# UK rate of profit and British economic history

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This paper analyses the movement in the rate of profit of capital in the UK since 1855 using a variety of data sources and methods. In so doing, it attempts to illuminate some of the key changes in British economic history over the last 150 years.

# Summary

The general conclusions are:

- 1) There was a secular decline in the UK rate of profit over the last 150 years
- 2) This was interspersed with periods of upturn lasting sometimes for decades
- 3) The movement of the UK rate of profit conformed with Marx's law of the tendency of the rate of profit to fall
- 4) The biggest declines in the rate of profit coincided with the relative decline in the global supremacy of British industry in the depression of the 1880s; the eventual realisation of that loss in the industrial collapse after WW1; and in the decimation of British manufacturing in the 1970s. So the Marx's law provides an analytical tool for understanding the decline and fall of British industrial capitalism.
- 5) The neoliberal revival in the UK rate of profit that started after the global recession of 1974-5 and was based on the financial and business services sector, the offshore oil sector and on the dismantling of public sector enterprises. It reveals the transition of British imperialism from the workshop of the world in the 1850s to a rentier economy and financial centre by the 1980s.

# Marx's law

Why is a study of the movement in the rate of profit or return (to use the mainstream economics term) on capital invested in an economy important? Mainstream economics, on the whole, does not bother to look at this category. They concentrate on output growth, incomes, consumer expenditure, capital formation, prices and for the longer term, on population and productivity growth.

In the Marxist view, it is important, moreover essential, because Marxist economics starts from the assumption (realistic) that all value created comes from the labour expended by human beings to produce commodities (both objective and mental), i.e. use values with an (exchange) value. The problem with the modern economy is that productionis interrupted and reversed by regular and recurrent crises and breakdown. And this is because the modern economy is not a harmonious process of accumulation, production and consumption, but is riven by a key contradiction: between the drive to accumulate surplus value by the owners of capital and the tendency for the surplus value relative to the capital invested to fall. When the contradiction reaches a crisis point, accumulation and production is interrupted until profitability is restored – only for the whole thing to go round again.

This contradiction is ignored or denied by mainstream economics and the labour theory of value (all value comes from labour) is also disputed or derided. Thus any measures of the health of a capitalist economy evaluated by the rate of profit that capitalists obtain from their ownership of the means of production and their employment of labour are ignored.

Marxist economics argues that, by assuming the labour theory of value and by making some realistic assumptions based on the law of value, a compelling explanation of why capitalism has recurrent and regular breakdowns and crises can be provided.<sup>1</sup>

The essence of this is Marx's law of the tendency of the rate of profit to fall. The 'law as such' is simple. It is based on two realistic assumptions: 1) that all value is created by labour alone; and 2) in order to raise the profitability of capital, capitalists continually resort to replacing labour with machines and other technology. As a result, over time, the amount (and value) of the means of production will increase relatively to the employment (and cost) of labour. This development Marx called: a rising organic composition of capital.

Based on these two assumptions, Marx's law of profitability says that there will be a tendency for the rate of profit on the capital (both means of production and labour power or wages) invested by capitalists to fall.

The simple formula for the rate of profit is s/c+v; where s is the surplus value appropriated by the owners of the means of production from the total value created by labour; where c is the value of the means of production accumulated by the owners; and where v is the cost of employing the labour force to produce value. Marx's law (as such) of the tendency of the rate of profit to fall follows: if c/v rises, and the rate of exploitation, s/v, is unchanged, the rate of profit s/c+v must fall.

There are countertendencies to the tendency for the rate of profit to fall. That is why the law is a tendency. Marx lists several factors that could lead to a period of rising profitability. The two most important ones are when the organic composition of capital (c/v) rises but at a slower pace than the rise in the rate of exploitation (s/v) and when c/v falls because the value of the new means of production falls as a result of a greater productivity of labour.

Marx argues cogently that these counter-tendencies cannot predominate indefinitely or even a long time, i.e. not more than several years or a decade or so – a small period in the history of capitalism. Eventually, in the long run, the organic composition of capital will rise more than the rate of exploitation rises, and the rate of profit will resume its fall.

