

European Daily: PMI Preview — Moving Up in September (Dacic)

- We expect the September flash PMIs across Europe to move up after their August decline and exceed consensus expectations. In particular, we look for the Euro area composite PMI to increase by 0.9pt to 52.8, reflecting improvements at the country level in both Germany (+1.2pt to 55.6) and France (+0.7pt to 52.3).
- Our forecasts are driven by two main considerations. First, whilst the lower-than-expected August PMIs pointed to a faltering recovery, national surveys in August improved, suggesting that the recovery continued. Second, high-frequency activity metrics suggest that the recovery picked up pace again in early September after the August lull.
- Historically, sharp economic downturns have typically been followed by a prolonged period of 'above 50' PMI readings, indicating sustained positive multi-month growth. The September flash PMIs across Europe will be an important temperature check following the slowdown in August.

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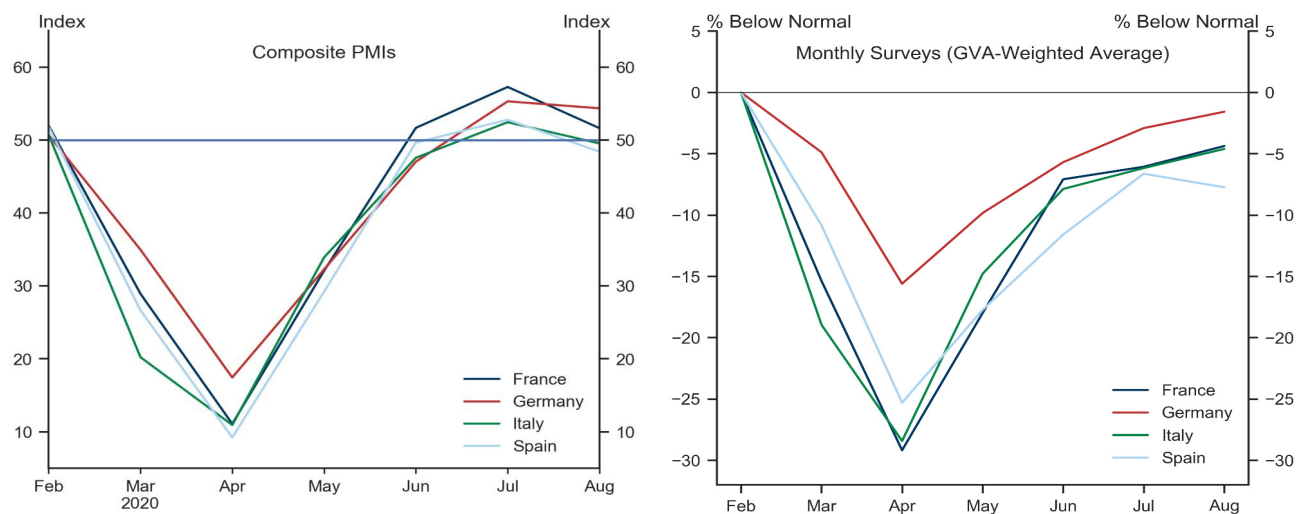
PMI Preview — Moving Up in September

As the Euro area composite PMI declined by 3pt in August—significantly below a modest gain that was expected—the August PMIs were seen as potential first indications that the faster-than-expected recovery of economic activity from the deepest recession in modern European history may have faltered. In today's *Daily*, we reassess the likely extent of the August slowdown and lay out our expectations for the upcoming flash PMIs for September (published on Wednesday, 23 September).

August Lull

In August, the Euro area, German and French composite PMIs declined but remained above 50, whereas the Italian and Spanish PMIs faltered to levels below 50 (Exhibit 1, left). These readings pointed to slowing growth across Germany and France, with potential contractions in Italy and Spain. Although the August PMIs disappointed, the majority of national surveys—such as Ifo, Insee, and Istat—continued improving in August, largely exceeding expectations. By extracting the joint steer from the August surveys, we find that the recovery continued but at a slower pace across Germany, France, and Italy, with a likely contraction in Spain (Exhibit 1, right). High-frequency activity trackers corroborate this pattern: relative to July, the majority of indicators stagnated through August, with some showing continued but slowing improvement (e.g., electricity usage) and others contracting (e.g., road toll traffic in France and Spain).

