Some politicians have proposed a maximum wage to lessen inequality. From an economics perspective, do you think it is good idea? – Tom Rufford

Inequality is the unequal distribution of income, and is a market failure as it leads to, among others, the 'negative externality of inequality: crime', according to Rueda and Stegmueller, authors of *American Journal of Political Science Volume 60*. Economic inequality can be represented using the GINI coefficient, which measures the disproportion of incomes across society. On a scale of 0-1, the lower the GINI coefficient, the more equal a society. Although inequality in the UK has lessened since World War II, data states that the GINI coefficient has increased from 0.24 in 1978 to 0.34 currently. This rising inequality is also true for the wider world and has inspired the likes of Thomas Piketty, a French economist, to focus work on wealth and income inequality. Combatting inequality, some politicians such as Jeremy Corbyn propose the implementation of a maximum wage, which prompts the question, is a maximum wage a good idea?

A maximum wage is a legally bound cap on how much an individual can earn, therefore a limit on earnings will lower the cost of production for most firms as top wages decrease. In 2012, the top 1% of UK workers had a mean income of £253,927 whilst the top 0.1% had an average income of £919,882, which would be subject to a wage cap. Firms could pass these lowered costs of production onto consumers, who would have more purchasing power and as a result, are able to increase their quality of life and reduce inequality as now lower earners can more comfortably afford goods and services that once only higher earners could. Firms may also use the increased profit margins to reinvest and innovate or even redistribute the incomes within the business to reduce the income ratio between highest and lowest earners creating greater income equality. Further, with innovation and reinvestment, firms will employ more workers and so unemployment levels will drop which ultimately reduces inequality. In addition, the money reinvested by firms would increase their taxable base due to dynamic efficiency as they expand, which the government would gain tax from and use to redistribute wealth.

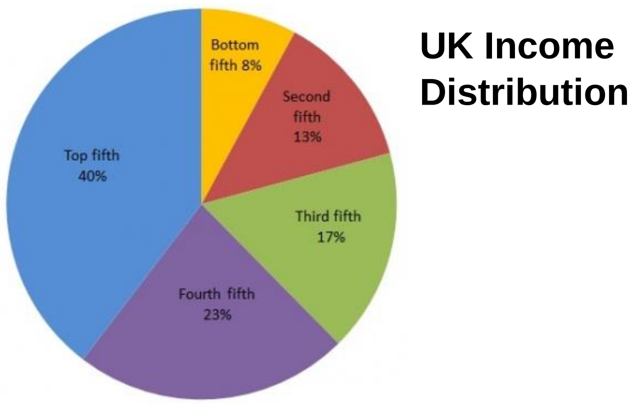

Figure 1. Of distribution of UK household income, original and disposable, 2015-16 ONS

With capped wages, the UK current account deficit would reduce as our exports become more price competitive, meaning we would be able to export more. This would also boost aggregate demand, as (Exports – Imports) is a component of AD. Reducing the current account deficit would be advantageous, as unemployment levels would fall, reducing inequality. This is because higher exports results in greater employment in the export sector. Further, if UK goods are cheaper, then UK residents will consume more domestic goods, reducing imports. Reduced imports and increased exports will be beneficial as it also increases the circular flow of income, as imports are withdrawals and exports are injections. This will then also increase the multiplier effect, and so there will be a knock-on effect on all incomes across the economy. Although arguably, this increase in exports is to a lesser extent in reality, as UK exports are generally more quality competitive as opposed to price competitive. Therefore, some UK exports may in fact suffer due to reduced skilled labourers in the UK due to dis-incentivisation to work.

The value of the multiplier effect also depends on the workers' marginal propensity to consume (MPC). A report on *Income inequality and saving* written by Alvarez-Cuadrado and El-Attar Vilalta states that 'Dynan et al. (2004) find evidence suggesting that the marginal propensity to save out of lifetime income is higher for rich households than for poor ones'. In a similar report, *The Distribution of Wealth and the Marginal Propensity to Consume* by Carroll, Slacalek, Tokuoka and N. White, writes 'when households in the bottom half of the wealth distribution receive a one-off $1 in income, they consume up to 50 cents of this windfall in the first year, ten times as much as the corresponding annual MPC in the baseline Krusell–Smith model', which is a model that aims to solve aggregate uncertainty and heterogeneity, containing approximate aggregation. These reports clearly indicate that higher earners have a higher marginal propensity to save over lower earners. Therefore, if a maximum wage is implemented, the multiplier effect would not largely be reduced as the marginal consumption for high earners is relatively low. In addition, using the knowledge that higher earners have a lower marginal propensity to spend than lower earners, it would be beneficial to redistribute income and wealth as it would in fact increase the multiplier effect. Demographically, the UK is one of the must unequal nations in the world. The average 55 to 64-year-old household head wealth in Britain is over five times that of the average 16 to 34-year-old. This is as opposed to similarly developed nations such as Italy, where the difference between old and young is only 3x. Further, younger generations are net borrowers whereas older generations are net savers – The average household debt of British 20-30 year olds is 5 times greater than 50-60 year olds. Saving is a withdrawal from the circular flow of income whilst borrowing is an injection. Therefore, reducing high earners' wages would improve the multiplier effect as they are net savers.

