

'The Russian Revolution Has Not Yet Taken Place': British Views of the Soviet Economy Between the 1950s and the 1970s

Glen O'Hara

Oxford Brookes University

Abstract

This article examines British officials' and ministers' attitudes towards the Soviet Union's economy in the post-Second World War era. In the nineteen-fifties and early nineteen-sixties, public and some expert commentary posited Soviet economic 'success' based on the country's increasingly rapid growth rate, its potential for consumerization, the promise of economic reform, and the Soviet state's emphasis on education, science and the application of computer technology. New evidence from British official archives, presented here, makes clear that Westminster and Whitehall were never persuaded of this view, and always believed that political meddling and microeconomic inefficiencies would ultimately restrain and undermine Soviet growth.

One intriguing question about the Cold War is why the British state differed from successive US governments on the extent of desirable economic engagement with the Soviet Union. The UK was not usually friendlier to the Soviets' diplomatic or military aims. Prime Minister Winston Churchill despaired, as the Second World War came to an end, that he could not make the Americans see Stalin's true intentions in Eastern Europe. But the British did thereafter adopt a much more open stance towards economic relations with the Soviets.¹ The Anglo-Soviet Trade Agreement of 1947 was a triumph for a young Harold Wilson, later to serve two terms as Labour Prime Minister.² In early 1950 the British used their position in 'CoCom', the East-West Trade Co-ordinating Committee, to oppose the Americans' insistence on much tighter sanctions covering the so-called '1B' list detailing goods of 'high strategic value'. Only the outbreak of the Korean War caused London to soften its line on US demands.³ Prime Minister Macmillan managed to convince President Eisenhower to relax some controls over East-West trade in 1954.⁴

Tensions remained around this issue of engagement with the Soviet *bloc* for many years thereafter, especially as Anglo-Russian trade began to take off in the 1950s and early 1960s. This reflected in part diplomatic openings such as the economic fact-finding mission to the UK mounted by the Soviet Minister Aleksei Kosygin in 1955: at that point Deputy Chairman of the Council of Ministers, his interest in the British textile industry helped to shape his view of the next Five Year Plan.⁵ Divides between the Anglo-American allies also opened up on the British sale of buses to Cuba in the early 1960s, and (despite some thawing towards East-West trade on the American side) over

technological co-operation with the USSR encouraged by the Wilson government's Ministry of Technology later that decade.⁶ Even Mrs Thatcher objected furiously to the American sanctions package of December 1981, which threatened British contracts for building Siberian oil and gas pipeline infrastructure, as an unacceptable 'extra-territorial' application of US law.⁷

The difference of emphasis in part issued from the UK's desperate need for foreign currency earnings, including from the USSR. Even by 1952, these were only at about three-quarters of their 1938 volume export levels.⁸ Some diplomatic factors also contributed to this more relaxed British approach: early in the Cold War, for instance, a residual British suspicion of German interests and 'demands' was noticeable, along with a preference for the views of their erstwhile Soviet allies.⁹ As we shall see in this article, British cultural conceptions of 'Russia' and 'Russianness' – favourable as well as unfavourable – were vitally important in helping to channel the British sense of what they were seeing. This could often work itself out as fellow-feeling with Europe's fellow 'outsiders', both involved in but not quite immersed by the European continent. One keen British observer of Russian life, the author Wright Miller, believed that 'the Russian ways of avoiding social friction, the Russian sense of humour... and that recent development, Russian sportsmanship – they all seem nearer to the English than the Latin world'. The British and the Russians, those twin marginal 'outsiders' in European life, might therefore have more in common than appeared likely at first sight.¹⁰

Anglo-American differences in this sphere were, however, much more deeply rooted in different approaches to national competition and economic life. They reflected, most of all, a much more acute preference for human intelligence and empirical case-studies in Westminster and Whitehall as against Washington, a predilection this article will highlight. The transatlantic difference was deepened by the influence of American Sovietology profession more and more reliant on macroeconomic and sociological survey methods that painted Soviet success in an increasingly favourable light. The military challenge posed by the USSR deeply discomfited the American policymaking elite, within which the more assertive elements continuously emphasised the foreign policy threat posed by Soviet advance. The British, defined here as the networked policymaking communities governing foreign policy in the UK – from the core executive of Prime Minister and Cabinet, to Members of Parliament, via the administrative sector made up of Whitehall civil servants and Embassy staff abroad, and then through all of their various points of contact with journalists, academics and business – took a very different view.¹¹ They possessed little of the Americans' straightforward sense of face-to-face rivalry, as this article will demonstrate: given this, and due to

their more empirical and less theoretically confident approach to diplomatic epistemology itself, they remained throughout the Cold War much more relaxed about the size and potential of the Soviet economy.

The Soviet Union did indeed seem to turn an economic corner in the late 1940s and early 1950s. The American journalist John Gunther was very clear, while writing the *Russia* entry in his long-running *Inside* series, that Soviet economic success had been bought at the success of forced industrialisation and the expropriation of Soviet savers. But even in Gunther's realistic survey, which took careful note of the misallocation of Soviet resources, a certain view of 'spirited' Russian progress and purposeful effort prevailed. Even Gunther believed that the Soviets' emphasis on industrialisation 'may well indicate... strength... The time could, indeed be near when the United States, in order to keep up with the USSR in industrial power and military preparation, might have to sacrifice some of its well-known impulses towards fanciness and pleasure'. 'We are in a race', he told his American audience: 'make no mistake about it'.¹² A *Time* magazine spread on Soviet progress published in 1960 spoke in similar terms: the contrast between the Russians' successes in high-end science and consumer shortages was marked, but 'there can be no doubt that in recent years the Soviet economy has made astounding strides'.¹³

It was not just output that was surging upwards: consumer supply and demand, both key to Americans' sense of their own economy's wellbeing, were on the move too. Food rationing ceased in 1947, while demand for consumer goods picked up from 1949 onwards. Bottlenecks, price rises and black markets did continue to blight Russian life, but the USSR's leader Nikita Khrushchev and his allies could blame that on the growing numbers of Soviet citizens who aspired to a better lifestyle.¹⁴ This was of course typified by the famously heated argument between Premier Khrushchev and Vice-President Richard Nixon at the American National Exhibition held in Moscow during 1959: the so-called 'kitchen debate' about domestic standards of living. It was immediately after the kitchen debate, at the dinner held that same night, that Khrushchev told Nixon to his face that the Soviets would soon 'overtake our American partners in peaceful economic competition'.¹⁵

The structure of Cold War governance in the US also played a role here. American sovietology had been built up from the wartime structures of the Office of Strategic Services, especially under the auspices of the economist Abram Bergson, who went on in peacetime to teach at Columbia and Harvard. From the beginning, the approach was quantitative, data-driven and theoretical, as with the first national income estimates of the Soviet economy produced for OSS in 1943. American research in this tradition appeared to quantify impressive Soviet progress: Bergson's

1961 book *The Real National Income of Soviet Russia since 1961* seemed to show that the economy of the USSR expressed in rouble factor cost had grown by about 250% since 1928.¹⁶ Throughout the 1950s, Bergson's work – buttressed by studies produced by the RAND Corporation, among others – essentially assumed that Soviet economic figures contained real meaning. They were capable of *some* corroboration by cross-checking with price and wage data, if one assumed that planners made choices to aim at maximum production for minimum cost. Since this still resulted in calculations some way below official Soviet reports – perhaps by about a quarter – these seemed not-unrealistic assumptions.¹⁷

If these quantitative economics approaches were central to academic and some official American attitudes, so was a reliance on newly-fashionable social and political science methods involving in-depth interviews. Harvard's Project on the Soviet Social System drew on interviews with Soviet refugees in the early 1950s: it demonstrated widespread if hard-to-quantify discontent with Soviet food, clothing, and – notable among all classes – housing conditions. Even so, most Soviet citizens seemed in general fairly happy with their lot, and with the communist state not only as the ultimate owner and planner of the economy but a type of 'super-organisation' in which all could find at least some place. Although discontent with *specific elements* of the regime was widespread and it might in the end prove fragile, the Harvard Project's experts certainly did not for now expect any *general* revolt against the Soviet system. 'In the totalitarian society everyone may in time become an "organization man"', they feared: 'the escape from freedom is complete'.¹⁸ Although socialist and capitalist citizenship were demonstrably not the same, Harvard's experts – such as Alex Inkeles – argued that they might have achieved a *parallel*, rather than a politically similar, level of modernity.¹⁹ The Russian-American *émigré* Maurice Hindus, who lived in the USSR as a reporter between 1923 and 1937 before returning in 1958 and 1960, thought similarly that young people's recent willingness to speak up was 'a voice of indignation against bureaucratic and managerial failings... not against Kremlin ideology'.²⁰

The question of the Soviet Union's more general economic success or failure also became a tool of administrative conflict and partisan debate in Washington. Obsessed with what they perceived to be the communists' long-term aims, President Truman's White House advisers exaggerated Soviet economic and thus military capacity in early Cold War assessments dating from 1946, even at a time when intelligence assessments continued to make clear that skilled technicians were in such short supply, its oil industries so backward, and its transport system so out-of-date, that the USSR could not possibly fight any protracted war with the West.²¹ Even the relatively hawkish National Security Council Memorandum 68 of 1950, prepared under the tutelage of Paul

Nitze from the State Department, accepted that the Soviet Union was working at full capacity to fuel its military preparedness, while that of the United States was anything but stretched.²²

When we come to look at economic constructions of Russia in the UK during the Cold War, four rather different concepts became near-ubiquitous shared tropes among the most popular British public commentators of the time. The imagined large-scale economic units of the near future, requiring vast investment and organisation and often constructed in contradistinction to Britain's small-scale retail economy dominated by smaller firms, was one reason why Communist techniques seemed to be proving particularly suitable for rapid and ordered economic advance. Michael Shanks' 1961 Pelican paperback, *The Stagnant Society*, was a classic example of this type of thinking.²³ But the country's gains might not end there, for it was often thought be readying itself to deepen its gains as a more balanced mature economy, rather than focusing only on producer goods: the second reason why the USSR was also a subject of such interest in Britain at this time. There were now indications that a more mature Soviet economic system would try to satisfy its citizenry's desire for higher living standards, conceived in Britain less as a new emphasis on consumer demand and more as a return to the more 'normal' methods that predated Stalin's Five Year Plans. The academic Margaret Miller wrote in 1962 about signs of a 'decisive move away from blind adherence to doctrine, however powerful and long-established, towards a more rational way of ordering economic activity'. Planning would now guide economic activity, rather than direct it, in part because of pressure from retailers and consumers: 'the planners will have to discard their "ivory tower" mentality, take account of economic realities, and accept a degree of discipline and responsibility', Miller thought.²⁴

The third set of our key concepts here focuses on the apparently privileged role of science and technology in the USSR, which in Britain was less focused on the space race and the Cold War, and centred more on the potential of research and development techniques to raise productivity via new industrial methods and systems. In the words of Glasgow University Professor of Economics Alec Nove, himself born in Russia and an ex-British civil servant who had worked in the Board of Trade, in the USSR 'much greater attention is paid to science, indeed to knowledge as such, not only by the authorities but also among the people, since the USSR has largely escaped the large scale "commercialization of the moron" with its encouragement of mental laziness and ignorance'.²⁵ It was often posited, as one element within this emphasis on technological endeavour and a fourth argument for relative Soviet success, that computerisation and the application of huge amounts of data might make the planning of investment and consumption both easier and more efficient.

