



OXFORD JOURNALS
OXFORD UNIVERSITY PRESS

Property Taxation and the Economy after the Barker Review

Author(s): John Muellbauer

Source: *The Economic Journal*, Mar., 2005, Vol. 115, No. 502, Conference Papers (Mar., 2005), pp. C99-C117

Published by: Oxford University Press on behalf of the Royal Economic Society

Stable URL: <https://www.jstor.org/stable/3590372>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



JSTOR

Royal Economic Society and Oxford University Press are collaborating with JSTOR to digitize, preserve and extend access to *The Economic Journal*

PROPERTY TAXATION AND THE ECONOMY AFTER THE BARKER REVIEW*

John Muellbauer

This paper analyses the roles of property and land values in the UK economy and considers property tax reform with the objectives of improving macro-economic stability, resource allocation, economic inequality and the environment. With UK house prices at all-time peaks relative to incomes, concerns about affordability and the distributional consequences have increased. The Barker Review for the UK Treasury of new housing supply reported in 2004 and recommended extensive reforms of the land use planning system, as well as various other reforms, including new development taxes. This paper argues that these taxes are unwise compared to the property tax reforms proposed here.

The ratio of average UK house prices to average income or earnings now exceeds previous records. Warnings from the Bank of England and the Financial Services Authority about the potential implications for stability have become frequent. Homelessness is on the increase, and housing affordability is again seen as a major problem. There are many similarities with the late 1980s (Muellbauer, 1990). However, the macroeconomic environment is now more benign, partly because of the monetary policy framework introduced in 1997, the greater consistency and predictability of the overall fiscal stance, and lower global inflation risks. HM Treasury (HMT) seems to have taken the view that these reforms, the phasing out of mortgage interest tax relief, and higher Stamp Duty, would eliminate risks of future macroeconomic booms and busts. It has left issues of land use, housing, regional allocation, urban deprivation and regional inequalities largely to the Office of the Deputy Prime Minister (ODPM – previously the Department of the Environment, Local Government, Transport and the Regions).

Whether the UK should adopt the Euro has been analysed by HMT in the context of the Five Economic Tests, with unprecedented thoroughness. This has refocused policy attention on macroeconomic stability, resource allocation, and distributional issues associated with housing and land. The Five Economic Tests Assessment concluded: ‘the incompatibility of housing structures means the housing market is a high risk factor to the achievement of settled and sustainable convergence’ (HMT, 2003*a*).

In anticipation of ‘The Five Tests’, in April, 2003 the Chancellor asked Kate Barker of the Monetary Policy Committee: ‘to conduct a review of issues underlying the lack of supply and responsiveness of housing in the UK’. The Interim Report was published in December 2003 and the Final Report and Recommendations in March

* Earlier versions of this paper were presented at European Network of Housing Research Conference, Cambridge, July 3rd, the Joseph Rowntree Foundation’s ‘Easing Shortages of Housing Advisory Group’ Meeting, 20th May 2004, the British Property Federation Conference, Brighton April 26th, and a Nuffield College seminar. I am grateful to many individuals for helpful discussions of issues germane to this paper, including Janine Aron, Kate Barker, Ken Bartlett, Richard Best, Alan Evans, Iain McLean, Matthew Oakeshott, Nick Stern, Dave Wetzel, Tony Vickers, Carol Wilcox, Martin Wolf and other members of the various seminars. Responsibility for views expressed is mine entirely.

2004 (Barker, 2003, 2004). These reports add greatly to the debate about housing, land and the economy and set out much valuable information. The recommendations include a radical reform of the planning system with which most economists will sympathise, controversial and, in my view questionable, new development taxes and a number of other measures.

Simultaneously, the Chancellor asked David Miles to review the mortgage market, especially the preponderance of variable rate mortgages in the UK and barriers to the development of fixed rate mortgages, dominant on the Continent and the US. Miles (2004) argues that the mortgage market is trapped in an unsatisfactory equilibrium: borrowers are ill-informed about longer term mortgage costs and interest rate and other risks. Together with mortgage advisors and lenders, they are excessively focused on the level of initial monthly payments. There is cross-subsidisation from existing customers to new borrowers taking out discounted variable rate mortgages. Such weaknesses clearly increase the risks associated with house price volatility and probably contributed to greater volatility. The Miles Review's recommendations aim to improve advice and information for borrowers, creating a fairer and more transparent pricing structure; and reforms to help lenders fund mortgages and handle risk more cost-effectively.

Finally, as part of the 'Five Economic Tests' documents published in June 2003, HMT (2003*b*) published its discussion paper 'Fiscal Stabilisation and EMU'. This noted: 'fiscal instruments impacting on the housing market could help reduce volatility in this sector of the economy'.

Carving up the examination of the issues and possible policy measures into the supply of new housing, the mortgage market and tax clearly had advantages in giving each set of investigators a more tractable problem. However, the property tax issue was not analysed in depth in the HMT discussion paper, though it recurs in ODPM's (2003/4) examination of local taxation and funding issues in the 'Balance of Funding Review'. I will argue that a more holistic view of the economic issues related to housing and land use would probably not have led to the development tax recommendations of the Barker Report. Compartmentalisation is likely also to have compromised the outcomes of the Balance of Funding Review, July 2004.

In what follows, I will re-examine property and land taxation in a wider economic perspective. With globalisation of international capital markets, the liberalisation of domestic credit markets, and the widely acknowledged pro-cyclicality of the capital adequacy requirements agreed under the Basel II Accords, these issues are now more important than ever.

1. Some Criteria for Reform of Property Taxation

There are four main criteria for property tax reform, apart from raising revenue for government. These are to improve macroeconomic stability and resource allocation, to lower economic inequality and social exclusion, and to support concerns over the environment, sustainability and other social values.¹ Reforms

¹ It can be argued that these criteria were all considered in other aspects of the Barker Review of the supply of new housing.

should also help to simplify the tax system. They need to be phased in gradually to avoid disrupting long-term contracts and causing too sharp shifts in expectations. They need to be co-ordinated with essential reforms of the land-use planning system, which, in its present form, leads to resource misallocations that can only be described as grotesque.² Finally, property tax reforms need to be politically feasible in a society, where, although each adult citizen has an equal vote, the distribution of power and influence remains very unequal.

1.1. *Macroeconomic Stability*

Since Irving Fisher's (1933) 'debt deflation' theory of depressions, economists have been much concerned with the 'financial accelerator' (Bernanke and Blinder, 1992; and Bernanke *et al.*, 1996, 1999). Asset price fluctuations transmitted to economic activity via the financial accelerator operate for both firms and households. The collateral role of property allows credit expansion and additional spending in upswings, thus fuelling booms. Asset price falls e.g., in bubble collapses, can worsen downturns via a credit crunch, or even lead to Japanese-style problems of bad debts weighing down the banking system for prolonged periods. In the UK, the financial accelerator for households is even more important than that for firms and has become more pronounced since the credit market liberalisation that began in 1980 (Fernandez-Corugedo and Muellbauer, 2005). The higher sensitivity of UK consumption to housing wealth since 1980, as well as the greater sensitivity of housing wealth to short-term interest rates compared with Eurozone economies (Maclennan *et al.* (1998; 2000) and my submission to HMT (2003*c*)), was confirmed by HMT's study on house prices and consumption (HMT, 2003*d*). It played a significant role in the negative outcome of the Five Economic Tests.

