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Article

Accepted Version

Scott, P. M. ORCID: <https://orcid.org/0000-0003-1230-9040>
and Walker, J. T. ORCID: <https://orcid.org/0000-0002-3477-0236> (2019) ‘Stop-go’ policy and the restriction of post-war British house-building. *The Economic History Review*, 72 (2). pp. 716-737. ISSN 1468-0289 doi: 10.1111/ehr.12700
Available at <https://centaur.reading.ac.uk/75496/>

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To link to this article DOI: <http://dx.doi.org/10.1111/ehr.12700>

Publisher: Wiley-Blackwell

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‘Stop-go’ policy and the restriction of post-war British house-building

Peter M. Scott and James T. Walker

International Business and Strategy, Centre for International Business History,

Henley Business School, University of Reading

Abstract From the mid-1950s to the early 1980s the Treasury and Bank of England successfully advocated a policy of restricting both private and public sector house-building, as a key but covert instrument of their wider ‘stop-go’ macroeconomic policy framework. While the intensity of restrictions varied over the economic cycle, private house-building was restricted (through limiting mortgage availability) for almost all this period. This was achieved by keeping building society interest rates low relative to other interest rates and thus starving the building society movement of mortgage funds. Mortgage restriction was never publicly discussed and sometimes operated alongside ambitious housing targets and well-publicised policy initiatives to boost housing demand. This paper outlines the evolution of house-building restriction, together with its impacts on the housing sector and the wider economy. We review the evolution of the policy framework and its consequences, compare the level and stability of British house-building during this period - historically and relative to other countries, and undertake time-series econometric analysis of its impacts on both house-building and house prices. Finally, implications for debates regarding stop-go policy, Britain’s housing problem, and the distributional consequences of government macroeconomic policy are discussed.

Acknowledgements We thank Geoff Meen, Sean O’Connell, and three anonymous referees, together with participants of the 2017 Economic History Society conference, the 2017 Association of Business Historians conference, and the Henley Business School International Business and Strategy seminar series, for comments on this paper. Thanks are also due to the Bank of England Archives, Building Societies Association Library Archives, London Metropolitan Archives, Geoff Meen, and The National Archives, Kew, for access to sources. Any errors are our own.

From the early 1950s to the early 1980s the Treasury and Bank of England successfully advocated policies of ‘stop-go’ aggregate demand management, initially to facilitate the restoration of sterling as a ‘strong’ international currency and re-establish the City as a major financial and trading centre, despite the constraints of large war debts and low currency reserves. The stop-go literature generally focuses on the impacts of restrictions on manufacturing industry, particularly consumer durables, through hire purchase controls, variations in Purchase Tax, and controls on providing loan and equity capital to firms in these sectors.ⁱ However, there was another major strand of stop-go policy to which the Treasury and Bank of England accorded similar importance - the restriction of house-building and house mortgage lending.

Stop-go restrictions on public sector house-building (by reducing the loan sanction for the necessary borrowing and raising the interest rates facing local authorities), are acknowledged in some specialist housing studies.ⁱⁱ However, following the abolition of direct controls on house-building, it is generally assumed that government did not systematically intervene to control private sector house-building. A few studies have noted that low building society interest rates, relative to general interest rates, was a significant factor behind the shortage of mortgage funds (and, in turn, new private house-building) but did not identify this as conscious aim of policy.ⁱⁱⁱ The only exception (to our knowledge) is a study by the civil service economist Alan Holmans, whose discussion of mortgage rationing makes brief reference to, ‘pressures exerted by successive governments to keep increases in mortgage rates to an unavoidable minimum,’ in order to reduce house purchases and, therefore, aggregate demand.^{iv}

This study shows that restricting house-building was viewed by the Treasury and Bank of England as a key instrument of stop-go policy, reducing both consumer expenditure and capital investment (as other forms of construction, such as roads and schools, were closely linked to the volume of new house-building). This policy instrument was not publicly discussed and sometimes operated alongside ambitious housing targets and well-publicised initiatives to boost housing demand. Its implementation for most of the period between the mid-1950s and early 1980s had a number of major cumulative impacts on the British economy, including depressing the long-term rate of capital formation in housing; creating inflationary expectations for house purchasers; impacting negatively on living standards (especially for lower-income families); and damaging the growth, and productivity, of the house-building sector and the building society movement.

We first provide a brief overview of how the Treasury used the building societies' cartel to ensure that mortgage lending was kept below levels anticipated in the absence of intervention. The following sections discuss the evolution of mortgage rationing from the mid-1950s to 1979, together with contemporary qualitative evidence of its impacts. We then provide quantitative comparisons of housing development in Britain over this period, both historically and relative to other West-European countries. This is followed by an econometric analysis of the impacts of stop-go on levels of private sector house-building and house prices. The paper concludes by examining the implications of our findings for debates regarding stop-go policy, Britain's housing problem, and the distributional consequences of government macroeconomic policy.

I

Building societies dominated Britain's house mortgage market. Even in 1973 (when building society lending was restricted, while other lenders, particularly the banks,

substantially expanded their housing loans), building societies had gross advances of £3,540 million, compared to £319 million by the banks; £293 million by local authorities; and £259 million by insurance companies. Moreover, most other lenders did not compete with the building societies' basic mortgage business, instead focusing on bridging loans, 'loans to staff', topping-up loans, or (in the case of local authorities) loans to customers who were not considered good building society risks.^v

In July 1951 the Building Societies Association [hereafter BSA] Council adopted a policy of recommended interest rates on mortgages and savings.^{vi} These were not binding, though members undertook to give the BSA 28 days' notice of intention to depart from its recommendations.^{vii} The Treasury used the recommended rates system – effectively a building society cartel - to control mortgage lending by ensuring that building society savings rates were sufficiently low that they were obliged to ration mortgages in order to maintain liquidity. This raised opposition within the movement, partly because of its negative impacts on competition and growth.^{viii} However, BSA officials pointed to the threat of statutory restriction of lending rates if the current voluntary system was abandoned. Meanwhile the Treasury and Bank of England blocked various attempts to prohibit the BSA cartel on competition policy grounds (including the National Board of Prices and Incomes in 1967, the 1973 extension of the Restrictive Trade Practices Act to services, and a 1978 initiative by the Chief Registrar of Friendly Societies), as it provided a practical means to control building society mortgage lending in line with macroeconomic objectives.^{ix}

Building societies regarded stability in their rates structure as an important objective in its own right, as they viewed mortgages as long-term contracts involving an implicit obligation to submit lenders to minimal rate disturbance.^x Raising market interest rates was often thus sufficient to intensify mortgage rationing, given the 'stickiness' of building society rates. However, this was not always the case – especially when the movement perceived its reserves

to be under pressure. The Treasury then used a combination of informal pressure and, less frequently, formal requests, to set mortgage rates, and rationing, at its desired level.^{xi} The Treasury particularly valued this instrument of stop-go policy owing to its effectiveness and ‘invisibility’. As a 1973 Bank of England memorandum noted, BSA ‘reactions to official monetary policy were sufficiently indirect for them not to be seen by the ordinary observer as the desired effect of Government [interest rate] policy.’ A later annotation replaced ‘desired effect’ with ‘principal objective’.^{xii}

This policy was invisible to public scrutiny. A 1957 Treasury memorandum noted that there had been no announcement of the termination of the government’s 300,000 new houses per year target on which it was first elected.^{xiii} Some twenty years later the National Economic Development Office report, *Housing for All*, omitted any mention of government private housing restriction in its extensive historical review of housing policy, despite significant discussion of credit availability, interest rates, and building society lending policy as constraints on owner-occupation.^{xiv}

II

Britain emerged from the Second World War with a housing stock that had seen no significant additions for six years and had lost some 475,000 homes due to bombing (plus a much greater number temporarily damaged).^{xv} During the immediate post-war period severe physical shortages and competition from higher-priority construction projects limited the scope for new house-building. However, these had eased somewhat by the end of Labour’s time in office and while 913,604 permanent dwellings had been completed in Britain from the end of the War to June 1951, there were 214,099 under construction.^{xvi}

Britain also emerged from the War with considerable debts and low currency reserves. An influential coalition of Bank of England and Treasury officials (including Cameron

Cobbold, Deputy Governor of the Bank of England from 1945-49 and Governor from 1949-61) advocated an economic policy based around restoring sterling's credibility – through savage deflation. John Maynard Keynes criticised this group for prioritising international 'obligations' over the war-time commitment to build a fairer society – repeating the 1920s gold standard episode – though his direct influence was ended with his untimely death in April 1946.^{xvii} However during the immediate post-war period the 'sterling first' policy was seen as flying in the face of political realities by both the Labour and Conservative parties; as was dramatically confirmed by Labour's landslide 1945 election victory.

