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France: how far along is the cycle?

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p. 2 The cycle: its phases and turning points

p. 4 Pressure ratings

p. 12 Limited limits

p. 13 From recovery to growth

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ECONOMIC RESEARCH DEPARTMENT

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France: how far along is the cycle?

Hélène Baudchon

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Based on currently available economic indicators, the French economy has apparently moved past the recovery phase and into the so-called growth or expansion phase. What does this cyclical position imply? Growth has probably peaked already, but we still have not reached the cyclical peak, much less the end-of-cycle phase, which still lies further ahead (assuming there are no adverse shocks). The growth phase is characterised by relatively slower growth, and we will try to evaluate the extent of this slowdown.

The cycle: its phases and turning points

A cyclical analysis[1] can be used to interpret the endogenous dynamics of the economic cycle and to distinguish between phases, which is precious for positioning the economy within its cycle.

The growth cycle, which is usually represented by the output gap, can be divided into four phases: recession, recovery, growth and overheating (see charts 1 and 2). A recession is technically defined as a contraction of real GDP for at least two consecutive quarters. The ensuing recovery phase is characterised by vigorous growth (at least in theory) that rapidly surpasses the potential growth rate. Once growth peaks, the economy enters the growth phase, which extends from peak growth (the maximum economic growth rate) to the cyclical peak (when the output gap reaches a maximum). This phase is characterised by a gradual slowdown in real growth, which nonetheless remains higher than the potential growth rate. A priori, it is the longest phase of the cycle. Next comes the overheating phase, which lasts until growth drops into negative territory. During the overheating phase, real growth drops below the potential growth rate (the cyclical indicator declines)[2].

Each cyclical phase corresponds to a macroeconomic chain of events, which can also be used to position the economy within the cycle. A cyclical analysis begins with an evaluation of the availability of production factors. Once growth reaches its peak, it begins to be hampered by the shortage of one or more production factors: productive capital, the various categories of labour, commodities or financing. The slowdown occurs because these different factors are hard or impossible to replace in the short term: the first sharp constraint encountered tends to curb activity. Thereafter, greater competition for scarcer resources tends to drive up prices. It is accompanied by a decline in their effectiveness and marginal productivity. This decline in turn leads to higher production costs and a slowdown in activity.

As the cyclical peak approaches – the part of the cycle that interests us most – the race to use production factors creates upward pricing pressures on these factors. Investment needs become more urgent due to the strain on capacity utilisation, wage demands accelerate and interest expenses rise (higher interest rates increase the burden of debt taken on during the growth phase). Unit labour costs rise towards the end of the cycle as wage growth accelerates but productivity gains falter, distorting the distribution of value added, with employees benefiting to the detriment of corporate earnings. Over the course of the cycle, the corporate situation is most favourable when growth rates and activity are high, but without overheating. In the overheating phase, in contrast, companies are in a tougher situation because the increase in margins is squeezed by rising unit labour costs, which eventually win the upper hand. The ensuing decline in margins is an early warning signal of a cyclical downturn, because companies usually curb investment spending in its wake, triggering a self-sustaining negative feedback loom of weaker growth and fewer jobs.

At the very end of the cycle, declining corporate margins can be accompanied by an increase in the personal saving rate, further curbing investment spending. Several factors can drive up the personal saving rate, including the saturation of consumer needs, higher precautionary

[1] See OFCE (1993), *Growth cycles past and present: theoretical developments, cyclical approaches, instruments and empirical analyses, permanent features and changes*, OFCE Review, n°45, June.
[2] The expression "growth recession" is also used to distinguish from the classic recession, defined as the contraction of GDP.

savings, and more restricted access to bank lending, when the risk profile of households is found to have deteriorated[3].

To summarize, the overheating phase is characterised by a strong utilisation of capacity and production factors, and by a sort of competition between economic agents to capture scarcer and more costly resources. These pressures, which tend to stifle growth, can initially be overcome by increasing debt and raising prices. Yet these increases eventually trigger a tightening of monetary policy as well as macro-prudential regulation, which aims to cool an overheating economy. Although short and long-term interest rate increases often play a critical role in cyclical downturns, that does not mean that monetary policy is solely to blame for recessions. A downturn becomes ineluctable once physical and financial resources become scarcer and/or more costly, leaving companies and/or households little choice but to cut back spending, more or less abruptly.

Although interest rate movements do not necessarily trigger cyclical downturns, they can serve as an amplifier or at least an indicator. The inversion of the yield curve (when short-term rates are higher than long-term rates) is well established as a leading indicator of US recessions. This can be explained as follows: short-term rates rise when monetary policy is tightened, long-term rates tend to follow suit at first, and the yield curve flattens. Thereafter, in anticipation of a downturn in activity and the recessionary impact of monetary tightening, long-term rates begin to ease, resulting in an inverted yield curve. However, once other factors interfere in the formation of interest rates (such as quantitative easing) and these latter are no longer dictated primarily by changes in conventional monetary policy, the reliability of the signal can be distorted. It becomes harder to distinguish between real and false alerts, as is the case today. The current flattening of the US yield curve raises fears that the end of the US growth cycle might be nearing. These fears are also shared in Europe as well, since in the past, the end of the US cycle has always signalled the end of growth cycles across the globe.

The yield curve is not the only benchmark that is disrupted today. The entire framework for interpreting cycles and the endogenous mechanisms of cyclical downturns seems to be called into question by the weak pricing signal (i.e. low inflation) on which they are largely based. The last two end-of-cycle periods (2000-2001 and 2007-2008) have nonetheless already shown that the absence of inflation does not mean there is no excessive accumulation. What really matters is this excess, regardless of its form (excessive investment or debt by one economic agent or another). This excess carries the seeds of the future downturn, and once it is revealed, it sounds the end of the cycle, more or less abruptly depending on the extent of the imbalance, whether or not the shock is a surprise, and its contagion effects. The duration of the cycle might be extended by the absence of inflation, but the excess, from which it is inseparable, always catches up with the cycle in the end. Cycles may have become inflationless but they are not dead.

France: stylized representation of the growth cycle

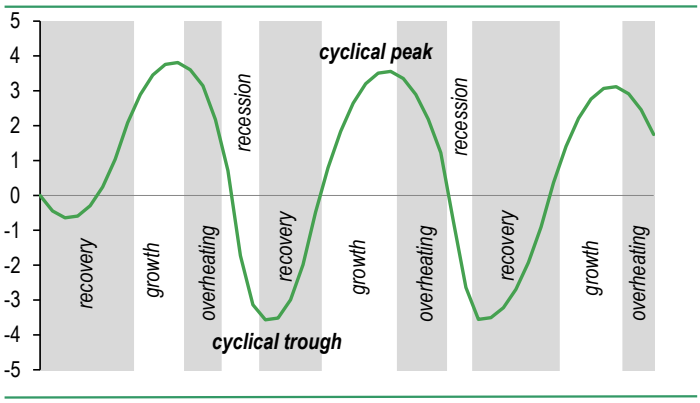


Chart 1 Source: BNP Paribas

France: stylised representation of real GDP fluctuations around potential GDP

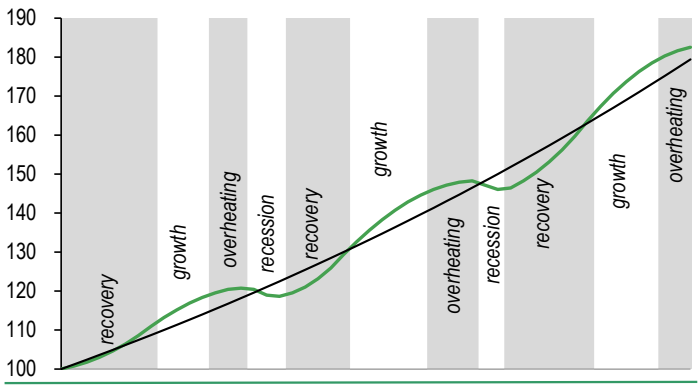


Chart 2 Source: BNP Paribas

The last two crises also show that cycles may follow one on the other, but share little in common. Each cycle reflects the excesses of a different economic agent: companies in the case of the bursting of the dot-com bubble in 2000; and households coupled with the financial sector in the subprime crisis of 2007-2008. Yet these crises/cycles have at least two points in common: the same downturn mechanism comes into play, namely the crowding out of economic agents from the financial markets once they are identified as the weak link (i.e. their risk profile has deteriorated the most), which in turn triggers a downturn in the economy as a whole; the same purge mechanism more or less reduces the excesses accumulated during the previous cycle[4].