Crises and breakdowns come about because a falling rate of profit eventually reaches a point where there is a fall in the new value created by labour and/or a fall in the mass of profit. The rate of profit is an average across all sectors of production. Some capitalists may actually experience a fall in profits and even start making outright losses before the more efficient and stronger. They will go bust or reduce investment spending first, causing a cascade effect across other sectors. Once investment starts falling, so will employment and incomes. A slump ensues. This is the mechanism of crises that begins with Marx's law.<sup>2</sup>

#### The evidence for the UK

This paper looks at the movement of the rate of profit in the UK since 1855 using several data sources and makes some observations on the changes in the development of the UK economy (imperialism) that flow from results.

The major periods of decline in the UK rate of profit were the late 19<sup>th</sup> century depression of 1871-84; the immediate post-war period of 1914-22 and the post-war profitability crisis of 1954-75. The major periods of rising profitability are found in 1885-71; 1920-38; and 1975-98. We are now in a global depressionary period that began in the late 1990s.

#### The secular decline from 1855

The whole period covered is from 1855 to 2009, ending in the Great Recession. For the full period, there are two sources of data: a) the data from the UK's Office for National Statistics and other series compiled by the Bank of England<sup>3</sup> and b) the work of Esteban Maito on the UK from his recent papers.<sup>4</sup> All sources and the methods of calculation used in this paper can be found in the Appendix. The ONS-BOE calculations of the UK rate of profit are compared with Maito's results.



Figure 1 shows the results from *a* and *b*.

There are differences in the actual levels of the rate of profit calculated in the two series. This is due to slightly different source data used and also different categories for s (surplus value) and c (constant capital) for calculation. Also, in a, variable capital is included as part of the denominator for the rate of profit while in b, Maito does not, following the consensus view among Marxist economists.<sup>5</sup>

Although the rates of profit differ between *a* and *b*, the trend and turns for the 150 years are much the same. This is an important confirmation of the robust nature of the results in both. And the results could not be clearer: the rate of profit on UK capital since 1855 has been in secular decline: in

*a*) from around 25% in the 1850s to about 10% and in *b*) from about 30% to 5%. In *a*), the rate of profit has fallen to 39% of its level in the 1850s and in *b*) it has fallen to 26%. Thus Marx's forecast or prediction that the rate of profit would fall under capitalism is confirmed. Of course, there could be a different explanation of that fall that is not based on Marx's law. We shall deal with that point later.

#### Four counteracting periods

Within, the secular decline, there have been periods when the UK rate of profit on capital has risen, sometimes for decades. In Table 1, we show the movement of the rate of profit in percentage terms for different periods within 1855 to 2009.

	<u>MAITO</u> (b)	<u>ONS-</u> BOE (a)
1855-71	8.1	31.7
1871-84	-12.6	-28.2
1884-01	2.0	7.7
1901-14	-3.0	-6.6
1914-21	-57.1	-23.4
1922-42	138.5	46.7
1942-46	-43.0	-14.0
1946-54	2.1	3.4
1954-75	-80.7	-49.3
1975-97	203.7	19.3
1998-08	-20.8	-13.8

#### Table 1: Change in the rate of profit (%), 1855-2008

There was a rise in the rate profit from 1855-71 of about 8-30%; a similar size fall between 1871-84, a rise of 2-7% from 1884 to 1901; then a similar size fall up to the first world war in 1914. There was massive drop in profitability during and immediately after the war up to 1922 of 23-57%. Then there was a huge rise in the 1920s, partly sustained in the 1930s. Profitability peaked during the 1939-45 world war, held up briefly after the war ended and then UK profitability entered a sharp downward trend from the mid-1950s to a trough in the mid-1970s (-20--50%). Then there was reversal and a significant rise up to 1997. Since 1997, the UK rate of profit has declined, by 13-21%.

From the results, it is clear that the UK rate of profit has not fallen in a straight line. Indeed, there have been periods when the rate of profit has risen, even for decades. We can discern four periods since 1855 when the rate of profit rises on a reasonably sustained basis. They are 1855-71; 1884-1901; 1922-42; and 1975-97.