By the early 1950s the potential for an economic strategy based around domestic reconstruction had increased, owing to the economic recovery of Europe, which made Keynes's proposal for an external policy based on bilateral trade and payments arrangements, together with the blocking, or funding, of overseas sterling balances, more practicable. Indeed policies aimed at insulating the domestic economy, by tightening import controls on dollar goods and stimulating trade between non-dollar countries, were still under serious discussion in early 1952.^{xviii} Such measures would have provided much greater scope for domestic reconstruction and enabled Britain to reduce the effective burden of its overseas debt through economic growth. However, this would come at the cost of long delays in re-establishing sterling convertibility and the City's status as an international financial centre.

The Conservatives' October 1951 election victory saw a shift towards policies aimed at hastening sterling convertibility and an early resumption of the City's role as an international financial centre, which required greater openness to capital inflows and outflows that would increase Britain's vulnerability to sterling crises (which, in turn, acted as a brake on the pace of liberalisation).^{xix} Thus, despite only having balance of payments deficits in two of the following ten years, policy-makers found it necessary to institute periodic 'squeezes' in aggregate demand to main confidence in sterling, mainly through reducing capital investment

and household consumption.^{xx} The Bank of England and Treasury were sufficiently confident of their ability to cope with any pressure on sterling by domestic deflation that controls on the transferability of external sterling holdings were substantially liberalised in March 1954, paving the way for de facto current account convertibility from February 1955.^{xxi} The early abolition of import controls further increased sterling's vulnerability, by deteriorating the balance of trade.^{xxii}

The Conservatives had pledged to increase national house-building to 300,000 homes per year.^{xxiii} The Treasury strongly opposed the 300,000 housing target, though Harold Macmillan - a more powerful and effective Minister of Housing and Local Government than his successors – successfully frustrated Treasury efforts to abandon this key election pledge.^{xxiv} The 300,000 target was achieved in 1953 and building peaked in 1954 at 340,000 completions. However in October 1954 Macmillan was replaced by Duncan Sandys – the first of a string of less powerful housing ministers. Despite Sandys' best efforts, he was unable to prevent the Treasury targeting housing as a key instrument of stop-go during the 1955-57 credit squeeze, which heralded what proved to be the start of a more or less continuous period of restriction (to varying degrees), until the early 1980s. Holmans identifies late 1967, late 1971 to early 1972, and possibly late 1977 as the only intervals when mortgage rationing was insignificant.^{xxv} Meanwhile local authority house-building was controlled by restricting loan sanction for the necessary funds, and raising the interest rates facing local authorities (the Public Works Loan Board rate at which they borrowed was increased from 3.75 per cent in 1954 to 5.0 per cent by the end of 1955, while from October 1955 local authorities were encouraged to borrow in the market where practicable, which incurred higher interest rates).^{xxvi}

The Treasury saw new house building (both private and public sector), as a key instrument of stop-go policy; indeed Otto Clarke later recalled that the Treasury regretted the

abolition of building licenses and would have reimposed them in 1956 and 1957 if this had not required new legislation.^{xxvii} Their rationale is illustrated by a dispute with the Ministry of Housing and Local Government [hereafter MHLG] in July 1955 – when the credit squeeze was being further tightened. Clarke had called the Chancellor’s attention to a ‘misleading statement’ in the Cabinet minutes that the output of council houses should not fall below 200,000 (contrary to what he claimed was an agreement with MHLG that British 1955 council housing authorisations should not exceed 180,000). The Treasury’s intent was to reduce total housing output to far below 300,000 by 1957, through restricting annual council housing building to 130,000 houses and relying on mortgage credit restriction to depress private house-building.^{xxviii} Clark concluded: ‘And how right, for every 10,000 houses is £20 million... This is the one place in the economy which we can get the elbow room to save us in 1956 and 1957...’^{xxix}

The Cabinet Secretary stated that the minutes were an accurate reflection of the Prime Minister’s statement that, on political grounds, he was unwilling to let total house completions fall below 300,000 per year and that local authority completions should not fall below 200,000 (which he believed to be the highest level achieved under Labour). There was, therefore, no question of ‘correcting’ the Cabinet record. However, he added that the issue could be re-opened in forthcoming Cabinet discussions.^{xxx} Subsequent checking showed that the Prime Minister’s figure referred to total house-building, which gave the Treasury ammunition to argue for a lower target, in line with Labour’s maximum.^{xxxi} The Treasury argued that:

The best place for a big disinflationary blow on capital investment is housing... A cut in housing investment gives rise immediately to economies in other local authorities’ investment – schools, roads, water and sewerage etc... Most of the growth in local authorities’ investment in recent years is related to the growth of housing (private housing just as much as council housing).^{xxxii}

The Treasury also successfully lobbied for the discontinuation of a formal target for private sector house building, using the rather disingenuous argument that, ‘The government cannot guarantee a total figure. All it can say is that its programme of Council housing is X, plus whatever private housing will do.’^{xxxiii} Abolishing any private sector housing target enabled them to intensify restrictions on private house building, as the absence of formal targets negated the need for Cabinet approval. Yet the Treasury continued to maintain its own unpublished target, pressing for a reduction in private housing completions to 100,000 in England and Wales (or 125,000 in Great Britain).^{xxxiv} Treasury policy proved effective. As the BSA chairman informed the Bank of England in September 1958, while building societies had just managed to hold their rates during the 7 per cent Bank rate era (September 1957 to March 1958), they could have lent twice as much at their mortgage interest rate than they actually did.^{xxxv}

Government also introduced another initiative with potentially more damaging long-term impacts on house-building – severe restrictions on ‘overspill’ developments beyond urban boundaries. During the 1930s such developments accounted for a considerable proportion of new housing, reducing the potential inflationary impacts of the housing boom by using cheap and plentiful agricultural land. Despite the introduction of planning legislation in the 1940s, only one green belt had been formally proposed before 1952, for London. However, the Conservatives markedly tightened controls on green-field housing development through three main measures: directions to planning authorities to create provincial green belts; Ministerial refusals to approve urban boundary extensions, and an informal suspension of the New Towns programme in England and Wales. This policy partly reflected party political concerns – to prevent large-scale population movements into constituencies which were typically ‘Conservative seats, and usually marginal’.^{xxxvi} However, it was also justified

in terms of preventing green field developments that would require roads, sewers, and other expensive infrastructural investment.

Building firms were also targeted by controls on raising capital. For example, by the middle of 1955 they were said to experience difficulties even in obtaining marginal or temporary finance.^{xxxvii} This was a particular problem for private sector house-builders, which were almost entirely small or medium family firms, highly reliant on the banks for working capital.^{xxxviii} This was a deliberate Treasury strategy; as a May 1956 note to the Chancellor stated, ‘Broadly, control of the money supply should work to prevent industries and people from getting the money to build. This assumes that the banks won’t lend the money to builders or people wanting to build. In so far as people who want to build have to borrow other than from banks, they ought to be caught either by the C.I.C. or by the new issue market, or by the refusal of the Central Exchequer to lend.’^{xxxix}

The long-term consequences of depressing house-building were rarely discussed. The MHLG was ill-equipped to mount an economic defence of house-building; it operated on a shoe-string and employed no housing economists until the late 1960s.^{xl} Meanwhile the Treasury and Bank of England undertook no significant analysis of the long-term consequences of their policy. One rare, brief, Treasury discussion proposed that part of the growth in household numbers over the next twenty years might be met by the more economic use of the existing housing stock – implying declining living standards in terms of housing space and quality.^{xli}

III

The Treasury’s success in restricting house-building was largely dependent on the invisible nature of indirect mortgage lending controls and the fact that, following the abolition of any formal target for private sector housing, it could further squeeze this sector without reference

to Cabinet. Housing policy continued to enjoy great political priority, which posed a potential threat to Treasury policy, especially given the championing of house-building by Harold Macmillan (as Prime Minister). In April 1958 Macmillan warned the Cabinet of the political attractions of Labour's pledge for 100 per cent mortgages and asked for similar proposals.^{xlii} This led to a perverse situation where the state was simultaneously spending substantial sums on highly-publicised policies to increase demand for private housing and covertly restricting the supply of new houses through mortgage rationing.