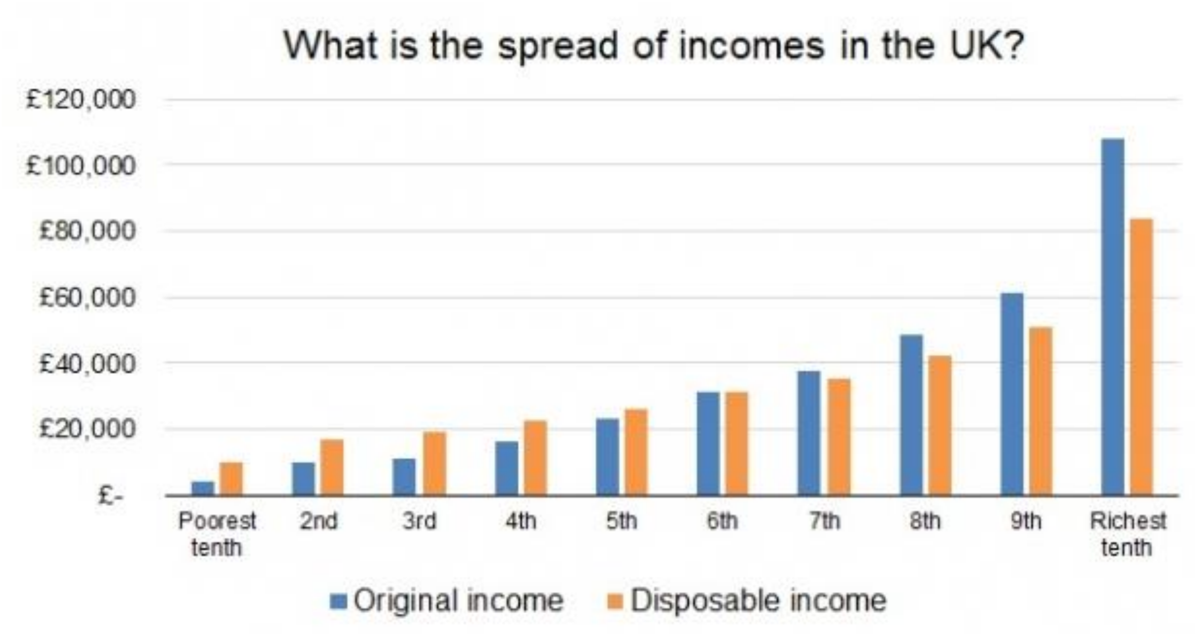

Figure 2. demonstrates that lower incomes spend a larger proportion of their incomes, whilst the richest save the most.

However, a maximum wage would also generate many difficulties for the UK economy. We must initially respect the fact that if firms are willing to pay high wages for their workers, then the workers must be of value to them. The free market finds its equilibrium naturally. Therefore, the government intervening may result in market failure, where the social optimum level is not reached (MSC=MSB) and unintended consequences may occur.

Firstly, firms may simply compensate reduced wages with other incentives such as company equity, healthcare, pensions and insurance. Further, some may even resort to the black market which would yield a host of negative externalities and reduces a company's taxable base. Many workers would also be discouraged to work for a reduced wage, increasing unemployment levels, reducing the production possibility frontier as they are unused resources, and ultimately shrinking the labour market. In addition, a maximum wage disincentives higher education as students wouldn't subject themselves to the costly University fees without the prospect of a high earning job. This would therefore decrease the UK's Human Development Index as there is a decreased average years in education. Work is also arguably an inferior good, so past a point some may prioritise their time instead. This means that a max wage would push many high earners into early retirement, and would encourage underemployment as workers decide to take jobs that they are overqualified for in order to have a less stressful or harsh working life as the opportunity cost of the higher wages is lessened. Due to these reasons, the UK's actual GDP would dip below the potential GDP, causing a negative output gap. Due to the negative output gap, downward pressure on inflation would occur. Although our current account would benefit from this (price competitive exports), expansionary monetary policy intervention would occur and so interest rates would be lowered in the UK. Therefore, hot flows of money will leave the country as foreign investors would receive less returns by keeping money in our banks resulting in a depreciation of the pound along with imported inflation as the UK is the 4th largest importer in the world $606B worth of imports in 2015.