These periods can be recognised in the economic history of British capitalism. The 1855-71 period was the 'long boom' that worried Marx and Engels so much that they thought another crisis would never come<sup>6</sup>. The 1884-1901 period was the recovery from what became called the Long Depression of 1871-84 in the UK and the US. This recovery period was the 'Belle Epoch', which was only partially sustained in the early 1900s. The 1922-42 period was after a calamitous fall in profitability immediately after the first world war that annihilated much of Britain's old heavy

industry (more on this period later). And the 1975-97 period has been characterised as the 'neoliberal' period starting after the classic 'profitability crisis' which began early in the UK from the mid-1950s and led to the further 'financialisation' of the UK economy.

#### Depression of 1880s

We can look closer at the rate of profit in the late 19<sup>th</sup> century using another set of data provided by McCartney, to calculate the UK rate of profit from 1855-1914.<sup>7</sup> The results are in Figure 2.



British rate of profit (%) and rate of surplus value (x) in late 19th century

Figure 2 reveals that the UK rate of profit rose sharply from 1855 to 1871 (30%), then fell sharply in the Long Depression to a low in the mid-1880s (-22%), which was not really overcome until the mid-1890s (17%). In the 1900s, profitability showed a (mild) fall up to the first world war. See Table 2 below.

	McCartney
1855-71	30.8
1871-84	-21.3
1884-01	17.3
1901-08	-5.3
1908-14	-4.6

Figure 3 combines the results from the three sources used so far: the ONS-BOE data; the Maito data and the McCartney data, for the period 1855-1914. The change in profitability can be sub-divided

into four periods: a period of boom (rising profitability); a period of depression (falling profitability); a period of recovery (rising profitability); renewed crisis (stagnant/falling profitability).



All four sub-periods of the changing movement in profitability match important changes in the economic history of British capitalism.

In the 1850s, British imperialism was at its height (after the 1851 Great Exhibition). It was the hegemonic capitalist power with dominance in industry, trade, finance, imperial incomes/colonies and armed forces. But by the end of the long boom up to the early 1870s, it began to give ground (relatively) to the rising economic powers of the US (now united after a civil war, and Germany (now united) and to some extent France after the defeat of the Paris Commune in 1870.

During the Long Depression of the 1880s (and 1890s), Britain's hegemonic position was further undermined with the rise of Bismarckian Germany and America's growing industrial population. The period of economic recovery from the 1890s was weaker in the UK than in Germany or the US<sup>8</sup>. Profitability did not rise in the 1900s and, by the time of the first world war, both Germany and the US could rival the UK's position.

# 1914-21 industrial collapse

The weakness of British industry and imperialism was exposed immediately after WW1. As the profitability data from Figure 1 and table 1 show, the UK rate of profit plummeted by 30-60% between 1914 and 1921. Britain entered a depression that was sharp and catastrophic to its ageing industry. The government tried to restore and preserve its hegemonic position globally in trade and finance by sticking to the gold standard. But this just weakened the position of British industry in global markets further, especially once France and Germany recovered from the war and Germany was relieved of the draconian reparations imposed under the Versailles treaty. British capital then

set about closing down old industries and reducing the share of value going to labour in a big way to restore profitability. This policy was cemented by the defeat of the transport unions in 1921 and the defeat of the general strike of 1926. The government came off the gold standard in 1925<sup>9</sup>. This laid the basis for a sustained rise in UK profitability that even the Great Depression of the 1930s did not stop (in contrast to the US). Britain had its depression first.

The data from the ONS-BOE series (a) and the Maito series (b) confirm this analysis, as Figure 3 shows.



Under a), the rate of profit rose from 15% to 21% from 1921 to 1938 and in b) it rose from 12% to 24%. Profitability did fall during the worst years of the Great Depression 1930-32, but remained above the level of the early 1920s and recovered significantly from the mid-1930s.

These results can also supplemented by another study from Vincent Brown and Simon Mohun for the inter-war period. <sup>10</sup> Brown and Mohun find that the "the UK rate of profit rose considerably over the inter-war period and hence this period was one of significant recovery for capital, albeit with some volatility". Figure 4 compares the movement in the rate of profit between 1921-38 from all three sources/calculations.



On the Maito series, UK profitability nearly doubles; on ONS-BOE, it rises over 40%; and from the Brown-Mohun series, it rises 80%. In the Brown-Mohun study, they also quote from another study done by Paul Cockshott and colleagues (CCM). CCM find that UK profitability in the same period rose 90%.<sup>11</sup>

The economic history of the period would suggest that UK profitability was restored by the counteracting factor of an increased rate of exploitation of labour exceeding any rise in the organic composition of capital. Figure 5 from the ONS-BOE data series confirms that.



