

Bell Blanchflower Appendix to Accompany US and UK Labour Markets Before and During the Covid-19 Crash *National Institute Economic Review, May 2020*

Labour Force Participation Rates

Appendix Figure 1 labour force participation rates (LFPR) for the UK and the US. The LFPR has risen steadily in the UK over time and is well above pre-recession levels. In the US it is lower than at the start of the Great Recession. The US LFPR fell from around 2000 to 2005, remained flat until 2009 and fell again through 2015. It then remained flat until 2018 and picked up slightly during 2019. This is in contrast to many forecasts that predicted an inexorable decline. For example, Aaronson et al (2014) argued that "*the aggregate participation will likely decline further over the next decade*" and later. "*we see further declines in the aggregate labor force participation rate as the most likely outcome*".¹ That hasn't happened.

Between September 2014 and January 2020, the seasonally adjusted LFPR for those ages 25-34 rose from 81.0% to 83.4%, for ages 35-44 rose from 81.9% to 83.6% and for ages 45-54 it rose from 79.5% to 81.8%. It increased for the age group 55 and above from 40.0% to 40.3% and for those under 25 it is up from 55.2% to 56.0%. This suggests the fall in the LFPR in the US was more cyclical and less structural than other commentators thought.

Long-term Unemployment

Appendix Figure 2 plots the long-term unemployment rate.² Long-term unemployment refers to people who have been unemployed for 12 months or more. This rate shows the proportion of the long-term unemployed among all of the unemployed. Unemployment is usually measured by national labour force surveys and refers to people reporting that they have worked in gainful employment for less than one hour in the previous week, who are available for work and who have sought employment in the past four weeks. The level has traditionally been lower in Canada and the US than in Europe or Japan. In Japan the rate has ticked up steadily since the early 1990s, even though unemployment has been low. It fell in Europe and the UK until around 2008 and then picked up and then fell back. In the US it rose sharply to levels similar to those in the UK, before falling back. What will happen to long-term unemployment going forward?

¹ In his discussion of the paper Jim Stock concurred with the Aaronson et al (2014) conclusion. "*Looking across the results in the authors' paper and the alternative estimates I present here, the picture of the participation rate is one of continuing decline over the coming decade, possibly with some near-term sideways motion as the economy continues to strengthen.*" (Stock, 2014, p. 260)

² Source: OECD <https://data.oecd.org/unemp/long-term-unemployment-rate.htm>

It was argued in the 1980s that in Europe the long-term unemployed exerted less wage pressure than the short term unemployed, but this was shown not to be the case³ (Blanchflower and Oswald, 1990). The late Alan Krueger in his 2015 Martin Feldstein lecture "How tight is the labour market?" similarly asserted that this was true in the US. He suggested that the long-term unemployed were on the margins of the labour market and hence exerted little or no wage pressure. The implication here is that the effective unemployment rate was in fact lower than the reported rate suggesting that there would be even greater wage pressure for a given unemployment rate. A deal of empirical work for the US suggested that was not the case.⁴ Blanchflower and Levin (2015) examined wage regressions that incorporated various measures of long-term unemployment but were never statistically significant. The pace of wage growth we found was linked to the overall level of unemployment and does not depend on its composition, i.e., the relative incidence of long-term vs. short-term unemployment. Bell and Blanchflower (2014) found no evidence of any effects of long-term unemployment in the UK in the years 1992-2013. Long-term unemployment does not explain weak wage growth in the US or the UK.

Hours

Total hours worked per week since the end of the Great Recession have risen in a similar fashion, in both countries. Appendix **Figure 3** shows that average hours have followed similar time series paths, falling in the early 2000s, then sharply down in the Great Recession, but then recovering to pre-recession rates by around 2013.

Part-timers

Appendix Figure 4 reports recent changes in part-time employment as a share of total employment. There are definitional differences here. In the UK part-time working is self-reported. Full-timers on average in June 2019 worked 37.2 hours per week compared with 16.3 hours for part-timers and 9.3 hours for second jobs. In the US, part-timer refers to those who working between 1 and 34 hours. The BLS reports (<https://www.bls.gov/cps/cpsaat20.htm>) that in 2018 part-timers who say they do part-time work for economic reasons (slack work; could only find part-time work; seasonal work or job started or ended during week) was 23.2 hours and for non-economic reasons 21.3 hours.