[3] At this stage in the cycle, the financing needs of public administrations are usually smaller due to the favourable impact of growth, which means they do not have to compete with the financing needs of private agents (no crowding out effect).

[4] The European sovereign debt crisis in 2011-2012 revealed the excesses of another economic agent: public administrations. But unlike the first two, it was not an end-of-cycle crisis: it was a crisis within a crisis because it was largely a

Pressure ratings

In France, like in the eurozone as a whole, first-quarter 2013 marked the beginning of the current recovery phase. The recovery entered its sixth year in 2018 and looks sufficiently mature to begin asking how long it will last. Unfortunately, there is no easy answer. Growth in general, and cyclical downturns in particular, are hard to predict.

Today's situation is even harder to analyse given the specific developments of the current cycle: over the past five years, there has been only one year of robust growth after four sluggish years. In 2017, annualised growth adjusted for the number of working days averaged 2.3% (based on data available today) compared to average annual growth of 0.9% in 2013-2016. This is why the average annualised quarterly growth rate is so much lower than in previous cycles (see chart 3). The sharp acceleration from year-end 2016 to late 2017 brought growth back in line with the rates observed at the same point in previous cycles. Today's average annualised quarterly growth rate of 2.8% is similar to the averages for the four previous cycles (excluding the 2010-2011 mini-cycle, which was too short to be taken into account).

It looks like 2018 will be another year of strong growth, but just how strong remains to be seen. Various headwinds could still prove this outlook to be wrong: among them, we pay close attention to indicators showing rising pressures on capacity and production factors. These pressures raise questions about where the French economy is positioned within the cycle. It could be much more advanced than the output gap – the key cyclical indicator – would seem to suggest, at least as it is estimated today. These pressures also raise questions about whether French growth still has the capacity to accelerate further, or at least to continue growing for another year at the current annualised quarterly growth rate of nearly 3%, as in 2017. These pressures suggest that even though the economy has only just switched into full gear, it may be slowing down already, returning to a slower but more sustainable growth rate.

Does this mean that the cycle has already peaked and that it is preparing to enter an end-of-cycle downturn? That is not what our cyclical analysis and empirical data seem to be indicating. The French economy is not showing any of the usual signs of an end-of-cycle phase. Compared to the typical cycle described above, we can see greater utilisation of production factors, but there has not been a significant upturn in inflation yet. The economy does not seem to be overheating either, based on corporate margins, the personal saving rate, borrowing conditions and interest rates. The economy may have switched from a recovery to growth phase, but unless it skips a few phases – which is not supported by data – then it has not yet begun to overheat. Of course, the intensity of these pressures is more or less strong depending on which indicators are used. We present these pressures below, ranked in decreasing order of importance. Depending on the indicators, the output gap is more or less still in negative terrority or even already in positive territory, and the cycle appears to be more or less mature. From our point of view, this ranking of pressures proves that all of the early warning signals of an endogenous end-of-cycle period have not come together. In other words, we may have reached peak growth, but the cyclical peak still seems to be far away.

consequence of the subprime crisis. And the process of rebuilding fiscal manoeuvring room by purging excessive public debt is still underway.

France: cycles of variable length and strength

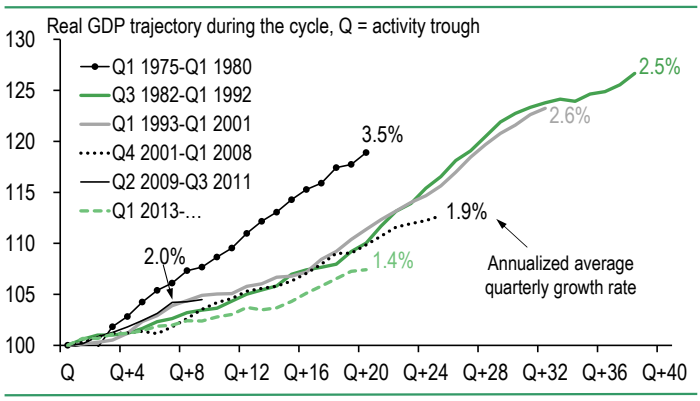


Chart 3 Source: INSEE

Supply constraints and hiring difficulties: strong pressures

Supply problems are supplanting demand issues

One of the three indicators that sounded the alarm on the pressures building up within the French productive apparatus is the percentage of companies experiencing supply constraints that prevent them from increasing production by as much as they would like. This percentage first began to increase, all sectors combined, in late 2015, but it began gradually at the time and did not catch our attention. This trend accelerated sharply in 2017 and early 2018, bringing the percentage of companies reporting supply problems in industry, services and construction to the highest level since 2007-2008 (see chart 4a).

In industry and construction, two sectors for which the data history is a bit longer, the percentage of companies experiencing supply constraints in early 2018 was similar to the levels reached shortly before cyclical downturns in the past. Yet this troubling coincidence must be kept in perspective: these past downturns were triggered by exogenous shocks linked to the US economy (bursting of the dot.com bubble in 2000, subprime crisis in 2007). They were not triggered endogenously by the pressures themselves. If we look at the level of pressure in terms of the mean deviation and not in absolute terms for the percentage of

companies concerned, it is also somewhat easier to keep in perspective the extent of these constraints (see chart 4b).

France: percentage of companies facing supply difficulties

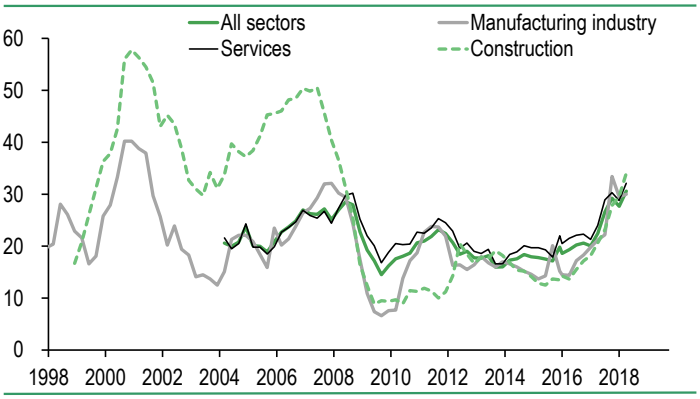


Chart 4A Source: INSEE

France: percentage of companies facing supply difficulties

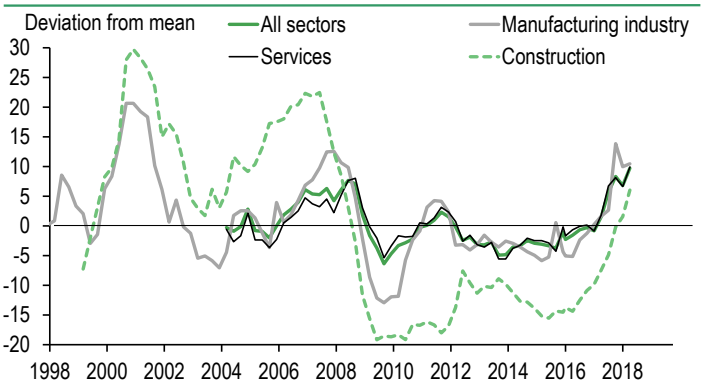


Chart 4B Source: INSEE

In summer 2017, the percentage of industrial companies reporting supply constraints surpassed that of companies experiencing trouble with demand, which has been in a net decline since 2015. The crossing of these trends, with is rare, is also symptomatic of the size of these supply constraints (see chart 5). As to services, we have less hindsight because the data series is only available since 2004. The same trend can be observed, and it is also rare. In construction, the situation is a bit different: more companies are signalling supply constraints than demand problems, but this situation seems to be less exceptional, since it prevailed from the last 1990s to the 2008 crisis.

