

Macau GGR and China Macro Study

Research Summary

China's economic data has a very high correlation with Macau's GGR. Besides observing the past data, the research serves the purpose to predict the trend prior to the release of Macau GGR. This research looks at China's credit facilities, social expenditure/consumption, housing prices, PMI, and energy consumption/production.

Conclusion

Most of the economic datasets have a leading indicator from 1 quarter (3 months) to about 9 months, by observing the trends these data illustrates, it can better help us predict Macau's overall trend, if not specific monthly data figures.

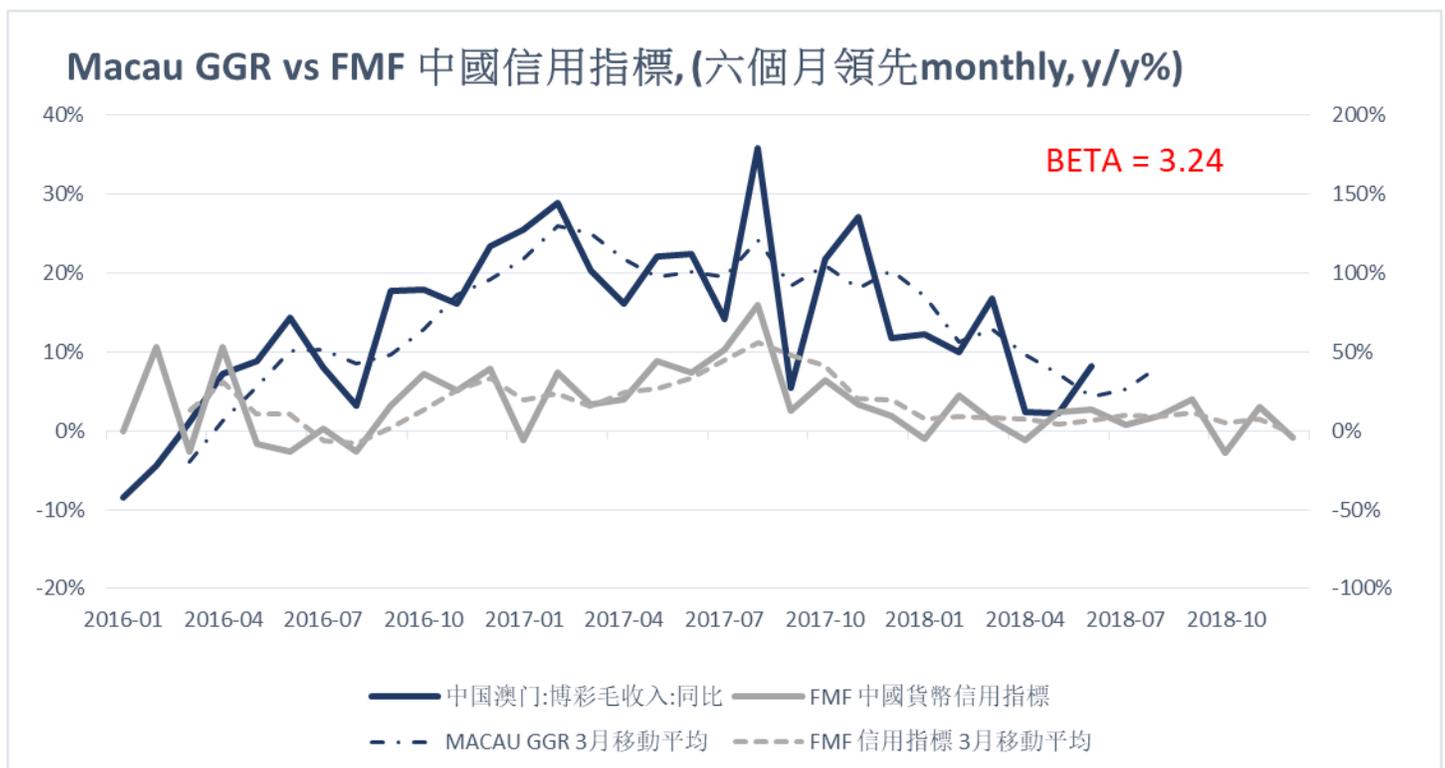
From the charts and graphs, we can likely conclude that the 1st quarter of 2019 (January-March) will have a further drop year-over-year compared to the past (GGR yoy growth: 4Q14 8.63%, 3Q18 10.2%, 2Q18 17.2%, 1Q18 20.5%). For 1Q19, GGR yoy growth is expected to land between 3 to 5 percent (3-5%), with January in negative -3-5%, February +2-4%, and March +4-6%

