Centre for Policy Studies

Pointmaker

THE CASE AGAINST CGT

CGT IS BAD ECONOMICS AND DOES NOT HELP FULFIL GOVERNMENT'S AIMS

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SUMMARY

- Capital Gains Tax (CGT) is economically a bad tax:
  - It discourages entrepreneurship, savings and investment and so reduces economic growth.
  - It distorts capital markets by encouraging individuals to hold on to assets that would be better off under different ownership.
  - It channels funds into tax-exempt assets rather than those with the highest return.
  - The sheer number of exemptions introduced by governments of all stripes is a tacit admission that CGT is a bad tax.
- Economic theory suggests that cuts in capital taxes (like CGT) are more effective at encouraging long-run growth than cuts in, for example, income taxes. The additional revenue resulting from this extra growth could fund as much as 70% of the cost of a cut.
- Even ignoring its impact on growth, the distortionary effects of CGT mean that cuts in CGT could be achieved without major budgetary implications. In fact, cuts may actually increase revenue.
- Under *pessimistic* assumptions, returning to the 18% rate would cost between £300m and £900m. This would represent a bargain given the distortions created by CGT.
- The Treasury's own analysis suggests that, following the planned cut in the top rate of income tax, the current rate of CGT will be above its revenue maximising level.
- As a result, there is no excuse for the Treasury *not* to cut CGT immediately to about 25% (which is where the Treasury model would suggest it should now be).
- A deeper cut to 15% would clearly make economic sense but would require political determination. A rate of 0% for assets held over the long term would also be economically desirable.
- In addition, indexation of gains should be reintroduced at the earliest opportunity.

PREFACE

When the 28% higher rate of Capital Gains Tax (CGT) was introduced by the Coalition in its emergency 2010 Budget, I felt uncomfortable.

Would such an increase in rates really lead to a long-term increase in revenue for the Treasury (the only sensible justification for such a move)? Or would higher rates – and a new form of complexity – act as a tax on success and distort investments decisions and disposals so that revenues, over time, would be lower than otherwise expected – and the optimal allocation of resources damaged?

Having been a businessman for over 40 years, I instinctively felt that the latter was the case. That is why I asked the Centre for Policy Studies to find a brilliant young economist to examine the academic literature and empirical data to discover whether higher rates of CGT lead to higher revenues; or whether the dynamic effects of reductions in the rate of CGT would outweigh the static costs of any cut; and in particular whether the effects would be good for economic growth.

This the CPS has done. This paper shows four things clearly:

- First, an implication of the Treasury's own analysis is that, once the 45p top rate of income tax comes into effect next year, the 28% rate will raise *less* revenue than a lower rate. This is a ridiculous situation, and one which should be addressed immediately. There is simply no excuse for the Chancellor not to cut CGT to at most 25% in the Autumn Statement.
- Second, it provides overwhelming evidence from both the UK and overseas that higher rates of CGT are damaging to growth because of the damage it does to resource allocation and competitiveness; to entrepreneurship and to business efficiency. So what the Chancellor really ought to do in his Autumn Statement, at the least, is to set the rate of CGT back to where it was under Alastair Darling: at 18%. Such a move *under pessimistic assumptions,* would on a static basis "cost" the Treasury between £300 million and £900 million in terms of CGT revenues lost.

  That is between $\frac{1}{2000}$ and $\frac{3}{2000}$ of total government revenue.
- Third, that the total impact would of course be much less – or even positive – as increases in tax revenues from increased economic activity and employment would at the very least mitigate this small sum. A cut in the CGT rate should also bring forward tax revenue both in the short term (as the number of transactions would increase) and in the medium term (as the UK would once again have an internationally competitive rate).
- Fourth, the overwhelming conclusion of the economic literature is that the optimal rate of CGT is zero. If the Coalition really does want to increase economic growth by being bold in tax reform, that should be its goal.

This paper should be studied by all those who truly want to see the great, if currently latent, dynamism of British businessmen and women unleashed.

But study is not enough. In Churchill's words, Mr Osborne, "Action this day".

Lord Flight
September 2012

CAPITAL GAINS TAX IN THE UK

CGT was introduced in the UK in 1965 and has been subjected to numerous reforms in the intervening time period. It began life as a 30% flat rate on the nominal gains made upon selling an asset. High inflation during the 1970s meant that a large proportion of the taxed gains were "paper gains" rather than an increase in the real purchasing power of assets. To counter this, the 1982 budget introduced indexation so that only real gains would be taxed.

In 1988 the then Chancellor of the Exchequer, Nigel Lawson, abolished the flat rate and instead taxed gains at an individual's marginal income tax rate. This effectively abolished the special treatment of capital gains relative to income, and led to a significant increase in CGT for those in the higher income (40%) bracket.

In the low-inflation environment of the 1990s, indexation ceased to be of prime importance. The Government's attention shifted to encouraging long-term business investment. This led to a system of "taper relief" in which assets held for a longer period of time were subject to successively lower rates of CGT.