INSEE surveys can also be used to identify the factors limiting output growth. In manufacturing industry, the increase in supply constraints is mainly due to a sharp increase in procurement problems, and to a lesser extent, to the troubles associated with a shortage of equipment and staff (see chart 6). In services and construction, the shortage of labour is the main limiting factor.

Yet as big and somewhat alarming as they may seem, these supply constraints are not all that surprising: they are in phase with the cycle as they reflect the sharp acceleration of growth in 2017. With growth stronger, companies draw more heavily on the productive apparatus and available resources. In our eyes, these supply constraints are primarily the normal consequence of the current upturn in growth, rather than the possible cause of a future slowdown.

France: percentage of companies in the industry sector experiencing difficulties of supply and demand

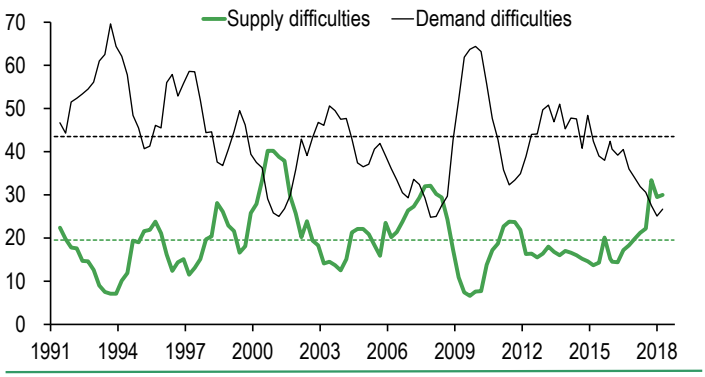


Chart 5 Source: INSEE

France: factors limiting supply in the manufacturing industry

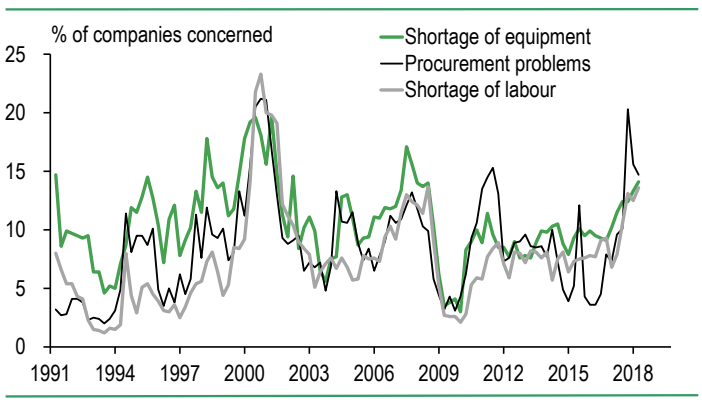


Chart 6 Source: INSEE

Hiring difficulties, labour shortages and hiring barriers

The hiring difficulties that companies are experiencing can also be attributed to the vigorous pace of job creations. Yet the size of these difficulties raises some questions. Like supply constraints, the increase in hiring difficulties in early 2016 did not catch our attention at first. The size of the movement did not become clear until late 2017. Hiring difficulties are growing in all sectors (industry, services and construction), albeit to differing degrees. In absolute terms, construction has encountered the biggest difficulties (see chart 7a). In terms of the mean deviation, in contrast, sector differences seem much smaller (see chart 7b).

France: percentage of companies experiencing hiring difficulties

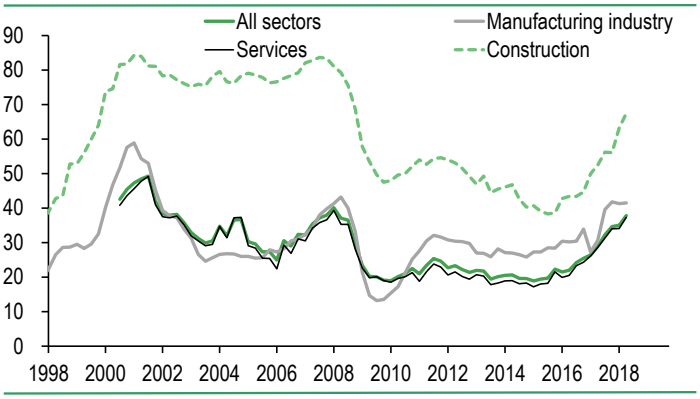


Chart 7A Source: INSEE

France: proportion of companies whose activity is limited by a shortage of labour

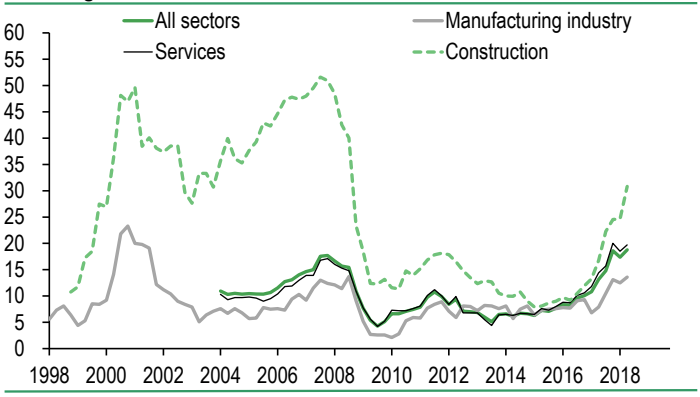


Chart 8A Source: INSEE

France: percentage of companies experiencing hiring difficulties

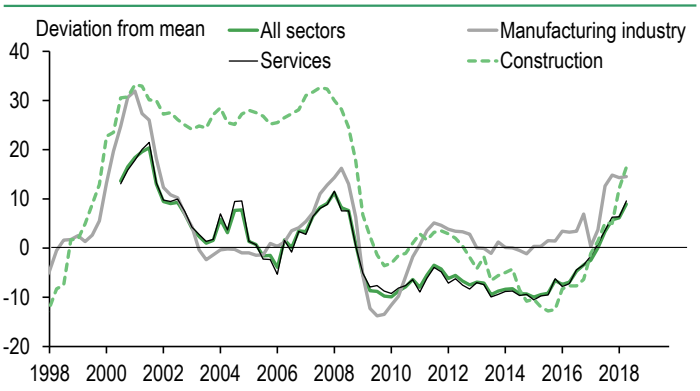


Chart 7B Source: INSEE

France: proportion of companies whose activity is limited by a shortage of labour

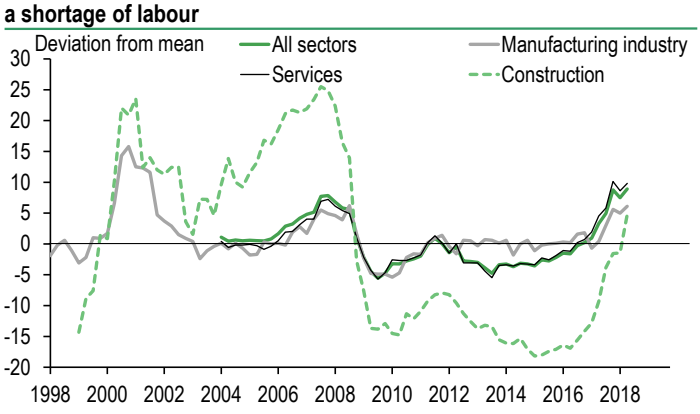


Chart 8B Source: INSEE

Hiring difficulties also imply constraints on developing business activity due to the shortage of staff. In absolute terms, in early 2018 the percentage of companies reporting that activity has been curtailed due to a shortage of labour was highest in construction, followed by services. Industry was the least affected sector (see chart 8a). In terms of the mean deviation, in contrast, the services sector was hit hardest, followed by industry, with construction close behind (see chart 8b).

To complement its surveys about hiring difficulties and the resulting shortages of labour, the INSEE wanted to learn more about the existence and nature of the barriers to hiring that companies experienced in the recruitment process. More precisely, it wanted to know what was preventing them from hiring more workers under open-ended contracts or fixed-term contracts of long duration. Although hiring difficulties are expected to increase during cyclical upturns, the intensity of these difficulties can vary from one recovery phase to another depending on the barriers to hiring.