In the UK the share of part-time workers rose through 2012 to 27.6% and then fell back to 26.0% in October 2019. This was partly because those who were part-time due to being unable to find a

³ Blanchflower and Oswald (1990) showed using microdata for the United Kingdom that long-term unemployment *did not* play an independent role in wage determination. The problem was that high long-term unemployment is highly correlated with high unemployment. They concluded that “*the British evidence does not support the view that long-term unemployment is an important element in the wage determination process.*”

⁴ See A. Kumar and P. Orrenius, "A closer look at the Phillips Curve Using State Level Data," Federal Reserve Bank of Dallas Working Paper No. 1409, May 2015; R. Dent, S. Kapon, F. Karahan, B. W. Pugsley, and A. Şahin, "The long-term unemployed and the wages of new hires," Federal Reserve Bank of New York Liberty Street Economics, November 19, 2014; D. Aaronson and A. Jordan, "Understanding the relationship between real wage growth and labour market conditions," Chicago Fed Letter No. 327, October 2014; C.L. Smith, "The effect of labour slack on wages: Evidence From State-Level Relationships," FEDS Notes, June 2, 2014; and P. Higgins, "Using state-level data to estimate how labour market slack affects wages," Federal Reserve Bank of Atlanta macroblog, April 17, 2014 and Kiley, M. (2014), 'An evaluation of the inflationary pressure associated with short- and long-term unemployment', Federal Reserve Board, Finance and Economics Discussion Series 2014–28, Washington, DC 20551, 21 March.

full-time job did find full-time work. In the US the proportion fell steadily from 1994, through 2000 and rose again and then fell back until it picked up sharply in the Great Recession. As in the UK it then fell back, but even more sharply, from 19.8% in October 2009 to 17.3% in January 2020. In part this is due to those who were in part-time jobs for economic reasons moving to full-time jobs as the economy recovered.

Self-employment

One way to overcome hours constraints is to set up in business on your own. There is evidence that low unemployment rates have a positive impact on self-employment rates (Blanchflower, 2000, 2004, 2015). **Appendix Figure 5** sets out movements in both self-employment rate by country – defined as a proportion of overall employment. The self-employed in the US can be classified as incorporated or unincorporated. The data for the incorporated is only available since 2000 and is not seasonally adjusted whereas the unincorporated data is available from 1992 and is seasonally adjusted. The former rose from 2000 through 2008 declined a little after the Great Recession and has remained broadly flat at 3.5% ever since. In contrast, the US unincorporated rate has been in a steady decline for decades.

In contrast, the self-employment rate in the UK has risen steadily since 2000 from around 11.7% to 15.3% in November 2019, the highest on record. Between January 2010 and December 2016 self-employment in the UK increased by 900,000 or 32% of the total increase in employment. Between January 2017 and October 2019 self-employment grew by 200,000 or 20% of the increase.

In the UK at the end of 2019 the number of self-employed is more than four times the number of those with second jobs (5,027,000 self-employed versus 1,130,000 in October 2019) while in the US the ratio is about double (9,455,000 unincorporated and 6,472,000 incorporated versus 8,152,000 in second jobs in January 2020). Second jobs do not seem to be as attractive as self-employment in both the UK and US, but particularly so in the UK.

It is worth noting that higher self-employment rates are not positively correlated with GDP per capita or other macro aggregates by country (Blanchflower, 2000, 2004 and Blanchflower and Shadforth, 2007). Blanchflower (2004), for example, argues that "*I have seen no convincing evidence of any kind in the literature that either increasing the proportion of the workforce that is self-employed, or having a high level of self-employment, produces any positive macroeconomic benefits. Such evidence that does exist suggests quite the reverse. More is not better,*" (p.30).

Boeri, Giupponi, Krueger and Machin (2020) note the decline across twenty-six OECD countries in the proportion of the self-employed with employees. The proportion of total self-employment that was solo were down from 17.4% in 2000 to 16% in the UK in 2017 and from 26.2% to 22.9% in the US. They estimated cross-country hourly wage growth regressions and provide evidence that wage growth has not just been pushed downwards by unemployment and underemployment but that solo self-employment also significantly undercuts wages of those working in traditional forms of employment.