Further feedbacks in the financial accelerator occur via the asset base of banks. Many observers take the view that the Basel II Accords on capital adequacy ratios of banks (due to replace the original 1988 accords in 2006) are likely to increase the 'pro-cyclicality' of these ratios, see Danielsson (2003), Goodhart *et al.* (2004), and Taylor and Goodhart (2004), the latter for a thorough review of the issues and literature. This increases the need for stronger stabilisers of asset prices and hence the economy, such as property taxes.

There is also some evidence that house prices and business rents play a role in wage and price determination. Cameron and Muellbauer (2001) find, in the context of a model to explain the evolution of relative earnings of men in British regions relative to the national average, that relative house prices in the previous year have significant positive effects.³ Bowdler (2003) finds a lag of about 2.5 years between rents and consumer price inflation, though other influences on inflation are more important. This could operate via 5-year lease contracts with upward-only rent reviews.

Concern with macroeconomic stability is not an arcane academic curiosum but is relevant to all stake-holders in the property sector. The industry suffered

² See Cheshire and Sheppard (2004).

³ At the regional as well as national level, earnings also have far stronger and immediate effects on house prices, see Muellbauer and Murphy (1994, 1997).

disproportionately in the early 1990s UK slump, following the excesses of the late 1980s. The bankruptcies of many house-builders, the collapse of training schemes, plant closures in the building supply industry and unemployment of workers in the industry, almost certainly contributed to the weak supply response in the subsequent up-turn, see Barker Interim Review, Chapter 6.

1.2. *Resource Allocation*

Regional employment inequality, urban deprivation, and the 'low demand' inner city areas are all symptoms of inefficiency in the allocation of resources, as well as of inequality and social exclusion. Huge differences exist between economic returns of land in different uses, which cannot be justified as 'benefits to the wider community'. Though some of the most extreme are due more to the planning system than the tax system,⁴ I shall argue that serious distortions come from the current tax system. A closely-related resource allocation issue is the under-provision of housing, which the Barker Review sees as a major inefficiency. Taxation (as well as planning reform) can increase new housing supply and improve the allocation of the existing stocks of housing and land. There is also need for approximate tenure neutrality in the tax system, so that certain types of contracts are not arbitrarily discriminated against. Finally, since different types of taxes have different incentive effects on economic activity, a balance of taxation that puts more weight on taxes with smaller deadweight losses is to be preferred.

1.3. *Economic Inequality and Social Exclusion*

Inequalities between different locations have been mentioned. Homelessness is heightened by the under-provision of housing. Affordability particularly concerns the young without parents both wealthy and generous, as the Barker Review emphasises. Martin Weale⁵ has made an important analogy between house price booms and large government deficits as transferring spending power from younger, later generations to current, older ones. Given the concern of economists with intergenerational accounts, and HMT's concern with avoiding large government deficits, this suggests avoidance of such intergenerational inequality as a deliberate policy goal.

Most obviously, however, policy makers who include reduced economic inequality and social exclusion among their objectives would wish to avoid regressive forms of taxation (such as the current form of Council Tax). While means-tested benefits can be used to ameliorate a regressive tax system, the high

⁴ Consider the case of an industrial-scale sugar beet farm in a relatively featureless East Anglian landscape, the hedgerows having been removed decades ago. Heavily subsidised by UK and EU taxpayers, it effectively takes livelihood away from third-world sugar cane farmers. The value of the land in agricultural use, despite the subsidy, as Barker shows, is around one third of one percent of the value of the same land in residential use, and its amenity value is only around one percent of that in residential use. The welfare loss caused by the planning restrictions that bring this about is vast.

⁵ Talk given at HMT's EMU conference, November 2003, and Weale (2003).

marginal tax rates associated with withdrawal of such benefits, have negative incentive and so efficiency effects.

1.4. *Environment and Sustainable Communities*

ODPM's Sustainable Communities Plan (ODPM, 2003) has several key elements: addressing the housing shortage, including affordability and homelessness; low demand and abandonment; bringing social housing to a decent standard; improving the local environment; and protecting the countryside.

The next Section will focus on an aspect of property market dynamics in the UK, which has implications for stability, regional resource allocation and inequality and social exclusion.

2. The Persistence of Property Returns in the UK and Macroeconomic Stability

The UK has both volatile and persistent property returns as seen in the Investment Property Databank's (IPD) capital growth data on UK commercial property and the annual rate of growth of house prices (Figure 1). Persistence means a tendency for a change in one year to be followed by a broadly similar one in the following year.⁶

Studies of house prices in Anglo-Saxon or Scandinavian-style economies generally use formulations such as the following:

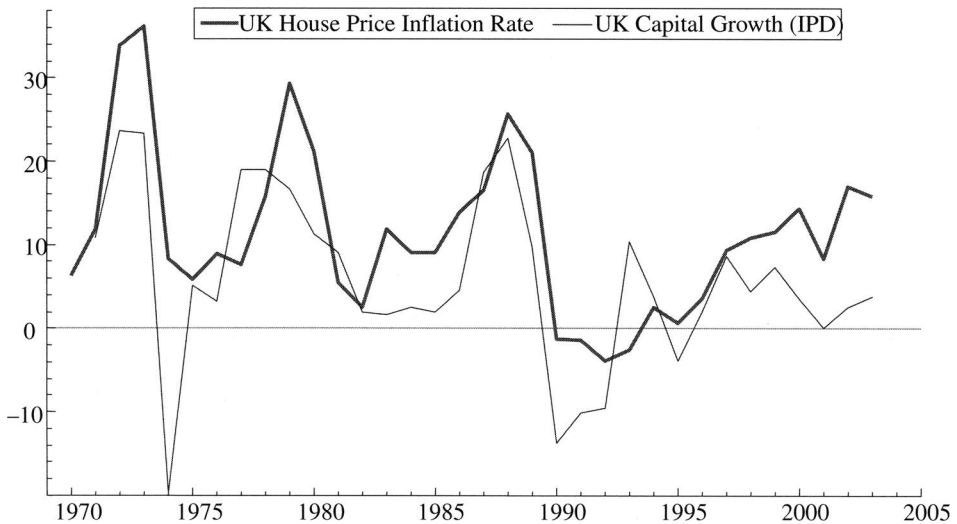


Fig. 1. *IPD Capital Growth and House Price Growth*

⁶ It is worth noting the correlation between the two graphs, though house price growth has been much greater since 1997. This is likely to have been the result of greater house price sensitivity to low interest rates, increased immigration, lack of new supply and the buy-to-let credit expansion. From 1983 to 2003, residential land prices in England and Wales (excluding London) have risen 11-fold while UK house prices (including London) measured by the ODPM mix-adjusted index have risen 5.3-fold.