Macmillan's personal intervention resulted in the 1959 House Purchase and Housing Act. Approved building societies were given access to Exchequer loans at 0.5 per cent below the current building society mortgage rate, to enable them to provide mortgages for pre-1919 houses, of a value up to £2,500 (£3,000 in certain London districts) sold for owner-occupation. In return, building societies were required to advance up to 95 per cent of the purchase price and use the capital freed up by the scheme to provide 95 per cent mortgages for inter-war houses in this price band, to borrowers who could provide collateral security (such as an insurance policy) to cover the margin between the maximum standard building society loan to value ratio for pre-1940 houses (typically 75 per cent) and the new 95 per cent ratio.^{xliii}

The Treasury acquiesced as it did not believe the legislation would have any great impact. William Armstrong (Third Secretary to the Treasury) was reported to doubt, 'whether this scheme would result in a great deal of business. He calculated that a 95% mortgage on £2,500 would require monthly repayments of about £17:10:- which he would have thought, generally speaking, to be well above the present controlled rent of such premises. Few sitting tenants might therefore feel encouraged to purchase and only a small number of such houses are likely to be sold with vacant possession in the open market.'^{xliv} The scheme in fact proved very popular and by July 1961 (when it was terminated as part of a new 'stop' policy phase), £93 million of the £100 million originally committed had been allocated.^{xlv}

These ‘July measures’ also involved tightening restrictions on both private and public sector house-building.^{xlvi} This contributed to a growing housing shortage, particularly for new houses. In 1963 almost a quarter of British families were living in properties more than 80 years old and almost half lived in houses built before 1919. As *The Economist* noted, ‘We are living in a remarkable society where the proportion of British households with television sets (around 80 per cent) is higher than the proportion with such elementary facilities as hot water, a lavatory and a fixed bath’.^{xlvi} The article also noted the damaging impact of high interest rates on mortgage lending, though it made no suggestion that restricting house-building was a deliberate aim of government policy.^{xlvi}

Over the first five months of 1962 only 77,000 private houses were started in England and Wales, while the ‘stop’ measures were said to have significantly weakened the house-building sector.^{xlvi} With an eye to the next election, government instigated a new house-building drive and, in May 1963, not only re-affirmed the 300,000 housing target but actually raised it, to 350,000 – a figure that was further increased to 400,000 by the election.¹ This involved measures to stimulate housing demand (despite the fact that the Treasury and Bank of England persisted in their policy of restricting supply). Owner-occupiers were already permitted to avoid tax on that part of their income used for mortgage instalments. From 1963 they were also freed from paying Schedule A income tax on the stream of services flowing from their investment in house property. Largely as a result, tax reliefs rose from £75 million in 1962-3 to £180 million by 1967-8 - dwarfing Exchequer subsidies to public sector housing, of only £94 million. By 1970/71, when the new Tory government launched its crusade against subsidised public housing, tax reliefs to owner-occupiers had reached almost £300 million.^{li} Thus government policy acted to greatly increase the financial incentives for home-ownership, while simultaneously restricting access – a dangerous cocktail which contributed to the property price spike when restrictions were relaxed in the early 1970s.

The early 1960s witnessed growing public concern regarding homelessness and the activities of predatory and sometimes criminal private landlords ('Rachmanism'). In 1965 there was still an absolute housing shortage of around 670,000 dwellings, while over the next ten years the number of households was expected to increase by around 150,000 per annum. There was also a perceived need to replace many older dwellings (including slum clearance).^{lii} Housing was a major, arguably decisive, issue in the 1964 General Election.^{liii} The new Labour government pledged to raise house-building to 500,000 a year by 1970.^{liv} Proposed measures included a lower interest rate for housing – both for prospective owner-occupiers and social housing providers (local authorities and housing associations); 100 per cent local authority mortgages; and support for the building societies, if necessary, to prevent heavy withdrawals of funds from reducing mortgage lending to below planned levels.^{lv}

However, expansionary policy was short-lived. Evidence suggests that sterling was already over-valued by the beginning of the 1960s and was believed by some authorities to be in 'fundamental disequilibrium' at the time of Labour's election victory. The new government's decision not to devalue (on Treasury advice) effectively killed off any real prospect of it achieving its housing target.^{lvi} The November 1964 Bank Rate rise and the credit squeeze that followed led to a tightening of building society finance, with mortgage interest rates rising to 6.75 per cent. They were prevented from rising further by Treasury pressure; the Chancellor, James Callaghan, informed the BSA that, 'Government would view with deep concern any move by the building societies to increase the rate of interest payable on mortgages.'^{lvii} The Minister of Housing also promised that local authority mortgages would be restricted to match building society loan rationing.^{lviii} Meanwhile housing developers faced both higher interest rates and requests to the banks to restrict lending on 'speculative property development' – including house-building.^{lix}

By the end of 1967 the Labour government had formally abandoned its 500,000 houses target and the following years witnessed a further tightening of policy.^{lx} The building industry complained about the increasing difficulty of securing bank loans, especially for private house-builders.^{lxi} Public sector housing was also increasingly squeezed; in a December 1968 Commons statement the Prime Minister announced that the current review of public expenditure would cover all sectors of the economy, including housing.^{lxii}

IV

In June 1970 a new Conservative government was elected, with a more free-market approach to housing, including extending home-ownership to lower-income groups; encouraging the sale of council houses; and a more vigorous private sector building programme (with building societies requested to prioritise new over ‘second-hand’ houses for mortgages).^{lxiii} This was facilitated by a growing view among Treasury and Bank of England officials by the end of the 1960s that the City’s success as an international financial centre was not necessarily dependent on the strength of sterling, given developments such as the growth of London’s euro-dollar market.^{lxiv} However (in contrast to the 1980s’ housing boom) house mortgage lending remained dominated by mutual building societies, who were still subject to their traditional prudential lending constraints of being limited by their deposits and reserves and – unlike the banks – were unable to create credit.^{lxv}

The relaxation of mortgage rationing, in the context of broader financial deregulation, under the government’s new ‘Competition and Credit Control’ framework, triggered an unprecedented surge in building starts. The number of new mortgage loans in the second half of 1971 and the first half of 1972 was 44 per cent higher than in the second half of 1969 and the first half of 1970, and the boom continued until the second half of 1973.^{lxvi} The volume of money flowing into the housing sector overwhelmed the capacity of Britain’s depleted house-

building industry to extend output and fuelled house-price inflation. To speed up private house-building, the Minister of Local Government and Development, Graham Page, let it be known in April 1972 that planning appeals regarding any areas of the south-east scheduled for growth would be looked on favourably by Whitehall. However, *The Economist* noted that the underlying problem driving up building land prices was not land shortages, but the huge inflows of money into housing following government measures to ease the money supply. Meanwhile institutional investors were also moving their money into land speculation, further driving up prices and restricting supply to builders.^{lxvii}

The ratio of average initial mortgage payments to gross incomes for first-time house-buyers rose sharply from around 20 per cent during 1970-72 to 24.0 per cent in 1973 and 25.0 per cent in 1974.^{lxviii} This formed part of a more general inflationary boom that also encompassed lending to commercial and residential property developers, often by the less regulated ‘secondary banks’.^{lxix} In the second half of 1973 market interest rates rose and building societies were unable to respond with sufficient rate increases to maintain deposit inflows – partly owing to political pressure not to further raise mortgage rates beyond the 11 per cent rate introduced in October.^{lxx}

These problems contributed to a major secondary banking crisis from autumn 1973 to early 1975, which risked contagion throughout the financial system – averted via the Bank of England ‘lifeboat operation’. This was accompanied by a major stock market slump, sharp rises in interest rates, and a collapse in land values. Housebuilders found themselves without financial support from their banks, a bleak market for new equity issues, and declining valuations for their land banks.^{lxxi} Housing starts during 1974 were half those of the previous year and housing completions never fully recovered during the rest of the decade.^{lxxii}

Many house-builders were faced with a glut of completed or near-completed larger homes, for which demand had melted away.^{lxxiii} A wave of house-builder failures began in September 1974, when the mixed construction and housing firm Budge brothers went into liquidation. Then Bovis, Britain's fourth-largest housebuilder, crashed, shaking confidence in the sector (despite a rescue by P&O that allowed it to continue trading). During 1975 house-builder liquidations accelerated, including Northern Developments (Britain's second largest house-builder), while the wave of failures continued through 1976 and into 1977. Other firms disappeared through acquisition or made a quiet retreat from the sector. This contrasts sharply with the previous history of the speculative housing sector, where the collapse of major firms had been rare.^{lxxiv}

A May 1975 Bank of England analysis noted that building society interest rate restriction had destabilised the housing market, constituting a major factor behind the crash.^{lxxv} The Bank of England was exploring ways to achieve house-building 'stabilisation'.^{lxxvi} However, the Bank viewed 'stabilisation' primarily from a macroeconomic, rather than a housing market, perspective. As a Bank report noted, restricting private sector house-building was an effective – if inefficient – macroeconomic lever: 'housing expenditure is one of the areas where monetary policy can have a clear and significant impact.'^{lxxvii} Yet it also found that the decrease in private sector investment in dwellings during 1974, equivalent 0.5 per cent of GDP, induced a fall in aggregate demand that could have been achieved by a mere 1.5 per cent rise in all direct tax rates.^{lxxviii}