Macau GGR vs FMF China Credit Index

Index Composition: 50% TSF Monthly, 35% TSF Stock, 15% Added RMB Loan; monthly data, yoy%

Macau GGR lags 6 months (already adjusted)

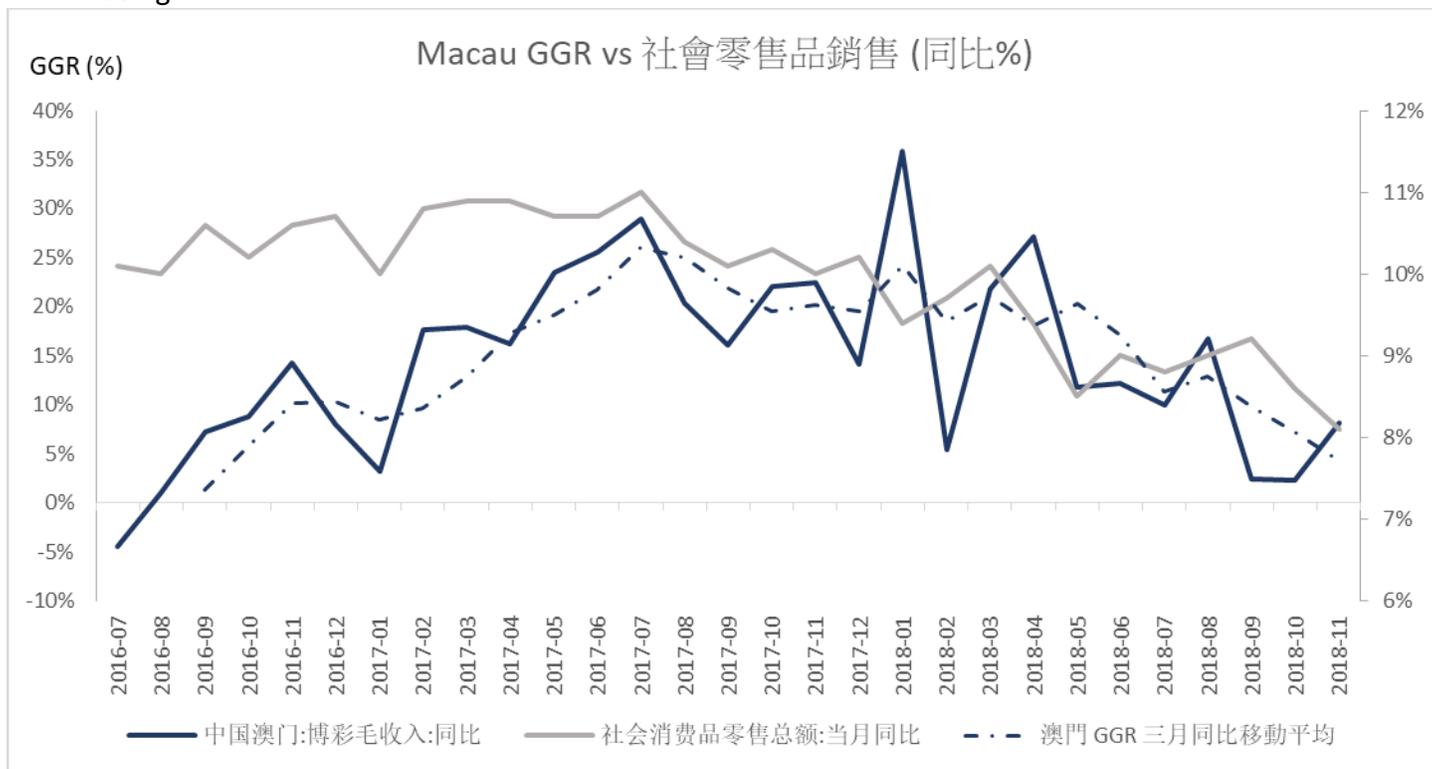
Beta of 3.24 shows the high leverage of China's credit facilities. This graph also shows that