"In this paper, we place more structure to the argument by considering underemployment, but also thinking that there is more slack because of the new forms of employment—both solo self-employment and gig work—that are present

in today's labour market and were not there 10 or 15 years ago. ...when a variable for solo self-employment is added to the explanatory variables, it has an additional statistically significant effect in line with the notion that it too reflects some degree of slack in the labour market. In particular, there is evidence that a higher share of solo self-employed is associated with lower wage growth." (2020, p.18.)

Boeri et al (2020) confirm our findings on the role of underemployment lowering wage pressure and conclude that

"the conventionally used unemployment rate has become increasingly narrow in its inability to pick up various aspects of underemployment that have acted to dampen wage growth in the recent past. Our surveys suggest that measures of labour market slack could usefully be refined to take into account the hours-constrained features of some of the new solo self-employment and other types of alternative work arrangements that have become increasingly prominent in contemporary labour markets."

Second Jobs

Appendix Figure 6 plots the proportion of workers that hold second jobs in both the UK and the US. The proportion is everywhere higher in the United States, but both have a similar time series path, rising through the mid 1990s and then falling. The UK had a pick-up and then fall from 2006 to 2015 and a subsequent decline. The US rate has been broadly steady through 2019 when there was a pick-up through the early part of 2019 which then reversed from the summer of 2019 onwards.

At the start of 2020 in both the UK and the US, the unemployment rate was below its pre-recession level.⁵ Consistent with that in the UK the employment rate and the LFPR were above their starting levels but in the United States they were not. Underemployment rates in both countries are above pre-recession levels and as a result nominal wage growth remains below pre-recession norms. Self-employment in the UK has risen but in the US it has fallen. Part-time employment is higher in the UK than in the US despite the fact that it is self-reported in the UK and part-timers work fewer hours than they do in the United States. In both countries part-time work picked up in the Great Recession, not least as workers were forced involuntarily into part-time jobs. As recovery came the part-time proportions have fallen in both countries. Wage growth was surprisingly weak in both countries from 2010-2018 and since then picked up at the start of 2019 but then fell back. Then the lockdowns came.

⁵ Indeed, unemployment rates around the world are low. According to the most recent data release from Eurostat on 30th January 2020 seven of the 27 member states had unemployment rates below 4% (Czech Republic 2.0%; Germany 3.2%; Netherlands 3.3%; Poland 3.3%; Hungary 3.4%; Malta 3.4%; Bulgaria 3.7%; and Romania 3.9%). <https://ec.europa.eu/eurostat/documents/2995521/10159296/3-30012020-AP-EN.pdf/b9a98100-6917-c3ea-a544-ce288ac09675> In addition, the OECD reports that six non-EU member states also have rates below 4% - Iceland 3.5%; Israel 3.4%; Japan 2.2%; Korea 3.8%; Mexico 3.2% and the United States 3.6%. <https://www.oecd.org/sdd/labour-stats/harmonised-unemployment-rates-oecd-02-2020.pdf>. The Euro Area unemployment rate in December 2019 was 7.4% the same as it was in April 2008 at the start of the Great Recession.

References

- Aaronson S., T. Cajner, B. Fallick, F. Galbis-Reig, C. Smith and W. Wascher (2014), 'Labour force participation: recent developments and future prospects', Brookings Papers on Economic Activity, Fall, pp. 197-255.
- Bell, D.N.F. Bell and D.G. Blanchflower (2014), 'Labour market slack in the UK', National Institute Economic Review, 229(1), pp. F4-F11.
- Blanchflower, D.G. (2004), 'Self-employment: more may not be better', Swedish Economic Policy Review, 11(2), pp. 15-74.
- Blanchflower, D.G. (2000), 'Self-employment in OECD Countries', Labour Economics, 7, September, pp. 471-505.
- Blanchflower, D.G. and A.T. Levin (2015), 'Labour market slack and monetary policy', NBER working paper #21094, April.
- Blanchflower, D. G., and A. J. Oswald (1990), 'The wage curve', Scandinavian Journal of Economics, 92: pp. 215–35. Reprinted in Unemployment and Wage Determination in Europe, ed. B. Holmlund and K. G. Lofgren. Basil Blackwell.
- Blanchflower, D.G. and C. Shadforth (2007), 'Entrepreneurship in the UK', Foundations and Trends in Entrepreneurship, Vol. 3, No. 4, pp. 257–364.
- Boeri, T., G. Giupponi, A.B. Krueger, and S.J. Machin (2020), 'Solo self-employment and alternative work arrangements: a cross-country perspective on the changing composition of jobs', Journal of Economic Perspectives, 34(1), Winter, pp. 170-195.
- Stock, J. (2014), 'Comments on Aaronson et al', Brookings Papers on Economic Activity, Fall, pp. 261-271.