$$\Delta \log PH = a_0 + a_1 \Delta \log PH_{-1} - a_2 \log(PH_{-1}/P_{-1}) + a_3 \log(\text{real income}) - a_4 \log(\text{housing stock}_{-1}/\text{population}) \quad (1)$$

and include other factors, such as interest rates. Here PH is the house price index and P is the consumer price index. The coefficient a_1 is always positive and statistically significant, especially in the UK, meaning that capital gains tend to be followed by further capital gains. a_2 is always negative, indicating that if real house prices are 'too high' or 'too low', then house prices will tend to adjust in the appropriate direction. Abraham and Hendershott (1996) call the two factors the 'bubble builder' and the 'bubble burster', respectively. Portfolio managers and analysts often use the terms 'momentum' and 'fundamentals' to describe the factors associated with a_1 and a_2 . Equations of this type are also termed 'equilibrium correction' models, Engle and Granger (1987), Hendry (1995). In equilibrium, the fundamentals of income, interest rates, the housing stock relative to population and other factors determine real house prices, see Muellbauer and Murphy (1997) for further discussion.⁷

The autocorrelation of IPD returns can be studied with a similar 'bubble burster', 'bubble builder' set-up, Hendershott and McGregor (2003). Investors will thus expect high returns to tend to be followed by high returns, and low returns by low returns. The 'user cost' of property, which subtracts the expected rate of appreciation from the interest and other acquisition and holding costs, can be negative for long periods. Indeed, since 1968, the user cost of housing in the South has been negative 57% of the time (Figure 2).⁸ At the same time, the rate of return in housing compared with investing in a building society savings account (defined as house price appreciation, plus imputed rent, minus maintenance and tax costs, all as a fraction of value) has been positive, and often very large, for much of the same period (Figure 3).

Given that these returns are a major factor driving demand for property and so prices, national and local overshooting of property prices is endemic. The next Section explains how taxes can reduce this volatility.

3. The Design of Property Taxation for Stabilisation

A simplified version of the real annual user cost of housing can be defined as:

$$UCC = (R + M + TR + T - \Delta PH^e / PH) PH / P \quad (2)$$

where R is the nominal interest rate, adjusted for any mortgage interest tax relief; M is maintenance and insurance cost as a percentage of value; TR is transactions cost as a percentage of value; T is property tax as a percentage of value; PH is the

⁷ This equation can also be used to discuss differences in the information of market participants and differences in views of analysts. Less well informed participants are likely to overstate the 'momentum' or 'bubble builder' components. Analysts differ over the role of the fundamentals. Some, for example, will argue that real but not nominal interest rates play a role, though Meen (1993) has long argued for some role for nominal rates. They therefore obtain different answers to whether and how overvalued is the market.

⁸ Measured using realised rather than expected appreciation.

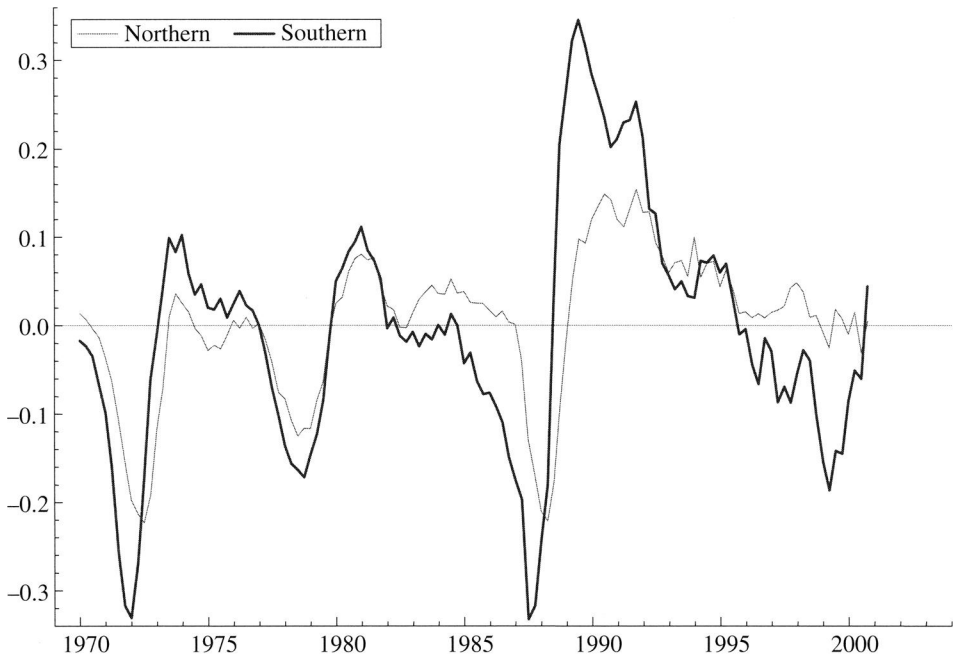


Fig. 2. User Cost for Housing in Northern and Southern Regions

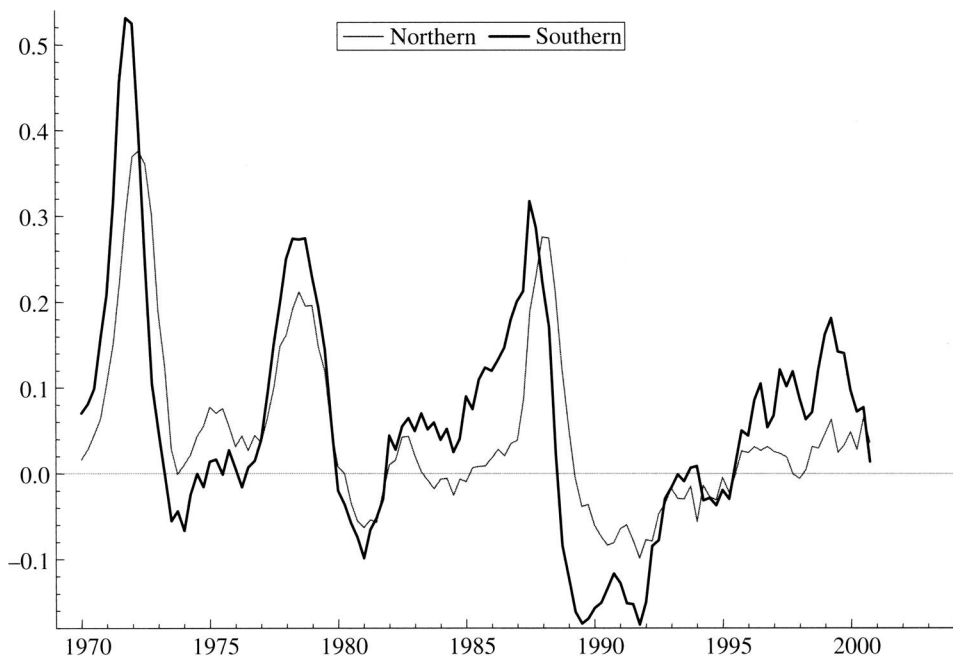


Fig. 3. Rate of Return for Northern and Southern Regions

© Royal Economic Society 2005

index of second-hand house prices; P is an index of general consumer prices; and $\Delta PH^e/PH$ is the expected rate of change of house prices.