Again, these reforms were short-lived. In 2007, Alistair Darling abolished taper relief with the intention of introducing a flat 18% rate on all capital gains. An outcry from the business community led to this system being augmented with an "entrepreneurs' relief"

Country	Top Rate of CGT	Notes
Denmark	42	Progressive system with lower 27% rate. Gains on shares are taxable
France	32.5	Includes social security surcharge of 13.5%
Sweden	30	Flat Rate
Ireland	30	Flat rate
UK	**28**	**See discussion in text**
Norway	28	Flat Rate. Includes shares, excludes real estate held for more than 5 years
Spain	27	Progressive tax starting from 21%
Canada	26.5	Half top rate of income tax (including both federal and provincial)
Germany	26.375	25% plus solidarity surcharge
Portugal	23.25	Half top rate of income tax, 25% rate on shares
Australia	22.5	Half top rate of income tax
South Korea	22	Maximum on long-term gains. Exemptions lead to typical rate of 11%
Iceland	20	Flat Rate
Italy	20	Flat Rate
Japan	20	Short term gains on land taxed at 39%, on listed shares 10%
Latvia	15	Flat Rate
US	15	See Discussion in Text
Belgium	0	Typically zero, but positive on real estate, and share sales by non-EU citizens
Hong Kong	0	No Capital Gains Tax
Netherlands	0	No tax on gains relating to an investment
New Zealand	0	No Capital Gains Tax
Singapore	0	No Capital Gains Tax
Switzerland	0	No Capital Gains Tax

Sources: Deloitte International Tax Highlights 2012 and PWC: A Summary of Korean Corporate and Individual Income Taxes

scheme that allowed owners of small businesses to claim back some of the tax paid on gains from business assets, in effect reducing their rate of CGT to 10% on these gains, up to a life time limit of £1 million.

The most recent reforms to the CGT occurred in 2010 when, once again, the flat tax was abolished. Individuals now pay no tax on their first £10,600 of gains in a given year, followed by a rate of 18% if their total annual income is below the higher-rate tax threshold. Otherwise they pay a higher rate of 28%. Entrepreneurs' relief remains in place with an increased limit on lifetime gains of £10 million.

Given its prominence in political debate and the rapid pace of reform over the years, one might expect CGT to be a key source of revenue for the Treasury. In fact, the revenue it generates is surprisingly small: in 2011 the total revenue raised by CGT was £3.6 billion. This is less than half the revenue raised by tobacco duty and is comparable to the £3.4 billion raised by beer duty.

CAPITAL GAINS TAX IN THE US

The US system has treated capital gains and other income differentially for almost a hundred years. With the exception of a two-year period in the 1980s, the maximum rate of income tax has always exceeded the maximum rate on gains. Historically, the US treatment of capital gains has focussed on the distinction between short-term and long-term gains: some form of tax-break has been in place for long-term asset holdings for most of the post-war period.

Under the current system, an individual's CGT rate is determined by their income tax bracket and the length of time they have held the asset being sold. If an asset has been held for less than one year then the gain is considered "short term" and is taxed as ordinary income. If the asset has been held for more than one year then it is considered "long term" and individuals pay a tax rate that is considerably lower than the one charged on their ordinary income: individuals who are in the bottom two income tax brackets pay a zero rate while those in the top brackets pay 15%.

From 2013, the differential treatment of long-term gains will become more pronounced even while rates increase. The CGT rate on short term gains will rise from 35% to 39.6%, the tax payable on assets held for one to five years will be increased to 20% and a new rate of 18% will be introduced for assets held for five years or more.

CGT IN THE REST OF THE WORLD

One potential way in which the UK's current CGT regime could have damaging effects is through its impact on international competitiveness: high rates of CGT could deter investment in the UK. It is therefore important to examine how the UK's regime compares to those in similar countries.

The table on page 3 gives an overview of how the UK's CGT regime compares to those of a selection of developed countries. The second column presents each country's maximum CGT rate for individuals disposing of an asset that has been held for at least 12 months.

By this measure, the UK tax regime is one of the most onerous. Had the coalition instead kept the 18% flat rate implemented by the previous government, the UK's CGT regime would have been relatively competitive.

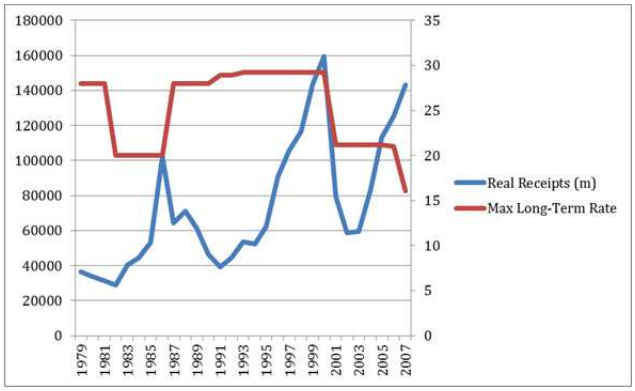
CGT RATES AND REVENUE

Can cuts in CGT be achieved without substantial cost to the Treasury? Could they even increase government revenue? Some descriptive evidence from the US suggests that the answer to both questions could be yes.

The chart below shows US CGT receipts (measured in millions of 2007 dollars) and the maximum rate of CGT on long-term gains for the years 1979 to 2007.[1] Of course using broad aggregate measures is never going to make a convincing case one way or another: capital gains realisations can be affected by many other factors (such as changes in stock market performance or changes in investors' expectations of future tax changes).