Appendix Table 1. Scale of the increase in seasonally unadjusted initial UI filings by state from week ending March 14th, 2020 to w/e April 11th. <https://oui.doleta.gov/unemploy/claims.asp>

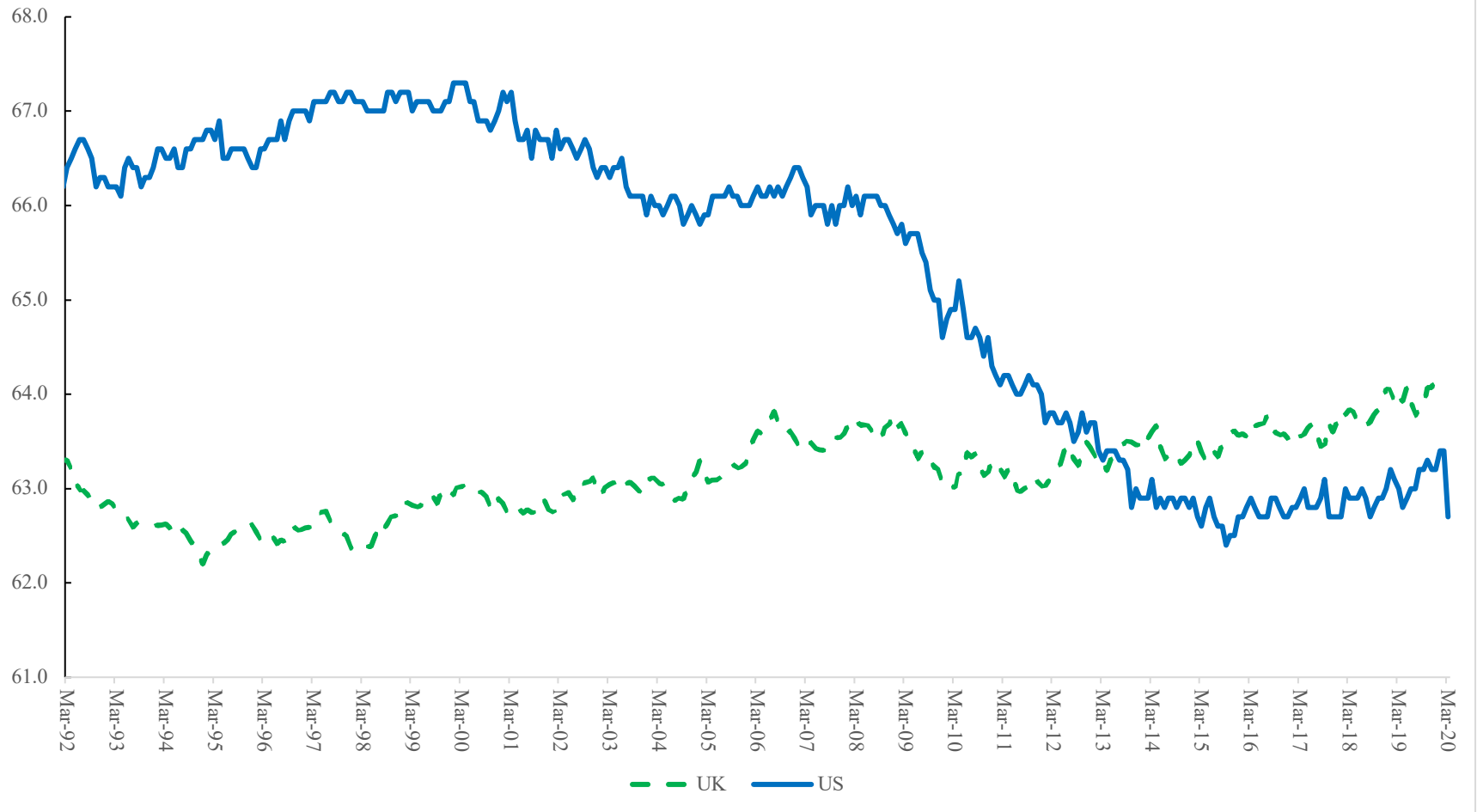
Week ending	(1) April 11	(2) April 4	(3) March 28	(4) March 21	(5) March 14	(6) Sum (1-4)/5
Alabama	91,079	106,739	80,984	10,892	1,819	115
Alaska	12,752	14,590	13,774	7,847	1,120	44
Arizona	97,784	132,428	88,940	29,348	3,844	91
Arkansas	34,635	62,086	27,756	9,275	1,382	97
California*	660,966	918,814	1,058,325	186,333	57,606	49
Colorado	105,073	46,326	61,838	19,774	2,321	100
Connecticut	33,962	33,464	33,227	25,100	3,440	37
Delaware	13,272	18,851	19,137	10,776	472	131
District of Columbia	9,904	15,329	15,869	14,462	1,213	46
Florida	181,293	169,885	228,484	74,313	6,463	101
Georgia	317,526	390,132	133,820	12,140	5,445	157
Hawaii	34,693	53,101	48,596	8,815	1,589	91
Idaho	17,817	30,904	32,941	13,586	1,031	92
Illinois	141,049	201,041	178,421	114,114	10,870	58
Indiana	118,184	127,010	139,174	59,755	2,596	171
Iowa	46,356	64,194	55,966	40,952	2,229	93
Kansas	30,769	49,306	54,330	23,563	1,755	90
Kentucky	115,763	117,575	113,149	49,023	2,785	142
Louisiana	80,045	100,621	97,400	72,438	2,255	155
Maine	13,273	30,910	23,770	21,459	634	141
Maryland	60,823	109,489	85,317	42,981	3,864	77
Massachusetts	103,040	139,647	181,423	148,452	7,449	77
Michigan	219,320	388,554	304,335	128,006	5,338	195
Minnesota	89,634	110,260	109,095	115,773	4,010	106
Mississippi	46,160	45,852	32,015	5,519	1,147	113
Missouri	95,785	91,458	104,291	42,246	4,016	83