This is simplified to demonstrate the key components that drive demand for housing. It ignores elements such as the proportion of a property's value that is mortgaged, which affects the definition of the interest rate, and the question of whether the marginal rate or the average rate of property tax is more relevant to the decision being made. It also leaves open the question of what is the most relevant time horizon over which the annual average of transactions costs should be taken. Transactions costs include solicitors' and estate agents' fees and Stamp Duty. There is some evidence that deregulation lowered the costs of the former in the 1980s. Stamp Duty rates have varied considerably. It is not clear that overall transactions costs are higher now than in the early 1980s, despite higher Stamp Duty in recent years.

For the data shown in Figures 2 and 3, it was assumed that: $M = 2\%$, $TR = 1\%$ and $T = 1\%$. These are quite crude assumptions. It is implausible that maintenance and insurance costs are proportional to house prices: they are likely to rise far less in house price booms. The average rate of tax T has also been far from constant: T was zero for Scotland from April 1988 to March 2002 and for England and Wales from April 1989 to March 1992, during which periods domestic rates were replaced by the poll tax. As the poll tax fiasco developed, many would have expected some kind of property tax to return. Such taxes were always based on outdated valuations so T tends to fall in house price booms and rise in housing recessions.⁹ This means that the user costs shown in Figure 2 *overstate* the underlying costs in house price booms and *understate* costs in house price troughs, tending to understate measured volatility – perhaps by the order of 2% between peaks and troughs. However, the Stamp Duty component of TR , which has a progressive element, is pro-cyclical. It is obvious from Figure 2, that the overall measurement errors in $M + TR + T$ are relatively small compared to the magnitude of volatility.

Furthermore, Figure 2 uses the realised capital appreciation rather than the expected capital appreciation since we have no hard data on the latter. Even the best-informed market participants will have tended to extrapolate recently experienced rates of appreciation.

While the mis-measurement of the property tax rate T may not have had a large effect on measured user costs, this does *not* mean that the level and design of property taxes has negligible causal effects on house prices. At the time of the abolition of domestic rates, Hughes (1989) and Spencer (1988) argued that this abolition would lead to an appreciation of house prices of the order of 16–22%. Their analysis was based on a capitalisation argument.¹⁰ In the long run, the value of a house should equal the discounted present value of the stream of services it provides (the imputed rent) minus maintenance costs and property taxes. In a steady state, in real terms,

⁹ In the case of Council Tax, a far from proportional tax, the average rates are less relevant than marginal rates to marginal transactions e.g., moving up the housing ladder.

¹⁰ Quang Do and Sirmans (1994) give references to the literature on capitalisation and find empirical evidence from California suggesting a real interest rate of around 4%.

$$VH = [(1 + RR)/RR](IMPR - MAINT - TAX) \quad (3)$$

where VH is the value of a house, RR is the real interest rate, $IMPR$ is the imputed rent, $MAINT$ is the maintenance cost and TAX is the property tax. For example, with $MAINT = IMPR/3$, $TAX = IMPR/6$ and $R = 4\%$, $VH = 13IMPR$. At a real interest rate of 6% which incorporates a risk premium, $VH = 8.83IMPR$.¹¹ The appreciation resulting from the abolition of property tax is calculated by taking the ratio of new to old VH as $(IMPR - MAINT - TAX)/(IMPR - MAINT)$. Under the above assumptions on $MAINT$ and TAX , this is 33.3%. With $MAINT = IMPR/6$, the appreciation is 25%. This assumes a zero probability of any future property tax returning. Conversely, going from zero tax to the above, leads respectively to 25% and 20% falls in prices.

By varying the assumptions, a range of conclusions can be obtained but it is hard to avoid concluding that the effects will be substantial. In the context of the late 1980s house price and consumption boom, this policy shift at the height of this boom can only be described as macroeconomic folly, see Muellbauer (1987), quite apart from the regressive distributional effect of the poll tax and its huge collection costs. It was also most unfortunate that property taxes, in the form of Council Tax were brought back at the trough of the worst UK housing recession in 70 years.¹²

The lessons of this episode for how to reduce instability are obvious. Instead of abolishing property tax at the height of booms, it is far better to maintain a tax linked to current or recent house prices throughout the house price cycle and that is thus a constant proportion of capital values. Such a tax will represent an increasing proportion of the value of the services yielded by housing (imputed rent) as house prices rise. Thus, $TAX/IMPR$ will rise and will automatically tend to choke off further appreciation as house prices rise relative to imputed rents and incomes. Furthermore, not only does this dampen appreciation of house prices, but it reduces household cash income and so the feed-backs that run from higher incomes to higher house prices, to higher consumer spending, to higher employment and higher incomes back to house prices. There is also an important expectations mechanism at work: if households extrapolate house price rises into the future, they will anticipate the greater tax burdens this will generate and so make more cautious spending and portfolio decisions.

Conversely, in property market downturns, tax to income ratios will fall and this helps to soften recessions. Denmark has a property tax of around 1% in recent years, linked to recent market value, and indeed a progressive element, in that the marginal tax rate is higher for the most expensive properties. Denmark avoided the UK macroeconomic imbalances of the post-1996 period (excess house price and consumption growth, trade imbalances, overvalued exchange rate) despite strong income growth, falling unemployment and rising employment levels. Admittedly, Denmark's local land value tax and highly developed but largely fixed rate mortgage market, similar to that of the US, are likely to have contributed to

¹¹ Note that here $M = MAINT/VH = 1.9\%$, $T = TAX/VH = 0.95\%$, approximately in line with assumptions made above.

¹² Given the circumstances of the time, the poll tax element and the weak link of Council Tax with market values had some merit in not destabilising the market further, a merit that had vanished by 1997, in view of the robust upturn in the market.

this remarkable stability.¹³ But the evidence, including the empirical evidence from the Danish Central Bank's own model, suggests an important stabilising role for domestic property taxes. It is no surprise that Denmark has the most effective automatic stabilisers in Europe, according to HMT's (2003a) fiscal policy study.¹⁴

The macro stabilisation role of property taxes considered so far has been primarily from a demand side perspective. Since the stabilising role via the supply side, and resource allocation issues discussed in the next section overlap, a few brief points will be made here. First, (1) shows the contribution of housing supply to house price determination: indeed, $-a_4/a_2$ measures the percentage change impact on real house prices in the long run of a 1% rise in the housing stock, other things being equal. Numbers of the order of 2 at the UK level have been used in the Barker Review simulations of the impact of additional supply on prices. As Barker explains, the more responsive is supply to higher house prices, the less volatile will be prices, since higher prices will automatically call forth higher supply, tending to reduce prices. Research by Meen for the Barker Review suggests that the average new supply elasticity in the UK is currently close to zero and unlikely to be higher than 0.5, (Meen, 2003). An important aim for Barker is to raise this elasticity, as well as shift supply.

The contribution of property taxes to supply can be divided into the effects on new building, considered by Barker, and the effects on the allocation of the existing stock, outside Barker's brief. Since the existing stock is over 99% of total supply, improvements in the utilisation of that stock have potentially large effects on prices. A property tax reform that improves utilisation is likely to have a gradual, but one-off impact on prices through better utilisation, since for many owners and occupiers, altered incentives will affect behaviour only with some delay. However, any permanent effect in increasing the responsiveness of effective supply will reduce house price volatility in the long run.