However, the response to the dramatic increase in the rate of CGT that occurred in 1986 is still remarkable.

As expected, there was an initial spike in revenue just before the change as investors sold assets in anticipation of the impending change in the tax code. However, policy makers were convinced at the time that government revenues would quickly bounce back until they exceeded pre-reform levels.



Instead, revenues continued to fall in real terms for another four years and took even longer to return to their pre-reform levels. This observation cannot be explained by poor stock market performance: stock prices were rising even while capital gains revenue was falling.

[1] We exclude the years after 2007 to avoid the picture being clouded by changes in CGT revenue due to the financial crisis of 2008. A similar picture emerges if CGT revenue is plotted as a percentage of GDP.

The implication is that the US Treasury may have raised more revenue if it had left CGT rates at the 1986 level.

THE ECONOMIC ARGUMENTS FOR CUTTING CGT

Argument 1: High CGT rates discourage asset sales and so may actually reduce tax revenue

Because CGT is charged only when an asset is sold, a straightforward way to avoid it is to not sell assets. This observation raises the possibility of a Laffer effect: by discouraging asset sales, increases in CGT rates may actually reduce revenue.

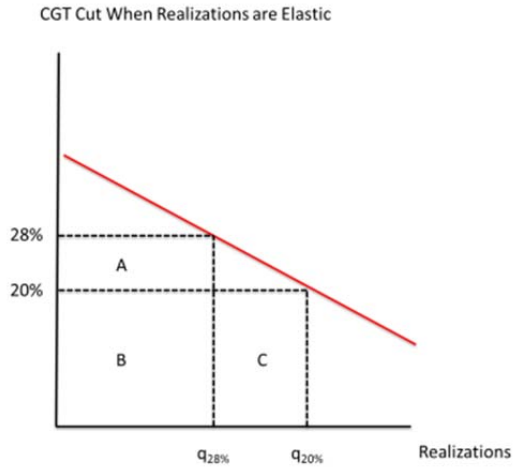
Among economists, this is referred to as a "lock-in effect" and the argument is as follows. An individual holding an asset may believe that another asset offers him a higher rate of return. The efficient outcome would be for the individual to sell the first asset and buy the second. However, if the CGT rate is sufficiently high, he may find that the tax liability he faces upon selling the first asset outweighs the higher rate of return he could obtain by buying the second. In this case the individual will choose not to trade.

As well as implying that CGTs can distort individuals' asset portfolios, this has implications for government revenue. For example, suppose that the individual finds it optimal to trade the two assets when the CGT rate is 10%, but not when it is 20%. In this case the government's revenue is zero when the rate is 20%, but positive when it is 10%. Thus cuts in CGT rates can actually increase revenue by stimulating asset sales that would not have taken place otherwise.

This argument is formalised in the diagram overleaf. Suppose that increasing the tax rate on capital gains reduces the number of taxable realizations through the lock-in effect and that, starting from the existing 28% rate,

the total number of taxable realizations is given by $q_{28\%}$. Then the government's revenue is given by the areas A and B: the 28% tax rate times the total number of realizations.

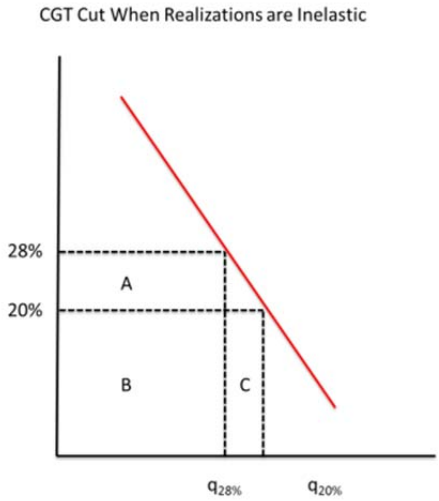
Now let's consider what happens when the government cuts the rate of CGT to 20%. It first loses revenue equal to the area A because, for all of the realizations that would have happened anyway, it only takes 20% in tax instead of 28%.



However, the government also gains revenue equal to the area C: this reflects the fact that lowering the rate increases the number of asset sales that are subject to CGT and realizations increase to $q_{20\%}$. The tax levied on these additional trades represents new revenue for the government.

Whether area C is larger than area A will determine whether cutting CGT will raise revenue. This depends in turn on how sensitive asset sales (and hence taxable realizations) are to the rate of CGT.

The next diagram shows an alternative case where tax rates have very little effect on the number of asset sales and so cutting CGT from the 28% level will be revenue decreasing.



These diagrams demonstrate that, because of the lock-in effect, CGT tax cuts need not be revenue decreasing. When combined with the story of tax reform in the US in 1986, the case becomes more compelling. However, whether or not this effect is large enough in practice is an empirical question: as such, academic economists have tried to estimate what the effects on revenue are likely to be.

The crucial question is how sensitive taxable realizations are to the rate of CGT. More precisely, what matters is whether a 1% increase in the rate of CGT reduces realized capital gains by more than 1%. In the jargon of economists: is the elasticity of realized capital gains with respect to the rate of CGT less than minus one?