Montana	13,437	21,244	20,763	15,349	817	87
Nebraska	16,391	27,054	24,725	15,700	795	105
Nevada	60,180	79,285	71,942	92,298	6,356	48
New Hampshire	23,936	39,202	31,378	29,379	642	193
New Jersey	140,600	214,836	206,253	115,815	9,467	72
New Mexico	19,494	26,132	27,849	18,105	869	105
New York	395,949	344,451	366,595	79,999	14,272	83
North Carolina	137,934	137,422	172,145	94,083	3,533	153
North Dakota	10,378	15,125	11,818	5,662	415	104
Ohio	157,218	226,191	274,288	196,309	7,046	121
Oklahoma	48,977	60,534	47,744	21,926	1,836	98
Oregon	50,930	62,788	47,498	30,054	4,269	45
Pennsylvania*	238,357	277,640	404,677	377,451	15,439	84
Puerto Rico	41,829	66,555	45,394	20,148	1,172	148
Rhode Island	22,805	28,243	27,800	35,847	1,108	104
South Carolina	87,686	86,573	66,475	31,826	2,093	130
South Dakota	6,152	8,138	6,801	1,761	190	120
Tennessee	74,772	112,186	92,500	38,077	2,702	118
Texas	273,567	315,167	276,185	155,426	16,176	63
Utah	24,171	33,040	28,532	19,690	1,305	81
Vermont	9,478	16,474	14,633	3,784	659	67
Virgin Islands	3	72	250	123	44	10
Virginia	106,723	147,369	112,497	46,277	2,706	153
Washington	150,516	171,252	182,849	129,909	14,240	45
West Virginia	14,595	14,494	14,523	3,536	865	55
Wisconsin	69,884	104,823	110,934	51,031	5,190	65
Wyoming	4,904	6,543	6,396	3,653	517	42
US Total	4,971,823	6,211,399	6,015,821	2,920,160	251,416	80

Appendix Table 2. What measures has your enterprise taken to cope with the impact of the coronavirus (COVID-19) on your workforce? Percentage of responding industries, UK, 9 March to 22 March 2020.