Planners' access to increased computing power might circumvent their problems with command and control, it was thought, and there was for a while at least qualified optimism as to this technical side of economic performance. Such computational optimism was at the heart of Soviet economic reform movements: in 1963 a system of state computer centres was proposed, which at its apex in Gosplan might feed into a system capable of 600,000 computations at any one time.²⁶

Taken as a whole, the Soviet challenge came to seem formidable during the late 1950s and early 1960s. As Conservative Prime Minister between 1957 and 1963, Harold Macmillan indeed referred in his diaries to 'the dynamism of Communism', appealing to ex-colonial elites and idealists alike – though only when backed 'with all the strength of Russian imperialism'.²⁷ But the emphasis was less, in Britain, on the outward drive of Soviet diplomatic ambition, backed by economic expansion at home: and more on the implications of Soviet foreign policy on the domestic economy. Worried as both the Conservatives and Labour were about the similar threat excessive defence posed to their economic growth, as well as the UK's own lagging relative growth and perceived sclerosis, they saw their own preoccupations reflected back at them in their opponents' dilemmas.²⁸ Britain's smaller core executive was also less riven by competitive bidding about the dangers of the Russian threat, and the UK government was not nearly as enamoured as were Washington elites with novel quantitative, econometric or survey-based sociological techniques. These differences would have profound consequences for the imaginative construction of the Soviet economy: this article will seek to demonstrate that despite their level of *generalised* interest in Soviet progress and planning techniques, Britain's policymaking community always remained extremely sceptical about Russia's apparent economic successes.

British civil servants and Ministers were much more sanguine about the challenge of Eastern bloc economics, believing them to be much less successful than commonly assumed, doomed without reform – which remained unlikely – to subside under the weight of their own contradictions. In this the British essentially agreed with the East's various dissidents, figures such as the Yugoslav dissident Milovan Djilas who argued that the new technical-administrative class dominant under planned communism could not help but treat labour as essentially a residual tool and abstract problem. Such leadership inevitably therefore slowed innovation and held back productivity. Massive over-investment in heavy industry, and the forced reduction of wages, were not an accident, but a necessary part of the whole system.²⁹ It was an analysis shared by only some of the most perceptive American observers, such as Walt Rostow, who argued in his 1960 classic *The Stages of Economic Growth* – a specifically *Non-Communist Manifesto* – that communism was a 'disease of the transition to modernity', whose attack on autonomy and living standards could not

long persist into an age of economic choice and mass consumption.³⁰

It is the purpose of this article to lay out the official – and usually private – British evaluation of the Soviet economy, in contradistinction to that of the Americans, during the middle years of the twentieth century. A great deal of Soviet historiography has revolved around the extent of the state's central command and control of social, economic and political life, perhaps inevitable given the nature of the regime. Historians have focused on how different groups of excluded or 'privileged' were constructed, and the extent to which the Government and the Party monopolised this process: this has perhaps led to relative neglect of Soviet citizens' lived experience and personal self-fashioning, as David Crowley and Susan Reid have argued.³¹ Such debates are critical for understanding the relationship between the USSR's governors and its people: but they have until recently been less successful in reconstructing the extent to which the Soviet system was providing a better life overall. This is a potentially important caesura in Cold War history. For one of the central problems before Western strategists was: to what extent could Soviet planners move towards a more pluralistic or Yugoslav-style economic system, and by so doing hope to meet the population's desires? As Reid has noted in her extensive work on Soviet consumerism, many observers believed that the USSR could indeed break through to a phase of more responsive economics: in the late 1950s and throughout the 1960s, the Soviets claimed to be able to harness consumer demand to arrive at perhaps a more spartan, but also more balanced and rational, mode of retail economy.³² This essay will therefore comment, not so much on the reality of Soviet economic strength, but on how it was perceived within British policymaking circles.

The British Left had long been enamoured of some Soviet methods. Russia's impressive growth rate had, it was frequently argued, been achieved by massive, rapid and centrally-directed breakthroughs into sustained growth: the Polish-born Marxist and Russia expert Isaac Deutscher believed for instance that 'the gigantic scale of the new inventions and scientific ventures put these beyond the resources of private investment', as practiced in the capitalist West.³³ The influence of the USSR on the mid-century Labour Party was more profound than often portrayed in the subsequent historiography. The favourable verdict pronounced by Beatrice and Sidney Webb's 1941 *Soviet Communism*, in particular, was extremely influential.³⁴ The future Labour Minister John Strachey drew on their analysis of the USSR's evident income inequalities to argue that they did not amount to exploitation because no class of owners and inheritors had emerged. As the Communist journalist Ralph Fox put it: 'wage slavery, by which one man is compelled to sell his labour power to another', had been abolished.³⁵ Hugh Dalton – later a Labour Chancellor – was heavily influenced by a visit to the Soviet Union in 1932, as were Strachey and a young Aneurin Bevan in the years before he became famous as the founder of the National Health Service. They later co-authored a pamphlet,

along with the Labour MP G.R. Strauss, on the Soviet Union: it concluded that ‘in spite of all the difficulties and drawbacks, the actual achievements of the Soviet Government... are so far-reaching and so valuable to the Russian people that their disappearance is inconceivable’.³⁶

What changed the picture now – and made the USSR a more general object of fascination – was that for a time, post-war economic growth in the USSR seemed even more impressive. Khrushchev, of course, famously once pronounced to Western diplomats that ‘we will bury you’ via peaceful advance: his entire initial programme was based on the aim, as stipulated at the launch of the Seven Year Plan in 1958, to ‘surpass, in in the shortest possible time, the most highly developed capitalist countries in output per head of population’.³⁷ Soviet propaganda was unrelenting in this arena. One pamphlet from its Novosti Press Agency reported an 8.2% annual rate of national income increase between 1956 and 1960, and a growth rate on the same measure of six per cent between 1961 and 1965 – a tempo ‘well beyond the reach of the capitalist countries’.³⁸ Even in the early 1970s, as Russian growth actually slowed, Moscow’s Progress Publishers’ report on the eighth Five Year Plan reported a growth rate of 5.7% between 1961 and 1965, accelerating to 7.2% in the period 1966-1970.³⁹ This impression of at least relative dynamism lasted for over two decades. American official data even from the early 1980s, when the Communist economic model had lost much of its allure in the West, made the Soviets’ performance across the 1960s and even the early 1970s look at least respectable (see *table one*): even if the country was not powering ahead at six or seven per cent, nearly four per cent was still a better performance than any other power bar France.⁴⁰

Table one. GDP/ GNP growth estimated in the early 1980s (GDP, western countries; GNP, USSR), 1951-79, annual averages

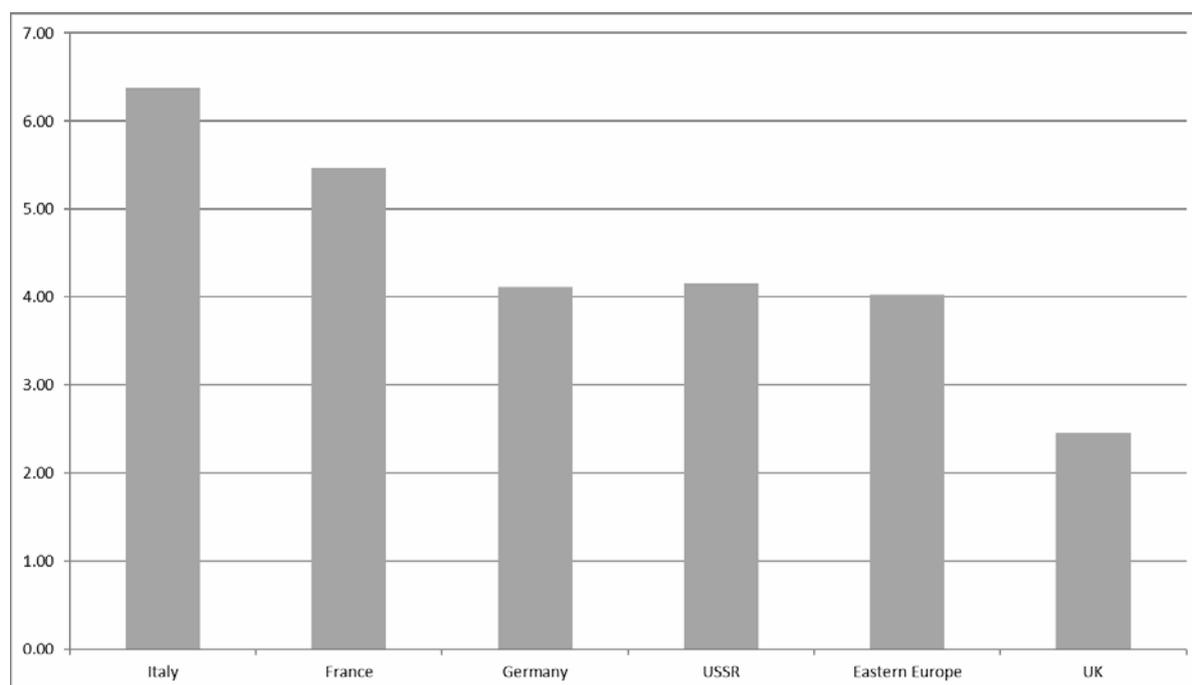
	1951-55	1956-60	1960-65	1966-70	1971-75	1976-79	1951-79
USA	4.2	2.3	4.6	3.1	2.3	4.4	3.4
France	3.7	5	5.8	5.4	4	3.7	4.6
West Germany	9.2	6.5	5	4.4	2.1	4	5.1
Italy	5.6	5.5	5.2	6.2	2.4	3.8	4.8
UK	3.9	2.6	3.1	2.5	2	2.4	2.7
USSR	5.5	5.9	5	5.2	3.7	3	4.8

Source: US Congress Joint Economic Committee, *USSR: Measures of Economic Growth and Development, 1950-1980* (Washington, DC, 1982), table 1, p. 20.