Macau GGR vs China Retail Sales, monthly yoy %

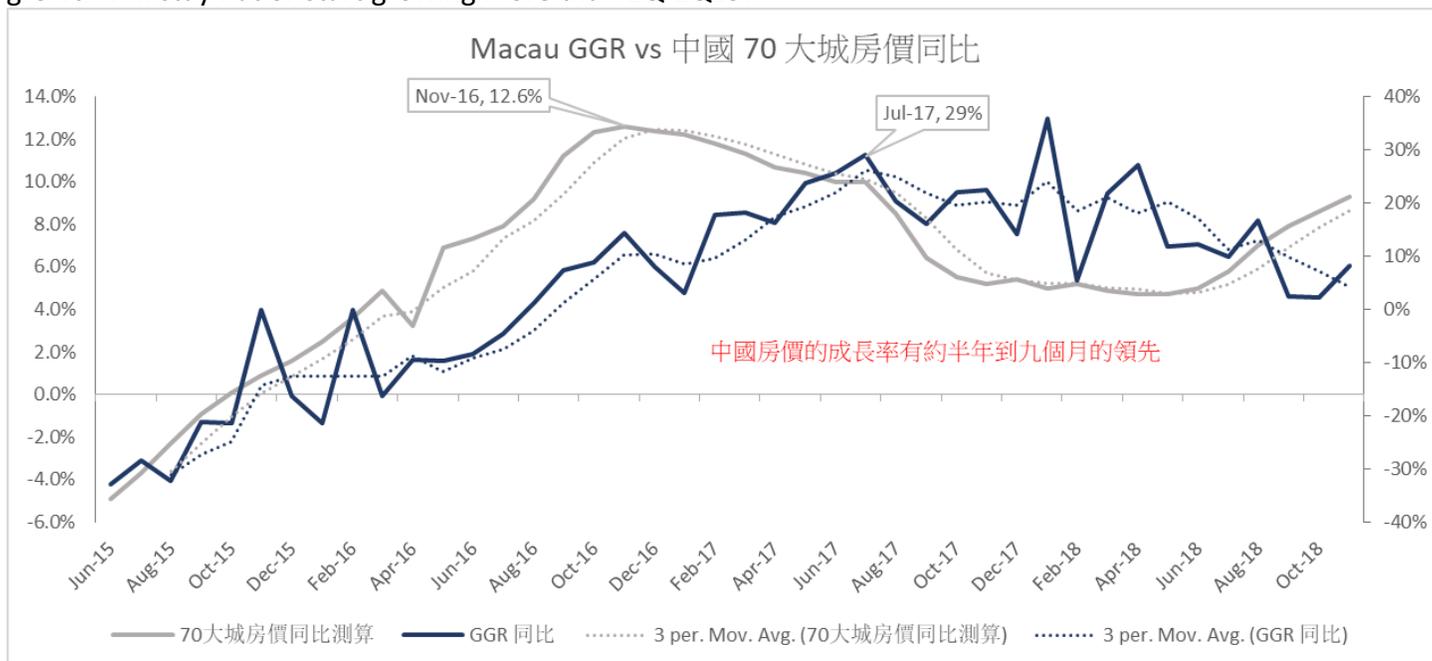
It is almost in the same trend, especially when we compare the Retail Sales vs 3-month moving average of Macau GGR growth.

The trend seems to overlap with no lag, note that this data does not include service expenditures such as Ridesharing 滴滴出行 and Delivery services like 美團, which Chinese citizens have been heavily using.



Macau GGR vs China 70 Cities Housing Prices, monthly, yoy %, GGR lags 6-9 months

Housing prices have been ticking up in the second half of 2018, it's the indicator that Macau GGR lags the most (6-9 months), will need to cross-reference with other data to find out if – in mid-2019 – Macau GGR growth will stay flat or start growing more than 1Q-2Q19.