In the 1920s, the rate of surplus value (exploitation) rose nearly 26% while the organic composition of capital fell (as old means of production were disposed of). In the 1930s, the impact of the Great Depression was to drive down the organic composition of capital even further, while the rate of surplus value stabilised.

Brown and Mohun reach similar conclusions: "A Marxian decomposition shows that the 1920s were characterised by a rising rate of surplus-value and a falling composition of capital; and the 1930s by a constant rate of surplus-value and a falling composition of capital". This was a perfect combination for the restoration of profitability.

As Brown and Mohun put it: "From the end of the First World War to the mid-1920s, capital was very successful in reimposing its prerogatives over labour: real output per hour increased much faster than the real hourly wage rate, so that the rate of surplus-value increased sharply and correspondingly the value of labour-power fell sharply."

In the 1930s, however: "In terms of the balance of class forces, while labour was severely weakened by mass unemployment, capital could not take advantage because of the collapse in world markets. The comfortable corporatism engendered by the shelter of protectionist tariffs was not a period of intense class struggle. Indeed, for capital, the adverse effects of a return to gold at an overvalued exchange rate and the collapse of the international economy into a protectionist, semi-autarky just about counterbalanced the positive effects of the General Strike victory and the rapid rise of unemployment. Apart then from the first half of the 1920s, the rise in the rate of profit did not have as a contributory factor a rise in the rate of surplus-value. Rather, the rate of profit was driven up by the maintenance of productivity growth while capital intensity fell."

#### The post-war period

The profitability of capital in the UK (and the US) reached peaks during the second world war. This was partly the product of new profits from arms production, so that investment in productive 'civilian' assets fell, reducing the organic composition of capital. But it was also because the wages of labour were diverted into 'savings' (war bonds) that were utilised by the governments to pay for arms and the war machine. The rate of surplus value rose accordingly.

But after the war, British capitalism was in an exceedingly weak position, obviously compared to the US, but also compared to France and Germany (and even Japan), where American credit and capital was ploughed in to exploit millions of cheap labour and able to use the latest technology to boost productivity and lower unit costs to compete (with weaker currencies) on world markets. As at the end of the first world war, the UK had ageing capital stock and while it had some new technologies to exploit, it had a small workforce unwilling to be exploited at low rates after being 'winners' in the war.

So it was not long before UK profitability began to fall sharply. All the major capitalist economies began to experience a 'classic profitability' crisis from about the mid-1960s. But the profitability crisis came earlier for the UK. As a result, it was also the first major capitalist economy to try and reverse the decline with policies of 'neo-liberalism' designed to raise profitability by increasing the rate of exploitation and privatisation of state assets that had been expanded in the immediate postwar period. Neoliberalism in the UK began as early as the end of the first simultaneous global recession of 1974-5, when the then Labour government called on IMF emergency funding and dispensed with so-called Keynesian government spending policies.

Figure 6 shows three periods of change in profitability in the UK: the profitability crisis of 1951-75; the neoliberal recovery period of 1975-97; and the current crisis period of falling profitability from 1997. Figure 6 also incorporates new series of data and calculations to compare. In addition to the Maito series and the ONS-BoE series, there is a series based on the PENN world tables; the extended Penn world tables; and the EU AMECO database. On top of this, there is a series calculated by Simon Mouatt<sup>12</sup> and the official series on the net rate of return on the capital stock on UK non-financial companies compiled by the UK's ONS.<sup>13</sup> That is a total of seven sources/studies.



What Figure 6 confirms are: 1) seven sources confirm that UK profitability fell from 1950 through to 2008; and 2) most of this fall was from 1950 and six sources reckon that the rate troughed in 1975 (only the Maito series has a later trough). Of those series that cover 1950-75, Maito records a 72% fall in the UK rate of profit; the PENN tables finds a 45% fall; the long-term ONS-BoE series records a similar 45% fall, while the Mouatt series, based on the corporate sector only, and using historic cost measures, sees a 62% fall.