The impression of Soviet success was, however, rather misleading. Subsequent scholarship has done a great deal to subvert these relatively optimistic statistics and theories. Most estimates of annual growth still start with the type of quantitative American effort we have already followed, returning then as now quite brisk estimates for economic growth.⁴¹ But estimates compiled since the collapse of the Soviet Union have downgraded the size of the Russian economy *vis-à-vis* the American in these years, thereby increasing the gap still to be closed if the USSR was to 'catch up' on the world leader. It is true that the USSR does seem to have averaged about four per cent a year *per capita* GDP growth across the 1960s – about the same rate as East and West Germany taken together, and faster than the UK, though still nowhere near as rapid as France and Italy (see *figure one*). By the end of the 1960s, her growth rate overall might have been touching five per cent.⁴² This was certainly a much better showing than the Soviet Union was able to put in during the 1970s, when her *per capita* economic growth rate fell to under two per cent (see *figure two*). But in retrospect, these figures for the 1950s to the 1970s are a great deal less impressive than they appeared at the time.

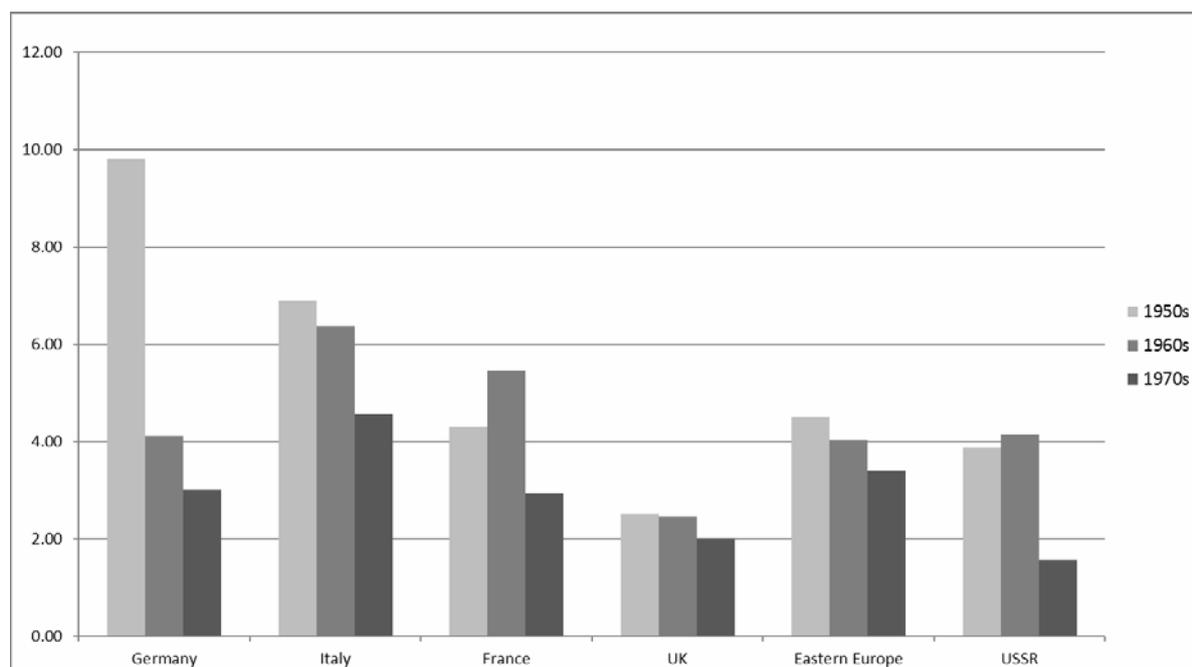
The USSR's rates of economic growth also continued to rest on pouring investment into the producer goods sector. The USSR's relative economic progress in the 1950s and 1960s was a passing stage involving the expansion of heavy industry, post-war rebuilding, industrial renovation, political stability and relative *détente* – not a success for its political and economic organisation.⁴³ The underlying figures as they now appear reinforce this impression of an economy that was producing much less than appeared once we take into account quality, innovation and product balance. Total factor productivity, even during the peak of the Soviet Union's performance, grew at only between 0.7 per cent and 1.7 per cent; the contribution of non-input changes seems to have become negative by the second half of the 1970s.⁴⁴ Indeed Western experts later estimated that investment continued to rise throughout the post-war era, right into the 1980s, rather than giving way to the levels of consumption more characteristic of a developed economy.⁴⁵ Such scepticism has not only been expressed in hindsight, however, for the key British civil servants involved, including crucially the staff of the Moscow Embassy, also questioned many of the key presumptions behind Soviet growth statistics at the time. Russian planners' vision of a more balanced and successful economy never convinced planners within Whitehall. We now turn to the course of Russian reform at the time, first to explain their background and fate, but more centrally to demonstrate British civil servants' and Ministers' reactions to them.

Figure one. 1960s GDP per capita growth rates, selected states/ regions



Source: A. Maddison, *The World Economy: A Millennial Perspective* (Paris, 2006), table C1-c, pp. 276-78.

Figure two. 1950s-70s GDP per capita growth rates, selected states/ regions



Source: Maddison, table C1-c, pp. 276-78.

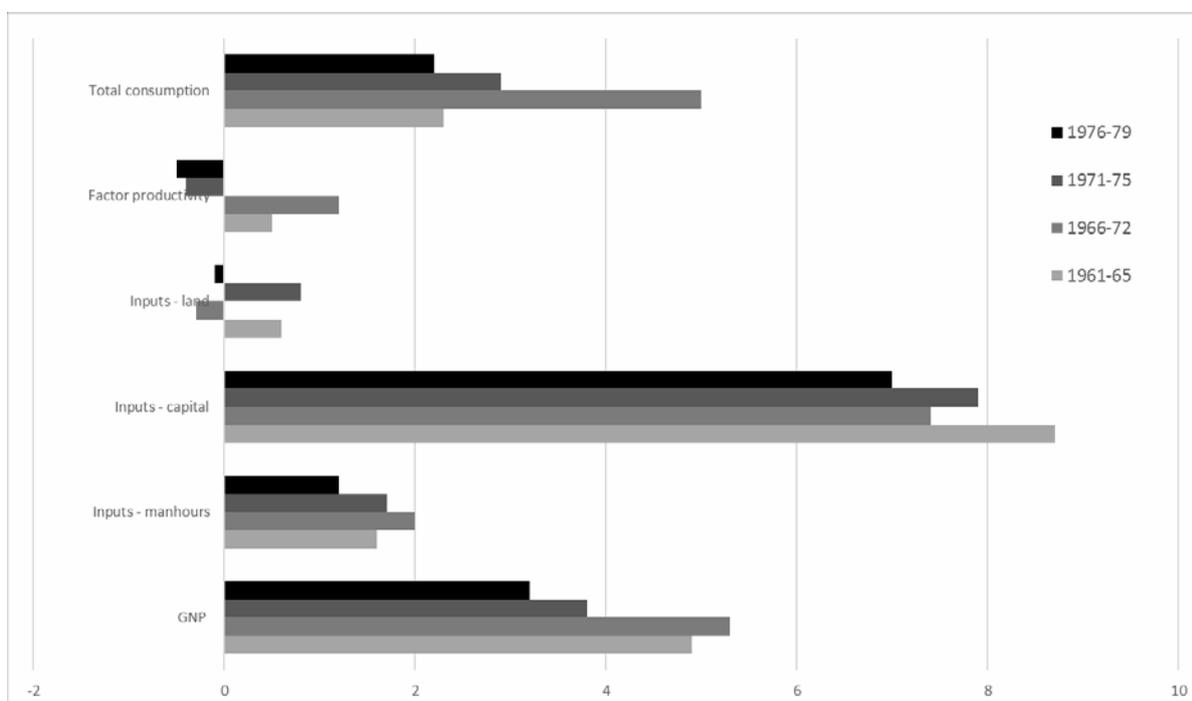
Khrushchev's accession to power in 1955 did, on the surface, seem to herald a new era for economic policy in the USSR. Having outmanoeuvred his rival, Georgy Malenkov, Khrushchev soon adopted Malenkov's emphasis on at least a limited 'consumerisation' and a more flexible industrial sector. Those changes that did occur must be kept in perspective. He was clear that more heavy industrial production, as well as the modernisation of agriculture, had to take precedence over progress in lighter or consumer-oriented industries: as he said, 'it is important to have good clothing and good footwear, but it is still more important to have a tasty dinner, breakfast and lunch'. Khrushchev vetoed the idea of building Soviet cars for ordinary Russians, for instance.⁴⁶ Even so, more room was to be made for the retail sector, a trend the United Nations Commission for Europe noted in its June 1959 report on the whole of the Eastern bloc. In East Germany, retail trade turnover had increased by seven per cent in 1957 and 10 per cent in 1958; the same figures were 14 and eight per cent in the USSR. As the UN remarked, 'the plans nearly everywhere indicate a higher priority for consumption increases... a priority not unrelated to the efforts being made to improve incentives for labour productivity and generally greater efficiency of production'.⁴⁷

It did not escape western observers that Khrushchev spoke of rivalling American *production*, and not *consumption*, within ten years: nor that faster growth might encourage the development of grass-roots civic society and independent thinking that the Communist Party might not welcome. The Soviet leadership certainly could hold out the prospect of better housing, improved social services, more leisure and shorter working hours – all of which would entrench their system further.⁴⁸ British doubts about the creation of a more munificent welfare state were, even so, even in this sector still much more noticeable than enthusiasm. The Soviet workforce's cramped domestic traditions had long been a matter of unfavourable comment: the British-born but American-domiciled marriage guidance experts David and Vera Mace, who visited the USSR in the early 1960s, noted that flats were often tiny, with very cramped bathroom facilities.⁴⁹ These housing shortages indeed led to the development of a thriving semi-legal or 'grey' market in privately rented properties.⁵⁰ Housing remained 'a major sore spot in the Soviet economic picture' throughout this period, and the problem was linked in the British Embassy's eyes with the general overloading of the construction sector. As its staff reported in their 1966 survey of economic developments: 'the most conspicuous feature... is the continued failure of the building industry. This makes its chief impact on the population in housing, where 80 million square metres were built in 1966 against the planned figure of 90 million'.⁵¹ The same situation continued in 1967, with the British Embassy reporting that

'the poor figures for capital investment speak for themselves. All one can say is that they are better than last year's... if only 21 million square metre of housing were completed in the first six months of this year, the year's target of 93.4 million square metres is clearly not going to be achieved'.⁵²

The UK government's view of both Soviet and CIA figures was consistently that the USSR's relative success still relied on massive inputs of capital and (to a lesser extent) manpower, rather than productivity growth (see *figure three*). The Soviet Seven Year Plan published in 1958, which at least attempted to rebalance the economy towards present consumption while looking ahead to Russia possessing the biggest per capita economy in the world within fifteen years, is a good case in point. As the Treasury's Home and Overseas Planning Staff noted at the time, 'the real characteristic of the regime is that the standard of living is residual. Productive investment, together with the needs of defence and foreign policy, science and technology, get overriding priority, and the consumer gets what is left'. The equivalent of a two-bedroom London County Council flat might be asked to house eight people in Moscow, capital of a country where private motoring (for example) was still relatively unknown. Soviet methods were still unlikely, to say the least, to lead to higher consumption or a deepening emphasis on innovation.⁵³

Figure three. Western estimates of the sources of Soviet growth, 1961-79 (1979)



Source: TNA FCO 28/3885, Band to Mallaby, enclos. memorandum, 'Underlying growth trends', 30 November 1979.