Exhibit 1: PMIs Disappointed in August, Pointing to Slowing Growth



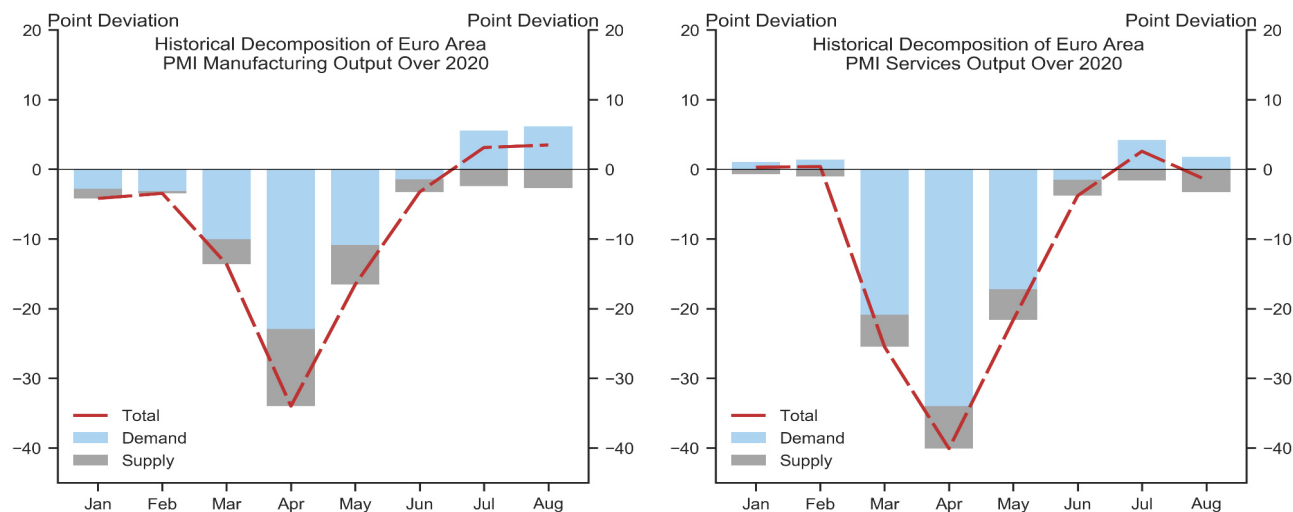
Notes: In the right panel, the lines shown represent a GVA-weighted average of the implied shortfalls in activity in industry, construction, retail sales, and services (excluding non-market ones). We use a range of surveys (including the PMIs and national surveys) that we relate to a relevant 'hard-data' indicator (e.g., industrial production or retail sales). We then use the available survey results for the months shown to gauge the potential path in the hard data over that period.

Source: Goldman Sachs Global Investment Research, Haver Analytics

Although the composite PMIs across the EMU-4 all declined in August, the sectoral pattern was more heterogeneous. On the one hand, the Euro area manufacturing output PMI increased modestly by 0.3pp, with the recovery in industrial demand holding up (or improving materially further, such as in Germany) amid moderate supply constraints (Exhibit 2, left). On the other hand, both demand and supply in the service sector appear

to have lost some momentum in August (Exhibit 2, right). Therefore, the recovery in manufacturing appears to have proceeded more steadily than that in services, mirroring China's experience and possibly reflecting lower exposure to social distancing measures in manufacturing. A common feature across both sectors is that the shortfall in demand has been the dominant cyclical force, resulting in net disinflationary pressures and record low area-wide inflation in August.

Exhibit 2: Manufacturing Demand Has Held Up, Amid Slower Momentum in Both Services Demand and Supply