For the neo-liberal period, 1975 to 1997, all sources agree that there was a rise: from just 19% on the ONS-BoE series to a tripling from the official ONS-NRC series. The only series based on the corporate sector and on historic costs (Mouatt) still finds a rise of over 90%.

Finally, in the current profitability downturn since 1997, all sources except Mouatt (up 14%) and AMECO (flat) confirm a fall between 6-14% up to the beginning of the Great Recession. Profitability was falling well before the Great Recession hit the UK. See Table 3 below.

	Maito	PENN	Ext Penn	ONS-BOE	ONS-NRC	Mouatt	AMECO
1950-75	-72.3	-45.4		-45.3		-62.1	
1975-97	67.4	56.1	40.9	19.3	202.1	90.9	88.4
1997-08	-9.3	-14.3	-14.4	-13.8	-5.5	14.3	0.0
1950-08	-58.0	-27.0		-43.8		-17.2	

#### Table 3. Change in rate of profit (%), 1950-2008

So the UK profitability data from several sources have broadly similar trends, confirming the robustness of the results. In particular, the Mouatt series based on the historic measure confirms

the fall in profitability from the 1950s to the mid-1970s but also the rise in the neoliberal period from the mid-1970s (Figure 7).<sup>14</sup>



UK corporate profit rate based on historic costs (%) -Mouatt

As Mouatt puts it: "a *clear* secular decline, a 29.4% reduction, is identified between 1948 and 2007...There have been times of partial restoration for the profit rate, however, notably the mid 1970's and early 1990's, but this has not been sustained." Mouatt's results show a rise in profitability of 91% in the period from 1975 to 1997 and then a further rise from 10% in 1975 to 24% in 2009. For the period 1950-2009, in applying a similar historic cost measure as that used by Mouatt to the ONS-BoE data, the results show a similar rise in the rate of profit in the neoliberal period (Figure 8).



#### Decomposing the rate of profit

What was the main reason for the secular decline in UK profitability in the last 160 years and for the periods of rising profitability within the secular decline? If Marx's law of the tendency of the rate of profit to fall is a compelling explanation, then there should be a high inverse correlation between a rising organic composition of capital and the rate of profit and relatively low positive correlation between the rate of surplus value and the rate of profit.

Moreover, in periods of time, when the organic composition of capital rises faster than the rate of surplus value, the rate of profit should be falling – and vice versa. What that the case for the UK?

The evidence on correlation for the post-war period (which has the most number of sources with the data decomposed) is clear. There is an inverse correlation between the rate of profit and the organic composition of capital of -.57 for the AMECO series and -.91 for the BoE-ONS series. There is a positive correlation between the rate of profit and the rate of surplus value of .91 for the AMECO series and .22 for the ONS-BOE series. What is also significant is that the UK rate of profit fell on all those series beginning in 1950 (Maito by 58%, PENN by 27%, ONS-BOE by 44% and Mouatt by 17%) and yet the rate of surplus value rose. On the ONS-BOE series, the rate of surplus value rose from 1950 to 2008 by 8% but the rate of profit fell by 46%. This suggests that it was the rising organic composition of capital that drove the UK rate of profit down, according to Marx's 'law as such'.

Indeed, following the BOE-ONS data, whenever the organic composition of capital rose faster than the rate of surplus value, the rate of profit fell, as in 1946-75 (Table 3). Whenever the reverse was true, the rate of profit rose, as in 1975-97. Overall, there was a secular fall from 1946 to 2008, when the organic composition of capital nearly doubled while the rate of surplus value rose by only 7%. All this tends to confirm that Marx's law can explain changes in the UK rate of profit.

Table 3. Changes in the organic composition of	capital (C/V)	, the rate of s	surplus value	(S/V) and the
rate of profit (%), 1946-2008 (ONS-BOE).	-		·	

	C/V	S/V	ROP
1946-08	182	8	-46
1946-75	54	-13	-33
1975-96	46	56	20
1996-08	15	-4	-14

#### British capitalism: from workshop to financial centre

The data for measuring the UK rate of profit start about 1850, when British capitalism was its global zenith as the workshop of the world. They end in 2009 when Britain has replaced its dominance in industry and trade with a new role as a major financial centre<sup>15</sup>. British capitalism is increasingly a 'rentier' economy, which sucks up the surplus value appropriated by other manufacturing economies and circulates and redistributes capital looking for a higher return for a 'cut', through interest rates, commissions and fees.<sup>16</sup>

British capitalism has always been a financial power but this role has become dominant within the economy as the manufacturing and industrial base has weakened and declined in world markets. This change was accelerated during the neo-liberal period from 1975 onwards. In particular, the relaxation of all financial regulations and restrictions and the influx of foreign financial institutions in the 'Big Bang' of the 1980s changed the structure of British capitalism decisively.

