Economic Comment

Yellow and red zones and consumption

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Based on card transactions data from our bank we estimated the impact of introduction of yellow and red epidemic regimes on consumer spending. Results of our analysis suggest that powiats (380 middle-sized local government units) in these regimes record lower spending, especially in gastronomy and supermarkets. We assess the total effect on consumption at 2.0-2.5% in yellow zones and 3.5-4.0% in red ones. This lead us to an estimate that extending the red zone to cover the entire country (we are not taking into account additional restrictions in place from 17 October on) will deduct about 1.0-1.5 percentage points from GDP growth, compared to the scenario with the entire country in the green zone and provided that this regime remains unchanged until end of December. This does not mean that we are changing our 4Q20 forecast by this number, as there are many other factors in play: on one hand the effect will be aggravated by limitations in activity of some sectors (e.g gastronomy and sports facilities) and by indirect effects, and on the other mitigated by good situation of industry and exports.

Based on data on total card transactions of Santander Bank Polska clients in particular shop categories we have analysed spending patterns in different powiats. We looked at weekly data since the start of 2020 until restrictions were widened to cover the entire country (10 October). We have built econometric panel models for different kinds of shops in order to capture the effect of introduction of yellow and red epidemic regimes on different types of consumer expenditures.

Spending is lower in yellow and red zones

According to our estimates, powiats in yellow and red epidemic regime saw a decline of spending as compared to units with no additional restrictions. We have found no negative effects on spending on books and newspapers, house appliances or minor services (hairdressing, lawyers, repairs etc.). We have however detected a statistically significant impact on gastronomy (decline by 10-12% in yellow zones, depending on the set of variables included in the model, and by 13-15% in red zones) and on supermarkets (decline by 2% in yellow zones and by 4% in red). We have also found some less credible results for clothing and footwear (decline by 4-8% in yellow zones and by 6-9% in red), recreation (decline by about 10% in yellow and over 20% in red), health (decline by 2% in yellow and 4% in red), transport (decline by 2% in yellow and 3% in red), minor permanent purchases (decline by 2-8% in yellow, 6-8% in red).

We use results from analysis of card transactions to draw some conclusions about private consumption in Poland. Note however that our data is divided based on shop classification, not based on spending type. Moreover the average consumer spending basket may have a different structure than card spending basket of Santander Bank Polska clients. Firstly, they most likely differ by the demographic structure (older people rarely use cards). Secondly, some types of transactions rarely use cards, but rather cash or transfers (e.g. rentals, repairs, utilities). Moreover, high level of data disaggregation decreases its credibility. All these factors affect negatively the quality of our estimates, thus we suggest taking them with a pinch of salt and seeing them as an estimate of the order of magnitude.

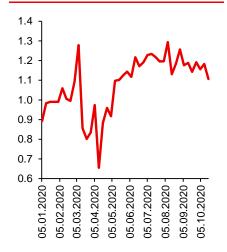
We estimate that consumer spending falls by 2.0-2.5% in yellow zones (versus green zones) and by 3.5-4.0% in red zones. If we assume that the entire country stays red until the end of December, we would have to deduct about 3.5% from private consumption (in the first week of October the restriction level was lower) and about 1.0-1.5 percentage points from the GDP growth, versus scenario of the entire country becoming green.

Quick normalisation after restrictions are lifted

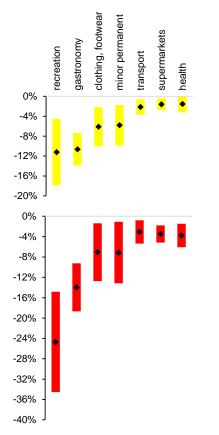
We have also investigated the behaviour of spending after a powiat returns to the green zone. We wanted to see whether spending rebounds strongly to offset the lost time or whether it remains muted for a longer time. It seems there are no additional effects – spending simply normalises in the first week after becoming green again.

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Card spending of our bank's clients, first 9 weeks of the year = 1



Estimates of spending decline in yellow and red zones – averages and 80% confidence range



Source: Santander

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There is no sign of either extra spending due to pent-up demand or of precautionary keeping the level of expenditures lower.

Risk for forecasts

Our estimates are based on data from before restrictions were widened to cover the whole country and before they were tightened. Thus, they are based on an assumption that the consumer behaviour remains unaffected. Is this likely? On the one hand, tighter restrictions could amplify the negative effect, plus it is quite obvious that shutdown of some sectors, like gastronomy, will affect consumption in that areas. Moreover, longer time of lockdown will be negative for the labour market and this will undermine consumers' purchasing power. On the other hand, country-wide restrictions could trigger a less pronounced reaction of consumers, as they will be less eager to follow rules targeting the entire country, not specific powiats. And finally: we do not know how long restrictions will be held and how they will be altered: tightened or loosened. Additionally, we only take into account the impact on consumption, while there are also other channels of epidemic impact on economy: exports, investment, sentiments, quarantines.

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