Khrushchev did aim radically to de-centralise the workings of the economy. He set up 105 regional councils, or sovnarkhozy, abolishing many central ministries and trying to substitute geographical, 'horizontal' planning for the old-style top-down approaches. The point of this was to liberate local party officials to take their own decisions, and to some extent to react to pressure 'from below'.⁵⁴ In Ukraine, for instance, 34 all-Union ministries and departments, 18 shared Union-Republic and 15 Republic ministries, along with 1,712 construction organisations managed by 50 ministries and departments, were abolished on 1 July 1957. They were replaced by 11 sovnarkhozy, each managed by a council overseeing functional and branch departments, as well as groups of individual enterprises. The direct transfer of material and resources between the sovnarkhozy need only be registered by the central agencies in Moscow.⁵⁵

Still, British officials always on the lookout for sources of domestic dynamism within the USSR knew that even a geographically decentralised Soviet regime was certainly not intended to give priority to what they termed the economy's 'Group B' (consumer goods) over 'Group A' (producer goods and raw materials) for many years. They understood quite clearly that, as Khrushchev emphasised, regionalisation was not intended as a move towards marketisation, and that a combination of local autarky and central supervision might in fact reduce flexibility. The central ministries' power was reduced, but not ended, as not all of them were abolished: most Moscow agencies refused to help with the creation of the new system. Gosplan was still charged with drawing up long-term plans for the whole economy. The supervisory influence of the Party was also increased.⁵⁶ Accordingly, Whitehall observers found it 'difficult to take seriously' Russian talk of any rebalancing between the two sectors, or even Khrushchev's private musings, passed on to the Swedish ambassador in 1956, that Class B would overtake Class A at some point in the late 1970s.⁵⁷ The Soviet regime consistently under-performed on the consumer targets that ran alongside, but were not necessarily supported by, the sovnarkhozy reform: during 1959 a minimum wage of 40-50 roubles was announced for 1962, but that target would not be reached until 1965. Only slow progress was made with introducing the 35-hour, five-day week, while constant complaints about the supply of domestic 'white goods' such as washing machines and refrigerators were widespread.⁵⁸

One reason for this scepticism was a slow-down associated with the reform itself, for the sovnarkhozy system soon ran into problems of competition and confusion, reducing even the clarity and capital direction that the planned system afforded. The sovnarkhozy often did not know how many enterprises, of what type, they were supposed to manage; they often simply took over

ministry functions (and therefore their constant demands for more investment) wholesale; they struggled to understand how their actions fitted into demand overall; and they had no means or incentive to uncover additional capacity. They still essentially lacked the management and pricing signals that connected end-user to producer. While Ukraine's government wanted to maintain investment in general construction, consumption and health and welfare, Gosplan in Moscow continued to insist that it give its first priority to heavy industry: confusion mounted as to who, exactly, should direct the use of resources. Switching delivery mechanisms from vertical command- and-control to horizontal concert did not fundamentally change these dilemmas. The appointment of Kosygin to head Gosplan early in 1959 was one sign that the regional reform was slowing down, while the creation of 'overlord' sovnarkhozy for Russia, Ukraine and Kazakhstan, all announced in 1960, was the first move toward re-centralisation. The reduction of Gosplan regional planning units from 78 to 13 in 1960 was another staging post in this process, while the creation of state branch committees which gathered pace during 1961 and 1962 was another indicator of the centre's renewed assertiveness.⁵⁹ Many of the regional councils were merged or abolished in 1962 and 1963, to try to bring some order to a system that had become chaotic.⁶⁰

British officials were well aware of these at-first subtle shifts. One Gosplan official told British Embassy staff in November 1960: 'this was only the first step in the struggle to iron out some of the problems which had arisen as a result of the extreme decentralisation inherent in the Sovnarkhoz system... it was a natural but nevertheless regrettable feature of the present system that the Chairman of a Sovnarkhoz seldom had a conception of the overall economic needs of the country'. Since Gosplan did not have the technical capacity to manage such a process, the new overarching economic councils created in 1960 were supposed to do this work. Increased direction was more than overdue from planners' point of view, for stories had been emerging for years of the regional councils trying to bring in new initiatives that central ministries frustrated. A new type of toilet soap in Moscow which did not sell well was, for instance, never advertised or promoted because the sovnarkhoz regarded itself as a producer, not a salesman.⁶¹ The old enterprises had taken their cue from the Ministries under which they worked; but now a confusing mix of Gosplan, the local Party organs, and the sovkarkhozy contended for their attention. Enterprise managers grew steadily more confused, as did the economic system itself.⁶²

The emphasis on confusion and poor direction is instructive. It was and is not so much that the regional reform was *inevitably* doomed to failure – indeed, a move from unitary to multi-divisional forms of economic management in China has yielded enormous performance increases

since the 1980s. The main reason for the sovnarkhozy's failure was the poor design of incentives. Khrushchev designed this system in part to weed out poorly-performing regional managers, and indeed their turnover increased: but competition for the Soviet hierarchy's limited resources of status and power gave the other regional councils that surrounded them little incentive to help them when they were failing. Regions with highly diverse economies thrived, able to supply most of their own needs; sovnarkhozy governing more specialist areas did not.⁶³ It is possible that the failure of

Khrushchev's reform drive was rooted in the geographically-concentrated nature of the Soviet economy, and the regime's struggle to manage complex systems on the basis of each area's varied results: that last tendency was clearly noted by the UK's Moscow Embassy as Khrushchev's reforms ran into trouble.⁶⁴

Whatever the fate of those reforms in detail, the main strength of the Soviet economy was still its capacity to grow *extensively*, rather than *intensively* – that is, to take advantage of massive inputs of labour and capital to expand output, rather than changing productivity levels to raise the amount of output per input. The UK Government was clear about the sources of Soviet economic growth in one Economic Planning Board memorandum from 1959: 'Russia was still far behind when the Revolution came. The drive for industrial development began with the first Five Year Plan in October 1928, and has been pressed forward since without respite. A predominantly agricultural community has thus become a great industrial power... If the Russians can go on drawing labour into industry from the over-crowded farms, and also maintain a modest growth of labour productivity, they will be setting a hot pace'.⁶⁵ An official within the Foreign Office concurred in 1964: 'when the Soviet leaders imply... that the USSR has always been catching up with the USA and will just continue doing so in the future, this is not correct. Part of the time, they have just been trying to get back to the relative position that existed before 1944 or before 1928; and as far as total GNP is concerned, they have not yet succeeded and will not succeed, at any rate in the near future, in regaining the level of 1883'.⁶⁶

Nove, along with other British academics, was clear that a planning system specifically designed for *unbalanced* growth – to break down the bottlenecks lying in the way of industrialisation – always contained the potential to fall back on old and inefficient methods. These would involve 'leaps forward', labour campaigns and administrative reorganisations, avoiding an evolving economy's need for complex new approaches that would optimise the use of resources.⁶⁷ Many less sympathetic non-socialist economists, not so interested in 'learning' from Soviet methods for ideological reasons, were even blunter: the Oxford-trained economist Peter Wiles (by the early

1960s teaching at Brandeis University in the US), was for instance deeply unimpressed by the Soviets' reported high rates of growth overall. Wiles' *Political Economy of Communism*, published in 1962, accepted that the Russians' overriding focus on growth, savings build-up, lack of tolerance for special interests, suppression of free trade unions and planned, more stable future all raised the rate of GDP increases. But the focus on industrial growth, when set in the wider context of agriculture and domestic demand's stagnation, was a 'line of least resistance, the field of the easy statistical triumph'. Planning demanded the production of 'more and cheaper and better, never mind of what': using base price weights and any balance of production as a given from the start of any statistical series, in a rapidly industrialising and changing economy, was exaggerating Soviet dynamism because it was simply recording the output of the same goods more speedily. In short, there was not enough emphasis on the economy's need to *change* what it was producing. Time series assuming one-for-one substitution between goods produced in any one year and in years before were leading expert to 'crassly understate Western superiority in standard of living and productivity'.⁶⁸

The Soviet economy's ability to transform itself was in considerable doubt as early as the first years of the 1960s. Real incomes had grown at only half their planned rate since the late 1950s (20 per cent instead of 40 per cent): that was partly explained by the fact that increases in farm production were running at 1.7 per cent, rather than the planned eight per cent. Agricultural produce had therefore leapt 24 per cent in price, rather than falling by 21 per cent.⁶⁹ Policymakers in Whitehall and Westminster well understood that agricultural production, long thought a key weakness of the Soviet system, would continue to dog the progress of Khrushchev's reforms. As the Conservative Foreign Secretary Alec Douglas-Home told the Cabinet in 1961, having reviewed the new Third Programme of the Communist Party: 'The unreality of a programme which assumes (a) an equal rate of growth of agriculture and industry, and (b) an undiminishing rate of growth of industry, is clearly demonstrated by Soviet experience... agricultural output is not rising by a percentage even remotely comparable with industrial output'. His conclusion was damning: 'as the programme is so obviously visionary in these fundamental respects, it becomes difficult to take any part of it seriously'.⁷⁰