The earliest attempt to answer this question was a classic paper by Martin Feldstein et al.[2] They collected data from the individual tax

[2] Feldstein, Martin, Joel Slemrod, and Shlomo Yitzhaki. "The Effects of Taxation on the Selling of Corporate Stock and the Realization of Capital Gains." *Quarterly Journal of Economics* 94 (June 1980): 777–91.

returns of approximately 100,000 US taxpayers and examined the sensitivity of both sales of corporate stock and realized capital gains to each individual's marginal tax rate on capital gains.

Controlling for income, whether individuals are past the retirement age and using an instrumental variables approach to control for the fact that an individual's marginal rate of CGT depended on the amount of assets they sold, Feldstein et al found that capital gains realizations are extremely sensitive to marginal CGT rates with an elasticity substantially less than minus one.

The estimates allowed the authors to calculate long-run levels of asset sales under different regimes. They found that moving from the status quo (in which the marginal CGT was around 40%) to a regime in which CGT rates were limited to a maximum rate of 25% would have increased corporate stock sales by about 40%. Even more dramatically, their results implied that the same reform would have increased realised gains three-fold. This in turn implies that cuts in CGT would have led to a substantial increase in tax revenue.

The implications of the Feldstein et al results are important enough to be worthy of discussion. One critique has been that the study is static: it looks at a group of individuals at a single point in time. This is problematic if individuals' tax rates vary over time and individuals time their asset sales to take advantage of low rates. If this were the case then Feldstein et al's estimates would exaggerate the effect of a permanent cut in CGT rates.

Auten and Clotfelter (1982) address this problem by looking at a group of individuals over a seven-year period.[3] Using a panel data approach they were able to partition an individual's marginal tax rate into a permanent and a transitory component. The estimated effect of changes in the permanent tax rate on the value of realised gains can then be used to determine the impact of changes in the CGT rate on government revenue.

The authors found that individuals' realizations of capital gains are sensitive to transitory changes in tax rates. In most of the specifications they also found a negative effect of changes in individuals' permanent tax rate. While the elasticity, at around minus one-half, is less than that estimated by Feldstein et al, it still suggests that increases in asset sales will mitigate a substantial proportion of the direct revenue loss from cutting the rate of CGT. In addition, imprecision in the estimates means that the authors could not rule out the possibility that the true elasticity is less than minus one and therefore large enough to make CGT cuts revenue-increasing.

An alternative way to avoid the problem of using static individual-level data is to use aggregate data. Bogart and Gentry (1995) took this approach and used variation in CGT rates across US States to identify the effect of changes in tax rates on revenue.[4] Because state-level CGT rates did not change over the period of study they can be interpreted as permanent components of an individual's CGT rate. Their baseline results imply a permanent

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[3] Auten, Gerald and Clotfelter, Charles. "Permanent versus Transitory Tax Effects and the Realization of Capital Gains." *Quarterly Journal of Economics* 97 (November 1982): 613-632.

[4] Bogart, William and Gentry, William. "Capital Gains Taxation and Realizations: Evidence from Interstate Comparisons," *Review of Economics and Statistics* Vol. 77 No. 2 (1995), National Bureau of Economic Research, Inc. 267-82.

elasticity of between –1.27 and –1.42, suggesting that a permanent cut in CGT rates would increase revenue. This result is somewhat sensitive to changes in specification, but even in their conservative specifications the authors estimate an elasticity of around –0.65. Interestingly, they found that realizations by high earners are substantially more sensitive to changes in the CGT rate, suggesting that the UK's movement away from a flat-tax on capital gains may have been misguided.

The above research, while finding conflicting evidence about the magnitude of the effect, concurs on the fact that asset sales are sensitive to permanent changes in CGT rates and that this could mitigate any losses of revenue from CGT cuts. One notable exception is the work of Burman and Randolph (1994) that used an instrumental variables approach, along with variation in state-level CGT rates, to separately identify permanent and transitory effects.[5] The authors found huge transitory effects of tax cuts (an elasticity of -6.42!) and no statistically significant effect of permanent changes. These results suggest that changes in CGT rates would only change the timing of realizations and would have no permanent effect on the number of asset sales.

There has not been much additional formal quantitative research on the sensitivity of capital gains realizations to tax rates. However, Martin Feldstein (1995) has argued that the experience of the US following its increasing of CGT rates in 1986 draws doubt on studies, like Burman and Randolph's, that find no long-term impact of capital gains tax cuts.[6] The latter's work can explain the huge spike in revenue prior to the reforms being implemented, but it also suggests that CGT revenue should have quickly returned to its pre-reform level. In fact, over the next six years CGT revenue fell by an additional 40% in real terms even though (as mentioned above) share prices increased by 34% in real terms during the same period.

In conclusion, all studies agree that a CGT cut would produce a short-term spike in realizations. A large number of studies go further and argue that tax-cuts will permanently increase realized gains by mitigating the lock-in effect. While few studies go as far as claiming that cutting CGT from current levels will *definitely* increase revenue, there is a strong body of work suggesting that any direct revenue losses from CGT rate cuts will be substantially mitigated by a permanent increase in realized gains.