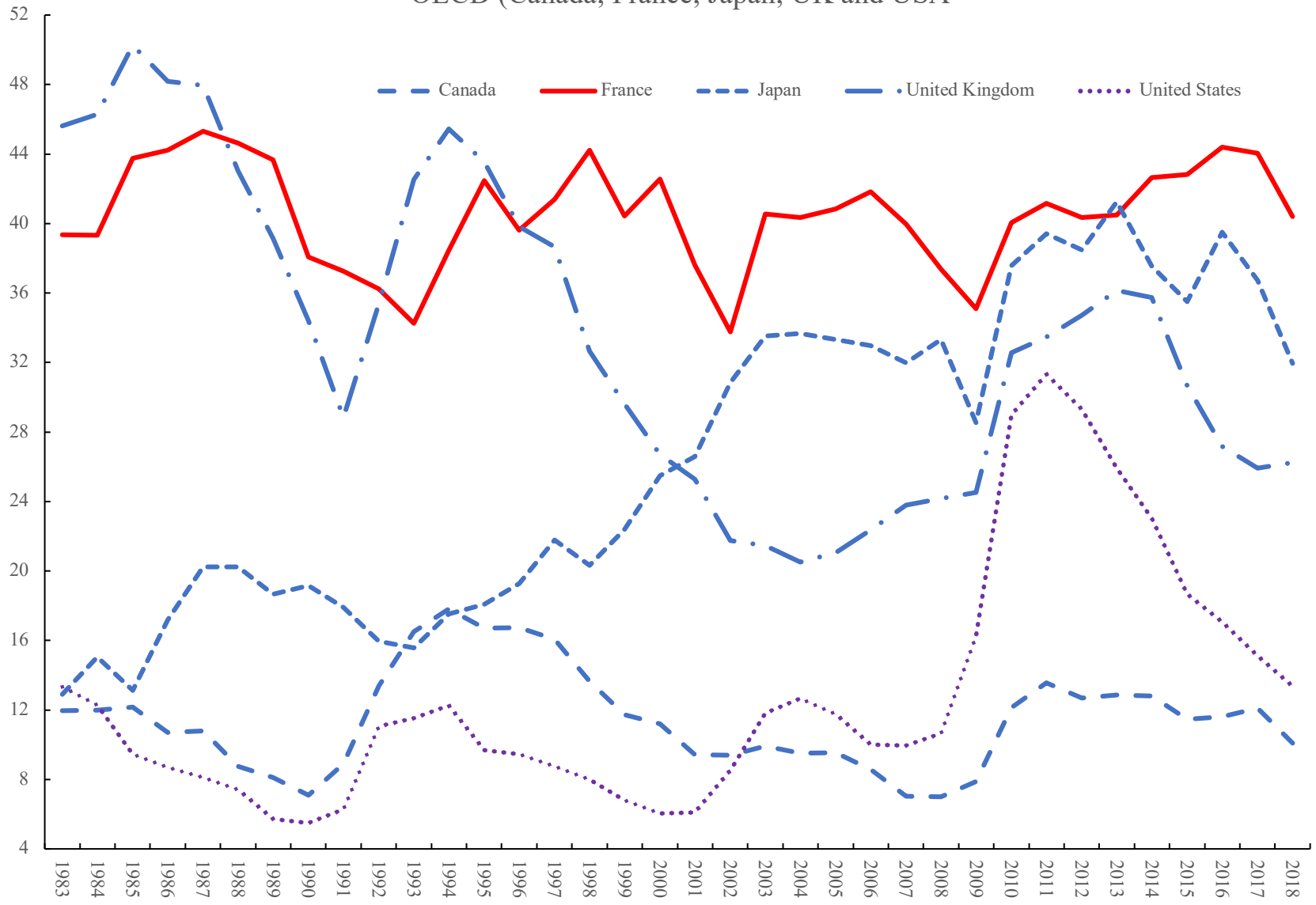
	Decreased working hours	Staff have to work from home	Laying off staff in the short term
All industries	29	48	29
Manufacturing	26	35	25
Water Supply, Sewerage, Waste Management and Remediation Activities	34	40	30
Construction	32	34	39
Wholesale and Retail Trade; Repair of Motor Vehicles And Motorcycles	30	42	30
Accommodation and Food Service Activities	57	32	52
Information and Communication	9	77	11
Transportation and Storage	39	34	33
Professional, Scientific and Technical Activities	15	70	22
Administrative and Support Service Activities	34	49	39
Education	23	74	11
Human Health and Social Work Activities	17	34	12
Arts, Entertainment and Recreation	46	64	39