The end of Khrushchev's regime in 1964, and the ensuing uncertainty surrounding his economic reforms, created the conditions for a renewed push towards reform. The new and more measured

changes known as the 'Kosygin reform', after Kosygin who was by now Premier, brought back branch ministries to replace what remained of the sovnarkhozy, reduced the number of targets that came down from central government, and allowed each enterprise to build up three funds from their

profits: a materials fund; social and housing funds; and a production fund. They would thus be able to engage in wholesale trading between themselves, albeit at fixed prices. At the same time, centralised state supply agencies, under a State Committee on Supplies (Gossnab) again sought to meet and obviate any supply bottlenecks – though with less effectiveness as the economy became more complicated. The new Soviet leadership hoped that there would be no repeat of what they regarded as Khrushchev's 'hare-brained' scheming.⁷¹ The announcements of the Twenty Third Congress, held in 1966, continued the sense of a thoroughgoing new departure, at least on the surface: Ministries were to issue fewer directives; incentives would be constructed to emphasise efficiency and initiative; prices would be fixed so as to further encourage profits, which would be earned by more autonomous relations between enterprises, suppliers and end users – and could be spent locally via funds for investment, housing or social welfare.⁷²

The Kosygin reform proceeded at some pace – at least to begin with. By July 1967 the British thought that the number of enterprises working under the rules of this new system was 3,600, amounting to just over a quarter of overall industrial production – and that they seemed to be able to raise productivity faster than elsewhere in the economy. But most official British observers were if anything now even less impressed than they had been under Khrushchev. As the UK Ambassador noted: 'to any manager trying to run his factory on the new lines the persistence of the traditional faults of the Soviet economy – intervention from above... crash programmes, delays in the receipt of incoming supplies or of payments for deliveries, refusals by buyers to honour a contract... refusals by the central authorities to allow essential price adjustments when specifications change – can, singly or together, spell financial ruin... nothing in the published materials on the new economic system indicates how the central authorities are to overcome the disproportions that have always plagued the economy of this country under the Soviet system'.⁷³

What British diplomats on the ground in the USSR conceptualised as 'the road to change-over' had by now traversed only the smoothest part of its journey: the more marginal, or unprofitable, sections of the economy had yet to be moved onto the new system. 'Val', or gross output, remained of enormous interest among the higher Soviet planning organs, despite the fact that sales and profitability were now supposed to have replaced that measure for enterprise-level planning. There remained, moreover, grave problems of both organisation and capital output, as the Moscow Embassy reported:

Many shortcomings are admitted... Ministries still judge enterprises' performances by overall output and upset enterprises by frequent changes of plan... although increased profits are filling out the

enterprises' welfare/ housing funds, the money in these funds remains idle because the material resources for the welfare and building programmes which enterprises would like to undertake are just not available. There is much evidence of excessive pressure on the construction industry.⁷⁴

Prices may have been raised across the board so as to increase profit margins *overall*, but there were no measures to bring supply and demand more nearly into balance using the rate of these 'profits' to change what enterprises could charge: price controls remained as an anti-inflation measure.⁷⁵ Producer goods were rationed and still subject to command-and-control from above, so maintaining materials and production funds often seemed pointless. Given all this, increased profits and more discretion at the local level meant that wages rose sharply, and case-by-case allocation decisions that sought make the best of this increasingly-expensive situation, rather than local industrial autonomy, became once more the default position.⁷⁶ Although there was some initial success with raising the cost of capital as part of this reform, managers went back, after 1966 and 1967, to treating investment as if it was a free good.⁷⁷

The British Ambassador himself, Sir Geoffrey Harrison, still thought that the system was being changed less radically than appeared, as he argued in one long 1968 missive to London:

The pattern which emerges is that in applying the economic reform the Soviet authorities are stopping short of the point where the use of economic levers such as profits might become even a modest surrender of control to economic or market forces. The essentials of the economic system as a command system based on centralised planning are unchanged: the market is to be used like a tool, not allowed to function on its own like a thermostat. Enterprises will continue to be rewarded more by the planners' assessment of their performance than by objective mechanisms; the thing that has changed is the criteria which the planners use to assess performance and divide out somewhat greater incentive funds Moves towards some form of market socialism will take place only when there is a sufficient number of economic entities capable of operating such a system. Until the corporation system is developed, and with it a new class of independent-minded industrial managers, liberalisation in Soviet industry is not likely to go very far.⁷⁸

Although there were some signs of corporations emerging from groups of single enterprises in the Leningrad area, these formed as yet only a tiny part of the Soviet system.⁷⁹

Prices were now supposed to rise for higher quality goods, but as even Soviet officials involved in Gosplan's various committees admitted, in many cases 'the higher quality raw materials are just not available'. It was partly for this reason that orthodox Soviet thinkers such as Stanislav Strumilin tended to condemn reformers, for instance Yevsei Libermann, who advocated the maximisation of profits 'as an indicator of efficiency in the economy', and whose ideas were supposedly behind the 1965 Kosygin reform.⁸⁰ As Strumilin saw it, such 'excessive independence' might endanger the interests of the planned economy as a whole – and in particular, as British officials paraphrased him, 'profit so formed would tend to go to the accumulation fund at the expense of consumption'.⁸¹ Soviet economists and officials, whose views were attentively followed by British diplomats, usually upheld just this position: A.V. Bachurin, one of Gosplan's Deputy Chairmen, argued in 1967 that 'under a system of social ownership of means of production there can be no question of using an automatically operating market mechanism and freedom of prices'. The use of prices, profits and bonuses was supposed better to guide planning, Bachurin argued in the journal *World Economic and International Relations*, not to replace it.⁸² All this meant that satisfying Soviet citizens' demands for rising living standards would prove extremely difficult. Embassy officials who attended a conference on 'the rise in the standard of living of the Soviet people', held in 1960, found that speakers who cited statistics to promote the Soviet Union's performance were 'constantly interrupted by cynical remarks from the audience'.⁸³

The Soviet Union's apparent technological prowess was a crucial component of semi-official advice to the British government, most evident at its interface with the world of science and industry. As Britain's Economic Planning Board was told in 1959: '[Russia's] whole emphasis is on science and technology. The numbers are very large. In Britain we are turning out over 13,000 qualified scientists and engineers a year... The Russians are probably producing 100,000'.⁸⁴ The 1963 Robbins Report on Higher Education, which set the scene for decades of university expansion in the UK, agreed that 'in the Soviet Union, the output from scientific and technological courses at all levels, as well as the total output in all subjects from courses of British degree level, is greater than in Britain', due to a greater reliance on part-time courses, an emphasis on vocational subjects, and more women being educated to degree level. About four per cent of the Soviet age cohort was finishing courses of British degree standard; in Britain the figure was only 2.4%.⁸⁵

This became a running theme in British politics during the early 1960s, and a particularly powerful one in the hands of Labour's technocratic leader, Harold Wilson, during the run-up to the

1964 General Election, which Labour would win to end thirteen years in Opposition. One part of his famous 'white heat' speech to the Labour Party's 1963 Conference as Leader of the Opposition ran thus: 'those of us who have studied the formidable Soviet challenge in the education of scientists and technologists, and above all in the ruthless application of scientific techniques in Soviet industry, know that our future lies not in military strength alone but in the efforts, the sacrifices and above all the energies which a free people can mobilise'.⁸⁶ Wilson had long advocated more spending on science and technology for just this reason. During one colourful attack in 1959, Wilson as Shadow Chancellor mocked the whole basis of the Conservatives' apparently affluent society during their years in office since 1951:

I would ask how we are to counter the Soviet challenge industrially, technologically and educationally. Are we really to counter the Soviet industrial developments with an economic system the higher manifestations of which are the takeover bid and a Stock Exchange behaving like a casino run mad? Are we to counter their educational achievements with a system which still creates this artificial educational apartheid at the age of 11? Are we to counter their technological challenge with the frivolities of our so-called Western civilisation? The Soviets have photographed the reverse side of the moon. The summit of Western competitive achievement is an aspiration to photograph the reverse side of Miss Jayne Mansfield.⁸⁷

The 'Sputnik scare' of October 1957 is often seen as encouraging these ideas. The American public did indeed seem shocked, fearful that their military and perhaps even their moral prestige had been badly damaged.⁸⁸ The reappraisal of Britain's position in world affairs following the Suez crisis, already well underway, was hastened by the fear, held by head of the civil service Sir Norman Brook among others, that Sputnik showed the Soviets emerging as a legitimate technological rival.⁸⁹ In 1958, Education Minister Geoffrey Lloyd argued in Cabinet that the need to expand school and university provision had become pressing, 'charged with a new sense of urgency by the impact on opinion of the Sputnik which is seen as the success symbol of a magnificent technology deliberately created by means of an educational policy amazing in scale and speed'. The expansion of Britain's universities, and just as importantly the idea that central government should play a role in planning the content of education, can in part be traced to the Sputnik moment.⁹⁰

There is, however, room for scepticism as to the *long-term* impact in Britain of this undoubted Soviet triumph. The 'Sputnik syndrome' mattered less in the UK than it did in the US, for

the British no longer thought of themselves as quite on the same level with the Americans and Soviets in terms of space technology. While Macmillan wrote privately that the impact in the US 'has been something equivalent to Pearl Harbour', the announcement made no overriding impression in the British newspapers. It led front pages for several days, of course, but popular newspapers such as the *Daily Express* focused on the feat as a scientific marvel – 'the greatest leap forward yet in the conquest of space' – rather than necessarily as a threat. It took three more days for Khrushchev's boast that 'Soviet scientists have overtaken those of America' to make the front page, and even then the tone was rather matter-of-fact – though the Soviets' test of a new hydrogen weapon was noted in ominous connection with the Sputnik launch.⁹¹ Macmillan was much more animated when the Soviets launched Sputnik 2 a month later, containing as it did a stray Moscow dog named Laika. He recorded in his diary that 'the English, with characteristic frivolity, are much more alarmed about the "little dawg" than about the terrifying nature of these new developments in "rocketry"'. Letters poured into No. 10, complaining about Laika's fate; the Canine Defence League held a protest meeting outside the Soviet Embassy.⁹²