Argument 2: Conventional Economic Models Say Taxing Capital is a Bad Idea

When deciding how much to tax capital gains it is useful to think about what we are trying to achieve when we levy taxes. Economists view the problem of designing a tax system as one of achieving the best outcome for society while raising the funds necessary to finance government activities. All else being equal, the burden of taxation should be chosen to minimise distortions to economic behaviour.

One of the most famous results in optimal tax theory states that, in the long run, capital

[5] Burman, Leonard and Randolph, William. "Measuring Permanent Changes to Capital Gains Tax Changes in Panel Data," *The American Economic Review*, Vol. 84, No. 4 (Sep., 1994), 794-809.

[6] Feldstein, Martin. "Behavioral Responses to Tax Rates: Evidence from TRA86," *NBER Working Papers 5000* (1995), National Bureau of Economic Research, Inc.

income should not be taxed.[7] This implies that, in the long run, none of the burden of funding government expenditure, whether this spending is for public goods or redistribution, should fall on capital taxation and that the required revenue should instead come from labour or consumption taxes.

This stark result is both surprising and controversial and has been challenged in the literature, but it is an implication of most canonical macroeconomic models and is remarkably robust to changes in the assumptions. For example, the zero capital tax result holds whether the government runs a balanced budget or is allowed to borrow. It even holds when the model is extended to allow for multiple "classes" of individuals with different asset holdings. Finally, when the mode is extended to allow for random shocks to the economy, the optimal level of capital taxation in the long run will be equal to zero on average.

Atkinson and Stiglitz (1976) took an alternative route towards arguing that capital taxes should be equal to zero.[8] They used a theoretical model to show that, once income taxes are set optimally, there is no need to tax capital income further to achieve redistributive goals. This follows because the goal of redistribution is to raise money from high earners and transfer it to low earners. Once income is taxed appropriately there is no need to further tax high savers relative to low savers.[9]

However, in recent months the work of Emannuel Saez has questioned these results. In particular, Piketty and Saez (2012) argued that, if individuals differ both in their ability to earn income and the amount of inheritance they receive from their parents, it is necessary to use capital taxation in conjunction with income taxation to achieve redistributive goals.[10]

Nevertheless, even the model of Picketty and Saez only makes a case for capital taxation in the form of taxation of bequests rather than a tax on investment income like CGT. In order to induce positive taxation of investment income, the Piketty-Saez model requires the extreme assumption that all individuals are free to reclassify their labour income as capital income.

In conclusion, the recommendation of zero capital taxes is a flagship result of the optimal taxation literature. While this stark recommendation has been challenged as resulting from somewhat restrictive assumptions, it is still one of the most robust recommendations of canonical economic models.

Argument 3: CGT Cuts are more effective at encouraging growth than other tax cuts and this growth will reduce the budgetary implications of a cut in rates

One intuition behind the zero capital taxation result discussed above is that taxes on investment income, like CGT, distort both individuals' labour market and saving and investment decisions. As a result, they do more harm to economic growth than equivalent taxes on labour or consumption, which only distort the labour market.

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7 See Chamley, Christoph. "Optimal Taxation of Capital Income in General Equilibrium with Infinitely Lived Agents", (1986) *Econometrica*, Vol. 54(3), 7-22

8 Atkinson, A. and Stiglitz, J. "The Design of Tax Structure: Direct Versus Indirect Taxation," *Journal of Public Economics* 6 (1976) 55-75.

9 See below for a critique of CGT as double taxation.

10 Saez, E. and Piketty, T. "A Theory of Optimal Capital Taxation" *NBER Working Paper* No. 17989, April 2012.

Another way of phrasing this is that cuts in CGT could be partly self-financing because they would encourage economic growth and so increase future tax revenues. Mankiw and Weinzierl (2006) examined the potential magnitude of this effect.[11] The authors constructed a simple macroeconomic model and examined to what degree the direct losses in revenue due to cuts in taxes on labour and investment earnings are mitigated by an increase in the future tax base due to greater economic growth.

They found that labour tax cuts induce additional economic growth that is sufficient to cover 15% to 20% of their cost. In contrast, the extra growth following cuts in taxes on investment income is sufficient to cover 40% to 70% of their cost. In other words, cuts in CGT do much more to encourage investment and growth. Not only is this desirable in itself, but it also implies that CGT cuts can be implemented at a significantly lower cost to the Exchequer than equivalent cuts on, for example, the higher rate of income tax.

Argument 4: CGT amounts to Double Taxation

To illustrate how CGT can lead to double taxation, consider two individuals with exactly the same earnings throughout their careers. One chooses to spend all their earnings immediately, while the other chooses to invest some of them in financial assets that could potentially increase in value.

Because both earn the same labour income they will pay the same amount of income tax. However, the second individual will also pay CGT on any realised capital gains and so will pay a higher amount of tax than the first.

This discrepancy can be criticised on fairness grounds (why should an individual be punished for saving rather than consuming?) as well as on its implications for economic efficiency (should the tax system discourage savings and investment when these are essential for economic growth?).

Argument 5: High CGT rates discourage Entrepreneurship

The lock-in effect caused by high rates of CGT does not just have implications for revenue: it can also discourage entrepreneurship and, in particular, serial entrepreneurship.