In general, taxes on property, including land, increase the incentives against keeping property vacant and under-occupied. If taxes are linked with current market values, these incentives are sharpened when property prices rise relative to incomes. For example, with higher taxes induced by higher house prices, households with spare rooms will be more inclined to rent out the space, increasing the effective supply of housing. Without such taxes, the appreciation of housing, and the additional collateral this provides for increased spending, dwarfs the potential income streams that might be generated from renting underutilised space.¹⁵ Indeed, under current conditions, a fall in house prices, associated with a drying

¹³ In Denmark, house price to income ratios did rise quite notably in the late 1990s, with strong economic performance, but much less than in the UK.

¹⁴ Moreover, consumers know that in extreme situations in either direction, tax policy could shift. Indeed, the property tax rate has been lowered in Denmark since 2001, partly in response to popular pressure, but with beneficial macroeconomic effects given the parlous economic conditions in core Eurozone economies to which Denmark has strong economic links.

¹⁵ Over 100,000 homes vacant for over 6 months are on the books of local councils in London, the South East and the East, the areas of greatest demand pressure (*Financial Times* of May 10th, 2004). Some observers of the buy-to-let purchase surge argue that, while appreciation continues, some properties bought with buy-to-let mortgages are kept empty because of the expense of renting out relative to rents received and the lack of flexibility in a rapidly moving market, where the owner may wish to sell at short notice.

up of collateral-backed credit, may even lead to *additional* supply because of pressure on cash flows, just when such supply is likely to weaken the market further.

The benefits of reform are likely to be large but hard to quantify precisely in the absence of good data on square metres of the occupied housing stock linked to the characteristics of the occupiers. The overall elasticity of total housing supply is approximately 0.99 times the elasticity of the effective existing stock plus 0.01 times the elasticity of new supply. If the elasticity of effective supply of the existing stock rose by only 0.03,¹⁶ this would be as beneficial in stabilisation terms as a rise of 3 in the elasticity of new build, which would be regarded as a tremendous success if it were the eventual outcome of the Barker recommendations.

Both demand side and supply side arguments thus suggest an important stabilising role for domestic property taxes indexed to house price indices. One important general point needs to be made about local taxation and macroeconomic stabilisation. The central government has better access to the international capital markets and is focused on macroeconomic stability. Stability of revenue is of greater concern to local governments than central government. Property taxes linked to market prices are necessarily more volatile than income or sales taxes, indeed obtaining their automatic stabilising function by rising relative to income in upswings and falling relative to income in downswings. This suggests that they are not ideal as the main source of local revenue. Given incentive arguments for some revenue sharing of property taxes between local and central government, local income taxes are the obvious source for the bulk of local authority tax revenue.

4. Resource Allocation and Tax Design

The second criterion for property tax design examined in Section 3 concerned the efficient allocation of resources. Locations such as Bradford and Liverpool have experienced vicious spirals of economic decline, while housing and the infrastructure elsewhere have been under pressure. While differences in the unemployment rate between regions have narrowed since the 1980s, the same is not true of activity rates (employment/working age population),¹⁷ which reached peaks similar to those of the mid to late 1980s in 2000–1. The low activity rates, particularly for men, in the poorer locations are a clear symptom of resource misallocation. High government expenditures on, for example, Regional Development Agencies, urban renewal projects and expensive schemes e.g., the ‘deprived areas’ Stamp Duty relief scheme and ‘key worker’ housing subsidies could be regarded as another symptom of resource misallocation.¹⁸

¹⁶ This would mean that a 50% rise in real house prices would bring forth a 1.5% additional rise in effective supply after the tax reform, compared with before the reform.

¹⁷ See, for example, evidence by Andrew Glyn and Esra Erdem to the Parliamentary Employment Select Committee, Appendix 9 of Minutes of Evidence, April 11, 2000.

¹⁸ See the detailed critique of the stamp duty scheme by Lord Oakeshott, speech at the British Property Federation Conference, Brighton 22 April 2004. ‘Key worker’ subsidy schemes tend to drive up prices further. To the extent that RDAs and urban renewal schemes are compensating for market failure their costs would not, of course, be signs of resource misallocation. However, I will argue that distortions in the tax system cause part of the problem these expenditures are designed to rectify and that it would be more efficient to work with the grain of the market by reforming the tax system, rather than relying so heavily on bureaucratic intervention.

The government's ability to supply public services in the South at reasonable quality and cost, has been hampered by staffing costs given high house prices in the South. This will have contributed to the fact that the price deflator for government services has been rising disproportionately in recent years.

The tendency of user costs to persist is one reason for the exacerbation of the regional inequalities and deprivation. One consequence of 'low demand' housing is often a vicious downward price spiral, where the low demand areas become less desirable when their house prices fall. This increases the user costs of housing, reinforcing their undesirability. Households buying in higher priced areas with rising prices, by contrast, benefit from lower user costs of housing as a result of the price growth.

Similar benefits apply to the land or property costs of businesses, which can prolong investment and employment booms in areas with high relative land prices. This failure of price-signals, measured by user cost, to signal scarcity values during long upswings is likely to exacerbate declines in economic activity in the 'low demand' areas, and over-investment and over-employment in congested successful locations. Cameron and Muellbauer (1998) found that expected house price appreciation is a crucial counterweight to high house price to earnings ratios, which otherwise discourage net migration to a high priced region. Our estimates help explain why economic activity continues to be attracted to high priced but prosperous locations.

Another reason for regional inequality and cycles of deprivation lies in the regional and local regressiveness of property taxation. The distortions of the system can be illustrated using Kensington (London) and Kensington (Liverpool). A three-bedroom terraced house costs around 6 times as much in Kensington South (KS) as in Kensington North (KN). The implied land price ratio must be around 12 to 1. KS has one of the lowest Council Tax rates; KN one of the highest in the country, 30% higher than KS in 2004–5 for a band D house, though the differentials have narrowed sharply since the late 1990s. Such a terrace will be in band A in KN and in one of the higher bands in KS, say band D. Given the local regressiveness of the tax, the tax on the KN house will be almost as high as that on the KS house, despite it being far cheaper. Seen as a tax on the underlying scarce resource land, the tax rate would, on these assumptions, be around 10 times higher per £ of residential land value in KN. The system is strongly biased against one of the most deprived inner city areas in the country. Research on regional migration (Hughes and McCormick, 2000), suggests that the unskilled unemployed, who make up the bulk of the unemployed, have a very weak response to house price/earnings differentials. Encouraging the movement of skilled workers, professionals and managers to places like Kensington North, or locations nearby is likely to reduce the local unemployment rate among the unskilled.

From this point of view, the Uniform Business Rate (UBR) is a far less distorting tax.

But it is obvious that if the tax base of UBR were shifted towards land (see below), businesses locating in the low land price locations usually associated with economic deprivation would benefit. The environmental benefits of better utilisation of the existing stock of housing and of land should also be noted, especially

if it brings new economic activity to old industrial land. Moreover, those concerned with the environmental implications of relaxing planning controls, as recommended by the Barker Review, should be sympathetic to measures which help to control demand. I will now discuss some of these issues further in the context of specific and politically realistic reform proposals.