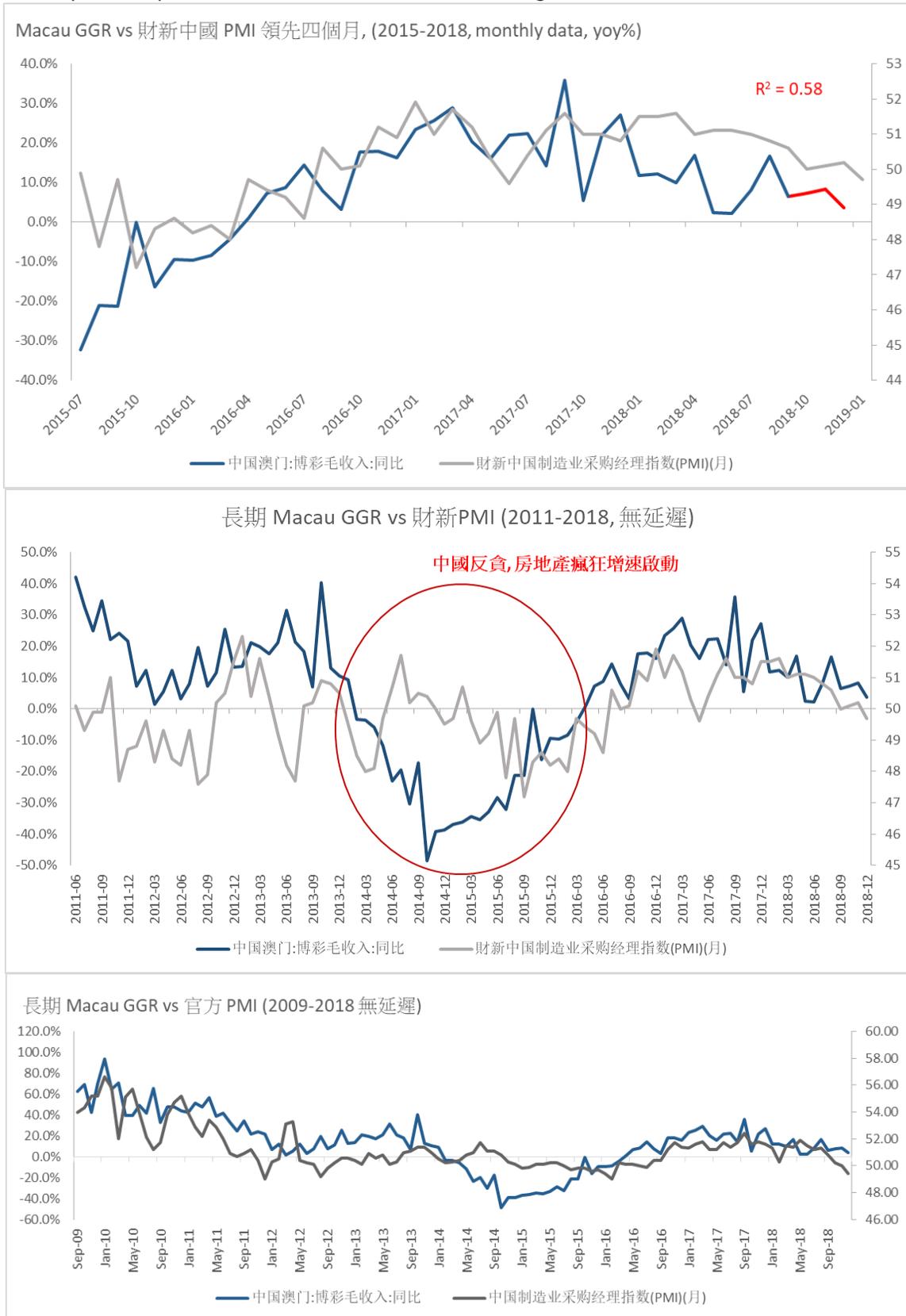


Macau GGR vs China PMI

Caixin PMI (private sector) leads by 4 months with R^2 of 0.58

Very highly percentage of Macau's growth can be explained by PMI, which will lead to manager's confidence as well as consumption by the end-consumers