By taxing the proceeds from selling a successful start-up, CGT incentivises entrepreneurs to continue managing their businesses once they become established rather than selling them and moving on to the next project. This could have negative implications for economic dynamism as natural risk-takers become locked into an existing business when the overall economy would be better off if they became serial entrepreneurs. In addition, the fact that they will be liable to pay CGT if they sell off a successful business means that higher rates of CGT will reduce the number of start-ups happening in the first place.

Chari, Golosov and Tsyvinski (2005) attempted to quantify these effects.[12] By studying a model economy in which individuals can be better suited to either entrepreneurship or management they showed how this effect can have important implications for the optimal level of CGT: they find that cutting CGT from 20% to 0% increases national welfare even

[11] Mankiw, N and Weinzierl, M. "Dynamic Scoring: A Back-of-the-Envelope Guide," *Journal of Public Economics* Vol. 90 (2006), 1415-1433

[12] Chari, V., Golosov, M. and Tsyvinski, A. *Business Start-ups, The Lock-in Effect, and Capital Gains Taxation*, Working Paper (2005), UCLA Department of Economics.

when the tax cut directly benefits only the top 1% of the most successful entrepreneurs. This is because it encourages a larger number of individuals to start new businesses with positive implications for the wider economy. The authors also find that the revenue raised by CGT quickly declines as soon as the rate exceeds 15%.[13]

EFFECT ON TAX AVOIDANCE

A common criticism of calls for reductions in CGT is that they will encourage tax avoidance: high earners will simply reclassify their labour income as gains so as to pay a lower rate of tax. As a result any increase in CGT revenues could simply be cannibalised from existing income tax receipts.

This problem has probably been exaggerated.[14] Reclassifying income as gains is not straightforward and is unavailable to the vast majority of taxpayers. In addition, it is at least questionable whether one should keep tax rates high by appealing to an effect that is little understood and has not been well quantified.

One of the most common, and most criticised, ways of reclassifying labour income as gains occurs in the private equity industry. Typically fund managers' fees take the form of "carried interest" as the share of the profits made by the investment fund that exceeds the manager's own contribution to the fund. Although carried interest is paid in return for a service (and so could be considered labour income) it is taxed as a capital gain.

While it is unfortunate that some of the UK's highest earners pay a rate of tax that is well below the top rate of income tax, the fact remains that this method of tax avoidance is only available to workers in a very specific set of industries. Raising CGT rates as high as possible seems an extreme solution when a more tailored adjustment of the tax system would suffice.

Finally, the question is whether cutting CGT from its current levels would have a major effect on the level of tax avoidance. Given that the current arbitrage opportunity amounts to a reduction in marginal tax rates of 22% for the highest earners, it seems unlikely that there are many individuals who are not reclassifying their income, but would do so if the CGT rate was cut by a few percentage points. As such, the issue of reclassification of income to gains is not a major one when it comes to deciding whether or not to cut CGT. It is certainly not the insurmountable obstacle that it is sometimes portrayed to be.

THE POTENTIAL COSTS OF CUTTING CGT

The above analysis suggests that:

- CGT rates should be kept low for reasons of economic efficiency.
- Cuts in CGT rates from the current level need not have substantial budgetary implications.
- The socially optimal rate of CGT will probably not be the one that maximises revenue.

Unfortunately, this is exactly the goal the Treasury claimed to have been aiming for when increasing the higher rate of CGT to 28%. HMRC's ready reckoner predicts that an increase in the rate of CGT beyond this point would have no effect on government revenue,

[13] The importance of this mechanism in a UK context is somewhat reduced by the existence of entrepreneurs' relief.

[14] This is also evidenced by the fact that numerous countries have no CGT and yet still manage to raise substantial revenues through income taxes.

suggesting that it believes this goal has been achieved.[15]

There is some uncertainty as to how the Treasury arrived at this result. In addition, there are some glaring inconsistencies between the headline results in the ready reckoner and figures obtained from Freedom of Information requests (these suggest that the Treasury's model actually predicts the revenue maximising rate to be significantly above its current level).

Although the exact methodology behind the Treasury's analysis is not clear, we do know that their model focuses on two behavioural effects. First, they allow for the existence of a lock-in effect like the one described in this report. Second, the Treasury assumes that increases in the rate of CGT will have a substantial effect on the number of people taking tax avoidance measures to reclassify their income as gains (whether this is justified is questionable, as demonstrated above).

One interesting implication is that, as long as one assumes that the marginal effect of CGT tax cuts on the level of tax avoidance becomes bigger as the difference between the rate of CGT and the top rate of income tax increases, the Treasury cannot claim that the 28% rate maximised revenue when the top rate of income tax was 50% without acknowledging that we will be on the wrong side of the Laffer curve once the top rate falls to 45% in 2013.

The logic for this is as follows: if the 28% rate was revenue-maximising when the top income tax rate was at 50% then it must be that, if there is a tax cut, any revenue increase due to a relaxing of the lock-in effect would be exactly offset by a loss due to more people reclassifying their income as gains.

After the top rate of tax is cut, the difference between the tax rate on income and gains will fall and so the incentive to avoid income tax will be reduced. This implies that, if the two effects were equal before, the lock-in effect must be larger afterwards. Even if the incentive to reclassify is unchanged after the cut in the higher rate, the cost of reclassification has fallen (as one pound of reclassified income will imply a smaller cost to the Treasury who would now only lose 17 pence in the pound rather than 22 pence). This implies that the 28% rate should be cut if the goal is revenue maximisation.