Mouatt finds that the UK financial sector profit rate rose about 45% from 1975 to 2008 while the non-financial sector rate rose only 18%. From 1997, financial profits as a share of total UK corporate profits were about 10%. The rate of profit fell in the UK from that date (on nearly all measures), but the share of total profits going to the financial sector reached nearly 25% (Figure 9).



Tony Norfield shows points out that "Britain's status as an imperialist power rests on two economic foundations: huge foreign direct investments and the UK-based banking system that acts as a broker for the global capitalist economy....The financial system based in Britain is now a key factor in

Britain's global economic status. It generates important trading revenues and is a mechanism to provide cheap funds for British capital."

Norfield presents an index of imperialism based on the relative weight of GDP, military firepower, financial investment, the size of the banking system and the level of FX trading. On these criteria, British capitalism lies only second to the US (Figure 10).



#### **Conclusion**

Marx's law of the tendency of the rate of profit to fall helps to explain the development of British capitalism since it became the hegemonic capitalist power in the mid-19<sup>th</sup> century at the time Marx himself was writing Capital, his fully fledged analysis of the capitalist mode of production, based on the reality of the UK economy.

From the analysis of the movement in the rate of profit from various sources, it is clear that there was a secular decline in the UK rate of profit over the last 150 years, supporting the predictions of Marx's law and paralleling the decline of British imperialism.

The periods of steepest decline in the rate of profit matched the most difficult times for British capitalism: the long depression of the 1880s; the collapse of British industry after 1918; the long profitability crisis after 1946. But there were also periods when profitability rose: the recovery after the 1880s in the late Victorian era; the substantial recovery in the 1920s and 1930s after the defeat of the British labour movement and demolition of old industries during the Great Depression; and the neo-liberal revival based on further dismantling of the welfare state, the privatisation of state assets, the defeat of labour struggles and, most important, a switch to reliance on the financial sectors as Britain increasingly adopted rentier capitalism.<sup>17</sup>

The UK economy now lives or dies with the health of the global financial sector and its associated business, legal and commercial services.

<sup>&</sup>lt;sup>1</sup> For a much fuller account and defence of Marx's law from its realistic assumptions see G Carchedi, M Roberts, Marx's law of profitability: answering old and new misconceptions, Critique Journal of Socialist Theory, Volume 42, Issue 4, 2013, 571-593 published online 18 March 2014.

<sup>&</sup>lt;sup>2</sup> For the fuller account of the mechanism of crises, see G Carchedi, Behind the Crisis, Leidin, Brill, 2011.

<sup>3</sup> Bank of England, three centuries of data,

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

<sup>4</sup> Esteban Ezequiel Maito, The historical transience of capital: the downward trend in the rate of profit since XIX century, University of Buenos Aires, Argentina, http://gesd.free.fr/maito14.pdf

<sup>5</sup> For an explanation of why variable capital can be calculated and included, see Carchedi and Roberts, unpublished.

<sup>6</sup> Marx comment to be added

<sup>7</sup> AJ Arnold and S McCartney, "National income and sectoral rates of return on UK risk-bearing capital 1855-1914", 2002. The author has calculated the rate of profit from the raw data provided here in M Roberts, The Great Recession, 2009, Lulu, London.