It is thus instructive to learn more about these barriers. Since January 2017, the INSEE has added new questions on hiring barriers to its economic surveys. The first survey results for these questions were reported in two publications, in June and December 2017[5], covering the April and October surveys of the same year (see table).

The responses differed slightly between the two surveys. In the April survey, for all sectors, the most frequently cited hiring barriers were "uncertainty about the economic situation" and "unavailability of competent workers", in almost equal proportions (28% and 27%, respectively). In October, the "unavailability of competent workers" was seen as a bigger barrier (32% of companies) while "uncertainty about the economic situation" lost ground (25%). The percentage of companies citing at least one hiring barrier linked to labour costs was not as high, and held steady between the two surveys (22% in October, 23% in April).

[5] Focus: *What do companies tell us about the barriers to hiring?* Note de Conjoncture, June 2017; Vincent Dortet-Bernadet, *Half of all companies report barriers to hiring*, INSEE Focus n°106, 21 December 2017.

France: percentage of companies citing each barrier to hiring (% of sector payroll employment)

	April 2017				October 2017			
	Industry	Services	Construction	All sectors	Industry	Services	Construction	All sectors
Uncertainty about the economic situation	34	24	54	**28**	32	21	43	**25**
Unavailability of competent workers	29	24	41	**27**	38	29	50	**32**
Labour costs	19	22	35	**23**	20	21	33	**22**
…Recruitment cost	*5*	*6*	*9*	***6***	*5*	*7*	*10*	***7***
…Social contributions too high	*17*	*17*	*32*	***18***	*17*	*15*	*29*	***17***
…Wage level too high	*5*	*7*	*7*	***7***	*6*	*7*	*9*	***7***
Labour market regulations	19	16	34	18	19	15	30	17
…Cost of dismissals	*12*	*9*	*22*	***10***	*10*	*9*	*20*	***10***
Legal risks of dismissal proceedings	*14*	*13*	*26*	***14***	*13*	*11*	*22*	***12***
…Uncertainties as to whether labour legislation will remain in place	*11*	*10*	*21*	***11***	*11*	*9*	*18*	***10***
Other	5	3	4	**4**	6	7	4	**7**

Table Source: INSEE, economic surveys of April and October 2017

Note: a given company may cite several types of hiring barriers.
How to read the table: in October 2017, industrial companies reporting hiring barriers and citing "uncertainty about the economic situation" employ 32% of sector employees.

The most frequently cited barrier in this subset was "social contributions too high" (17% in October, 18% in April). The various hiring barriers linked to labour market regulations played an even smaller role, although they were comparable between the two surveys. In this subset, it is worth pointing out the slight decline in the percentage of companies citing the legal risks associated with dismissal proceedings, which dropped from 14% in April to 12% in October. This encouraging development is probably attributable to the labour code reforms enacted by decree in September 2017.

Hiring difficulties, which were already a big problem in 2017, are expected to increase further in 2018. According to the 2018 BMO survey of "labour needs"[6], hiring intentions picked up strongly in 2018 (+18.7%, from +8.2% in 2017) [7], which feed greater expectations of hiring difficulties (44.4% of hiring intentions, vs. 37.5% in 2017)[8]. For 83% of job recruiters, these difficulties were attributed to a shortage of candidates (vs 80.2% in 2017), and for 77.6%, they were due to mismatched job profiles (vs 81.3% in 2017). The 2018 BMO survey also reveals a little more about what employers mean by the mismatching of job profiles as a hiring problem. This information rounds out the INSEE survey on the unavailability of competent workers as a hiring barrier. In 2017, 67% attributed the mismatching of job profiles to the lack of technical skills (excluding IT)[9]; 65% to a lack of motivation; 63% to a lack of professional experience; 44% to a poor presentation and relational skills; and 41% to insufficient diplomas or training.

The emergence of hiring difficulties and the shortage of labour are not surprising trends given the decline in the unemployment rate (see chart 9). Nor is France an isolated case. Labour shortages are being felt in other European countries, notably Germany. What is striking in France is that these difficulties have arisen at a time when the unemployment rate is still relatively high. Hiring difficulties were first "triggered" in the current cycle when the unemployment rate began to decline from a peak of 10.5% in mid-2015. In the previous cycle, hiring difficulties were first triggered at 9%, and peaked in early 2008 when the unemployment rate fell to 7.2%.

In early 2018, hiring difficulties are just as bad as in mid-2007 (and not far from the peak of early 2008), but today the unemployment rate is one point higher at 9% (vs 8%). These trends suggest that the structural unemployment rate rose sharply between 2007 and 2017, which is not

[6] Pôle Emploi, *Enquête: Besoins en main d'œuvre: les employeurs anticipent une forte progression de leurs perspectives d'embauche pour 2018*, Eclairages et Synthèses, n°44, April 2018.
[7] This increase was accompanied by greater job security, because open-ended and fixed-term contracts of more than 6 months accounted for 41.7% and 22.2% of hiring, respectively. These proportions were higher than in 2017 (by 3.3 and 3.1 points, respectively), while the share of fixed-term contracts of less than 6 months declined sharply (by 6.4 points to 36.1%).
[8] Expected hiring difficulties could prove to be slightly smaller in the end based on the results for 2017 and 2016. In both years, the percentage of companies that actually encountered hiring difficulties proved to be about 3 points lower than expectations.
[9] The shortage of office and/or computer skills is cited by 13% of employers as the motive for mismatched job profiles.

or only partially reflected in official estimates. The OECD estimated NAIRU in France at 9.1% in 2017 and 8.6% in 2007, while the European Commission estimates it at 9.2% in both years. We could jump to the conclusion that these estimates are too low, which would better explain the current level of hiring difficulties at a time when the effective unemployment rate is still relatively high. Yet it does not provide a very good explanation for the absence of inflationary and wage pressures, which to the contrary, suggests that structural unemployment estimates are too high (see below).

France: workforce pressures and the unemployment rate

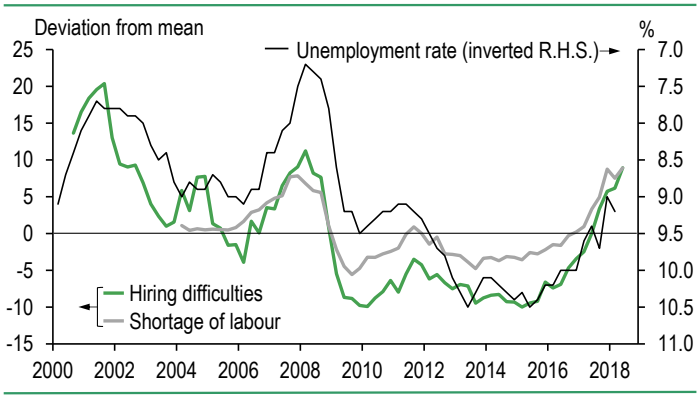


Chart 9 Source: INSEE

Capacity utilisation rate rises to 86% in early 2018

The third indicator signalling high pressures on the productive apparatus is the production capacity utilisation rate for industry (CUR). On the rise since late 2013, CUR surpassed the long-term average of 83% in late 2016. Although it is clearly not overheating yet, it is certainly no longer in underutilisation territory. The gap between CUR and the long-term average clearly indicates that the growth cycle is more advanced than the usual cyclical indicator, the output gap (real GDP to potential GDP), would seem to indicate. Based on the capacity utilisation rate, the output gap has already closed and swung into positive territory in 2017 (see chart 10).

According to the Bank of France, manufacturing firms' productive capital operating times (COT) increased much more sharply in 2017 than in the previous four years (by nearly 4%, compared to barely 2%), which demonstrates the size of the constraints companies are facing to expand their activity[10]. Altogether, 44% of companies stated that certain obstacles had prevented them from extending COT (compared to 41% in 2016). This is somewhat concerning as extending COT is a way for businesses to rapidly respond to stronger demand without resorting to new investment. The other way is to increase the capacity utilisation rate. The most important obstacle that prevented businesses from extending COT was the shortage of skilled labour. Mentioned by 86% of companies, this percentage has risen sharply since 2015, after fluctuating around an average of 52% since 2008.

