeting along four lines (see, for example, Arestis/Sawyer 2008). First, the difference in inflation performance between inflation-targeting and non-inflation-targeting countries appears small in a general environment where inflation had been declining, and inflation targeting was often introduced after inflation had been reduced (for example, Ball/Sheridan 2003). Second, variations in the rate of interest appear to have little effect on the rate of inflation, with a 1 percentage point hike in the policy interest rate leading to a reduction in inflation of the order of 0.1 to 0.2 percentage points (Arestis/Sawyer 2004). Third, there is the attempt at ultra-fine-tuning in the sense that monthly decisions (and hence potential change) on interest rates are made, seeking to target inflation up to two years ahead. Fourth, there is a lack of a strong theoretical link running from interest rates to economic activity to inflation (Sawyer 2009a).

Inflation (at the national level) is to be viewed as multi-causal, and the balance of forces generating inflation (or disinflation) differ over time and between countries. Aggregate demand and changes in the level of demand, cost pressures, conflict over income shares, exchange-rate movements, and global inflation are the major factors involved. Fiscal policy would only have a role to play in seeking to constrain a very rapid increase in demand, and has more of a role in limiting falls in demand (and consequent effects on employment).

4.2 Hyper-inflation

A frequent response to the prospect of expansion of government expenditure and budget deficits is to shout 'inflation', particularly when it is realised that government expenditure is initially financed by central-bank money. DP (2021a: 357) go further and shout 'hyper-inflation': 'even a temporary monetised fiscal stimulus could trigger expectations, especially from the government, that a one-time use could easily become permanent. In turn, a permanent recourse to monetary issuance would lead to a flight from currency and to hyperinflation'. But there is always a permanent recourse to monetary issuance: central-bank money is always being created/issued, for otherwise expenditure cannot proceed (and is always being destroyed/withdrawn). It is generally the case that the amount of money outstanding at the end of a period is typically higher than at the beginning of the period, whether that refers to central-bank or to commercial-bank money. If the argument of DP (2021a) were correct, then the continuous issue of money and the general rise in the money supply would mean that hyper-inflation was a frequent occurrence. Yet 'hyperinflations are rare and occur only under a few extreme circumstances' (Åslund 2012: 2), when hyper-inflation is taken as price rises of more than 50 per cent per month (Cagan 1956). Drawing on Hanke/Krus (2012), Åslund (2012: 4) wrote that

> it is striking how few the causes of hyperinflation were. They were connected with either war/revolution/collapse of a state or utter irresponsibility. Responsible countries with reasonable

governance may default, but they do not have hyperinflation. Hyperinflation does not happen by accident but because of serious dysfunction. It reflects that something is profoundly wrong in a country and very difficult to fix.

5 UNEMPLOYMENT

DP (2021a) claim that MMT advocates believe it is wrong to say that unemployment cannot be fully eliminated and right to say that it can. Post-Keynesian and Kaleckian economists would agree that there are insufficient market forces leading the economy to full employment, and it is through government policies, including fiscal policy, that full employment may be achievable. MMT proponents (for example, Wray et al. 2019; Kelton 2020) argue that full employment can be secured through a 'job-guarantee programme' under which jobs would be provided at a basic wage to all otherwise unemployed. This type of programme would act as an automatic stabiliser as far as employment is concerned and a budget deficit emerges appropriate for securing full employment. However, a 'job-guarantee programme' would only achieve full employment if there were sufficient productive and managerial capacity assigned to the job-guarantee programme to enable full employment in the face of low aggregate demand. It would also require a belief that full employment does not involve inflationary pressures on the argument that those on a job-guarantee programme do not place upward pressure on wages.[5]

A high level of aggregate demand is a necessary but not a sufficient condition for the achievement of full employment. Kalecki (1943: 347) indicated that full employment of labour could be achieved through government spending and budget deficit, provided that there was sufficient productive capacity and an absence of balance-of-trade constraints. Kalecki argued that sufficient capital equipment needs to employ all the available labour, and leaving some capacity in reserve would be needed to enable full employment without inflationary pressures.