5. Tax Reform Proposals

5.1. *Reform of Domestic Property Taxation*

I have long argued that the Council Tax is not a sensible tax.¹⁹ It is not indexed to market values (the last valuation was in 1991). It is locally regressive,²⁰ with a big 'poll tax' element and a zero marginal tax rate for expensive houses; and regionally regressive, with locations with lower house prices tending to have higher Council Tax rates. There was a 50% discount until March 2004 for second homes – councils now have discretion to reduce this to a 10% discount. There was also an 'empty homes' discount until 2003. And there is no postponement of the tax for pensioners (unlike in Denmark, where pensioners can delay payment until the property is sold) which very much reduces the cash flow burden on those with low cash incomes.

The Liberal Democrats have gone for replacement by a local income tax, with no property tax whatsoever. In terms of macroeconomic stability, abolishing property taxes at the peak of the house price boom, smacks of Mrs Thatcher's blunder of 1987–9.

The analysis of Sections 4 and 5 points to scrapping Council Tax, replacing it in part by a local income tax, but with a reformed national property tax with uniform national rates indexed to local house prices. Revenue from the latter would be shared with local councils, giving them a stake in decisions, for example on development, affecting the property tax base. But of the order of 75% of the revenue should go to central government, given the potential instability of such revenue.

A sensible rate for the UK is probably of the order of half a percent of value, or a little less. Thus, on a £250,000 house, the annual tax would be £1,150, not so very different from what many Council Tax payers are currently paying.²¹ Note that the

¹⁹ For example, Muellbauer (1997, 2002), Cameron and Muellbauer (1998, 2000*a,b*) and most comprehensively, in Cameron and Muellbauer (2001).

²⁰ It is worth commenting on a supply side aspect of local regressivity. Council Tax creates incentives to combine adjacent small housing units, whether country cottages or flats in a Victorian house, into large single units to lower the tax bill. This not only contradicts planning guidance, which tends to favour smaller units, but goes against the grain of the increasing fraction of small households in the evolving demographic structure. And because units in the rental market tend to be smaller than in the owner-occupied sector, it contributes to the overall tax bias against the rental sector.

²¹ This assumes an allowance for the first £20,000 or so, which would add a mild progressive element to the tax, particularly beneficial in low demand areas and for reducing poverty and unemployment traps. And naturally, benefits analogous to Council Tax benefit, would apply to the poorest households. Given short-term rent contracts in the UK and the need for advance warning of the reform, it probably does not matter much whether landlords or tenants pay. The former is administratively cheaper. Net revenue, after tax benefits, is likely to be higher than from current Council Tax at these rates at current property values.

Danish rate of 1% is in the context of significant mortgage interest tax relief, abolished in the UK. Five-yearly revaluations, with annual linkage to local house price indices would be a satisfactory alternative to Denmark's annual revaluations. Following the Danish example of giving pensioners the option to postpone, would be an important and popular element of such a reform. Together with the redistributive element of this reform, the number of gainers would massively outnumber the losers. Though the latter would be more influential on a per capita basis,²² it is unlikely they would dominate. If property prices fell, there would be considerable scope for the Bank of England to cut interest rates, helping first time buyers, in particular.

The Balance of Funding Review report of July 2004 recommended that council tax 'be retained but reformed ... to address its impact on those on low incomes and the impact of revaluation. Further work will be needed on the options for such reform.' The reform criteria considered by the Review ignored issues of resource allocation for the regional or national economies, and macro economic stability issues, but noted (p.8) that such considerations might be relevant in developing further proposals for reform. An independent inquiry to advise on council tax reform by Sir Michael Lyons (Lyons, 2004) to report by the end of 2005 offers the opportunity for wider criteria to be considered.²³

There is much to be said in favour of ultimately giving the rate setting power for a reformed national property tax to the Bank of England, especially if the UK were to adopt the Euro, and the Bank had to give up its interest rate instrument. As explained in this paper, the impact of such a tax is very close to that of monetary policy on the household sector.

5.2. *Reform of Business Rates*

The analysis of Sections 3 and 4 also suggests satisfying all four reform criteria by the increased linkage of business taxes to current land values. The following proposal suggests a moderate and politically feasible package and has four main elements. The first is to reform the Uniform Business Rate (UBR), shifting half the basis for valuation away from business assets to land above some minimum value per hectare.²⁴ The second is to exclude most farmland by e.g., exempting the first £20,000 value per hectare.²⁵ The third is to permit a payment window e.g., 3–5 years to ease cash flow problems, provided the tax authority has a first claim on the land holding registered at the Land Registry. Finally, the new Land Value Tax (LVT) regime should be phased in gradually.

In 2002 UBR raised £16bn.²⁶ It makes sense to raise the land value tax target of £8bn a little to compensate for a phased reduction and reform e.g., properly

²² For example, via the influence of wealthy newspaper proprietors or editors slanting coverage towards their personal self-interests rather than those of their readership.

²³ This inquiry was announced on July 20th, after the publication of the Balance of Funding Review.

²⁴ Land value taxation has a long history, aptly summarised by McLean (2004).

²⁵ The exemption would apply only to contiguous parcels of land so that large owners cannot use the acquisition of cheap land to reduce their overall tax liability by averaging.

²⁶ This is about 1.6% in 2002 of the values of buildings, civil engineering works and plant and machinery owned by private corporations.

tapering Stamp Duty, which currently raises around £2.5bn from the commercial property sector.

Stamp Duty is a poor tax. It taxes transactions and so is a barrier to mobility both for firms and households. It imposes heavy penalties on sometimes relatively small changes in contractual rights and obligations, from which both sides of the transaction benefit. The 'slab' system makes no sense: arbitrary discontinuities with no economic justification encourage a culture of deceit and avoidance. Indeed, for the commercial sector, largely subject to the maximum rate of 4%, much energy has gone into avoidance e.g., by moving partners to transactions offshore. Switching to a simple 2% flat rate or a tapered system with a 2% maximum for the commercial sector, would likely result in only a moderate revenue loss, requiring little increase, perhaps £1bn, in the Land Value Tax component of the UBR to replace lost revenue.

If the LVT component had existed in 2002, generating around £9bn revenue, the tax rate would have been perhaps 2% of value.²⁷ Phasing in over 5 years, would suggest 0.4% in the first year, 0.8% in the second year, rising to 2% in the fifth year and beyond. There would also be an initial delay for a first valuation, giving further scope for businesses to adjust to the new system.

There are numerous benefits of the LVT element in UBR. Governments face increasing difficulties in taxing corporations and there is a pressing need to find alternative tax bases. It yields the highest holding costs of land to owners when and where land prices are highest, so encouraging release of such land when and where it matters most. The Interim Barker Report evidence is that, in these locations and at these times, housing supply elasticities are at their lowest. The tax thus offsets these tendencies which are part of the reason for the overshooting of house prices and the undersupply of housing, reducing the overshooting by making user costs positive for longer, producing improved resource allocation and macroeconomic stability.