From 1975 a Joint Advisory Group [JAG], comprised of government and BSA representatives, sought to develop a system whereby building society gross mortgage approvals would be adjusted to ensure stability: the 'guideline system'.^{lxxix} During its first years conflicts between the building societies' understanding of the objectives of 'stabilisation' – ensuring a high and stable flow of mortgage funds to support the housing market without causing

significant house-price inflation – did not clash with the Treasury and Bank of England’s wish to use the system to support general macroeconomic stabilisation. The housing market remained depressed, banks wished to reduce, rather than increase, their commitments to house-builders, and a hang-over of unsold properties from the last boom prevented significant house price inflation. The Secretary of State for the Environment, Anthony Crosland, had sought to introduce measures to restore confidence in the housing market. However, he faced Treasury opposition, both on cost grounds and potential conflicts with macroeconomic policy objectives.^{lxxx} As the Chancellor, Dennis Healey, informed Crosland, ‘it will be necessary to pay particular attention to the inevitable limitation on available resources for all forms of domestic consumption over the next few years; and I would hope that, for example, we would studiously avoid getting publicly committed to a view on the tolerable size of the overall level of house building.’^{lxxxi}

The economic crisis of 1976 further reduced the Labour government’s room for manoeuvre in supporting the housing market and added weight to Treasury and Bank of England arguments in favour of repressive policy.^{lxxxii} The guideline system does not appear to have substantially altered the basic policy of Treasury restraint of private house-building. For example, a 1979 Department of the Environment report found that at prevailing interest rates building societies had long faced ‘a more or less permanent mortgage queue’.^{lxxxiii}

V

A January 1974 Bank of England memorandum argued that house-building finance had three components – an essential cycle (present in the absence of official intervention), an exaggerated cycle (reflecting stop-go policy), and a structural deficit – caused by mortgage lending being constrained by Treasury restrictions to some extent at all points in the cycle.^{lxxxiv} A further, May 1975, Bank analysis found that fluctuations in public and private house-building

moved pro-cyclically with each other, accentuating the overall impact of housing construction volatility.^{lxxxv} This led to considerable wasting of building resources, including labour (which was often subject to unemployment, not absorbed elsewhere in the economy); a higher risk premium demanded by house-builders and their suppliers, rising house prices; and lower productivity and technical progress.

Moreover, the paper hypothesised that stop-go policy contributed to house price inflation (a result consistent with Holmans' observation that all instances of accelerating house prices during the mortgage rationing era were either accompanied with, or preceded by, a rise in building society lending).^{lxxxvi} During cyclical upswings house prices tended to rise rapidly, while in downswings they rarely fell in money terms. In a market where buyers' knowledge was highly imperfect and supply was geographically fragmented, the new price levels established in upswings could be regarded as self-validating by their effect on expectations - with housing becoming a hedge against inflation.^{lxxxvii} Subsequent studies have also emphasised the key role of inflationary expectations, on the part of house-buyers and/or building land owners.^{lxxxviii}

High house-price inflation during 'go' phases of the policy cycle reflected the house-building sector's inability to respond rapidly to sudden increases in mortgage lending. With the exception of Wimpey, the big construction firms focused on commercial property or public sector contracting, regarding speculative house-building as, 'the bottom end of the market'.^{lxxxix} Furthermore, it was problematic for firms in other sectors of construction to rapidly switch into house-building during 'go' phases of the cycle, owing to their lack of key assets – particularly land banks. Michael Ball found that the time taken to switch into housing was longer than the amplitude of housing cycles.^{xc} Meanwhile the small and medium firms which accounted for most activity in this sector had limited resources and could not afford to carry land banks much larger than were required for typical business conditions. Therefore, when restrictions were

relaxed, as in the early 1970s, output proved ‘sticky’ and much of the additional mortgage funding translated into house price inflation.

A number of studies have noted asymmetries in the impacts of *general* stop-go policy on the housing market – with credit squeezes having a rapid negative impact, but relaxation of restrictions taking much longer to reverse the lost building output. A 1962 industry report noted that stop phases of the cycle forced small building firms out of the market; led to the loss of scarce skilled building labour; discouraged building firms and building materials suppliers from expanding capacity; and made long-term planning and the use of forward planning techniques impractical.^{xcⁱ} A 1974 industry-based report emphasised the problems of expanding depressed capacity to meet increased demand during ‘go’ phases. The building materials sector was unwilling to expand to meet demand peaks, given that much of the new capacity would lie idle during the next ‘stop’ phase, while the high weight to value ratio of most building materials reduced the scope for imports.^{xcⁱⁱ} Such arguments would also apply to key building trades such as bricklayers – who, having been forced to find other work during housing slumps, might not return to the sector. Holmans argued that builders’ inability to respond to demand peaks in the 1970s is consistent with learning effects from previous cycles that upturns would be short-lived – which he views as the main explanation for the house price spikes that accompanied the mortgage relaxations of the early and late 1970s.^{xcⁱⁱⁱ}

Comparisons of Britain’s house-building record over time, and internationally, corroborates these findings. Figure 1 compares British post-war and inter-war house-building (with starting dates of 1954 and 1924 respectively, to exclude the periods of initial adjustment after the two world wars). We show three measures of activity: capital formation in dwellings as a proportion of gross domestic fixed capital formation [hereafter GDFCF]; and house completions, for private sector, and for all, dwellings, per thousand households. Inter-war private sector housing completions are substantially higher than post-war

completions, as was the contribution of dwellings to GDFCF. Total housing completions are also markedly below the levels of the mid and late 1930s, but the difference is less – perhaps reflecting the fact that, unlike private house-building, government restriction of local authority housing was not ‘invisible’ to public scrutiny. When deductions from the housing stock are added, the difference between the two periods is even greater, as 475,000 houses were destroyed by war-time bomb damage and over 1945-68 (almost entirely after 1954) some 900,000 ‘slum dwellings’ were demolished in England and Wales, compared to only around 17,000 from 1919-30 and 272,836 from 1930-39.^{xciv} However, the graph does not show any huge volatility in the post-war data, with dwellings generally accounting for between 16-20 percent of GDFCF after 1955. This is consistent with the evidence of learning effects among house-builders, who reacted to frequent restrictions on mortgage finance and the availability of capital by maintaining outputs that would not leave them over-stretched during down-turns.

[FIGURE 1 NEAR HERE]

We also compare Britain’s post-war housing record with nine other West European countries, in Table 1. This is based on a United Nations data source, which has the advantage of using common statistical definitions and thus avoids problems associated with the treatment of the value of land before improvement and alterations to existing buildings. Britain is shown to be a negative outlier in terms of its ratio of gross fixed capital formation in dwellings to GNP/GDP, with the lowest (for 1955-59, equal lowest) ratio in each of the five sub-periods examined. Yet its coefficient of variation for this measure is not exceptional compared to these other countries. British ratios were also substantially lower than those for the USA, Canada Australia, and New Zealand.^{xcv}

On the basis of this evidence of asymmetric impacts of stop and go phases of policy, we hypothesise that while a tightening of restrictions on building society mortgage lending will produce a fall in housing starts, a relaxation of the same magnitude will produce a substantially smaller increase in housing starts, but will boost house-price inflation. The archival and quantitative evidence (in Figure 1 and Table 1) also suggests that lending was typically restricted, to some extent, across the cycle.

[TABLE 1 NEAR HERE]

To interrogate the issue further we compile a set of quarterly time series data covering 1955 (the first year after the end of building controls) to 1979 (thus excluding the substantive shift in both housing and general macroeconomic policy during the Thatcher government). Drawing on recent work examining ‘stop-go’ policies in consumer durables, we utilise times series methods to examine the impact of policy.^{xcvi} However, we utilise a different modelling procedure, employing a three-staged least squares estimator to capture the endogenous relationship between housing supply (*HS*) and house prices (*HP*).^{xcvii} We therefore jointly estimate a system of two equations, but include a series of lags in order to ensure stationarity in the data.