Kalecki (1990: 351) argued that under sustained full employment 'the social position of the boss would be undermined, and the self-assurance and class consciousness of the working class would grow. Strikes for wage increases and improvements in conditions of work would create political tensions'. He suggested that 'discipline in the factories' and 'political stability' would also be undermined. Kalecki saw *laissez-faire* capitalism as inconsistent with sustained full employment. He concluded by saying that '"full employment capitalism" will, of course, have to develop new social and political institutions which will reflect the increased power of the working class. If capitalism can adjust itself to full employment, a fundamental reform will have been incorporated in it' (ibid.: 356). The fundamental reforms could range from coordinated wage bargaining with broad agreement over the distribution of income between wages and profits, which may restrain inflationary pressures through the development of forms of work organisation including worker participation, which can achieve high levels of productivity without the threat of 'the sack'.

The achievement of full employment requires the creation of sufficient productive capacity, located in relevant places, alongside a sustainable current-account position and a non-inflationary environment, alongside sufficient aggregate demand.[6]

5. I critiqued job-guarantee programmes along these and other lines in Sawyer (2003). Sawyer (2022c) provides an analysis of the relationship between job-guarantee programmes and inflation.
6. See Sawyer (2009b) for an elaboration.

6 THE 'SUPPLY SIDE' OF THE ECONOMY

MMT is largely focused on the demand side and the financing/funding of government expenditure. Post-Keynesian and Kaleckian economics also have a strong focus on demand-side issues, but make assumptions and analysis about what may be termed the supply side. Mainstream macroeconomics has often portrayed the supply side as being akin to atomistic competition (as in New Classical macroeconomics) and monopolistic competition (dynamic stochastic general equilibrium and the New Consensus in macroeconomics). Mainstream macroeconomics has set as its microeconomic foundations the individual as an optimising agent in conditions of full information about the future (at least to a probability distribution). In contrast, post-Keynesian and Kaleckian economics would reject that view and adopt a more behavioural approach with recognition of fundamental uncertainty. The ways in which markets and industries operate would differ from the mainstream. In the next sub-sections, I briefly discuss four aspects of the ways in which there would be major differences between a mainstream approach and a Kaleckian one.

6.1 Competition and oligopoly

DP (2021a) claim that MMT believe it is wrong to say that 'competition in the goods and services market exists and is useful' and right to say that such competition 'can be ignored'. The term 'competition' is used in many senses, though I would interpret DP here as meaning something akin to perfect competition, and not competition as analysed by Austrian economists or by Marxian economists. Kaleckian economics rarely, if ever, invokes an atomistic competition view of the world, and follows Kalecki (1991: 98) that 'perfect competition is a most unrealistic assumption, not only for the present phase of capitalism, but even for the so-called competitive capitalist economy of past centuries … . Perfect competition, when its actual status of a handy model is forgotten, becomes a dangerous myth'. Kaleckian analysis has a close affinity with a monopoly capitalism view (Baran/Sweezy 1966; Cowling 1982) and the significance of market power, and tendencies towards high levels of concentration. Economic analysis of contemporary capitalism needs to be based on an oligopolistic rivalry framework recognising market power, and basing analysis on an atomistic competition provides a highly misleading diagnosis.

Neoliberalism has been based on the supposed benefits of markets and competition. Rosenberg (2021: 425) notes that 'the increasing importance of firms with monopoly and/or monopsony power is not consistent with the essence of neo-liberalism which emphasizes individual decision-making coordinated via free competitive markets'. Further, 'with such concentrated product market and workplace power, it cannot be argued, as neo-liberalism postulates, that income is being distributed primarily on the basis of the productive contributions of factors of production such as labor and capital' (ibid.: 425). He also notes that the widening of profit margins did not lead to high private investment, and that under the neoliberalism regime the United States economy became more unequal but did not become more dynamic or efficient.

6.2 Income and earnings

DP (2021a) postulate that MMT believe that it is wrong to say that 'skills are important determinants of income', and right to say that 'skills are loosely linked to income'. There appears to be no significant discussion in the text of these propositions. In a broad post-Keynesian/Kaleckian approach, there is not a single coherent view on the determination of

income and of earnings. However, with regard to the distribution of earnings and income (between individuals as well as the functional distribution), there would be a rejection of any analysis which invokes marginal productivity elements. As Spreafico (2018) argues, the rapid rise in salaries of CEOs in general in the past three decades cannot be explained on marginal productivity lines, as this rise in salaries is not matched by increases in the efficiency of firms or growth. Spreafico (2018) presents a full range of arguments against the links between wages and marginal productivity. Bivens/Mishel (2013: 70) argue that the rise in the incomes of the top 1 per cent in the USA 'should be interpreted as driven largely by the creation and/or redistribution of economic rents'.[7]

The assessment of skills would be viewed as socially constructed and any association between skills and earning could run from high earnings to perceptions of skills. Market power, broadly conceived, is a powerful influence on the share of profits in national income. In recent years, factors such as financialisation, globalisation, decline of trade union power, and market concentration have been seen to have relevance for the wage and profit shares in national income.[8] In the earnings of high-income groups, there would be considerable parts of economic rent.