The post-war British state's imagination in this respect often dealt in national stereotyping – all the more so, perhaps, because the British were often more interested themselves in giving off a clichéd impression of scientific effort to preserve the impression of great power status rather than preserving its military or diplomatic reality.⁹³ Sir Frank Roberts, who served as British Minister to the Soviet Union between 1945 and 1947, long thought that the Russians, possessing a 'streak of laziness, indiscipline and inefficiency', were nothing like the threat that the Germans had been.⁹⁴ Verity Clarkson's work on the Soviet Industrial Exhibitions held in London during 1961, 1968 and 1979 very well evokes the way in which 'illusory visions of life on the other side of the Iron Curtain' drew on long-standing stereotypes of Russian life – rural, traditional, simple and in those ways virtuous – given the lack of very much in the way of firm experience or information. This undermined in many Britons' minds the modernist 'dreamland' the Kremlin wanted to portray, evoking admiration only for 'traditional' designs with peasant influences. The Foreign Office's official report on the Soviets' 1961 Industrial Exhibition condemned the whole affair as old-fashioned, platitudinous and overly serious, even its 'Hall of the Cosmos' 'spoiled by vulgar presentation and mechanical breakdowns'.⁹⁵

More structural, and for a period it appeared more long-lasting, changes in Soviet economic methods caused much more concern than the mere launch of Sputnik itself. Here Whitehall and Westminster definitely did pay attention to the changing Soviet model. Mounting confidence in

cybernetic techniques – the idea that a unified information network might allow state industries to learn from each other via constantly-replenishing feedback loops – gave centrally planned economies a lustre they had not hitherto enjoyed.⁹⁶ A 1966 Soviet decree on automated management systems sought to match the Kosygin reform's new emphasis on prices and enterprise surpluses on the technical side, via a rapid buildup and networking of the local computer centres already under discussion. This would allow the planning system to understand and reconcile some of the inevitable contradictions that would follow.⁹⁷ There was no doubt that the early to mid-1960s was a period of experimentation. J.A. Dobbs and Julian Bullard from the Moscow Embassy met with N.P. Fedorenko, Director of the Central Institute of Mathematical Economics, in 1966, and found both him and his associates possessing 'a refreshing absence of dogmatism'. Fedorenko assured them that new techniques of algebraic modelling would help the Soviet economy grow: 'he was convinced that the theory of optimal planning would eventually be adopted... optimal planning would cover the main directions of the economy only; the details would be left to the lower levels to work out, to a greater extent than they were now'.⁹⁸

This exchange came at the height of enthusiasm for such methods: three years after the creation of a Central Economic Mathematical Institute of the USSR Academy of Sciences (TSEMI), and only a year after the Lenin Prize was awarded to Leonid Kantorovich and the late Vasily Nemchinov for their work on 'planometrics'. Kantorovich and Nemchinov both attempted to rehabilitate the idea of choice under scarcity and therefore opportunity cost as central parts of the planning process. These methods, innovative at the time, were an attempt to use production coefficients to produce shadow or planning prices that could then be handed down to enterprises as one part of their targets.⁹⁹ This would allow analysis of the best set of policies to meet 'demand', though that was still defined at least to begin with as a series of exogenous political instructions. Such ideas were mathematical, technical and managerial, somewhat more 'top down' than the 'bottom up' emphasis familiar from cybernetics: but Soviet economists seized of this drive towards optimal planning still thought that they could indeed analyse the best set of means towards their ends via data-heavy analyses of counterfactual alternatives.¹⁰⁰

Some British policymakers did think that the Soviet system might be able to plan further economic breakthroughs via the much faster calculation and tabulation that computers offered. One marginal note on a 1964 memorandum concerning a proposed computer network for the sovnarkhozy (which they would buy from Elliott Automation in the UK) ran: 'I wonder if HMG is as computer-minded as the Russians?'¹⁰¹ Many British politicians in fact believed that Soviet

convergence on at least the most basic Western standards of civilian computer technology might be inevitable, given both the Russians' prior knowledge and the spin-offs from their space programme. The British Foreign Secretary, Alec Douglas-Home, rejected American pleas to stop exporting general purpose computers to the USSR in 1961, arguing that 'in this Sputnik age it is difficult to argue that the supply of most types of digital computers designed primarily for commercial uses could endanger our mutual security interests'.¹⁰² Other observers were more enthusiastic. Tony Benn, Labour's Minister of Technology between 1966 and 1970, mused in his diary during 1968 that 'communism is going to score heavily over capitalism with the advent of computers because the Communists got centralised control early but didn't know what to do with it . . . [but] computers now gave them a tool for management'.¹⁰³

But insights gained from both unofficial and official contacts with the Soviets actually highlighted just how far behind they were. Intuition, experience and implicit understandings still dominated the Soviet economy even in 1967, with a linear 'method of balances' used at the centre to work out that which was *feasible* given inputs, rather than what was *optimal* and could be achieved. The Soviet economic system was vast and intricate: the authorities could demand up to 30,000-40,000 items of information from each enterprise in each production unit's *tekhpromfinplan* (or technical-industrial-financial plan). These were then brought together across the sector, often manually, before being passed upwards in plan-making. It was no wonder that some studies estimated that 80-90 per cent of managers' time was spent on routine data processing, which still turned out statistics that were old, inaccurate and badly formatted. Soviet computers were little help, despite ongoing plans for regional computing centres. Soviet computer science emanated almost entirely from the scientific research field, having ignored the business applications to which they had been put in the West: their input-output and data storage capacities were accordingly underdeveloped.¹⁰⁴ The networks imagined by cybernetics enthusiasts such as Viktor Glushkov, director of the Kiev Institute of Cybernetics, were never built. They became the victim of power struggles between the Central Statistical Administration and Gosplan, both insisting that the data be assembled according to their statistical model. 414 management information systems were built between 1966 and 1970, but they were ever connected to one another.¹⁰⁵

British industrialists and civil servants alike understood throughout that Soviet computing power was very limited indeed. A team from ICT Computers visited the USSR in 1968, and there was high-level talk of orders of the need for £15-20m of British computer hardware that could function alongside the Soviets' new R Series – computers that required reverse engineering from the IBM 360, which had debuted as long ago as 1964.¹⁰⁶ The head of Gosplan, Nikolai Baibakov, admitted publicly that 'work on the use of such methods is only in the initial stages and, apart from the need for an increase in the production of modern computers and more trained staff, "complicated and even controversial methodological questions" remain to be solved'.¹⁰⁷ As Nove made clear in the

1968 edition of his *The Soviet Economy*, ‘the limitations of the present programme must also be stressed. Obviously the list of products [covered] will only be a tiny proportion of the full range of commodities, models and types actually in production’. Progress was being made, Nove accepted, particularly under Fedorenko and his team at TSEMI, but it was a small team asked to work out sectoral and monetary balances in a schematic way.¹⁰⁸ Its challenge to approaches that owed more to standard Marxist political philosophy, rather than mathematical economics and ‘economic cybernetics’, tailed off after the Prague Spring’s lesson in the potential consequences of heterodoxy.¹⁰⁹ The enormous rise in complexity involved in the shift to a service-based economy during the 1970s would make even the ambition of a computerised planning breakthrough much harder to sustain.¹¹⁰

Most Western experts always thought that the Soviet system’s growth peaked in the early post-Stalin years, as many of his most damaging policies were unwound: this article has furthermore shown exactly why experts in Whitehall and Westminster were already predicting complex structural problems by the early 1960s. British policymakers were particularly sceptical about the Soviet economy’s potential – and the British Moscow Embassy’s despatches provide ample evidence of just such disillusion – as its macroeconomic performance was undermined by the failures of microeconomic management. What Nove termed the ‘disarray’ of the Western economies did, however, during the 1970s help cover up the relative gap in economic performance. As he wrote in 1977: ‘twenty years ago... it was common to see such phrases as that “the Soviet system is unsuitable and inappropriate for a modern industrial society”. One’s confidence in the validity of the above judgement is affected by a growing feeling that the Western system is not so appropriate either’.¹¹¹ At the same time, most Soviet citizens finally experienced a measure of relative ease and affluence, as the USSR’s oil wealth and lower investment targets permitted large-scale welfare spending and continued increases in consumption despite lagging growth rates, while Khrushchev’s constant and destabilising activism was abandoned.¹¹² A long period of relative equilibrium separated the failure of Khrushchev’s reforms and the realisation of very slow growth in the 1980s: there was no rapid slide downwards from one to the other.

All that said, it was by the late 1970s impossible for to hide some of the Soviet system’s more fundamental failings. All four elements that had raised hopes of better Soviet economic performance had dimmed, though they had not been entirely extinguished. Growth was slowing; capital investment remained far too high if the Soviet economy was to move into a demand-led phase making space for consumption; science, education and new technology had not raised the rate of progress as it had once seemed they might; computerisation had not lived up to the hopes

invested in it. Sir John Killick's final valedictory despatch as Ambassador, sent as he left his Moscow post in 1973, was already very gloomy indeed: 'I think the basic feeling with which I leave is that the Russian Revolution has not yet taken place. For one autocracy has been submitted another, and although the faces of the accompanying aristocracy have changed, their lifestyle and general attitude of unconcern and even contempt for the interests, feelings and concerns of the people often seems very much the same... The serfs, now essentially the property of the Soviet State, continue to toil on much as they always did'.¹¹³ By 1979, as slower growth became increasingly obvious, the Foreign Office was much more withering: 'for a Soviet leadership whose average age is nearly seventy, and whose administration – in domestic matters at least – has been characterized by compromise, temporizing and a short time horizon, it is probably true to say that every year is a "critical" year... if they and the USSR Gosplan have any concept of what the society and the economy of the USSR will look like in ten or twenty years' time, then they have not chosen to share these impressions with their fellow-citizens'.¹¹⁴

This article has demonstrated that this outcome – setting the scene for the tumultuous reforms of the 1980s, and in the end the collapse of the USSR – was an end point that British officials had always thought at least possible. For at least twenty years, US policymakers perceived faster growth than their UK counterparts, worried about the challenge of a direct competitor, and continuously numerically and conceptually surveyed their rival in order to fight a Cold War that Soviet heavy industry and science threatened to equalise. Impressionistic human reports had strangely proved a little more perceptive. Reform had proved more difficult than popular commentators had allowed. Khrushchev's economic 'thaw' had led to chaos. Kosygin, apparently committed to reform, never embraced the idea of continual optimum pricing. Dynamic concepts of demand and supply could not, in the end, be utilised within the Soviet political and economic system; the much-vaunted cybernetic networks of the computerised Soviet future never transpired. In London at least, none of this was entirely unexpected.

A long 1978 despatch to Foreign Secretary David Owen from Sir Robert Wade-Gery, Minister in the Moscow Embassy and later British High Commissioner to India, may perhaps stand as a summation of these conclusions:

Wherever one places the Soviet Union now on the scale from rich to poor, it has the potential to be much richer... if it were to remove the obstacles to the proper exploitation of its natural and human resources... It seems possible that the Soviet leadership see a conflict between power and wealth.