France: a narrow and a broad measure of the degree of slack in the economy

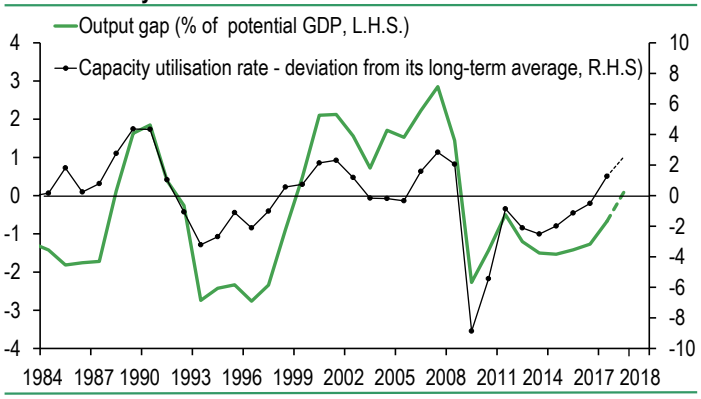


Chart 10 Sources: INSEE, European Commission, BNP Paribas

A priori, the output gap was still negative in 2017, but not for long

Estimates of the output gap differ somewhat from one international organisation to another, but on the whole, the story is the same: in 2017, the output gap was still negative, albeit to different degrees depending on the estimate. The output gap finally seems to be closing rather rapidly, buoyed by the renewed vigour of growth in 2017 (see chart 11). Contrary to the signals of the indicators analysed above, pressures on the economy's productive resources look to be reduced, and there is still some slack, although it is diminishing.

The main problem with this analysis is that the output gap is hard to estimate and extremely tenuous[11]. This cyclical indicator is conceptually more satisfying and pertinent than the capacity utilisation rate, but it is not very reliable given the size of its revisions over time. For instance, according to the European Commission's estimate of May 2018 (the most recently available estimate), the output gap was a positive 2.9 points in 2007. This contrasts with its "real time" May 2007 estimate of a negative output gap of 0.9 points (see chart 12a). The message and its implications in terms of economic policy are clearly not the same. To take another example, the preliminary "real time" estimate of the output gap for 2009 was a negative 2.2 points, but this figure was repeatedly revised downwards to -3.9 in Spring 2011, before returning to -2.8 points just a few months later (in November 2011).

[10] Banque de France, *Productive capital operating times increased sharply in 2017 – Findings of the Banque de France survey*, Bulletin 216/1, March-April 2018.

[11] For an overview of the debates surrounding the different methodologies for estimating the output gap and the preferred methods, see Stefan Gerlach and Franck Smets (1999), *Output gaps and monetary policy in the EMU area*, European Economic Review, vol. 43.

France: various estimates of the output gap

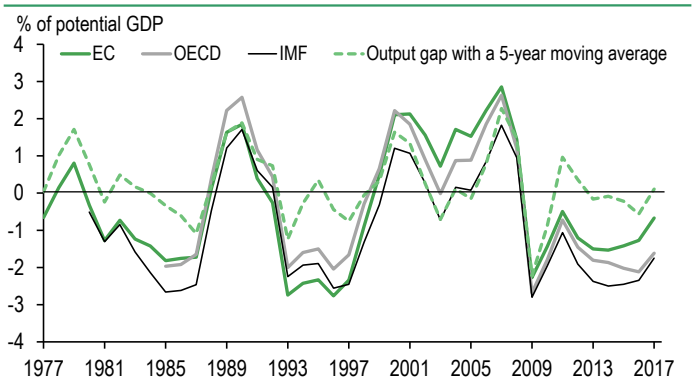


Chart 11 Sources: European Commission, OECD, IMF, INSEE, BNPP

Estimates then held at this level before rising again to -2.4 points in May 2014, and on to -2.1 in November 2015, before dropping back to -2.3 in May 2018 (see chart 12b). Unlike the first example, at least the output gap's sign did not change over the course of these revisions, and remained well anchored in negative territory.

These series of often very big revisions reveal the great uncertainty surrounding estimates of the potential growth rate and the output gap, as well as the pro-cyclical influence that the economy has on these estimates. Benoît Cœuré, a member of the ECB Executive Board[12], recently pointed out this double issue. One section of his speech in particular caught our attention: as growth strengthens (both cyclically but also structurally, thanks to additional support from reforms), supply and demand rise in tandem, and the output gap does not close. This leads to a new kind of puzzle: the faster real growth is, the slower the output gap closes. As a result, the risks of overheating and inflationary pressures usually associated with sustainably robust real growth do not seem as strong. In other words, the output gap is not nearly as pertinent as a key indicator. In any case, it lacks precision.

To get around this problem while keeping a broad perimeter, the first alternative is to estimate potential GDP by simply using the 5-year moving average of real GDP and to calculate the corresponding output gap. The result is rather close to the most recent official estimate of the output gap (see chart 12a). The problem is that the real GDP data series is also susceptible to be revised, much less than the output gap, but sometimes significantly when the base or methodology is changed.

This brings us to the capacity utilisation rate. Granted, its scope is narrower (it only covers industry and not the economy as a whole), but it offers the advantage of not being revised much, and it is available monthly. Excluding the extreme period of the 2008-2009 Great

[12] Benoît Cœuré (2018), *Scars that never were? Potential output and slack after the crisis*, speech given at the CEPII 40th Anniversary Conference, Paris 12 April.

France: different estimates of the output gap over time

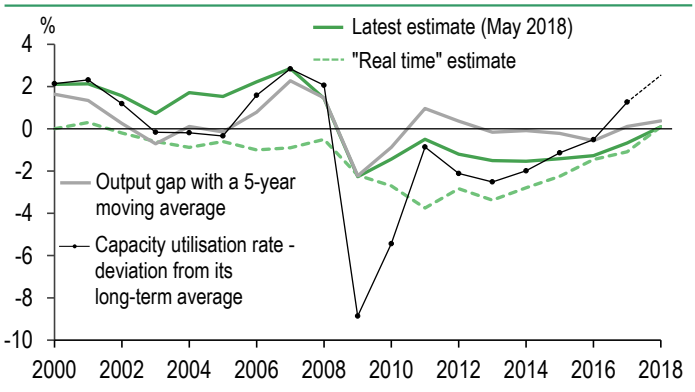


Chart 12A Sources: European Commission, INSEE, BNP Paribas

Note: the "real time" estimate indicated here corresponds to the European Commission's estimate of the output gap made in May of the year n for the year n.

France: different estimates of the output gap over time

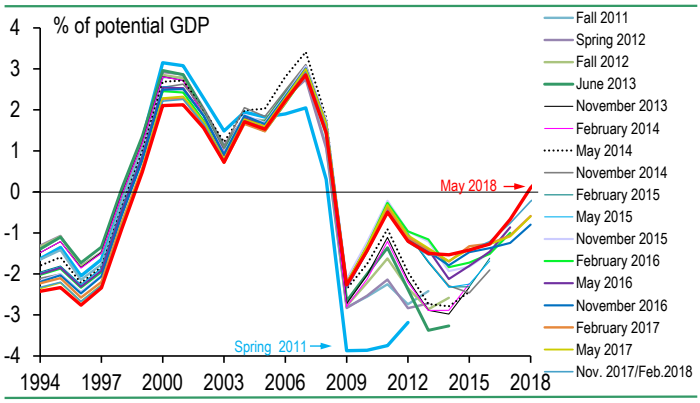


Chart 12B Source: European Commission

Recession, CUR follows sufficiently close to the output gap to serve as a real-time proxy for the cycle (see charts 10 and 12a). In the same spirit of seeking a real-time cyclical measure that is not subject to revisions, the French Treasury estimates the output gap in a more sophisticated manner, using the so-called direct approach, based on the following pressure indicators taken from business confidence surveys: 1) the capacity utilisation rate, 2) the three balances on opinion related to labour slack in industry, services and construction, and 3) the three balances of opinion related to insufficient demand in each of these three sectors[13]. This direct approach confirms our previous observations that the French economy is at a more advanced point in the cycle than indicated by the conventional output gap. Instead of being negative by about 1 point in 2017, the output gap was positive by about 1 point (see chart 13).