Source: ONS <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessimpactofcovid19surveybics>

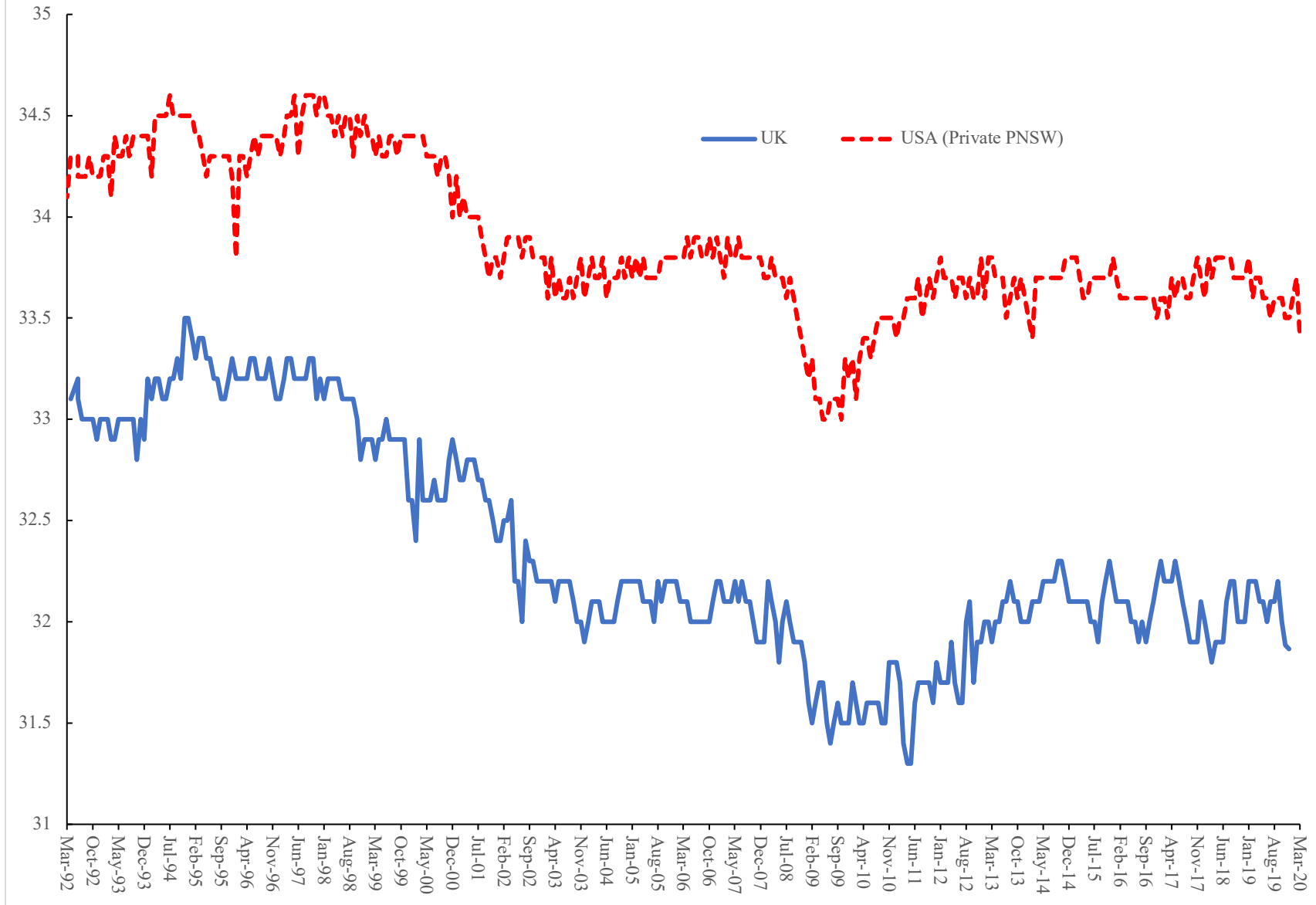
Appendix Figure 1. Labour Force Participation Rates, 1992-2020