Analysis released under the Freedom of Information Act suggests that the Treasury may have actually believed that the revenue-maximising rate to be much higher than its current 28% level. This was based on a pessimistic set of assumptions which we can use to give an approximate upper limit on what the fiscal implications of CGT cuts are likely to be.

In this analysis, the Treasury assumed an elasticity between realized gains and the rate of CGT of –0.73. While this is consistent with many results in the literature, it is short of the –1 required to make the lock-in effect outweigh the direct revenue loss from cutting CGT. It is also far smaller than that estimated by Feldstein et al. However, while studies suggesting a larger lock-in effect exist, this choice is consistent with a fair reading of the literature. The net effect is that the Treasury estimated in 2010 that a ten-point reduction in the rate of CGT would cause a direct reduction in CGT revenue of around £300 million. The flat performance of stock markets during the intervening time period means that this figure is probably a fair reflection of the Treasury's view of the costs as they stand today.

[15] HMRC, Table 1.6, *Direct Effect of Illustrative Changes*, March 2012.

In addition to the direct effect, the Treasury also assumes that a one point fall in CGT will result in £60 million less income tax revenue due to individuals reclassifying their income as gains. This assumption should be questioned: as explained above we believe that the supposed ease with which people can reclassify their income as gains has been significantly exaggerated. Ignoring these concerns and taking the £60 million figure as correct, a return to the 18% rate of CGT would cost £600 million in lost income tax revenue, to give a total cost of around £900 million. A more modest cut would naturally have lower costs and, if more optimistic, but still plausible assumptions were made, such a cut could have zero or even positive revenue implications.

In summary, the Treasury's claim that the 28% rate maximised revenue when the top rate of tax was 50%, implies that a 28% rate will be too high once the top rate of tax is cut to 45%. A modest cut in CGT would therefore be revenue-increasing under these assumptions.

If we instead use internal Treasury figures that suggest a much higher revenue-maximising level of CGT, then the revenue costs of returning to the old 18% regime are positive, but still relatively modest. Even under very pessimistic assumptions about the effect of cuts on income tax avoidance, the total cost to the exchequer would be below £1 billion. Economic theory makes a strong case against capital taxation on efficiency grounds and so, net of these costs, a cut in CGT would be justified.

WHAT EXEMPTIONS SHOULD BE MADE AVAILABLE?

A large number of exemptions have been introduced over the years by governments from both parties. These have added greatly to the complexity of the tax and should be considered as a tacit admission that CGT is a bad tax.[16]

However, some exemptions may be more justifiable than others. In particular:

- should the tax code reward people for holding assets for longer?
- should the tax code differentiate between different types of investment?, and
- is there a case for only taxing gains in excess of inflation?

Distinguishing between long- and short-term gains

Many countries distinguish between gains on assets that have only been held for a short period of time and those that have been held for several years. This was also true of the UK until taper relief was abolished.

Tax breaks for assets that have been held for longer have costs as well as benefits. On the

[16] For example, reliefs which can be used to reduce CGT include:
- Private Residence Relief
- Business Asset Roll-Over Relief
- Entrepreneurs' Relief
- Gift Hold-Over Relief
- Incorporation Relief
- up to £6,000 of jewellery, paintings or other personal possessions;
- stocks held in ISAS or PEPs;
- gilt edged securities;
- gambling winnings;
- personal injury compensation;
- foreign currency bought for use on holiday

one hand, by excluding very short-term asset sales, it reduces the scope for reclassification of income as gains and so reduces the cost of CGT cuts through tax avoidance. This means that the primary benefits of CGT cuts – increases in investment and economic growth – can be achieved at lower cost.

However, reintroducing taper relief would have a distortionary effect on asset markets. Individuals' investment decisions will be distorted as they are encouraged to retain assets for longer than they otherwise would so as to qualify for better tax treatment. Effectively, the lock-in effect of CGT will be strengthened for the first few years of an asset's ownership.

Given that the main obstacle preventing immediate cuts in CGT is likely to be concerns about the budgetary implications and, in particular, the lost revenue resulting from increased tax avoidance, a reintroduction of taper relief could be a way of obtaining the main benefits of lower rates of CGT while avoiding the concerns of reduced income tax receipts due to tax avoidance.

Differentiating between different types of investment

In principle, giving preferential treatment to a given class of asset is not desirable. It amounts to the government "picking winners" and needlessly distorts investment decisions.

Two potential exemptions are the cases of gains accruing to entrepreneurs; and from selling corporate stock. In the first case, we have seen that CGT can have an extremely discouraging effect on serial entrepreneurship; an activity that most people would agree should be encouraged.

In the case of corporate stock one can make the case on double taxation grounds: increases in the value of a company's shares reflect changes in investors' beliefs as to the value of its future (net) profits. These profits are already subject to corporation tax and so there is an argument to be made that they should not be subject to an additional tax upon sale.

Should Capital Gains be indexed?

The current CGT system taxes nominal gains. This means that individuals can be taxed on gains even when they are due to inflation.