[13] Diane De Waziers (2018), *What do economic surveys tell us about the economy's position in the cycle?*, Trésor-éco n°223, June.

France: estimate of the output gap by direct and traditionnal approach

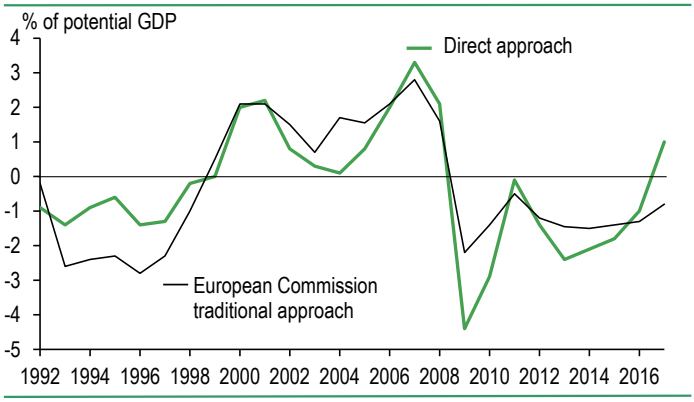


Chart 13 Source: French Treasury (2018)

France: unemployment gap and output gap

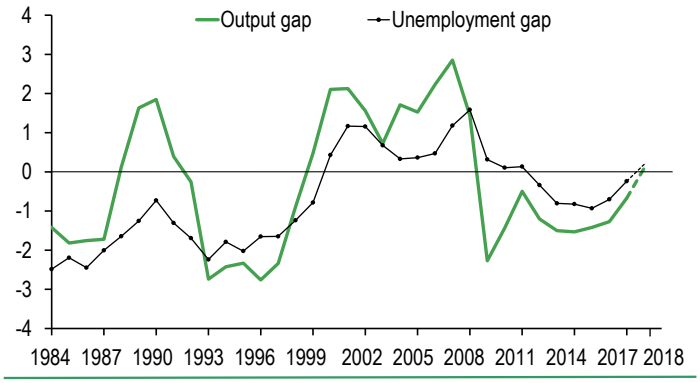


Chart 14 Source: European Commission

To conclude this section, we will look at what the job market has to say about the resource utilisation rate, first via the unemployment gap. The unemployment gap is a mirror image of the output gap. It measures the difference between the structural unemployment rate and the effective unemployment rate. According to this measurement, the output gap would be virtually nil in 2017, signalling the absorption of unused resources, whereas based on the output gap, a small amount of slack still exists (see chart 14). Yet this difference seems to be insignificant given the margin of error for the estimates of these two gaps. In contrast, there is a significant difference in the degree of labour slack once the definition of the unemployment rate is broadened to include other forms of inactivity and under employment, such as discouraged and involuntary part-time workers[14]. Seen in this light, today there are still major unemployed but employable resources (see chart 15).

[14] Discouraged workers are part of what is called the unemployment halo, which comprises persons near unemployment but who are not accounted as such because they do not meet all of the criteria of the International Labour Office (ILO) definition, i.e. to be without a job, actively seeking work and available to work within a period of two weeks.

Metropolitan France: narrow and wide measure of the unemployment rate

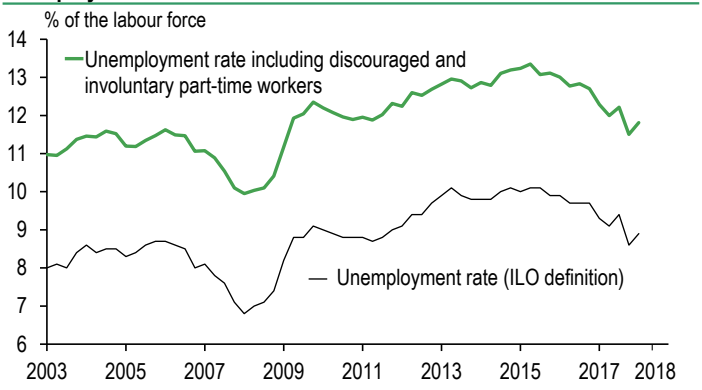


Chart 15 Sources: INSEE, BNP Paribas

Inflation: a matter of time?

Can we use inflation as an arbitrator to help separate these two camps, i.e. pressure indicators based on survey results on the one hand, and the output gap on the other, with the first signalling that the cycle is more advanced than the second? The answer is no, at least not in a clear manner[15]. Indeed, the low level of core inflation, or to be more precise, the absence of a net acceleration (in average annual terms, the inflation rate was 0.5% in 2017, the same as in 2015 and 2016), would seem at first sight to be signalling a third message: the output gap is even more negative than currently officially estimated. Yet the absence of pricing pressures seems to signal the absence of pressure on production factors, which is a disturbing result given the pressures signalled by a number of other activity indicators.

Yet this conclusion fails to take into account transmission delays: inflation is a lagging cyclical indicator, and the output gap has only just begun to close recently in France (see chart 16). The mild inflation and wage growth observed so far seem to be fairly in keeping with the state of the economy.

It is also worth recalling that inflation is defined as a broad-based, lasting and self-sustaining increase in prices. For example, when headline inflation accelerates, as it has since early 2018, fuelled by higher oil prices and cigarette and fuel taxes, but core inflation does not accelerate at the same pace, then it cannot be qualified as "real" inflation yet (see chart 17) [16]. Instead, we speak of relative price

[15] To further complicate matters, the accuracy of inflation measures is also a subject of debate. Inflation might be overestimated due to the difficulty of measuring and integrating quality improvements for a certain number of new goods and services in the digital era and/or with a high technology content.

[16] Brent crude oil prices rose from an average of EUR 28 per barrel in January 2016 to an average of EUR 64 in May 2018, an increase of nearly 130%. Particularly cheap in early 2016, oil prices are still relatively low today. Their rise is nonetheless significant. For the coming months, however, the positive

distortion. Chart 18 shows how inflation is not yet very broad-based, since very few components of the consumer price index are rising by more than 2% year-on-year.

To generate broad-based inflationary momentum, it takes more than a year of rapid growth. After a particularly severe recession in 2008-2009, which has still left scars on the economy, it is not so easy to turn the page after four years of sluggish growth (2013-2016) and one year more, i.e. five years, of subdued inflation. Some mechanisms may have been altered. This seems to be the case for the Phillips curve, which has not disappeared but significantly flattened. According to INSEE estimates, the relationship still exists between unemployment and wages on the one hand and wages and prices on the other, but it has weakened, and the transmission channel is increasingly disrupted[17]. Until now, it was premature to have such a debate in France, since the unemployment rate is still relatively high (unlike the United States and Germany). In the future, however, this means that even if the unemployment rate were to fall significantly, we should not expect to see core inflation accelerate much above 2%. Moreover, disinflationary and deflationary pressures are at work due to globalisation, the intensity of competition, efforts to boost competitiveness, the digital boom and the demographics of ageing[18].

Meanwhile, in the short term, the conditions seem to have come together for core inflation to accelerate, at least more so than during the past two years. Growth is strengthening and spreading to all its engines and the labour market, and it is also more vigorous worldwide, which changes the game and should lead to higher inflation. Several leading inflation indicators point in this direction: pressures are clearly rising upstream, and it remains to be seen whether they will be transmitted downstream. These early warning signals include the components of business sentiment surveys: "output prices" and "delivery times" on Markit's PMI indices, and "business leaders' assessments of general pricing prospects" on the INSEE surveys. Second-round effects from the sharp rebound in oil prices since early 2016 should lead to an increase in core inflation too. Wage inflation is also beginning to pick up: moderately for the monthly base wage (+1.5% year-on-year in Q1 2018, from a low of +1.2% in 2016) and more robustly for average per capita wages, which include variable and overtime pay (+2.1% year-on-year in Q4 2017, from a low of 1% in mid-2016). Indicators on hiring difficulties and the shortage of labour also point towards stronger wages increases.