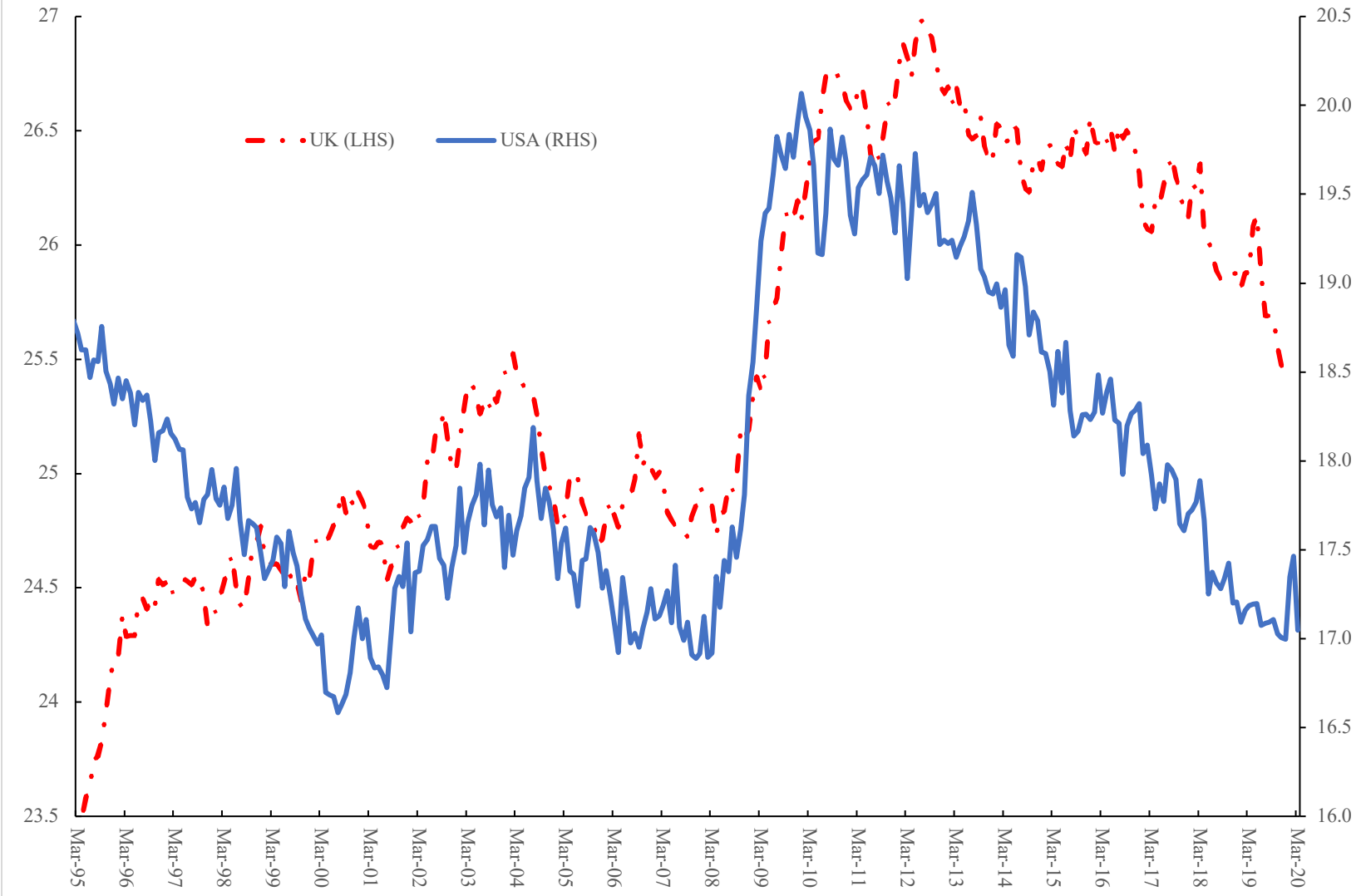
Appendix Figure 2. % of the unemployed with durations of 12 months or more: source: OECD (Canada; France; Japan; UK and USA)



Appendix Figure 3. Average hours



Appendix Figure 4. % Part-time



Appendix Figure 5. Self-employment rates (%)