They want the Soviet Union to be powerful, and they will wish to develop the economy at least to the extent required to maintain the international position of the country and, in particular, its parity with the United States in the military field. But the power of the present ruling classes, as opposed to that of the country, would not survive a policy designed to maximise wealth. In a highly class-conscious society like the Soviet Union, that is likely to be the decisive argument. Too many risks to the old-fashioned structure of society would be involved in, for example, opening the door to foreign capital, giving the regions the power of local decision-making... and making the changes required to encourage risk taking and aggressive management... Its leaders may, therefore, not only be suspicious of the means required for faster economic growth, but reluctant to give up what they see as the benefits of scarcity.¹¹⁵

The UK's civil servants, and the Cabinet Ministers they advised, usually stumbled closer to the truth than did the Americans, more by luck than judgement, often informed by mere prejudice, and in part just because they were not interested in competition that they thought existed on a different plane to theirs. But the difference was also one of attitudes and systems. British policymakers relied most on human intelligence from their Moscow Embassy, and then on their own less expansive view of what government itself could achieve, at home or abroad – in the end divining political confusion where Washington thought there might be rationality. In place of a superpower in the shape of which key policymakers in Washington divined a diplomatic and especially military rival, London's imagined Soviet Union remained a space in which economic and social reform as they understood it had proved near-impossible: a testament, if one were needed, of the lasting importance of epistemology, theoretical pre-commitment and conceptualisation in diplomatic life.

¹ On Churchill's relations with President Truman in this respect, see W. Miscamble, *From Roosevelt to Truman: Potsdam, Hiroshima, and the Cold War* (Cambridge, 2007), pp. 153-9, 167.

² C. Keeble, *Britain, the Soviet Union and Russia* (New York, 2000), p. 219.

³ I. Jackson, *The Economic Cold War: America, Britain and East-West Trade* (Basingstoke, 2001), pp. 55-7.

⁴ Keeble, p. 244.

⁵ M.B. Smith, 'Peaceful coexistence at all costs: Cold War exchanges between Britain and the Soviet Union in 1956', *Cold War History*, xxii (2012), 547, and figs. 1-3 on 549-50.

⁶ C. Hull, "'Going to war in buses": the Anglo-American clash over Leyland sales to Cuba, 1963-1964', *Diplomatic History*, xxxiv (2010), 793-822; G. Hughes, *Harold Wilson's Cold War: The Labour Government and East-West Politics, 1964-1970* (Woodbridge, 2015), pp. 38, 46, 124-5.

⁷ R. Renwick, *Fighting with Allies: America and Britain in Peace and War* (Basingstoke, 1996), pp. 239-40; R. Aldous, *Reagan and Thatcher: The Difficult Relationship* (2012), pp. 62-7.

⁸ J. Kent, *British Imperial Strategy and the Origins of the Cold War, 1944-49* (Leicester, 1993), p. 196.

⁹ See e.g. M. Trachtenberg, *A Constructed Peace: The Making of a European Peace Settlement, 1945-63* (Princeton, 1999), p. 263.

¹⁰ W. Miller, *Russians as People* (1960), p. 97.

¹¹ On 'policy making communities' and 'policy networks', see H. Pemberton, *Policy Learning and British Governance in the 1960s* (Basingstoke, 2004), pp. 24-37.

¹² J. Gunther, *Inside Russia Today* (1958 edn.), pp. 387-8, 400, 408.

¹³ C.W. Thayer, *Russia* (London: *Sunday Times* World Library edn., 1961), p. 60.

¹⁴ J. Hessler, *A Social History of Soviet Trade: Trade Policy: Retail Practice and Consumption, 1917-1953* (Princeton, NJ, 2004), pp. 297-310.

¹⁵ W.L. Hixson, *Parting the Curtain: Propaganda, Culture and the Cold War 1945-61* (Basingstoke, 1997), pp. 179-80.

¹⁶ A. Bergson, *Real National Income of Soviet Russia* (Cambridge, Mass., 1961), table 22, p. 128.

¹⁷ D.C. Engerman, *Know Your Enemy: The Rise and Fall of America's Soviet Experts* (Oxford, 2009), pp. 97-9, 108-12.

¹⁸ A. Inkeles and R. Bauer, *The Soviet Citizen: Daily Life in a Totalitarian Society* (Cambridge, Mass., 1959), table 30, p. 122, and comments on pp. 282-91, 381-2, 388.

¹⁹ N. Gilman, *Mandarins of the Future: Modernisation Theory in Cold War America* (Baltimore, Md., 2007 pbk. edn.), p. 95-97.

²⁰ M. Hindus, *House Without a Roof: Russia after Forty-Three Years of Revolution* (1962), p. 203

²¹ M.P. Leffler, *A Preponderance of Power: National Security, The Truman Administration, and the Cold War* (Stanford, Cal., 1992), pp. 133-4, 307-8, 441-2.

²² J.L. Gaddis, *Strategies of Containment: A Critical Appraisal of Postwar American National Security Policy* (Oxford, new edn., 2005), p. 93.

²³ M. Shanks, *The Stagnant Society: A Warning* (Harmondsworth, 1961), e.g. p. 15.

²⁴ M. Miller, *Rise of the Russian Consumer* (1965), pp. 189, 191.

²⁵ A. Nove, *The Soviet Economy: An Introduction* (Rev. edn., 1965), p. 315.

²⁶ S. Rosefielde, *The Russian Economy: From Lenin to Putin* (Oxford, 2007), p. 117.

²⁷ Harold Macmillan diary, 19 Jan. 1958: P. Catterall, *The Macmillan Diaries, Vol. II: Prime Minister and After, 1957-1966* (2011), p. 92.

²⁸ On this see G. O'Hara, "'This is what growth does": British views of the European economies in the prosperous "golden age" of 1951-1973', *Journal of Contemporary History*, xlv (2009), pp. 709-15.

²⁹ M. Djilas, *The New Class: An Analysis of the Soviet System* (1957 edn.), pp. 106-18.

³⁰ W.W. Rostow, *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge, 1962 edn.), esp. pp. 132-3, 159-64.

³¹ D. Crowley and S.E. Reid, 'Pleasures in Socialism?', in *Pleasures in Socialism: Leisure and Luxury in the Eastern Bloc*, ed. Crowley and Reid (Evanston, Ill., 2010), pp. 4, 9, 11, 21. On 'privilege' see e.g. S. Fitzpatrick, *Everyday Stalinism: Ordinary Life in Extraordinary Times: Soviet Russia in the 1930s* (Oxford, 1999), esp. pp. 95-109.

³² S.E. Reid, 'Cold War in the kitchen: gender and the de-Stalinization of consumer taste in the Soviet Union under Khrushchev', *Slavic Review*, lxi (2002), 212, 218-19, 233.

³³ I. Deutscher, *The Great Contest: Russia and the West* (Oxford, 1960), pp. 65, 72.

³⁴ S. Webb and B. Webb, *Soviet Communism: A New Civilisation* (New edn., Longmans, 1941), vol. 1, pp. xxxiv-xxxv.

-
- ³⁴ S. Webb and B. Webb, *Soviet Communism: A New Civilisation* (New edn., Longmans, 1941), e.g. vol. 1, pp. xxxiv-xxxv, vol. 2, pp. 662-71, 693-6; see the popular, shorter version of their views in S. Webb and B. Webb, *The Truth about Soviet Russia* (New edn., 1944), pp. 31-4. B. Jones, *The Russia Complex: The British Labour Party and the USSR* (Manchester, 1977), pp. 14-26; P. Corthorn, 'Labour, the Left, and the Stalinist purges of the late 1930s', *The Historical Journal*, xlviii (2005), 182-3.
- ³⁵ B. Jackson, *Equality and the British Left: A Study in Progressive Political Thought, 1900-64* (Manchester, 2007), p. 103.
- ³⁶ R. Toye, *The Labour Party and the Planned Economy 1931-1951* (Woodbridge, 2003), pp. 35-7.
- ³⁷ N. Khrushchev, *Targets of the Seven-Year Plan for the Soviet Economy 1959-1965* (1958), p. 18; see his comments to Le Figaro in 1958, recorded in N. Khrushchev, *For Victory in Peaceful Competition with Capitalism* (1960), p. 193.
- ³⁸ Novosti Press Agency, *Soviet Economy: Plans, Problems, Prospects* (1967), p. 31.
- ³⁹ Progress Publishers, *Soviet Economy Forges ahead: Ninth Five-Year Plan, 1971-1975* (Moscow, 1973), table 2, p. 18.
- ⁴⁰ See also A. Bergson, 'The Soviet Economy since 1970', in *Prospects for Soviet Economic Growth in the 1970s*, ed. NATO Directorate of Economic Affairs (Brussels, 2nd edn., 1971), p. 7, and D.A. Dyker, *Restructuring the Soviet Economy* (1992), table 2.4, p. 43.
- ⁴¹ For another of those contemporary estimates, see R. Morsteen and R.P. Powell, *The Soviet Capital Stock, 1928-1962* (Homewood, Ill., 1966), table 10-1, p. 309.
- ⁴² P. Hanson, *The Rise and Fall of the Soviet Economy: An Economic History of the USSR 1945-1991* (2014 edn.), table 4.1, p. 109, figs. 9.2-9.3, p. 244 and table 9.3, p. 245
- ⁴³ R.C. Allen, *From Farm to Factory: A Reinterpretation of the Soviet Industrial Revolution* (Princeton, NJ, 2003), table 10.1, p. 190, pp. 191-7, 198-205, 207-11.
- ⁴⁴ Hanson, tables 4.2 and 5.2, pp. 110, 136.
- ⁴⁵ US Congress Joint Economic Committee, fig. 6, p. 18. See Gregory, fig. 10.2, p. 244, fig. 10.3, p. 250, and fig. 10.4, p. 260.
- ⁴⁶ R. Service, *Russia: From Tsarism to the Twenty-First Century* (Harmondsworth, 2009 edn.), p. 347.