The tax falls ultimately upon ownership and not on development nor on business activity. It captures part of the benefits accruing to land owners from public investment or the private investment of others. It thus underwrites the funding of public investment, since the rise in land values that a worthwhile project engenders will automatically generate a rise in tax revenue to fund the project. This should encourage better public investment decisions not only regarding individual projects, but the scale of such investment. In a sense, it automates the mechanism by which US 'business improvement districts' are used to finance infra-structure. The tax incorporates far better incentives than complex and expensive Stamp Duty relief for deprived areas (which included Canary Wharf in such a tax exempt area).

²⁷ According to the National Income and Expenditure Blue Book, buildings and engineering works owned by private corporations in 2002 were valued at around £600bn, with the land value component probably about £300bn. To this can be added the land value of business assets held by unincorporated businesses, unlikely to amount to more than £30bn. However, the tax base would also include unused, but valuable, land currently exempt from UBR. Currently, we lack good estimates of what this might be. If it includes land with planning permission for residential housing and other valuable uses, as well as land with a significant hope value of obtaining such permissions in future, it could add as much as £150bn to the taxable land capacity, even after the £20,000 per hectare tax allowance. On the basis of a £450bn tax base, we would then be thinking of a 2% LVT.

Businesses locating in deprived areas with low land values would automatically pay substantially lower taxes than at present, and without any administrative intervention, except through the basic valuation and tax collection system. Urban regeneration is likely to be more successful under these circumstances than at present.²⁸

The property tax alternatives to UBR and LVT are not attractive. Estate Duty already exists, and with high property values is yielding buoyant revenues. It has the merit, from the point of view of housing market stability, of encouraging or in some cases, forcing, the sale of the houses of the deceased. However, its stabilisation and efficiency benefits are far weaker than those of market value related property tax as discussed above. The defects of Stamp Duty have been discussed. Capital gains taxes are also a relatively poor form of property taxation. They tend to discourage transactions and the release of under-utilised land or buildings e.g., in expectation of lower future tax rates or offsetting losses. In practice they involve serious complications of roll over relief and indexation. The Barker Review suggests Capital Gains Tax on land sales has had poor revenues and has not been a good way of capturing planning gains in land values. We turn now to the Barker Review proposals in more detail.

6. The Barker Review Proposals (Barker, 2003, 2004)

Barker views the existing planning system as a key element in the economic malfunctioning²⁹ of housing and land markets in the UK, at both a macro and micro-level. She favours its wholesale reform³⁰ and the introduction of new development taxes – Planning-gain Supplements (PGS) to be awarded on the granting of planning permission – and suggests reform of Section 106 of 1990 Planning Act. She recommends the introduction of real estate investment trusts (REITs) to bring new finance into the rental sector. More new-build social housing should be encouraged, paid for partly by the new development taxes, and registered social landlords reforms undertaken. Affordability criteria should be introduced to guide policy.³¹ Subsidies should be extended to develop land that has been derelict for some time.

These recommendations have major implications for the entire property sector, but the strong emphasis on new development taxes is questionable. Indeed, the Barker Interim Report itself outlined in detail the failure of previous development taxes.

²⁸ For a more detailed examination of various LVT design issues, see a fuller version of this paper on housingoutlook.co.uk.

²⁹ The McKinsey Global Institute Report (1998) had argued that the land use planning system in the UK was a major handicap to UK productivity.

³⁰ ODPM have already accepted the proposal to merge Regional Housing Boards and Regional Planning Bodies, and will give the Regional Assemblies ultimate responsibility for planning and meeting housing supply targets, derived from closing the gap between actual and target affordability over some medium-term horizon. An independent advisory unit – a kind of Monetary Policy Committee of new housing supply – is to oversee this process.

³¹ The ODPM have now adopted this proposal, taking the ratio of the lowest quartile of house prices from the Survey of Mortgage Lenders, to the lowest quartile of individual full-time earnings from the New Earnings Survey and its successor, as the main indicator at the regional and national levels.

The narrow remit of the Barker Review, focused on house-building, helps explain the lack of economic analysis of the effects of property taxes in general. New housing annually amounts to just under 1% of housing supply. Taxes on land or property probably have their main effects on the allocation of the existing stocks, and on demand, so consideration of land and property taxes was arguably outside the brief of the Review. Thus, while much-needed Council Tax reform was acknowledged, it was not explored.

The Barker Review's explanation for the lack of responsiveness of new supply to higher house prices is that it is caused mostly by failure of the planning system. Skill shortages are also acknowledged. However, the suggestion that rational behaviour by owners and developers of land might hold back supply in anticipation of higher future prices was ruled out, helping to explain Barker's lukewarm attitude to land value taxation. To obtain the recommendation in favour of new development taxes, Barker must be assuming that land-release incentives of a development tax for local authorities outweigh the disincentives to owners and that most of the revenue will be spent on new social housing.

The focus on new taxes on development would be reasonable if it simply involved a rationalisation of Section 106 of the 1990 Planning Act. However, the aim appears to be to extract additional planning gain from developers for local authorities and for central government. This could constitute an impediment to development, with long delays, rendering marginal schemes unviable. The Final Report contains very optimistic assumptions about the likely success of new higher taxes. The past failure of such taxes was characterised by owners withholding land for development, expecting a future tax regime would be more favourable. This outcome seems a problem for the future too.

It is not clear against which benchmark the gain is to be measured. For example, suppose farmland with the expectation of planning approval is sold to a developer or an intermediary. The uplift in value when permission is granted may only be a small fraction of the total uplift relative to the farmland price that would apply with no expectation of planning approval. If only the last stage is subject to taxation through the planning gain supplement, one might expect a new PGS minimising industry to arise, ensuring transactions take place as close as possible to the point before the planning decision is made. However, if earlier stages were to be taxed, chains of previous transactions would have to be traced and taxed, possibly after some years had elapsed. It is likely to be quite difficult to draw the line that limits how far back this process could be taken.³²

Moreover, if the reforms were poorly phased, it is possible, in the short run, that the upheaval in the planning system could slow the rate of approvals. Owners and developers might restrain development because of the new development taxes, while demand for land rose in response to new money for real estate investment from the REITs and pension reform (permitting tax advantaged self-invested private pensions (SIPPs) to invest in real estate). Thus, rather than stabilising the market, instability might be exacerbated.

³² Given these difficulties, it is surprising that Barker recommended against the much simpler development tax measure of equalising VAT on new build (currently VAT exempt) and refurbishment.

7. Conclusions

Property and land values are even more important in the economy with the liberalisation of domestic credit markets and international capital markets. With capital requirements on banks increasingly pro-cyclical under the Basel II Accords, stabilisation has become a very pressing macro-economic issue. Property and land values play extremely important roles in resource allocation both between locations, affecting income distribution and welfare, and for broad objectives such as housing supply. They also have a major influence on the distribution of purchasing power between individuals and between generations.

This paper has analysed the roles of property and land values in the economy and considered property tax reform from the point of view of the objectives of macro-economic stability, resource allocation, economic inequality and the environment. Concrete proposals for reform of Council Tax and the Uniform Business Rate have been put forward – with many more gainers than losers. The Barker Review proposals of new development taxes of unknown scale and the recent tightening of Stamp Duty on the commercial sector, have alarmed stakeholders in the property sector. Thus, the moderate proposals made here for reforming UBR and at the same time reducing Stamp Duty and rationalising the existing development tax (Section 106) rather than bringing in new development taxes seem likely to meet little resistance. Property tax and planning reform together have the potential of releasing enormous long-term economic benefits for the UK.