The housing starts equation estimates the determinants of current period housing starts, HS_t . Private sector housing starts are modelled as being determined by prior household construction (HS_{t-1} and HS_{t-2}); the average price of a housing in the previous period (HP_{t-1}); lagged real income (measured by quarterly consumer incomes in current market prices) y_{t-1} and y_{t-2} ; the variable mortgage interest rate (r_t); housing costs in downswings and upswings in the previous quarter ($Costs_{t-1}$), constructed as the weighted average of building employment costs (two thirds) and input costs (one third); and credit rationing, the key variable of interest, that is proxied by the ratio of the BSA mortgage interest rate to the Bank rate, with

a four period lag to capture the build-up of liquidity restraints MBR_{t-4} . Given the literature highlights asymmetry in the impact of the policy in upswings, compared to downswings, we split into two variables - for periods where rationing is tightened, or relaxed. We included year dummy variables to capture annual trends, quarterly dummy variables to capture seasonal effects, political dummies to capture which political party was in power and the error term e_t

$$\begin{aligned}
HS_t = & \beta_0 + \beta_1 MBR(tightening)_{t-4} + \beta_2 MBR(relaxing)_{t-4} + \\
& \beta_3 Cost(downswing)_{t-1} + \beta_4 Costs(upswing)_{t-1} + \beta_5 HP_{t-1} + \beta_6 r_t + \beta_7 HS_{pub_t} + \\
& \beta_8 HS_{t-1} + \beta_9 HS_{t-2} + \sum_{i=1}^G Govt + \sum_{i=1}^Q Qt + Year + \varepsilon_t \quad (1)
\end{aligned}$$

The second equation captures house prices (HP_t) that are driven by the average price of a new housing in the previous period (HP_{t-1}), housing completions in the previous period (HC_{t-1}), and the variable mortgage interest rate (r_t). We have included a set of series relating to demographic and economic factors for wages and wage growth, net migration, and the unemployment rate. With regard to property taxes and mortgage interest tax relief, we have added three new series. The first shows the stamp duty payable on an average new house, based on HM Revenue and Customs, *Annual Stamp Tax Statistics 2016-17*, ASTP-Release-Bulletin-Sept17.pdf, Table R1. The second is a dummy variable, which we term *Tax*, to account for the abolition of Schedule A taxation on owner-occupied housing from the 1963/64 tax year. A dummy variable is appropriate, given that there was no property revaluation under the Schedule between the Second World War and its abolition. We have also added a variable to show the change in mortgage interest tax relief from the 1974/5 tax year. Previously all mortgage interest had qualified for tax relief, while from 1974/5 relief was limited to the interest on £25,000, which remained unchanged until this was increased to £30,000 from the 1983/84 tax year.^{xcviii}

Hence,

$$HP_t = \beta_0 + \beta_1 MBR_{t-4} + \beta_2 MBR_{t-6} + \beta_4 r_{t-1} + \beta_5 HS_{t-1} + \beta_6 y_{t-1} + \beta_7 y_{t-2} + \beta_7 Stamp\ Duty + \beta_7 Abolishing\ Tax + \beta_7 Mortgage\ Relief + \sum_{i=1}^Q Qt + Year_t + \varepsilon_t \quad (2)$$

The findings are presented in Table 2. The augmented Dickey-Fuller test suggest that stationarity and the model fit is high, in line with previous studies.^{xcix} The central finding, reinforcing the archival and descriptive evidence, is that asymmetric impacts occur during the ‘stop’ and ‘go’ phases of policy influencing housing starts, which then feed into house prices.^c The positive sign indicates that a tightening of restrictions on building society mortgage lending will produce a fall in housing starts, while a relaxation of the same magnitude does not have a statistically well-defined impact on housing starts. The findings also suggest that there is asymmetry on the cost side, with reductions in costs leading to expansion in housing starts during downturns, but these fail to have a well determined impact during upturns, implying that capacity constraints were biting. Housing starts are determined in part by their prior history, with lagged starts being correlated with current starts, but interestingly house prices have do not have discernible effect on starts.^{ci} Higher interest rates reduce construction of new private sector houses and public sector housing building is complementary to private sector housing. We note that, while we are not able to empirically examine land supply and restrictions directly, due to lack of data availability, there are several reasons to consider that these issues may not be material. First, our archival evidence shows that it was typically central government that pushed for a more restrictive land policy. Furthermore, studies for the more recent past have found, ‘only limited supporting evidence to indicate that weakness in house starts since 1997 has been due to planning’ and weak effects for planning policy variables.^{cii}

<INSERT TABLE 2 ABOUT HERE>

Policy liberalisation typically mainly raises house prices, while more completions dampen prices, implying that policy - by reducing housing starts - fuelled house price inflation. However, the findings suggest that the policy impact weakens over time, falling by about 45%

between the four and six period lags. Prior prices also have a strong impact. The results are consistent with the Bank of England's finding that housing was perceived as a hedge against inflation, expectations of future price growth having a self-fulfilling impact. The income elasticity is lower, compared to later periods, but only marginally so.^{ciii} Of the socio-economic variables all are significant and intuitively signed with the exception of migration. With regard to property taxes and mortgage interest tax relief, of three variables added we find the tax relief variable is the only one that is statistically well determined.

V

House-building restriction has a number of important implications for debates regarding stop-go policy, Britain's housing problem, and the distributional consequences of government macroeconomic policy. Mortgage rationing (and to some extent, public sector housing restrictions) are almost entirely neglected in the general stop-go literature, despite having been regarded as one of the most important policy instruments. This suggests that further research may be needed regarding how pervasive stop-go restrictions were in depressing investment in other sectors neglected by this literature, such as other infrastructure investment, nationalised industries, and education and training.

Our findings also suggest that the conventional methodology for measuring the impact of stop-go – comparing the volatility of output over time, relative to other countries – is inappropriate.^{civ} The Bank of England found that housing restrictions acted to depress output at all points of the cycle and that policy had strong asymmetries, with output falling during periods of intensified restrictions, but failing to rapidly recover during 'go' phases, a result corroborated by our econometric analysis. These arguments may also be relevant to other stop-go instruments. For example, a recent analysis of the consumer durables sectors found that firms came to expect frequent intensification of restrictions and thus adopted strategies to mitigate their costs, such as reducing long-term investment and using scale-flexible rather than

mass production techniques.^{cv} Again, this is consistent with learning effects regarding the transience of any relaxation in restrictions.

Our findings also have important implications for the long-term development of the British housing market. We show that policy restricted private sector house-building, to varying extents, over most of the quarter century from 1955. This had a major cumulative impact on the housing stock and impeded changes to its geographical mix during a period of significant regional shifts in employment, thus reducing the mobility of labour. It also led purchasers to view housing as a hedge against inflation and an appreciating long-term asset, which fed into a destabilising exaggerated housing cycle.

Finally, policy had important distributional impacts. Building societies reacted to shortages of funds by raising minimum deposit ratios to well above the five percent typically required for new houses in the 1930s, while tightening criteria for lenders regarded as good risks.^{cvi} This reduced the access of working-class and lower middle class households to the mortgage market and, in conjunction with restrictions on public sector house-building, markedly slowed the amelioration of homelessness, overcrowding, and poor housing standards. Policy also had important inter-generational impacts, reducing the proportion of families with house assets to pass on to their children. The case of housing restriction thus reinforces evidence that stop-go policy acted to disproportionately place the burden of adjustment to macroeconomic policies such as sterling convertibility and financial liberalisation in the 1950s and 1960s, and macroeconomic stabilisation in the 1970s, on lower and middle income households.^{cvi}

Footnote references

- Anon., 'Credit squeeze: effects on housing,' *House-Builder* (July 1955), p. 152
- Anon., 'Business brief. Where the squeeze will pinch,' *The Economist*, (22 May 1965), pp. 929-930.
- Anon., 'It isn't simple anymore,' *The Economist*, "(8 Nov. 1969), pp. 15-16.
- Anon., 'Land. At any price,' *The Economist* (8 April 1972), p. 24.
- Anon., 'Land for Housing,' *Official Architecture and Planning*, 23, 8 (1960), pp. 307-8.
- Anon., 'No master builders,' *The Economist* (1 June 1963), pp. 868-869.
- Ball, M., *Housing policy and economic power. The political economy of owner occupation* (1983).
- Bank of England, 'Three centuries of data - version 2.3,' available at <http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx>.
- Berry F., *Housing: the great British failure* (1974).
- Bramley, G., 'The impact of land use planning on housebuilding and house prices,' *Urban Studies*, 30, (1993), pp. 5-30.
- Brittan, S., *Steering the Economy. The Role of the Treasury* (1969).
- Burnett, J., *A Social History of Housing 1815-1885*, 2nd Edn. (1985).
- Cope, A.C., 'Housing finance in 1955,' *The House-Builder* (Jan. 1956), p. 313.
- CSO, *Economic Trends Annual Supplement* (various issues).
- Dunleavy, P., *The politics of mass housing in Britain 1945-1975* (Oxford, 1981).
- Edgerton, D. *Warfare State: Britain, 1920-1970* (Cambridge, 2006).
- Eloranta, J., 'Armaments and the economy', 279-302 in Roderick Floud, Jane Humphries, and Paul Johnson, *The Cambridge Economic History of Modern Britain*, Vol. 2 1870 to the Present (Cambridge, 2014).
- Evans, Andrew, W. (1974) 'Private Sector Housing Land Prices in England and Wales,' *Economic Trends*, February, xiv-xxxvii.