France: core inflation and output gap

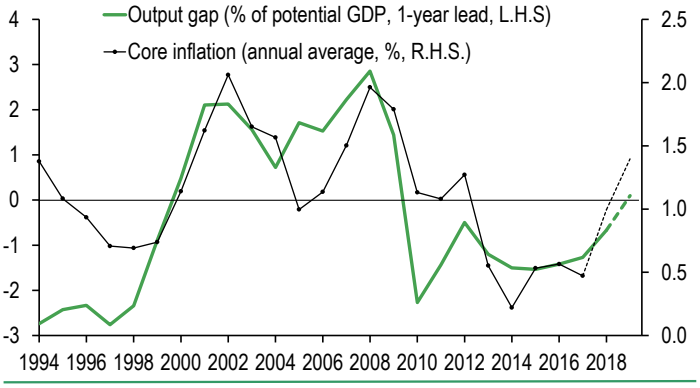


Chart 16 Sources: INSEE, European Commission, BNP Paribas

France: headline and core inflation

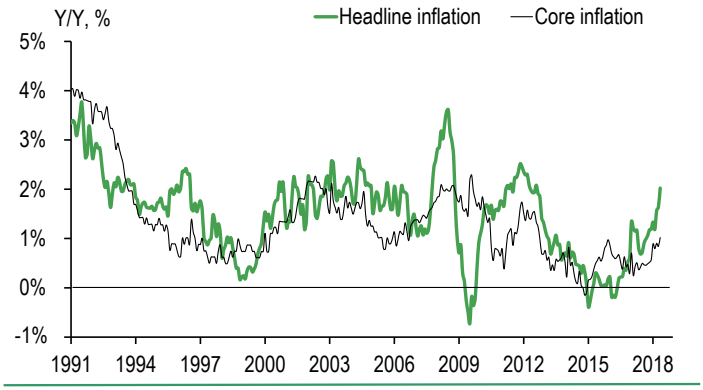


Chart 17 Source: INSEE

France: more or less broadbased nature of inflation

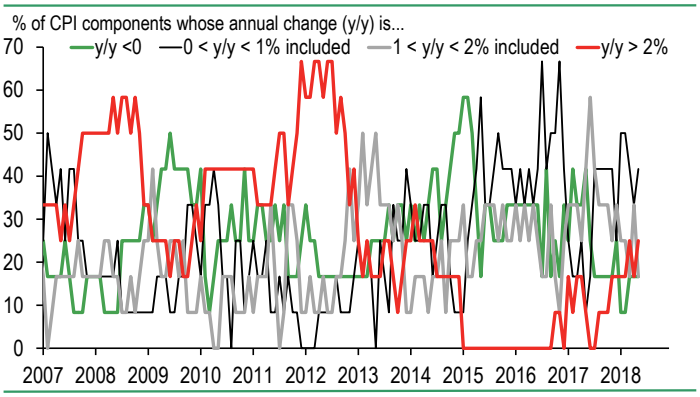


Chart 18 Sources: INSEE, BNP Paribas

contribution of oil prices to headline inflation should gradually fade due to base effects (unless oil prices continue to rise sharply). As a result, we forecast headline and core inflation to converge on each other by around mid-2019.

[17] Benjamin Quévat and Benjamin Vignolles (2018), *The relationships between inflation, wages and unemployment have not disappeared – A comparative study of the French and American economies*, INSEE special analysis, March.

[18] For a concise analysis of some of these factors and the implications of low inflation, see Lettre Trésor-Éco (2017), *Pourquoi l'inflation reste-t-elle si faible dans le monde?* n°208, October.

To a certain extent, the ECB is also supporting inflation as it very cautiously proceeds with the normalisation of its monetary policy. The central bank wants to make sure inflation is well anchored to a self-sustaining trajectory, and moving towards its medium-term inflation target of below but close to 2%, which corresponds to price stability given the margin of error. It is too early to ask whether inflation will surpass this target: first it has to be met. To achieve that, ECB monetary policy needs to stay loose, and with a dovish bias: it is better to take the controlled risk of tightening policy too late rather than too early, to have too much inflation rather than not enough.

Limited limits

The transition from a recovery phase to an expansion phase results in growth slowing to a more subdued but sustainable pace. To what extent does the bout of weakness in French Q1 2018 GDP growth [19] foreshadow this transition? The answer is not obvious since numerous temporary and exogenous factors must also be taken into account: the cold wave between late February and early March, the tax increases at the beginning of the year, the upturn in oil prices, the euro's past appreciation, and the uncertainty engendered by trade tensions and protectionist threats stoked by the United States. This Q1 soft patch can also be seen as a temporary backlash after several quarters of strong growth. Yet it might also indicate a more lasting slowdown in growth, in keeping with supply constraints and the change in the cyclical phase. For the moment, however, we are unable to discern the exact scope of this movement.

The continuous waning in business confidence surveys since the beginning of the year does not provide any greater visibility, since they too are influenced by the above-mentioned temporary and exogenous factors. It remains hard to distinguish what part is due to temporary factors and what part to longer term and deeper trends. One thing is certain: in late 2017, business confidence surveys were back to very high levels, and even surpassed certain previous highs. This raised the question of what could possibly lift them any higher (see chart 19). The ensuing decline suggests that they have reached a cyclical peak, which implies that growth has also peaked. The rest of the story remains to be written. With regard to previous cycles, nothing has been played out yet: what looks like a peak today might be replaced by a new high tomorrow (see chart 20).

What is also certain is that business confidence surveys, at current levels, are significantly higher than the long-term average of 100 (106 in June 2018 for the INSEE composite index), which is still consistent with robust growth, slightly higher than its long-term average of about 0.4% per quarter.

France: business confidence

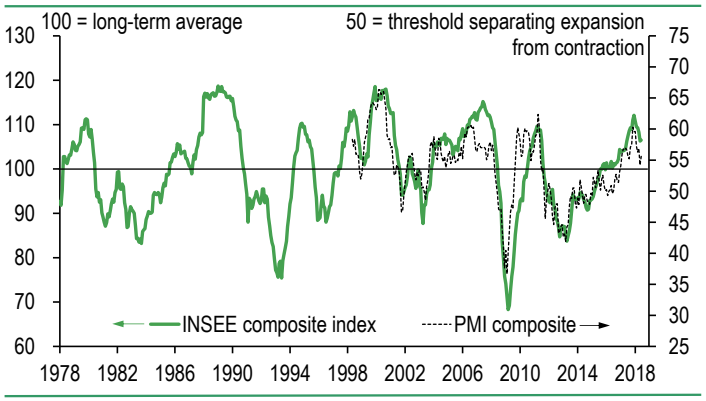


Chart 19 Sources: INSEE, Markit

France: business confidence from trough (T) to peak (P)

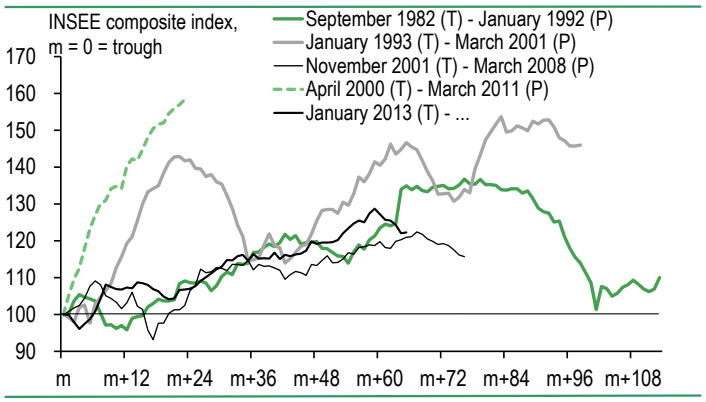


Chart 20 Sources: INSEE, BNP Paribas, CEPR dating of peaks and troughs

If things depended solely on the French economy and its endogenous momentum, it would be able to maintain a pace of at least 0.4%-0.5% per quarter for several more quarters. Indeed, growth has solid foundations. After several years of operating below capacity, French growth still has not exhausted all of its catching-up potential. The economy also benefits from favourable economic policies and monetary and financial conditions.

We also welcome the first signs of an upcoming acceleration in core inflation. This would be the long-awaited signal of well-functioning transmission mechanism from activity to prices. In the current phase of the cycle, there is nothing alarming about the expected increase in core inflation, which should remain subdued and not dampen growth [20]. Similarly, the wage acceleration that seems to be taking shape is unlikely to erode corporate margins at first, since margins will also get a

[19] According to the second INSEE estimate, quarterly GDP rose only 0.2%, clearly halting a 5-quarter trend during which growth averaged 0.7% per quarter.