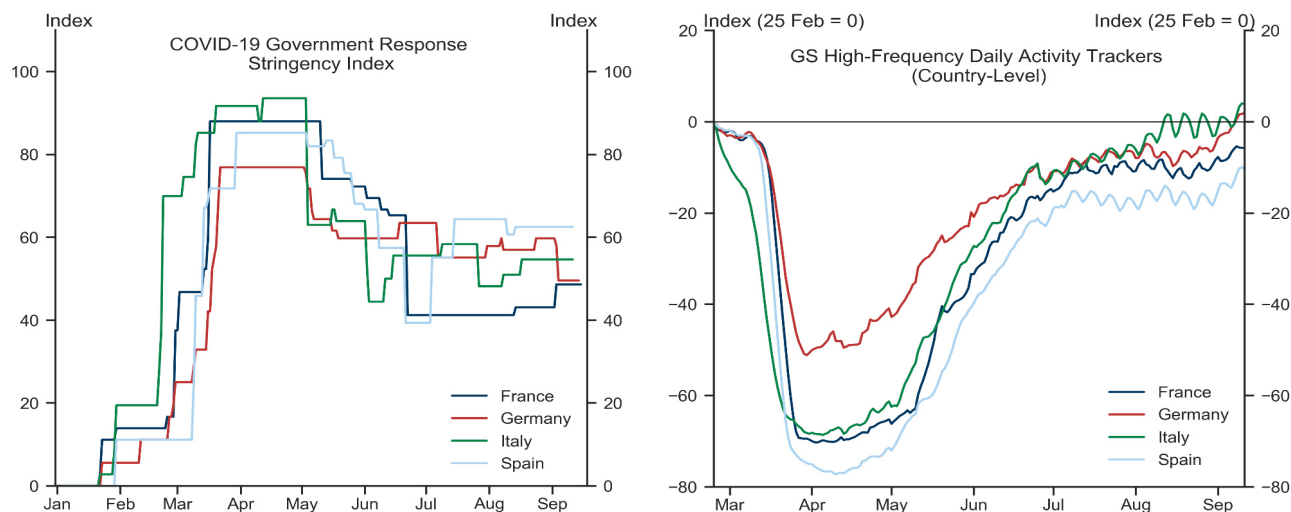


Notes: In both panels, the units on the vertical axes denote deviations (in PMI index points) from the respective unconditional means. The results shown come from a simple bivariate vector autoregressive model involving the Euro area PMI subindices corresponding to manufacturing (or services) output and output price. We include three lags of each variable, consistent with a number of optimal lag length criteria. We disentangle the demand and supply shocks using "sign restrictions" by assuming that (i) a positive demand shock increases output contemporaneously, and increases both output and output price after three months (we leave unrestricted the contemporaneous effect of this shock on output price), and (ii) a positive supply shock increases output contemporaneously, and increases output but decreases output price after three months (again, we leave unrestricted the contemporaneous effect of this shock on output price). Our sample ranges from November 2002 until August 2020. We estimate this model using Bayesian methods.

Source: Goldman Sachs Global Investment Research

Moving Up in September

Amid rising infections, any easing of lockdown measures has largely come to a halt, with renewed outbreaks generally tackled with targeted containment efforts (Exhibit 3, left). Nonetheless, high-frequency activity metrics suggest that the recovery picked up pace again in early September after the August lull, including in Spain (Exhibit 3, right).

Exhibit 3: Lockdown Easing Has Largely Stopped, But Recovery Appears to Have Continued in Early September

Notes: In the left panel, the indices shown correspond to the latest update as of 21 September available at: <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker>. For further details, please see Hale, Thomas, Sam Webster, Anna Petherick, Toby Phillips, and Beatriz Kira (2020). Oxford COVID-19 Government Response Tracker, Blavatnik School of Government.

Source: Goldman Sachs Global Investment Research, Oxford COVID-19 Government Response Tracker, Blavatnik School of Government (University of Oxford)

We therefore expect all European flash PMIs to remain above 50 in September (Exhibit 4). Our expectations are above consensus across all indicators. Specifically, we look for a 0.9pt increase in the Euro area composite PMI. Across countries' composite PMIs, we expect a somewhat larger improvement in Germany (+1.2pt) and a more moderate improvement in France (+0.7pt).

Exhibit 4: We Expect All European Flash PMIs to Remain Above 50 in September

| Date | Time (UK) | Country | Event | Period | GS | Consensus | Last | Units |
|-----------|-----------|---------|---------------------|--------|------|-----------|------|-------|
| Wed 23/09 | 08:15 | FR | PMI - Composite | Sep P | 52.3 | 51.9 | 51.6 | Index |
| Wed 23/09 | 08:15 | FR | PMI - Manufacturing | Sep P | 51.1 | 50.6 | 49.8 | Index |
| Wed 23/09 | 08:15 | FR | PMI - Services | Sep P | 52.0 | 51.5 | 51.5 | Index |
| Wed 23/09 | 08:30 | DE | PMI - Composite | Sep P | 55.6 | 54.0 | 54.4 | Index |
| Wed 23/09 | 08:30 | DE | PMI - Manufacturing | Sep P | 53.0 | 52.5 | 52.2 | Index |
| Wed 23/09 | 08:30 | DE | PMI - Services | Sep P | 53.8 | 53.0 | 52.5 | Index |
| Wed 23/09 | 09:00 | EA | PMI - Composite | Sep P | 52.8 | 52.0 | 51.9 | Index |
| Wed 23/09 | 09:00 | EA | PMI - Manufacturing | Sep P | 52.8 | 51.9 | 51.7 | Index |
| Wed 23/09 | 09:00 | EA | PMI - Services | Sep P | 51.3 | 50.6 | 50.5 | Index |