- Finnimore, B. *Houses from the factory. System building and the welfare state, 1942-74* (1989).
- Glendinning M. and Muthesius, S., *Tower block. Modern public housing in England, Scotland, Wales, and Northern Ireland* (New Haven, 1994).
- Holmans, A., *Housing policy in Britain. A history* (1987).
- Kelly, G., 'Asymmetric adjustment costs and the dynamics of housing supply', *Economic Modelling* 20, (2003), pp. 1097-1111.
- Matthews, R.C.O., Feinstein, C.H., and Odling-Smee, J.C., *British economic growth 1856-1973* (Oxford, 1982).
- Meen, G., 'Spatial aggregation, spatial dependence and predictability in the UK housing market', *Housing Studies*, 11 (1996), pp. 345-372.
- Meen, Geoffrey (2005), On the Economics of the Barker Review of Housing Supply, *Housing Studies*, 20(6), 949-971.
- Meen, G., Gibb, K., Leishman, C., and Nygaard, C., *Housing economics: a historical approach*, (2016).
- Middleton, R., 'Struggling with the impossible: sterling, the balance of payments and British economic policy, 1949-72', in A. Arnon and W. Young (eds.), *The Open Macromodel: Past, Present, and Future* (2002), pp. 103-54.
- National Economic Development Office, *Cyclical fluctuations in the United Kingdom economy* (1976).
- National Economic Development Office, *Housing for all. A document for discussion* (1977).
- Newton, S. 'Keynesianism, sterling convertibility, and British reconstruction 1940-1952', 257-275 in R. Self (ed), *British foreign and defence policy since 1945: challenges and dilemmas in a changing world* (Cambridge, 2004).
- O.W. Roskill Industrial Consultants, *The building industry – 1962 onwards* (1962).

Palgrave Macmillan Ltd, International Historical Statistics 1750-2010, online (April 2013) version, Table A5,

<http://www.palgraveconnect.com/pc/doifinder/10.1057/9781137305688.0590?focus=true>

Pryce, G. 'Construction elasticities and land availability: a two-staged least squares model of housing supply using the variable elasticity approach', *Urban Studies*, 36, (1999), pp. 2283-2304.

Ranald, M. Williamson, and P. (eds), *The British government and the City of London in the twentieth century* (Cambridge, 2004).

Ross, D. 'Domestic monetary policy and the banking system in Britain 1945-71,' 298-321 in R. Mitchie and P. Williamson (eds), *The British government and the City of London in the twentieth century* (Cambridge: CUP), p. 319.

Scott, P., *The property masters. A history of the British commercial property sector* (1996).

Scott, P., 'Public-sector investment and Britain's post-war economic performance: a case study for roads policy,' *Journal of European Economic History*, 34, 2 (2005), pp. 391-4198.

Scott, P., *Triumph of the south: a regional economic history of early twentieth century Britain*, (Aldershot, 2007).

Scott, P. 'The household economy since 1870', 362-386 in R. Floud, J. Humphries, and P. Johnson, *The Cambridge Economic History of Modern Britain, Vol. 2 1870 to the Present* (Cambridge, 2014).

Scott, P. and J.T. Walker, 'The impact of "stop-go" demand management policy on Britain's consumer durables industries, 1952 – 1965,' *Economic History Review* online: 12 APR 2017 | DOI: 10.1111/ehr.12470.

Schenk, C., *Britain and the sterling area. From devaluation to convertibility in the 1950s* (1994).

Tomlinson, J., *Public policy and the economy since 1900*, (Oxford, 1991).

Wellings, F. *British housebuilders: history & analysis* (Oxford, 2006).

Whiting, A., 'An international comparison of the instability of economic growth', *Three Banks Review*, 109 (1976), pp. 26-46.

Woodward, N., *The Management of the British Economy 1945-2001* (Manchester, 2004).

Table 1: Gross fixed capital formation in housing as a percentage of GNP/GDP for Britain and nine West European countries, 1954-59

Country	Belgium	France	Italy	Netherlands	W. Germany	Denmark	Finland	Norway	Sweden	UK
Average:										
1955-59	4.3	4.7	5.9	4.6	5.2	2.8	5.7	4.5	5.2	2.8
1960-64	4.9	5.1	6.7	4.1	5.6	3.6	5.8	4.2	5.4	3.2
1965-69	5.7	6.7	6.5	5.3	5.6	4.6	5.5	4.6	5.7	3.5
1970-74	5.2	7.0	6.3	5.9	6.1	5.6	7.0	5.2	5.4	3.6
1975-79	6.8	7.0	5.6	5.6	5.9	6.0	7.0	5.3	4.4	3.5
Coefficient of variation										
1955-62	0.11	0.05	0.08	0.12	0.07	0.14	0.12	0.08	0.02	0.08
1963-70	0.12	0.09	0.09	0.12	0.04	0.13	0.08	0.11	0.07	0.09
1971-79	0.19	0.06	0.09	0.08	0.06	0.16	0.06	0.02	0.14	0.11

Sources: United Nations, *Annual Bulletin of Housing and Building Statistics for Europe* (New York): 1961, pp. 26-27, 1962, pp. 82-89, and Table 2 in the 1968, 1970, 1972, 1974, 1977, 1980, and 1982 issues.

Notes: Data for are expressed as a proportion of GNP until 1969 for averages and until 1970 for the coefficient of variation, then as a proportion of GDP thereafter, owing to changes in how the figures were reported. Gross fixed capital formation in residential buildings is defined as the value of work on the construction of residential buildings, including major alterations in, and additions to, such buildings, but excluding the value of land before improvement. Expenditures on the instalment of new permanent fixtures are included.

Table 2. Impacts of “Stop-Go” policies on private housing starts and house prices (1955 Q1 – 1979 Q1)

Determinants of private housing starts		Co-eff	z-stat
Policy instrument Ref. (Conservative 1951-64)	log(Mortgage rationing - tightening) _{.4}	0.293 ***	(2.68)
	log(Mortgage rationing - relaxing) _{.4}	0.158	(1.38)
	log(Construction costs - downswing _{.1})	-0.035 **	(2.64)
	log(Construction costs - upswing _{.1})	-0.008	(0.66)
	Labour (1964-70)	-0.087	(1.09)
	Conservative (1970-74)	0.031	(0.34)
	Labour (1974-79)	-0.214	(1.44)
	log(House prices)	0.443 ***	(5.08)
	log(Variable mortgage rate)	-0.088 ***	(5.03)
Determinants of real private house prices			
Policy instrument	log(Mortgage rationing) _{.4}	0.106 ***	(3.26)
	log(Mortgage rationing) _{.6}	0.051	(0.11)
	log(Variable mortgage rate)	-0.039 ***	(3.22)
	Stamp Duty	-0.002	(0.24)
	Abolishing tax	0.036 ***	(3.79)
	Mortgage relief	0.027	(0.72)
Demographics and economic variables	Proportion of unemployed	-0.042 **	(2.28)
	log(Migration)	1.169	(1.40)
	log(Wage)	0.262 ***	(3.62)
	log(Change wages)	0.028 ***	(4.62)
Lagged house prices, and GDP	log(House prices _{.1})	0.617 ***	(3.26)
	log(House prices _{.2})	-0.431	(1.01)
	log(Real Income _{.1})	1.782 ***	(2.68)
	log(Real Income _{.2})	0.029	(0.75)
Quarterly dummies		YES	
Year dummies		YES	
R ² (Housing Starts)		0.82	
R ² (House prices)		0.88	
Prob > F		0.00	
Breusch-Godfrey Test (X ²)		34.14	
Augumented Dickey-Fuller Test		-4.35	
N		89	