<sup>8</sup> W Arthur Lewis – The deceleration of British growth 1873-1913, (1967);

http://www.princeton.edu/rpds/papers/WP\_003.pdf

<sup>9</sup> See Tony Norfield: Churchill, Keynes, Gold & Empire – A Historical Vignette

<sup>10</sup> Vincent Brown and Simon Mohun,

http://www.researchgate.net/publication/227354707\_The\_rate\_of\_profit\_in\_the\_UK\_1920--1938

<sup>11</sup> The data for Cockshott and colleagues are taken from Brown and Mohun, table 3.2 (Cockshott et al., 1995, p. 121)

<sup>12</sup> S Mouatt, The dissolution of the financial state, AHE Conference July 2013, London and Southampton Solent University; http://hetecon.net/documents/ConferencePapers/2013Non-Refereed/Mouatt\_AHE2013.pdf <sup>13</sup> See Appendix for sources

<sup>14</sup> For more on the debate on whether to use historic cost or current cost measures for fixed capital and depreciation, see M Roberts, Measuring the rate of profit; profit cycles and the next recession, AHE Conference 2011; http://gesd.free.fr/mrobprof.pdf

<sup>15</sup> A Norfield, The rate of profit, finance and imperialism, 5-7 July 2012 conference of the AHE/FAPE/IIPPE in Paris; <u>http://economicsofimperialism.blogspot.co.uk/2012/07/the-rate-of-profit-finance-imperialism.html</u> and http://economicsofimperialism.blogspot.co.uk/2012/05/imperialism-by-numbers.html

<sup>16</sup> To quote Tony Norfield from his paper, "Marx once famously summed up capital as 'dead labour, that, vampire-like, only lives by sucking living labour, and lives the more, the more labour it sucks'. To continue the metaphor, British imperialism has developed a financial system that acts like a blood bank for the value produced worldwide, one that takes a sip of every value flowing through it."

<sup>17</sup> Financial Services now account for almost half of total FDI flows into the UK; £21.3bn out of £43.7bn and the UK dominates mergers and acquisitions in Europe for fully 41% (\$75bn) of total European deal value of \$185bn. In terms of international listings, the London Stock Exchange is 2nd only to New York; the LSE had 298 international listings, compared with 523 on the NYSE and 357 on the NASDAQ OMX, and 123 on Euronext; see UK's Competitiveness as a Global Financial Centre - August 2015.

# SOURCES AND METHODS

For the period 1855-2008, the following sources have been used and where the author has used the database to calculate the rate of profit, the method and categories are specified below. Excel sheets with workings are available on request.

<u>BOE-ONS</u>: Bank of England: three centuries of data; <u>http://www.bankofengland.co.uk/research/Documents/onebank/threecenturies\_v2.2.xlsx</u>

*Formula:* Real GDP Column B170-323; Labour share: Supply-side data F9-162; Fixed capital stock Supply-side data E9-162. Real GDP minus labour compensation (real GDP\*labour share) divided by fixed capital stock plus labour compensation = rate of profit.

PENN World tables; http://www.rug.nl/research/ggdc/data/pwt/pwt-8.1

*Formula:* GDP (cgdpo) Capital stock (ck); labour share (labsh). GDP minus labour compensation (cgdpo\*labsh) divided by capital stock plus labour compensation = rate of profit

Extended PENN World Tables: Extended Penn World Table v4.0 complied by Adalmir Marquetti http://homepage.newschool.edu/~foleyd/epwt/

Formula: GDP (X) minus labour compensation ( $N^*w$ ) divided by K plus  $N^*w$  = rate of profit

<u>AMECO</u>: from EU Commission AMECO database http://ec.europa.eu/economy\_finance/ameco/user/serie/SelectSerie.cfm

*Formula:* Net national income (UKAUVNN.) less employee compensation (UKAUWCD.) divided by net capital stock (UKAOKND.) inflated by GDP price deflator (UKAPIGT.) plus employee compensation = rate of profit

ONS-HISTORIC COST from the UK ONS series

<u>Formula:</u> Gross operating surplus (UKNRJKA. plus UKNQNVA.) divided by net capital stock (UKCIXI.. plus UKCIXH..) deflated by historic cost depreciation as measured from US data.

ther sources:

<u>MAITO</u>: Fixed reproductive capital from Office for National Statistics (ONS) – www.ons.gov.uk – and net profits from Piketty & Zucman (1855-2010), available at http://piketty.pse.ens.fr/files/capitalisback/UK.xls

Office for National Statistics: Profitability of UK non-financial companies; <u>http://www.ons.gov.uk/ons/rel/pnfc2/profitability-of-uk-companies/q1-2015/dst-profitability-of-uk-companies-q1-2015.html</u>

S Mouatt, see end note above.