Source: Goldman Sachs Global Investment Research, Bloomberg

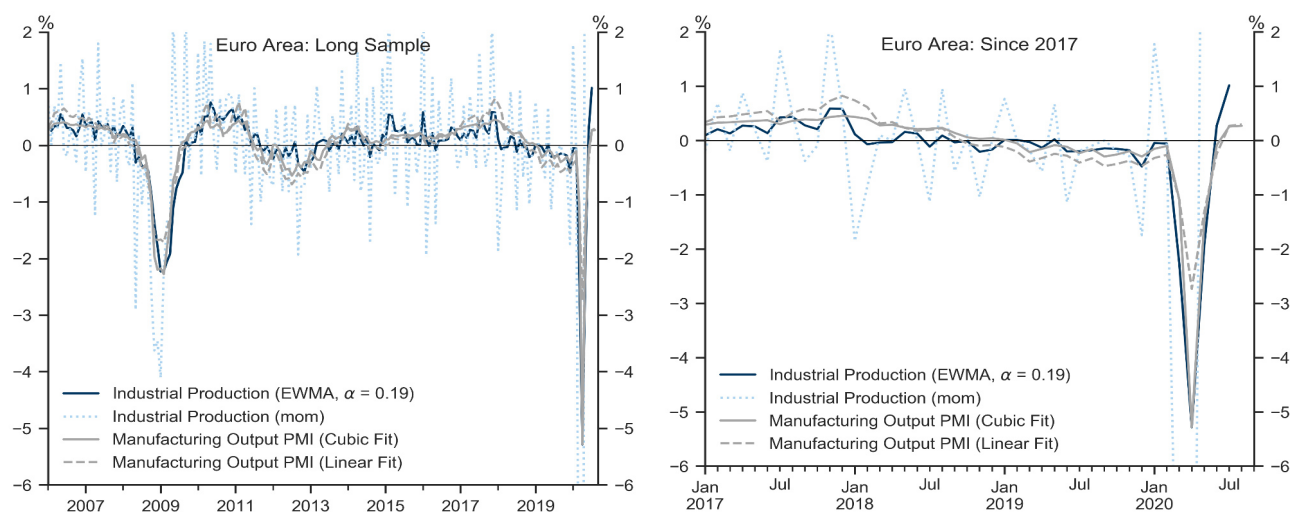
Across sectors, we look for somewhat larger improvements in manufacturing in France and at the area-wide level, but expect an opposite pattern in Germany (where the services PMI saw the largest upward flash-to-final revision on record in August). Beyond the headline numbers, we think that the subcomponents of the September PMIs should continue to be informative about the interplay of demand and supply forces, the relative strength of domestic and foreign factors, and the pace at which employment is recovering.

What the PMIs (Actually) Measure

Does a PMI reading (even well) below 50 *necessarily* imply a contraction? Similarly, does a reading of 50 (say) in the upcoming September PMIs imply unchanged activity from August? We argue the answer to both of these questions is ‘no’ and explain our reasoning below.