Even in the current environment of relatively-low inflation, these effects can be substantial: an asset bought in Summer 2010 would have to have increased in value by more than 7% to deliver a real return, but even assets which had increased by less than this (and whose real value actually fell) would be subject to CGT.

There are clearly benefits, both in terms of efficiency and fairness, to tax only real gains. The question is whether these benefits exceed the cost of further complicating the tax system. A formal analysis of this question is beyond the scope of this paper, but an obvious conclusion is that the higher the rate of inflation, the greater the benefit from indexing gains.

We believe that, given the uncertainty surrounding the future path for inflation, there is a strong case to be made for indexing gains. At the very least, there should be a commitment to introduce indexing at the very first signs of higher inflation.

OPTIONS FOR REFORM

Option One: abolish CGT

The Coalition could follow the recommendation of the bulk of the economics literature on optimal taxation and abolish CGT altogether. This would have a direct cost of around £4 billion in lost CGT revenue. The total *direct* cost would likely be somewhat higher as income tax

receipts would fall due to the increased incentive to reclassify income as gains. Against this should be offset the greater income received by the Treasury from higher levels of entrepreneurial activity that such a move would encourage. This would include higher revenues from Corporation Tax and higher employment participation rates (and thus higher income tax revenues and lower benefit expenditure).

Option Two: return CGT to its 2010 level

The Coalition could return CGT to the 18% flat rate regime. Under pessimistic assumptions this would cost around £900 million. The true cost is likely to be substantially lower, and the possibility that it could increase revenue should not be ruled out.

Option Three: re-introduce taper relief

The Coalition could augment the current system with taper relief for assets that have been held for a longer period of time. For example, the rate of CGT could be reduced to 18% for assets held for more than two years. This would mitigate some of the worst distortions of high CGT rates while minimising the incentive for tax avoidance. This option would cost even less than Option 2 and would be substantially more likely to increase revenue. Ideally, the Coalition should abolish CGT for longer-term investments.

Note that, in comparison to options 1 and 2, reintroducing taper relief would come at the cost of increased distortions in asset markets due to individuals being encouraged to hold onto assets in order to obtain better tax treatment. However, this cost may be outweighed by the benefit of making it more difficult for individuals to avoid income tax by reclassifying their income as gains.

CONCLUSION

CGT is a bad tax. It discourages risk-taking, saving and investment, thereby impeding economic growth. As a result, cuts in CGT would stimulate economic growth in both the short and the long run. In addition, the distortionary nature of CGT means that cuts can be achieved at relatively little cost and could actually increase government revenue.

Any one of the options above would be a powerful short-run stimulus that would also go a long way to putting the UK on the path towards long-run economic growth. Options 2 and 3 would involve substantial cuts in CGT without any jeopardy to the UK's fiscal position. Indeed, there is even a possibility that they might increase government revenue.

Finally, whichever option is chosen, the Coalition should consider the reintroduction of indexation of gains. This would result in a fairer tax system that more properly rewarded savings and investment.

APPENDIX

The Effect of Cutting the Top Rate of Income Tax on the Revenue Maximising Level of CGT

Let τ_g and τ_n be respectively the top rate of CGT and income tax. Let $R(\tau_G)$ be the revenue from legitimate capital gains realizations (i.e. not including reclassified income). This will initially be increasing in the tax rate, but at some point will be decreasing due to the lock-in effect. As a result R is a concave function of the tax rate ($R' > 0$, $R'' < 0$).

The amount of income reclassified as gains by individuals is, as in the Treasury's analysis, a linear function of the arbitrage opportunity from reclassification:

$$Reclassified\ Income = \alpha(\tau_n - \tau_g)$$

The lost tax revenue from reclassification is then this times the difference in rates:

$$Lost\ Income\ Tax\ Revenue = \alpha(\tau_n - \tau_g)^2$$

If, as the Treasury's ready reckoner assumes, the 28% rate was the revenue maximising one, it must be that the following FOC is satisfied:[17]

$$R'(\tau_G^*) + 2\alpha\left(\tau_n - \tau_g^*\right) = 0$$

At this level of CGT the marginal gain from increasing the rate due to reduced tax avoidance is exactly offset by the marginal loss due to the lock in effect. Applying the implicit function theorem to this expression we can differentiate with respect to τ_n to see how the revenue maximising rate of CGT changes with the top rate of income tax:

$$\frac{d\tau_g^*}{d\tau_n} = -\frac{2\alpha}{(R'' - 2\alpha)} > 0$$

This implies that the revenue maximising rate of CGT is increasing in the top rate of income tax. This implies that, after a cut in the top rate of tax, the revenue maximising rate of CGT will fall. As a result, if the Treasury was correct, and the 28% was revenue maximising previously, it will be too high following the impending cut in the top rate of income tax.

Note that this result comes from a very simple, reduced form analysis. However, we believe that the key intuition: that cuts in income tax reduce both the marginal benefit from avoiding income tax through reclassification and the marginal cost to the Treasury of people doing so, would persist in a more complicated, micro-founded model.

[17] Concavity of R, along with the fact that CGT rates are less than income tax rates are sufficient to ensure that the SOC is also satisfied and this point represents a maximum.

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