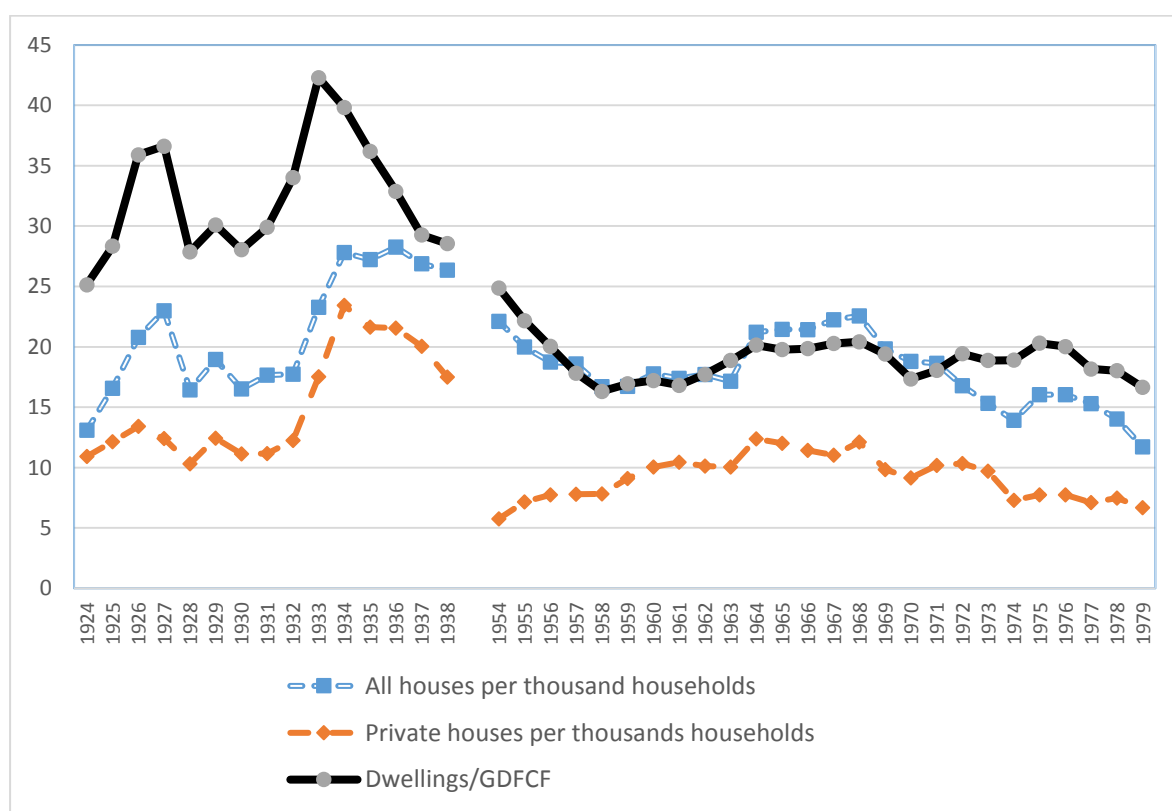
Sources: Public and private sector housing starts - CSO, *Economic Trends Annual Supplement* (various issues); new house prices mortgaged with building societies at the completion stage – data set provided by Geoff Meen, obtained directly from the Department of the Environment, but consistent with *Housing and Construction Statistics*; basic weekly wage in the construction industry and Construction Material Cost Index, housebuilding, - data set provided by Geoff Meen, supplied by the Department of Employment. Employment was weighted 67% and building inputs 33% as used in Meen, ‘Spatial aggregation.’ We also experimented with using each input separately. However, the wage and constructions series are highly correlated (over 0.9) and so entering both separately leads to

high levels of multicollinearity, while using either individually provided analogous outcomes. We are grateful to Geoff Meen for supplying hard copy read outs obtained from the Dept. of the Environment and the Dept. of Employment. Bank rate, mortgage rate, household consumption, GDPCF, GDP, wholesale price index, GDP deflator, Consumer prices index, Bank of England, ‘Three centuries of data - version 2.3,’ available at

<http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx>.

Notes: 1. *** $p < 0.01$; ** $p < 0.05$. 2. Augmented Dickey-Fuller test estimated incorporates trend and a constant.

Figure 1: Capital formation in dwellings as percentage of total capital formation and housing completions per thousand families, private houses and all houses, 1921-38 and 1954-79



Sources: housing completions (1924-48), Scott, *Triumph of the South*, p. 84; capital formation and house completions (1954-1979), CSO, *Economic Trends Annual Supplement* (London: HMSO, 1981), pp. 48 & 59, population estimates, Palgrave Macmillan Ltd, *International Historical Statistics 1750-2010*, online (April 2013) version, Table A5, <http://www.palgraveconnect.com/pc/doifinder/10.1057/9781137305688.0590?focus=true> ; household size, Peter Scott, ‘The household economy since 1870’, 362-386 in Roderick Floud, Jane Humphries, and Paul Johnson, *The Cambridge Economic History of Modern Britain, Vol. 2 1870 to the Present* (Cambridge, 2014), p. 364.

Notes: 1924-38 house completions data are for years ending 31st March of the following year. Household sizes are for England and Wales up to 1971 and England for 1981, for Census years plus 1939, with interpolation for intervening years.

ⁱ For a summary of this literature, see Scott and Walker, Impact of “stop-go”.

ⁱⁱ See, for example, Berry, *Housing*, p. 51; Finnimore, *Houses from the factory*, p. 83; Glendinning and Muthesius, *Tower block*, pp. 175-6.

ⁱⁱⁱ Dow, *Management of the British Economy*, pp. 248-51; Berry, *Housing*, p. 47.

^{iv} Holmans, *Housing policy in Britain*, p. 265.

^v Bank of England Archives (hereafter BEA), 5A45/3, ‘Influencing building societies’ lending,’ paper by Mr Willetts, 22nd May 1975.

^{vi} Building Societies Association Archives (hereafter BEA), Policy Committee minutes, agenda item No. 3(5), 12th December 1963.

^{vii} BEA, 5A45/6, ‘Building societies: recommended interest rates,’ memorandum by K. Brady, Chief Registrar of Friendly Societies, January 1978. From 1956-64 the Halifax left the system, though its rates were only marginally different from the recommended ones.

^{viii} BEA, 5A45/3, ‘Influencing building society lending’ unsigned paper, November 1975. For internal opposition to the cartel, see BSA Archives, Policy Committee minutes, Agenda Item No. 3(6), ‘Recommended rates and the interest rate undertaking,’ memorandum by BSA Secretary, 8th February 1973.

^{ix} BEA, 5A45/3, ‘Influencing building society lending’ unsigned paper, November 1975; 5A45/6, ‘Building societies: recommended interest rates,’ memorandum by K. Brady, Chief Registrar of Friendly Societies, January 1978; T.M. Hieser, Department of the Environment, to K. Brady, Chief Registrar of Friendly Societies, 9th January 1978.

^x BEA, C40/169, ‘Building societies’, note for the Governors, 8th February 1960.

^{xi} For example, a formal request was issued in May 1966, see BSA, Policy Committee minutes, memorandum of a meeting at the Treasury, 18th May 1966.

^{xii} BEA, 5A.45/1, 'Control of building societies,' memorandum, initialled C.J.W., 11th July 1973.

^{xiii} The National Archives, Kew (hereafter TNA), T227/810, 'Housing controls,' memorandum by P. R. Baldwin, 26th August 1957.

^{xiv} National Economic Development Office, *Housing for all*, pp. 8-9.

^{xv} Burnett, *Social History of Housing*, p. 285.

^{xvi} Berry, *Housing*, pp. 143-4.

^{xvii} See Newton, 'Keynesianism,' 262-263.

^{xviii} Newton, 'Keynesianism,' 272-73.

^{xix} For a summary of this literature, see Scott and Walker, 'Impact of "stop-go"', p. 1323.

^{xx} The dominance of "confidence in sterling", rather than the current account deficit, as a determinant for deflationary action, is emphasised in an extensive Treasury retrospective analysis of demand management policy - TNA, T 311/164, 'Policy to control the level of demand 1953-58', internal Treasury historical study by A.E. Holmans, c. 1965, p. 40.

^{xxi} Middleton, 'Struggling', p. 122; Schenk, *Decline*, pp. 110-111; Allen, *Monetary Policy*, pp. 46 & 72.

^{xxii} Peden, *Treasury*, p. 443.

^{xxiii} Berry, *Housing*, p. 50.

^{xxiv} Peden, *Treasury*, p. 503.

^{xxv} Holmans, *Housing Policy in Britain*, pp. 236-7.

^{xxvi} TNA, T227/810, 'Housing controls,' memorandum by P. R. Baldwin, 26th August 1957, Appendix.

^{xxvii} TNA, T 311/164, R.W.B. Clarke to Alec Cairncross, 17 May 1965, commenting on A.E. Holmans, , 'Policy to control the level of demand 1953-58', c. 1965,

^{xxviii} TNA, T227/808, 'Housing' note by R.W.B. Clarke, 27th July 1955.

^{xxix} Ibid. Emphasis in original.

^{xxx} TNA, T227/808, Norman Brook to Mr Petch, 28th July 1955.

^{xxxi} TNA, T227/808, note by R.W.B. Clarke, 5th August 1955.

^{xxxii} TNA, T227/808, 'Housing', Treasury memorandum, unsigned, c. August 1955. Treasury submissions to Cabinet sometimes introduced an additional argument – that government should prioritise directly productive investments in areas such as coal, steel, and transport, over housing – as is discussed in Peden, *Treasury*, pp.