Nuffield College, Oxford

References

- Abraham, Jesse and Hendershott, Patric (1996). 'Bubbles in metropolitan housing markets', *Journal of Housing Research*, vol. 7, pp. 191–207.
- Barker, Kate (2003). *Review of Housing Supply*, Interim Report, HM Treasury.
- Barker, Kate (2004). *Review of Housing Supply*, Final Report, HM Treasury.
- Bernanke, Ben and Blinder, Alan S (1992). 'The federal funds rate and the channels of monetary transmission', *American Economic Review*, vol. 82(4), pp. 901–21.
- Bernanke, Ben and Gertler, Mark (1995). 'Inside the black box: the credit channel of monetary policy transmission', *Journal of Economic Perspectives*, vol. 9(4), pp. 27–48.
- Bernanke, Ben, Gertler, Mark and Gilchrist, Simon (1996). 'The financial accelerator and the flight to quality', *Review of Economics and Statistics*, vol. 78(1), pp. 1–15.
- Bernanke, Ben, Gertler, Mark and Gilchrist, Simon (1999). 'The financial accelerator in a quantitative business cycle framework', in (John Taylor and Michael Woodford eds.), *Handbook of Macroeconomics*, New York: North-Holland.
- Bowdler, Christopher (2003). 'Essays on inflation adjustment in open economies', Oxford University DPhil thesis.
- Cameron, Gavin and Muellbauer, John (1998). 'The housing market and regional commuting and migration choices', *Scottish Journal of Political Economy*, vol. 54, pp. 420–46.
- Cameron, Gavin and Muellbauer, John (1998). 'Some home truths', *Financial Times*, 18th August.
- Cameron, Gavin and Muellbauer, John (2000a). 'A plague on most of our houses', *Financial Times*, 8th March.
- Cameron, Gavin and Muellbauer, John (2000b). 'Putting property tax on a solid footing', *The Guardian*, 27th March.
- Cameron, Gavin and Muellbauer, John (2000c). 'Five council tax reforms and twelve reasons to enact them', *New Economy*, vol. 7(2), pp. 88–91.

- Cameron, Gavin and Muellbauer, John (2001). 'Earnings, unemployment and housing in Britain', *Journal of Applied Econometrics*, vol. 16(3), pp. 203–20.
- Cheshire, Paul and Sheppard, Stephen (2004). 'The introduction of price signals into land use planning decision-making: a proposal', mimeo, London School of Economics, presented at ENHR Conference, Cambridge, July 3.
- Danielsson, Jon (2003). 'On the feasibility of risk based regulation', *CESifo Economic Studies*, vol. 49, pp. 157–79.
- Engle, Robert F. and Granger, Clive W.J. (1987). 'Co-integration and error correction: representation, estimation and testing', *Econometrica*, vol. 55, pp. 251–76.
- Fernandez-Corugedo, Emilio and Muellbauer, John (2005). 'Consumer credit conditions in the UK', forthcoming, Bank of England working paper.
- Fisher, Irving (1933). 'The debt deflation theory of great depressions', *Econometrica*, vol. 1, pp. 337–57.
- Goodhart, Charles, Hofmann, Bruno and Segoviano, Marco (2004). 'Bank regulation and macroeconomic fluctuations', *Oxford Review of Economic Policy*, vol. 20(4), pp. 591–615.
- Hendershott, Patric and McGregor, Bryan D. (2003). 'Property investor rationality: evidence from UK capitalization rates', Centre for Property Research, University of Aberdeen Business School.
- Hendry, David F (1995). *Dynamic Econometrics*. Oxford: Oxford University Press.
- HM Treasury (2003a) *U.K. Membership of the Single Currency: an Assessment of the Five Economic Tests*.
- HM Treasury (2003b) *Fiscal Stabilisation and EMU*.
- HM Treasury (2003c) *Submission on EMU from Leading Academics*.
- HM Treasury (2003d) *Housing, Consumption and EMU*.
- Hughes, Gordon (1989). 'The switch from domestic rates to the community charge in Scotland', *Fiscal Studies*, vol. 10(3), pp. 1–12.
- Hughes, Gordon and McCormick, Barry (2000). *Housing Policy and Labour Market Performance*, report for ODPM.
- Lyons, Sir Michael (2004). *Independent Review of Public Sector Relocation*, HM Treasury, May.
- Maclennan, Duncan, Muellbauer, John and Stephens, Mark (1998). 'Asymmetries in housing and financial market institutions and EMU', *Oxford Review of Economic Policy*, vol. 14(3), (Autumn), pp. 54–80.
- Maclennan, Duncan, Muellbauer, John and Stephens, Mark (2000). 'Asymmetries in housing and financial market institutions and EMU', revised version in (T. Jenkinson, ed.), *Readings in Macroeconomics*, Oxford: Oxford University Press.
- McLean, Iain (2004). 'Land tax: options for reform', Submission to ODPM Select Committee enquiry on The Balance of Funding Review.
- McKinsey Global Institute Report (1998). 'Driving productivity and growth in the UK', available at <http://www.mckinsey.com/>.
- Meen, Geoffrey (1993). 'The treatment of house prices in macro-econometric models: a comparison exercise', DOE Occasional Paper, Housing and Urban Monitoring and Analysis.
- Meen, Geoffrey (2003). 'Regional housing supply elasticities in England', prepared for Barker Review of Housing Supply, October, The University of Reading.
- Miles, David (2004). *The UK Mortgage Market: Taking a Longer-Term View*, HM Treasury, March.
- Muellbauer, John (1987). 'The community charge, rates and tax reform', *Lloyds Bank Review*, vol. 166(4), pp. 7–19.
- Muellbauer, John (1990). 'The great British housing disaster and economic policy', London: Institute for Public Policy Research, Economic Study 5.
- Muellbauer, John (1997). 'Rating the housing boom', *Observer*, 4th May.
- Muellbauer, John (2002). 'Safety in property tax', *Financial Times*, 2nd July.
- Muellbauer, John and Murphy, Anthony (1994). 'Explaining regional house prices in the UK', mimeo, Nuffield College.
- Muellbauer, John and Murphy, Anthony (1997). 'Booms and busts in the UK housing market', *Economic Journal*, vol. 107 (November), pp. 1701–27.
- ODPM (2003). *Sustainable Communities: Building for the Future*, (February).
- ODPM (2003/4). *Balance of Funding Review*, (in progress).
- Quang, Do A. and Sirmans, C. F. (1994). 'Residential property tax capitalization: discount rate evidence from California', *National Tax Journal*, vol. 47(2), pp. 341–48.
- Spencer, Peter (1988). 'The community charge and its likely effects on the UK economy', Credit Suisse First Boston, (June), pp. 1–28.
- Taylor, Ashley and Goodhart, Charles (2004). 'Procyclicality and volatility in the financial system: the implementation of Basel II and IAS 39', draft paper, Financial Markets Group, London School of Economics.
- Weale, Martin (2003). 'Commentary: the UK economy', *National Institute Economic Review*, vol. 186(4), (January) pp. 4–7.