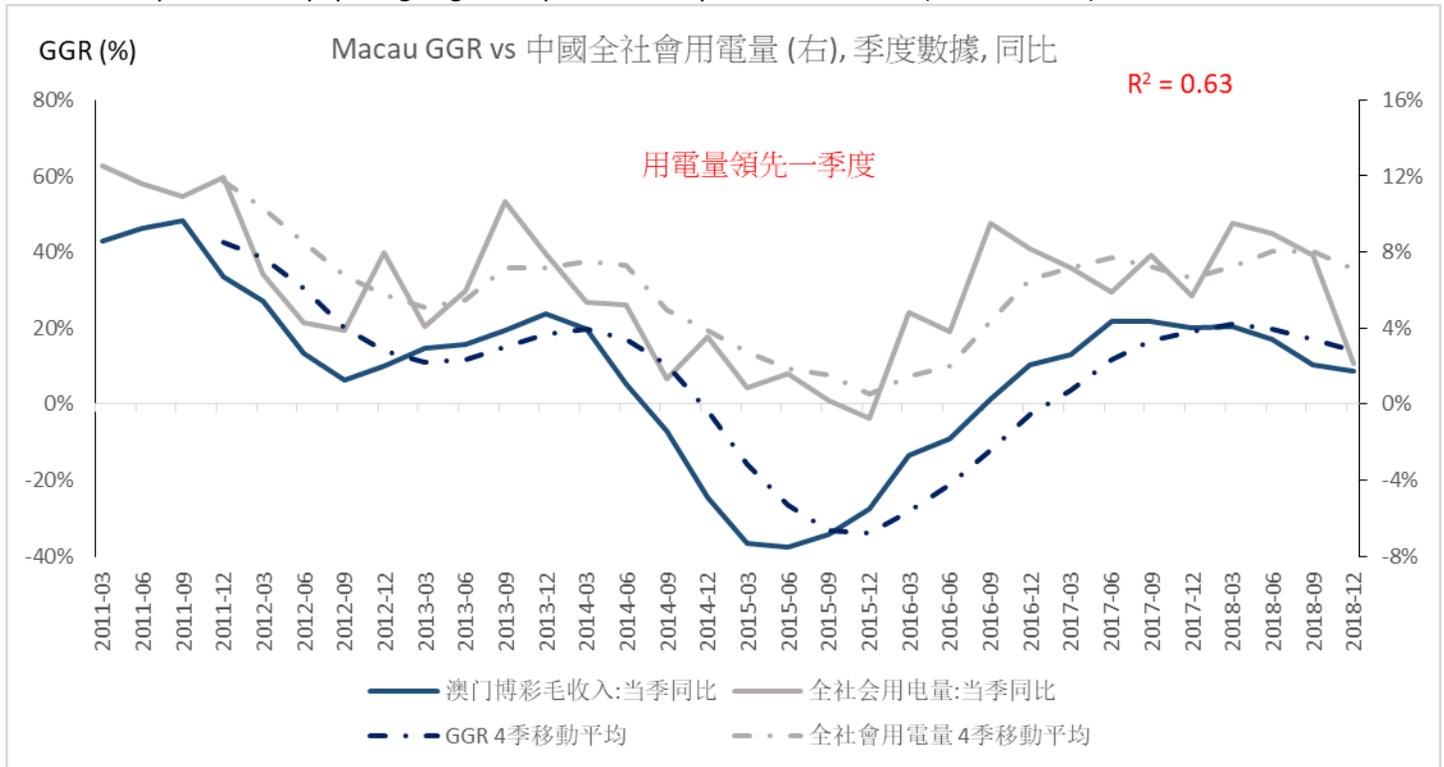
Red Line represents prediction of Macau GGR in the following months



Macau GGR vs China Energy Consumption, quarterly data, yoy%

Energy Consumption has R^2 of 0.63, highly correlated with a lead of 1 quarter (3 months)

Likely 1Q19 GGR yoy% is going to drop dramatically to around +3-5% (Q418 +8.63%).



Macau GGR vs China Electricity Production, quarterly data, yoy%

Electricity Production has a leading factor of 1 quarter before 2016, now the GGR is lagging towards 2 quarters

Same as Electricity Consumption, likely in 1Q19, Macau GGR growth is going to drop further more