[20] The current increase in headline inflation due to higher oil prices is nonetheless more damaging.

boost from the greater cyclical momentum of sales (higher wages equals greater consumption) and from fewer constraints on price increases. The productivity cycle is also favourable for an upturn in productivity gains, which should help contain the increase in unit labour costs. Corporate margins should continue to trend upwards in the quarters ahead, a more normative than positive outlook however[21].

France: distribution of gross value added

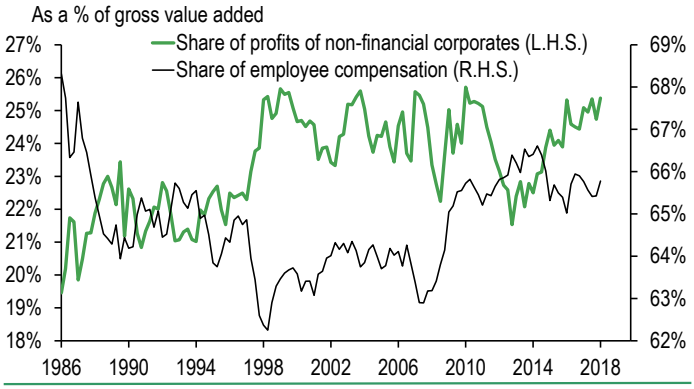


Chart 21 Source: INSEE

Lastly, to the extent that the supply constraints and hiring difficulties encountered by companies are largely normal for this stage of the cycle, we do not expect them yet to be a major drag on growth. However, if growth remains robust in 2018, this drag could become more significant in 2019.

As to the labour market, the unemployment rate may have fallen back to its structural level already, but this is not an insuperable limit, neither on the upside or downside. The unemployment rate can continue to decline. There is still a pool of workers (the unemployment halo and underemployment) that can be called on to cover hiring needs. Hiring difficulties and labour shortages can also be circumvented by increasing the number of hours worked or investing in robots, automation and productivity gains, all of which are beneficial for growth.

Hiring difficulties should also be somewhat alleviated by the further easing of the labour code and the professional training and apprenticeships reform, this latter being coupled with a EUR 15 bn skills investment plan. This reform addresses the shortage of skills expressed by companies, and aims to improve the matching of labour supply and demand. In addition, the unemployment insurance reform is designed to enhance job security over the course of professional careers (by improving job training, insertion and job market mobility). The ultimate goal of these different but complementary and intertwined reforms is to lower the structural unemployment rate. The PACTE action plan for growth and corporate transformation is also designed to reinvigorate the labour market and remove hiring barriers by reducing social thresholds, facilitating job creations and making it easier to return to work.

In the short term, supply constraints seem to be even less of an obstacle for French growth in our view. They can even be seen as growth vectors because they encourage more investment in both production capacity and productivity. This necessary effort nonetheless raises questions about its financing. Although this is not a problem today, it could become one in the future. Corporate margins have only partially recovered. Moreover, after the French national accounts switched to base 2014 in May 2018[22], the self-financing capacity of companies has improved from an accounting perspective, although it is not very high either (95% at end 2017). This is one reason why of France's high corporate debt ratio, which has risen continuously since 2005 (72% of GDP at year-end 2017, up from 51% in 2005). There seems to be only limited room to increase funding for more investment. These trends are already being monitored, and could become a potential vulnerability later on, at a less favourable moment in the cycle.

France: position in the cycle according to indicators of the degree of slack

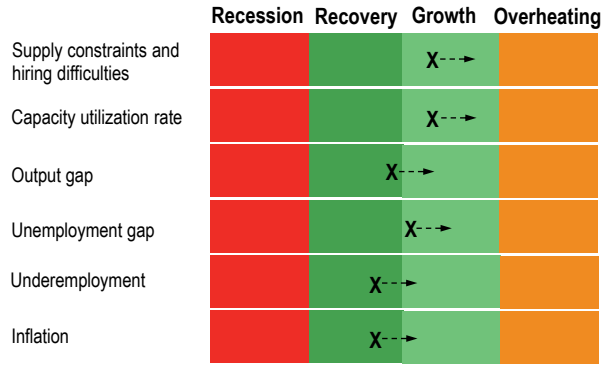


Chart 22 Source: BNP Paribas

Note: the arrows signal where the cycle is heading depending on each indicator.

From recovery to growth

Our analysis of the French economy's current situation and its position in the cycle has led to a rather positive assessment. Granted, its positioning is not exactly the same depending on the various indicators

[21] Like for households, the rebound in oil prices can also spoil the soup. Inversely, the euro's current depreciation is a supportive factor.

[22] The change is specific to France and the fruit of a coordinated procedure with the Bank of France. It led to an alignment of a number of estimates of the national accounts and balance of payments, including export and import flows. It also resulted in the complete overhaul of estimates of property incomes. For non-financial companies (NFC), this led to a sharp decline in distributed net earnings and net interest paid. As a consequence, the gross savings of NFC picked up strongly. Since investment was unchanged, financing from cash flow increased by 11 points on average between 1980 and 2017.

of capacity utilisation and production factors we are looking at (see chart 22). In the light of these differences, we conclude that France has moved beyond the recovery phase, with its robust growth rates and accelerations, and growth would have already peaked. In this case, the year 2017 would mark both the beginning and the end of the recovery phase[23].

And 2018 would mark the beginning of the growth phase, when the economy slows but maintains a robust pace, higher than the potential growth rate. In the same way that peak growth does not signal the cyclical peak, a slowdown in growth does not necessarily mean a cyclical downturn. The growth phase will last until the cyclical peak (when the output gap reaches its maximum), which a priori means that France still has a few more years of good growth ahead. Even if the output gap is already slightly positive, as suggested by indicators of pressures on capacity drawn from INSEE economic surveys, it could still take several more years before the output gap reaches its peak, with growth remaining relatively robust in the meanwhile. Once the cyclical peak is reached and passed, the output gap starts to narrow as the economy overheats, signalling the end-of-cycle period and nearing recession.

Structural reforms, like those currently in the works, are designed to extend the cycle by pushing back supply constraints and increasing the maximum speed at which the economy can grow before running into headwinds. Reforms boost potential GDP and potential growth rate. But they tend to act rather slowly and over the long term. In the shorter term, and because France has an open economy, there is a risk that the cycle could be suddenly cut short by an exogenous shock.

Hélène Baudchon
helene.baudchon@bnpparibas.com

Completed on 28 June 2018

[23] Playing the purist, the period 2013-2016 might not be considered a veritable recovery phase given the lack of robust growth: annual growth averaged 0.9% a year, a feeble pace close to the potential growth rate. With GDP growth of 2.3%, the year 2017 meets the criteria for a recovery, with robust growth surpassing the potential growth rate.

GROUP ECONOMIC RESEARCH

- **William DE VIJLDER** — Chief Economist — +33(0)1 55 77 47 31 — william.devijlder@bnpparibas.com

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- **Jean-Luc PROUTAT** — Head — +33.(0)1.58.16.73.32 — jean-luc.proutat@bnpparibas.com
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- **Hélène DROUOT** — Korea, Thailand, Philippines, Mexico, Andean countries — +33.(0)1.42.98.33.00 — helene.drouot@bnpparibas.com
- **Johanna MELKA** — India, South Asia, Russia, Kazakhstan, CIS — +33.(0)1.58.16.05.84 — johanna.melka@bnpparibas.com

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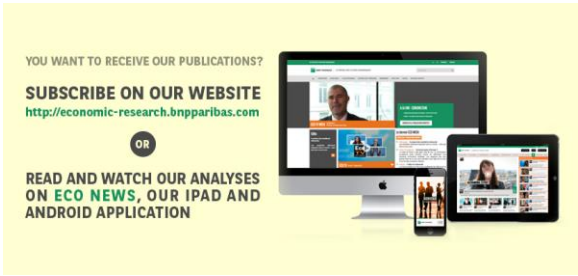
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