-
- ⁴⁷ United Nations Economic Commission for Europe, *Economic Bulletin for Europe*, xi (Geneva, June 1959), table 2, p. 4, p. 3 and pp. 15-16.
- ⁴⁸ W.N. Turpin, 'The outlook for the Soviet consumer', *Problems of Communism*, ix (1960), 31-5; A. Nove, 'Is the Soviet Union a Welfare State?', in *Readings in Russian Civilisation*, ed. T. Riha (Chicago, Ill., 1964), vol. 3, pp. 758-9, 764 (originally published in 1960).
- ⁴⁹ D. Mace and V. Mace, *The Soviet Family* (1964 edn.), pp. 158-63.
- ⁵⁰ D.M. Kemme, 'The chronic shortage model of centrally planned economies', *Soviet Studies*, xli (1989), 356.
- ⁵¹ TNA FCO 28/418, US intelligence memorandum, 'Soviet economic performance in 1966', filed in Apr. 1967, Moscow Embassy report, 'The Soviet economy in 1966', 3 Feb. 1967.
- ⁵² TNA FCO 28/419, Bullard to Jenkins, 26 July 1967.
- ⁵³ TNA T234/666, Home and Overseas Planning Staff memorandum, 'The economic, scientific and social performance of the USSR', Feb. 1959.
- ⁵⁴ P. Rutland, *The Politics of Economic Stagnation in the Soviet Union: The Role of Local Party Organs in Economic Management* (Cambridge, 1993), p. 94.
- ⁵⁵ N. Kibita, *Soviet Economic Management under Khrushchev: The Sovnarkhoz Reform* (2013), pp. 52-3.
- ⁵⁶ Kibita, pp. 36, 39.
- ⁵⁷ TNA FO 371/122862, Chancery to Foreign Office, 3 Feb. 1956, Hutchings to Hibbert, 31 July 1956.
- ⁵⁸ TNA FO 371/177687, Trevelyan to Foreign Office, 24 July 1964, Trevelyan memorandum, 'The Soviet economy in the first half of 1964', 10 Aug. 1964.
- ⁵⁹ Kibita, pp. 56-61, 67-70, 93-6, 110-11.
- ⁶⁰ Rutland, pp. 95-6.
- ⁶¹ TNA FO 371/151963, Chancery to Foreign Office, 5 Sept. 1960, Brimelow to Henderson, 8 Nov. 1960.
- ⁶² A. Nove, *The Soviet Economy: An Introduction* (3rd edn., 1968), pp. 81-3.
- ⁶³ A. Markevich and E. Zhuravskaya, 'M-form hierarchy with poorly-diversified divisions: a case of Khrushchev's reform in Soviet Russia', *Journal of Public Economics*, xcv (2011), tables 1-3, 1553, 1555-56.
- ⁶⁴ TNA FO 371/177687, Trevelyan memorandum, 'Mr Khrushchev and the Soviet consumer', 29 July 1964.
- ⁶⁵ TNA CAB 134/1813, Secretaries' memorandum to the Economic Planning Board, 'The Soviet seven year-plan', 28 Feb. 1959.

⁶⁶ TNA FO 371/177687, Hutchings to Bolland, 10 Apr. 1964.

⁶⁷ A. Nove, *The Soviet Economy: An Introduction* (1961), pp. 288-97.

⁶⁸ P.J.D. Wiles, *The Political Economy of Communism* (Oxford, 1962), pp. 253-9, 249.

⁶⁹ A. Titov, 'The 1961 Party Programme and the Fate of Khrushchev's Reforms', in *Soviet State and Society Under Nikita Khrushchev*, eds. M. Ilic and J. Smith (2009), p. 13.

⁷⁰ TNA CAB 129/106, Douglas-Home memorandum to Cabinet, 'The third programme of the Communist Party of the Soviet Union', 18 Sept. 1961.

⁷¹ R. Satkwa, *Soviet Politics in Perspective* (1989), pp. 57-9; Hanson, p. 103; Rutland, p. 75.

⁷² TNA FO 181/1194, Briefing notes for Foreign Office HM Representatives' meeting, 'Eastern Europe', Apr. 1966.

⁷³ TNA FCO 181/1194, Harrison to Foreign Office, 12 Apr. 1966.

⁷⁴ TNA FCO 28/418, Moscow Embassy to Foreign Office, 18 July 1967, Batten to Clift, 7 June 1967, Dobbs to Sutherland, 4 Apr. 1967, Dobbs to Sutherland, 10 July 1967; see 'Soviet "profit motive" scheme gets off to a good start', *Daily Telegraph*, 12 July 1967. Similar remarks about the lack of materials to spend meet demand from housing and welfare funds can be found at TNA FO 371/188935, Harrison memorandum, 'Economic reform in the Soviet Union', 19 Dec. 1966.

⁷⁵ G. Grossman, 'Price Control, Incentives and Innovation in the Soviet Economy', in *The Socialist Price Mechanism*, ed. A. Abouchar (Durham, NC, 1977), pp. 130-2, 142-7.

⁷⁶ M. Ellman, *Soviet Planning Today: Proposals for an Optimally Functioning Economic System* (Cambridge, 1971), pp. 138-41.

⁷⁷ TNA FO 371/188935, Dobbs to Sutherland, 2 Nov. 1966; Hanson, p. 105.

⁷⁸ TNA FCO 28/419, Harrison to Foreign Office, 5 Feb. 1968.

⁷⁹ TNA FCO 28/419, Dobbs to Giffard, 15 Dec. 1967.

⁸⁰ See e.g. 'Yevsei Liberman's three tiers', *Financial Times*, 24 July 1967. Embassy officials thought 'Stumililn... has been too closely associated with the system of centralised planning to concur now in its dismantling', a quote from TNA FCO 28/420, Hutchings to Orchard and Jenkins, 15 March 1968; for the citation in the text, FO 371/177687, Scott to Youde, 4 June 1964.

⁸¹ TNA FCO 28/419, Bullard to Giffard, 26 Feb. 1968, Dobbs to Giffard, 22 Feb. 1968.

⁸² TNA FCO 28/418, Dobbs to Sutherland, 17 March 1967.

⁸³ TNA FO 371/151963, Chancery to Foreign Office, 7 Dec. 1960.

⁸⁴ TNA T 234/666, Home and Overseas Planning Staff memorandum, 'The economic, scientific and social performance of the USSR', Feb. 1959.

⁸⁵ *Higher Education: Report of the Committee Appointed by the Prime Minister under the Chairmanship of Lord Robbins* (Parl. Papers 1963 [Cmnd. 2154], xi), pp. 43-44 and table 18, p. 44.

⁸⁶ B. Pimlott, *Harold Wilson* (1992), p. 304.

⁸⁷ Hansard, *Parliamentary Debates*, 5th series, dcxii (28 Oct. 1959), col. 264.

⁸⁸ C. Peoples, 'Sputnik and "skill thinking" revisited: technological determinism in American responses to the Soviet missile threat', *Cold War History*, viii (2008), 60-1.

⁸⁹ G. Peden, 'Suez and Britain's decline as a world power', *The Historical Journal*, lv (2012), 1088.

⁹⁰ D. Dean, 'The rise and demise of the Curriculum Study Group, 1962-64', *Contemporary British History*, xi (1997), 37-8.

⁹¹ 'Space age is here', *Daily Express*, 5 Oct. 1957; 'Mr K: the moon and you', *Daily Express*, 8 Oct. 1957; 'Now a "mighty" new H-weapon', *Daily Mirror*, 8 Oct. 1957.

⁹² R. Weight, *Patriots: National Identity in Britain, 1940-2000* (2002), pp. 320-1. See 'No hope for the sky dog', *Daily Mirror*, 5 Nov. 1957

⁹³ W. Kaiser, 'Against Napoleon and Hitler: Background Influences on British Diplomacy', in *British Foreign Policy 1955-64: Contracting Options*, eds. W. Kaiser and G. Staerck (Basingstoke, 2000), pp. 112-3, 118-22.

⁹⁴ Keeble, p. 213.

⁹⁵ V. Clarkson, "'Sputniks and Sideboards": Exhibiting the Soviet "Way of Life" in Cold War Britain', in *A People Passing Rude: British Responses to Russian Culture*, ed. A. Cross (Cambridge, 2012), pp. 286-7, 293, 297. On the general point regarding views of Russia, see the fascinating comments in M. Bassin, 'Inventing Siberia: visions of the Russian east in the early nineteenth century', *The American Historical Review*, xcvi (1991), 763-794.

⁹⁶ S. Gerovitch, 'InterNyet: why the Soviet Union did not build a nationwide computer network', *History and Technology*, xxiv (2008), 336-42.

⁹⁷ M. Cave, *Computers and Economic Planning: The Soviet Experience* (Cambridge, 1980), pp. 6-12.

⁹⁸ TNA FO 371/188935, Dobbs to Sutherland, 10 Nov. 1966.

⁹⁹ P. Sutela, *Economic Thought and Economic Reform in the Soviet Union* (Cambridge, 1991), pp. 58-62, 77-83.

¹⁰⁰ G.R. Feiwel, *The Soviet Quest for Economic Efficiency: Issues, Controversies and Reforms* (New York, 1972 edn.), pp. 185-7, 192-3.

¹⁰¹ TNA FO 371/177687, Marginal note on Gray to Moscow, 1 Apr. 1964.

¹⁰² F. Cain, 'Computers and the Cold War: United States restrictions on the export of computers to the Soviet Union and Communist China', *Journal of Contemporary History*, xl (2005), 138.

¹⁰³ O'Hara, 713.

¹⁰⁴ R.W. Judy, 'Information, Control and Soviet Economic Management', in *Mathematics and Computers in Soviet Economic Planning*, eds. J. Hardt *et al.* (New Haven, Conn., 1967), pp. 12-13, 18-19, 23-5, 41.

¹⁰⁵ Gerovitch, 343-4.

¹⁰⁶ Cain, 141.

¹⁰⁷ TNA FCO 28/420, Murrell to Clift, 2 Oct. 1968.

¹⁰⁸ Nove, *Soviet Economy* (3rd edn.), pp. 229-30.

¹⁰⁹ Ellman, pp. 3-4, 10-13.

¹¹⁰ On the informational point see M. Harrison, 'Command and collapse: the fundamental problem of command in a partially centralized economy', *Comparative Economic Studies*, xlvii (2005), 304.

¹¹¹ A. Nove, *The Soviet Economic System* (1977), pp. 361, 371.

¹¹² E.A. Hewitt, *Reforming the Soviet Economy: Equality Versus Efficiency* (Washington DC, 1988), pp. 39-47.

¹¹³ Killick to Foreign Office, 29 Oct. 1973: cited in M. Parris and A. Bryson, *Parting Shots: The Ambassadors' Letters You Were Never Meant to See* (2010), pp. 153-4.

¹¹⁴ TNA FCO 28/3885, Foreign Office memorandum, 'Soviet economic growth slows', n.d. but filed in 1979.

¹¹⁵ TNA FCO 28/3504, Wade-Gery, Chargé d'Affaires, Moscow Embassy, to Owen, 22 March 1978.