With a maximum wage, will come excess demand for workers. This is because the current market price (P_1) would be below the equilibrium price (P^*) shown in fig. 3.

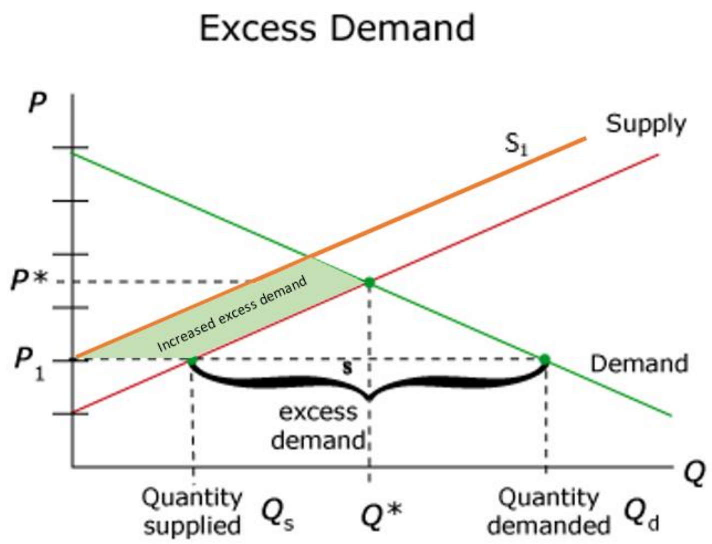

Figure 3. of excess demand as a result of decreased market price and reduced supply.

Excess demand would increase due to lowered supply (S_1) as workers remove themselves from the UK labour market, which could be as a result of migrating in prospects of escaping the wage cap, which will mean there is a detrimental brain drain in the UK. This is especially problematic in the UK as we are in the European Union, meaning there is free movement of workers under Article 45. Further, these high earners are usually skilled labourers and so are sought after by foreign countries, giving them further incentive to migrate. This works both ways, as skilled labourers are discouraged to migrate into the UK from abroad. We must also take into account the elasticity of labour, which is relatively supply inelastic as highly skilled labourers are difficult to replace and also take years to train. This would put high upward pressure on wages as demand increases.

Excess demand also would cause an upward pressure on wages, and there would be long waiting lists for employees. Further, because of the pressure on wages, excess demand may encourage the emergence of black markets as employers attempt to overcome the shortage of supply by paying well above the set market price.

The UK taxes earnings in excess of £150,000 by 45%. Therefore, by implementing a maximum wage the government would lose out on this tax which means there would be reduced distribution of wealth and less scope to invest into social benefits. Reduced tax would also result in the transfer of payments deficit increasing from its already significant (-)7% of GDP in the first quarter of 2016. For this reason, imposing a 100% tax after a threshold rather than a maximum wage would be more suitable to tackle inequality, as this would raise tax revenue for the government which they can use to redistribute income and lessen inequality. However, we must consider the Laffer curve, which represents the relationship between tax rates and the amount of tax revenue collected by governments. In figure 4. we notice that 0% tax, a maximum wage cap, results in no tax revenue. This is also true for 100% tax. Therefore, imposing higher rates of marginal income tax rather than a wage cap or 100% tax threshold would generate more tax revenue, as there is still incentive for workers to earn.