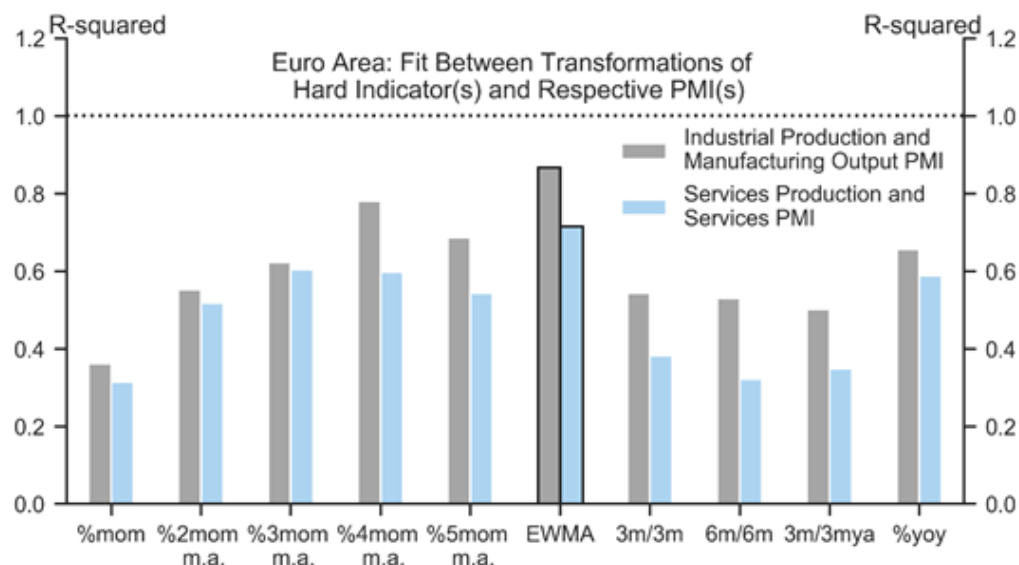
As we have previously noted—despite the questionnaire asking firms about output changes relative to the previous month—the PMIs are much more informative about growth in economic activity on a *rolling, multi-month* basis than on a *month-on-month* basis. A particular measure of *multi-month* growth is the “exponentially weighted” moving average (EWMA). This measure weighs most strongly the current month’s growth rate, followed by that in the previous month, and so on. Intuitively, this growth measure could capture firms making a broader assessment of business conditions when answering the PMI questionnaire, taking into account a longer ‘run-rate’ of activity whilst discounting older data more heavily. Indeed, by optimally weighing past growth rates (i.e., choosing an appropriate “alpha”), we find that the PMI captures very closely the dynamics of activity on an EWMA basis (Exhibit 5, left). Importantly, the PMIs capture only the *breadth* of firms reporting output increasing, decreasing, or being unchanged, but neglect the *depth* of each firm’s reported change in output. We have argued that this gives rise to a non-linear relationship with activity at business cycle extremes. A cubic relationship is both theoretically consistent and empirically supported, capturing very closely the pandemic downturn in growth on an EWMA basis (Exhibit 5, right). The link between the PMIs and *month-on-month* growth is clearly only tenuous given the large volatility of the latter.

Exhibit 5: PMIs Correlate Most Strongly with Multi-Month Growth, With Non-Linearities at Business Cycle Extremes



Source: Goldman Sachs Global Investment Research, Haver Analytics

Other growth concepts—such as an *equally weighted* rolling average of monthly growth over previous months, or year-on-year growth—have a weaker relationship with the PMIs, at least in the case of the Euro area (Exhibit 6).

Exhibit 6: PMIs Best Explain the Exponentially Weighted Moving Average of Growth

Notes: "EWMA" denotes the exponentially weighted moving average of monthly growth rates. The value of its parameter (alpha) is chosen to maximise the fit.

Source: Goldman Sachs Global Investment Research

Our findings therefore suggest that to extract the information a given month's PMI carries about that month, the PMI reading should first be mapped into an EWMA growth rate using the empirical non-linear relationship.¹ The *implied* month-on-month growth rate consistent with that rate of EWMA growth may then be backed out from the fitted EWMA growth. This procedure, for example, easily reconciles the Euro area manufacturing output PMI reading of 35.6 in May—way below the 'expansionary mark' of 50—and the +12.2% month-on-month growth in that month, with the EWMA growth in May still negative due to the sharp contractions over March-April. Similarly, a Euro area composite PMI reading of 50 in September—which roughly corresponds to 0% growth on an EWMA basis—would imply a likely *contraction* rather than no change in monthly activity in September relative to August. In other words, given the recent history of strongly positive growth since May, 0% growth on an EWMA basis in September requires a contraction in September.

Historically, sharp economic downturns—such as the Global Financial Crisis—have typically been followed by a prolonged period of 'above 50' PMI readings, indicating sustained positive multi-month growth. Similarly, the PMIs in China have remained comfortably above 50 during recent months amid a continued recovery, showing particular strength in manufacturing. Our expectation of a continued recovery—with some reacceleration from August—points to higher 'above 50' readings. In any case, the September flash PMIs across Europe will be an important temperature check following the slowdown in August.

Nikola Dacic

¹ Importantly, the cubic relationship deviates increasingly from a linear one as the PMIs fall (rise) well below (above) 50, but is approximately linear in the vicinity of 50 (+/-5pts).

Disclosure Appendix

Reg AC

We, Sven Jari Stehn, Alain Durre, Adrian Paul, Soeren Radde, Christian Schnittker, Nikola Dacic and Kavya Saxena, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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