6.3 Structural policies

DP postulate that what they term 'conventional structural policies' would be deemed by MMT to have negative effects, and wrong to think those policies would have positive effects. It is not clear what DP mean by conventional structural policies, and a section in the text on structural policies considers various public-sector employment programmes. It is clearly evident that Kaleckian and post-Keynesian economists advocate a wide and diverse range of policies which diverge from what may be termed 'conventional structural policies'. Arestis/Sawyer (2013) formulated a 'modern Kaleckian–Keynesian framework' for economic policy. In addition to fiscal and monetary policies, as well as inflation policies (construction of capacity compatible with full employment, possible role of incomes policies), there are labour market policies and industrial and regional policies. There should also be a range of other concerns including financial stability, shifts to a less unequal earnings, income and wealth distribution (Galbraith 2013) and addressing environmental degradation (Perry 2013).

6.4 Climate change

DP (2021a: 6, table 1) portray MMT as considering it wrong to view that climate change 'can be addressed primarily by setting a social price of carbon', and right to view that climate change 'necessitates primarily public investment'. Carbon pricing is located in a neoclassical market failure/externality framework on which heterodox economists place little value. The use of prices to discourage certain types of activities is not ruled out but plays only a minor role.

A transition to a low-carbon economy would require a sustained programme of investment in the low-carbon sectors and technologies, and much lower investment in the high-carbon sectors. There is a major role for investment with public investment playing a leading role and measures to direct private spending in a transition to a low-carbon economy. There is a key

7. See Sawyer (2018) and Sawyer (2022b: ch. 8) on economic rents in the financial sector.
8. See Sawyer (2022b: ch. 8) for a discussion of some such studies with a focus on the role of financialisation.

role of State Development and Green Banks in the direction of funds for the transition. It is important to build on post-Keynesian insights that 'supply constraints are elastic and endogenous; increasing returns, coordination problems and fundamental uncertainty make markets unsuitable to organize major transformation of the economy; and the role of finance is to provide liquidity rather than allocate savings' (Mason 2022: 1). Lewney (2020) provides a deep comparison between neoliberal market-oriented approaches to climate change and a post-Keynesian one. As he argues,

> the response of mainstream economics to the climate crisis has been weak, reflecting key inadequacies in its understanding of human behaviour; the consequences of imperfect information and radical uncertainty; the nature of finance and the contribution policy can make to reduce risk perceptions; and the critical importance of just transition considerations in determining the social acceptability and hence longevity of commitment to decarbonisation targets. Its focus on the carbon price as a sufficient policy instrument is misleading and uninformative to policy makers. (Ibid.: 217)

Further, he argues that

> a serious response to the climate crisis … requires a focus on derisking key investment decisions. It requires a major commitment to mitigate policy impacts on energy poverty and to provide alternative, decent work opportunities for those dependent on fossil fuel-related jobs, or else social divisions will ultimately undermine political commitment. (Ibid.: 218)

7 CONCLUDING COMMENT

DP (2021a) raise a series of issues relating to modern monetary theory. I have sought to present a Kaleckian perspective on some of the issues raised. The creation of central-bank money at virtually zero cost means that government expenditure can always be (initially) financed. In considering proposals for public expenditure, the focus should be on the social desirability of any proposed expenditure, the availability of suitable resources, and the consequences for the size of the government's budget deficit. The scale of budget deficit is limited by saving and investment behaviour and the current-account position corresponding to full employment, and that limit should be reached to aid securing full employment. The achievement of full employment requires sufficient productive capacity as well as aggregate demand. The empirical and theoretical evidence points to the general stimulating effects of government expenditure in support of 'crowding in'. A Kaleckian analysis differs substantially from a neoclassical one. It develops an oligopolistic and market-power approach rather than one informed by atomistic competition. Income distribution is not based on marginal productivity or similar considerations, but, rather, depends on market power and rent-seeking. A Kaleckian approach would have a quite different policy agenda, as has been indicated with respect to climate change.

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