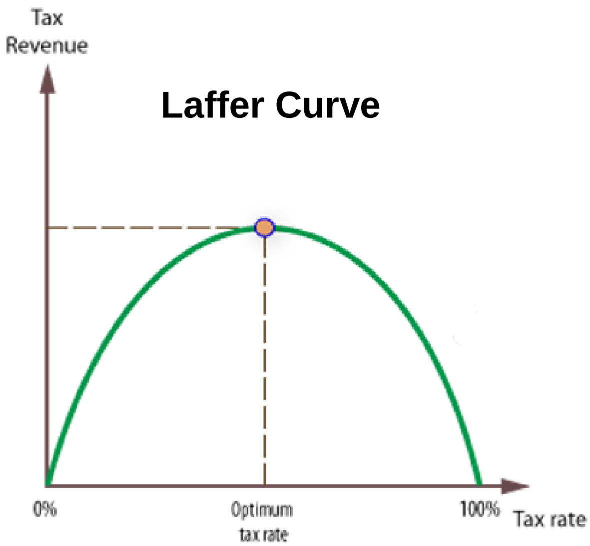

Figure 4. of Laffer curve representing tax revenue against tax rate

Taking a step back from imposing an increased maximum wage, we should also examine other methods of reaching economic equality in the UK. Relating to recent politics, the Labour party aims to implement a £10 minimum wage by 2020. A minimum wage would increase economic activity as it boosts aggregate household spending, thus increasing GDP, leading to job growth and resulting in greater equality. However, a higher minimum wage would raise UK firms' costs of production, therefore UK goods and services will receive upward pressure on prices. This would lead to a deterioration of the current account as exports are less price competitive and demand for imports increases as people's disposable incomes rise. Furthermore, demand for imports would also escalate as in relation to the rising prices of UK goods and services, they are cheaper. Increased costs of production would shift the supply curve leftwards, shown in fig. 5, as firms cannot supply as much at the same price and may even resort to laying off staff. Therefore, inequality may rise due to increased rates of unemployment. Reduced aggregate supply would also cause inflation and real GDP would reduce, as displayed in fig. 5.

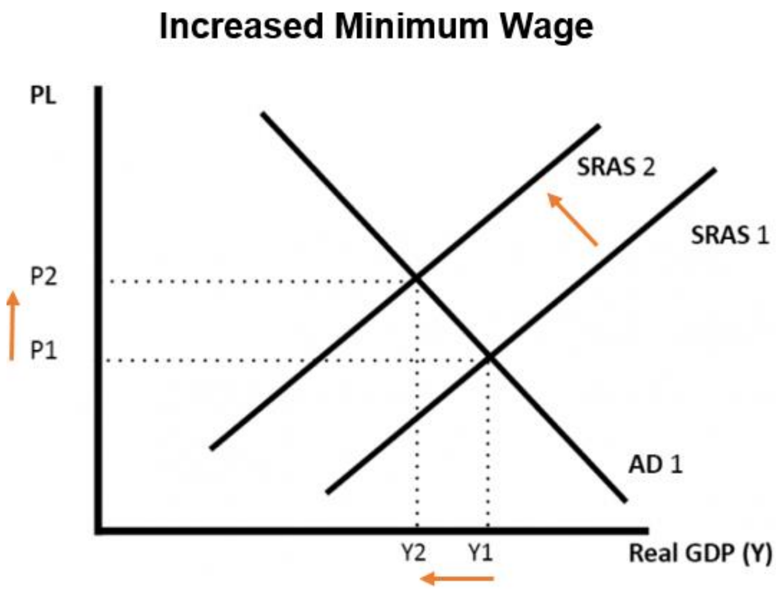

Figure 5. Displaying a leftward shift in SRAS as a result of increased minimum wage

Another method to reduce inequality could be by imposing limits on the pay ratio between highest and lowest earners in individual firms, which is possibly a more politically palatable option. Jeremy Corbyn has suggested the idea of implementing a 20:1 pay ratio on companies awarded government contracts, along with corporation tax incentives to firms that have low pay ratios. Agreeing with this idea, polling by the CIPD warns of the demotivating effect on workers due to excessive executive pay, with 71% saying that their bosses' pay is too high including 59% admitting that they feel directly demotivated by it. The average annual pay for a FTSE 100 CEO is now £5.5m, which is around 183 times the average full-time salary in the UK. Why does this matter? Because according to Gallup, over 70% of US employees are disengaged, costing businesses up to $550 billion in lost productivity annually. Inequality results in working inside the PPF, as lack of opportunity means that our most valuable asset, our people, are not being fully used. This is confirmed by Sir Richard Branson, founder of the Virgin Group, who comments 'take care of your employees as they'll take care of your business'.

Overall, imposing a maximum wage in the UK would lesson inequality, as it retreats top wages and closes the earnings gap between the top and bottom income percentiles. However, a maximum wage is only distributive in the long run, as firms do not utilise reduced costs of production and reinvest immediately. A maximum wage would also bring about many economic downsides such as a brain drain, excess demand for labour, reduced innovation and determination of workers who are limited on earnings potential. Therefore, the UK would have to sacrifice its productive potential in order to gain more economic equality. For this reason, it is imperative that a balance is found, as too much income equality is also destructive since it decreases the incentive for productivity and the desire to take-on risks and create wealth. Thus, other more hedged methods of reaching equality would be more suitable, such as higher rates of marginal tax or reduced earnings ratios, which have been evaluated above.

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