445-6. However, while this argument was used to win around the Cabinet, it did not feature in the extensive volume of Treasury internal discussions reviewed for this paper. Nor do the Treasury papers show any support for easing restrictions on transport investment or the consumer durables' industries - see for example, Scott, 'Public-sector investment,' Scott and Walker, 'Impact of "stop-go" - despite high forecasted rates of return on some projects.

xxxiii Ibid.

xxxiv Ibid.

xxxv BEA, C40/168, note of a meeting with Mr Meikle, Building Societies Association, 8th September 1958, signature illegible.

xxxvi TNA, HLG 111/143, J.E. Beddoe to Parliamentary Secretary, MHLG, 26th March 1958. The need to preserve agricultural land was often used to justify this policy to external audiences, though in reality, the Treasury had little sympathy with the arguments of the agricultural lobby, see Peden, *Treasury*, pp. 497-98.

xxxvii Anon, 'Credit squeeze,' p. 152; Cope, 'Housing finance'.

xxxviii London Metropolitan Archives, M.SS 32259/3, Minutes of the Committee of London Clearing Bankers, letter from R. Morgan Jones, Federation of Registered House-Builders, to the Committee's Secretary, 15 Feb. 1956; and reply, 24th February 1956.

xxxix BEA, C40/168, note to the Governor, initialled 'F', 4th May 1956.

xl Dunleavy, *Politics of Mass Housing*, pp. 10-11.

xli TNA, T227/810, 'Housing controls,' memorandum by P. R. Baldwin, 26th August 1957.

xlvi TNA, CAB 21/4421, Minute by Prime Minister, 3rd April 1958, for Minister of Housing and Local Government.

xlvi BEA, C40/168, 'House purchase,' note to Chief Cashier, Bank of England, 1st September 1959.

xlv BEA, C40/168, 'Government finance for house purchase,' note for the Deputy Governor, 3rd September 1958, signature illegible.

xlv TNA, PREM 11/4297, 'Cabinet. housing policy. Memorandum by the Minister of Housing and Local Government, n.d., c. June 1962.

xlvi BEA, C40/169, 'Building societies,' memorandum to Governors, signature illegible, 9th January 1962.

xlvii Anon., 'No master builders', p. 868.

xlviii Ibid.

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- ^{xlix} TNA, PREM 11/4297, 'Cabinet. Housing policy. Memorandum by the Minister of Housing and Local Government, n.d., c. June 1962; 'Housing' note for the Prime Minister by Michael Cary, 28th May 1962.
- ^l Finnimore, *Houses from the Factory*, p. 71.
- ^{li} Berry, *Housing*, p. 130.
- ^{lii} TNA, EW24/30, 'Housing' memorandum by Evelyn Sharp, 22 July 1965.
- ^{liii} Berry, *Housing*, pp. 58-59.
- ^{liv} *Ibid*, p. 60.
- ^{lv} TNA, HLG118/642, 'Housing finance', memorandum discussed with the Chancellor on 19th May 1965.
- ^{lvi} Brittan, *Steering the Economy.*, pp. 187-188.
- ^{lvii} BEA, C40/1116, James Callaghan to Andrew Beach (BSA chairman), 11th November 1964.
- ^{lviii} BEA, C40/1116, note to Mr Stephens and the Governors, signature illegible, 4th November 1964; Anon., 'Business brief.'
- ^{lix} BEA, C40/11156, 'Building Societies,' note, signature illegible, 20th January 1965.
- ^{lx} Anon., 'It isn't simple anymore.'
- ^{lxi} BEA, C40/1116, R.W. Whittington to Roy Jenkins, 23rd July 1969.
- ^{lxii} BSA, Policy Committee minutes, agenda item 10, 11th January 1968.
- ^{lxiii} BSA, Policy Committee minutes, Agenda item No. 5(2), 9th July 1970, memorandum of meeting of the Housing Programme Working Party, 29th June 1970.
- ^{lxiv} Ross, 'Domestic monetary policy,' p. 319.
- ^{lxv} Offer, 'Narrow banking,' p. 9.
- ^{lxvi} Holmans, *Housing Policy in Britain*, p. 258
- ^{lxvii} Anon., 'Land. At any price.'
- ^{lxviii} National Economic Development Office, *Housing for All*, p. 14.
- ^{lxix} Scott, *Property Masters*, pp. 166-200.
- ^{lxx} BEA, H5/307, Review of policy towards building societies,' M.E. Hewitt, Economic Intelligence Dept., 6th Feb. 1979.
- ^{lxxi} Wellings, *British Housebuilders*, p. 83.
- ^{lxxii} *Ibid*, pp. 83-84.
- ^{lxxiii} TNA, T341/752, Anthony Crosland to Dennis Healey, no date, c. December 1974.
- ^{lxxiv} Wellings, *British Housebuilders*, pp. 85 & 182-3.

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- ^{lxxv} Bank of England Archives, 5A45/3, 'Influencing building societies' lending,' paper by Mr Willetts, 22nd May 1975.
- ^{lxxvi} Bank of England Archives, 5A45/3, 'Influencing building societies; lending: summary and conclusions,' unsigned note, 28th May 1975.
- ^{lxxvii} Bank of England Archives, 5A45/3, 'Influencing building societies' lending,' paper by Mr Willetts, 22nd May 1975.
- ^{lxxviii} Ibid.
- ^{lxxix} BEA, 5A45/4 'Draft report: Guideline system committee', n.d., c. March 1976.
- ^{lxxx} TNA, T341/752, note of a meeting held in the Paymaster General's room, 2nd January 1975, by D. M. Mooney.
- ^{lxxxi} TNA, T341/752, Dennis Healey to Anthony Crosland, 8th January 1975.
- ^{lxxxii} Burnett, *Social History of Housing*, p. 289.
- ^{lxxxiii} BEA. 4A86/1, 'Review of building societies, part III: the operation of the housing market,' Department of the Environment report, 16th January 1979.
- ^{lxxxiv} BEA, 6A50/13, 'housing finance', note to Chief Cashier and Governors, initialled A.L.C., 7th January 1974.
- ^{lxxxv} BEA, 5A45/3, 'Influencing building societies' lending,' paper by Mr Willetts, 22nd May 1975.
- ^{lxxxvi} Holmans, *Housing Policy in Britain*, p. 261.
- ^{lxxxvii} BEA, 5A45/3, 'Influencing building societies' lending,' paper by Mr Willetts, 22nd May 1975.
- ^{lxxxviii} Holmans, *Housing Policy in Britain*, pp. 268-9; John Muellbauer, *The Great British Housing Disaster and Economic Policy*, Institute of Public Policy Research Economic Study No. 5 (1990).
- ^{lxxxix} Wellings, *British Housebuilders*, p. 65.
- ^{xc} Michael Ball, *Housing policy*, pp. 48-49.
- ^{xci} O.W. Roskill Industrial Consultants, *Building industry*, pp. ix – x & 91.
- ^{xcii} BEA, 5A45/2, House-Builders Federation, "Building for bigger home-ownership", report, 1974.
- ^{xciii} Holmans, *Housing Policy in Britain.*, p. 268.
- ^{xciv} John Burnett, *A Social History of Housing 1815-1985* (Cambridge, 1986), p. 288; Bowley, *Housing and the State*, pp. 147-153.
- ^{xcv} Holmans, *Housing Policy in Britain* p. 480.
- ^{xcvi} Scott and Walker, 'Impact of "stop-go".'

^{xcvii} Some previous studies have modelled housing supply using similar methods, for example Pryce, 'Construction elasticities.'

^{xcviii} Source:

<http://webarchive.nationalarchives.gov.uk/20140206164303/http://www.hmrc.gov.uk/statistics/mortgage.htm#3>.

^{xcix} For example, Meen, 'Spatial aggregation'.

^c Kelly, 'Asymmetric adjustment costs,' also identifies asymmetric adjustment costs in the Irish housing market between 1975Q1 and 1998Q3.

^{ci} The lack of sensitivity of new housing construction to price signals is a characteristic finding for studies of the UK; see, for example, Bramley, 'Impact of land use planning'; Pryce, 'Construction Elasticities.'

^{cii} Meen, 'Economics of the Barker Review', pp. 962-963; Bramley, 'Impact of land use planning.'

^{ciii} Meen, Gibb, Leishman, and Nygaard, *Housing Economics*, p. 264, summarises earlier studies of UK house prices, showing elasticities of 2.401 between 1969Q3 and 1996Q1, and 2.298 between 1969Q3 and 2012Q1.

^{civ} See Whiting, 'International comparison'; National Economic Development Office, *Cyclical Fluctuations*; Woodward, *Management of the British Economy*, pp. 81-82.

^{cv} Scott and Walker, 'Impact of 'stop-go'.

^{cvi} For building society lending criteria in the 1930s see Scott, *Property Masters*, pp. 102-108.

^{cvi} For a fuller discussion of the links between financial liberalisation and stop-go policy, see Scott and Walker, 'Impact of "Stop-go".'