ROSEVALLEY FUNDS



Portfolio Report October 2020

The Rosevalley Behavioural Finance Funds

The Rosevalley Behavioural Finance Funds are high-conviction funds that take the theoretical and empirical evidence developed over the past 30 years in Behavioural Finance, and systematically build portfolios from these learnings. The portfolios are constructed on a benchmark-unaware basis, but performance is compared to the ASX-200 accumulation index.

First-time readers of this report, please refer to the blue box at the end for added context and history

Change in report structure

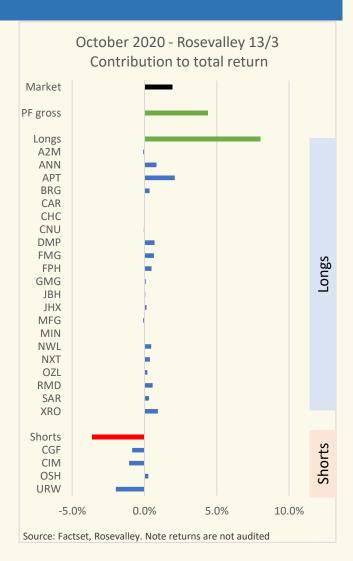
As has happened a number of times over the past year, we find ourselves in a position where the pace of current events makes last month's events seem ancient history. This makes the distinction between writing about last month and next month a bit artificial. As a result, starting this month we are making a change in this report's structure. We are starting with our commentary on the markets, encompassing last month, current events, and looking ahead. This will then be followed by our regular segments on portfolio performance, execution and next month's portfolio.

Market commentary

Total return				
	October 2020			
MSCI World	-2.0%			
S&P 500	-1.5%			
DJIA	-4.0%			
FTSE100	-4.7%			
DAX	-9.1%			
Hang Seng	2.7%			
ASX-200	1.9%			
Rosevalley 13/3	4.4%			
Source: Factset, Rosevalley. Note: The Rosevalley figures are unaudited.				

In October the Australian market outperformed most global markets: it returned 2% whereas most global markets were down between 2-4%. This differentiated performance most likely reflects the different paths that the global pandemic is taking. In Australia there are very few cases, and during the month Victoria exited its second lockdown. In contrast, both in Europe

and the US a serious second wave is taking place, and toward the end of October a number of countries in Europe announced second lockdowns. In the US, as it has been from the beginning, suppression measures continue to be timid, uncoordinated, and barely enforced.



The second Presidential debate took place during the month. While it was not the unmitigated disaster that the first one was, it didn't produce a knock-out blow for either candidate, and as a result markets didn't move much.

The interplay between the markets and the US presidential election became much more interesting toward the end of October, and into November – and presented us with a clear case of the Narrative Fallacy at work.

As markets were performing well towards the end of October, it was said that "Markets are warming to the idea of a Blue Sweep". "Democrat control of both the presidency and the Senate means a giant stimulus plan will be swiftly enacted, which is good for the equity

Performance as of October 2020								
Portfolio		1 month	3 months	6 months	1 year	Since inception (1 Oct 2018)	Since inception (14 Aug 2018)	Since inception (1 Aug 2018)
Description 12/2	Gross	4.4%	6.1%	38.9%	41.7%	51.2%		
Rosevalley 13/3	Net	3.9%	5.8%	35.5%	35.5%	41.8%		
Rosevalley 15/5	Gross	5.8%	6.2%	42.0%	41.9%		54.5%	
Rusevalley 15/5	Net ¹							
Posovallov 10/0	Gross	6.6%	4.8%	23.5%	22.7%			46.3%
Rosevalley 10/0	Net ²	5.5%	2.4%	14.9%	8.6%			10.5%
ASX-200		1.9%	1.0%	8.7%	-8.1%	2.9%	2.7%	3.1%

Source: Rosevalley, Factset. Note returns are not audited. ¹Rosevalley 15/5 was not actively traded during the month, so no net numbers are available. ²Rosevalley 10/0 is traded on a demonstration basis – as a result of its small size commissions are a large proportion of assets, which explains the large gap between gross and net returns.

market". "A large infrastructure plan is good for the economy and for markets". Sounds good? Sounds plausible? It's probably true, isn't it? Ok, we're with you – a Blue Sweep is good for stocks.

Then came election day, no Blue Sweep, and the market went up. Oh, no problem in explaining that: "Divided government means no tax hikes, and no large, business-crushing regulation on the horizon – good for equities!". Sounds good? Sounds plausible? It must be true!

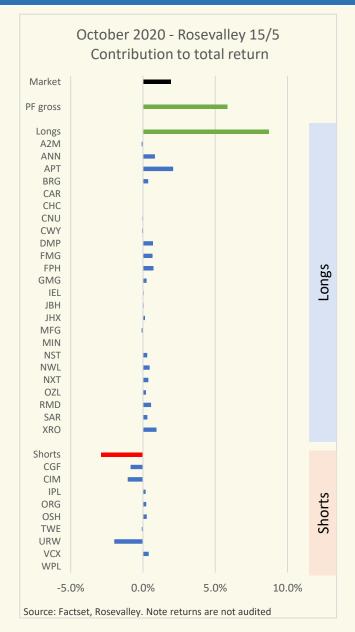
Of course it is logically not possible that two opposing events are both good for markets. This is the Narrative Fallacy at work. What sounds good, feels true. The reality is that there are so many factors at play all the time that we can always find a few that explain what's going on!

Having said all that, here at Rosevalley we are only human and are driven by the same desire to seek order in chaos as everyone else. Last month we (sort of) made two predictions. First, there would be no clear winner on election night. Check, we were right. Second, this uncertainty would be bad for markets. Oops, got that one wrong!

Where to from here? At the time of writing the election has just been called for Biden, and even though Trump has not conceded defeat, we actually believe the uncertainty is over. Trump did what he said he would do: he's going to the courts. But we don't think anybody really believes that will go anywhere. So we are (all but) certain that Biden is the next president. Attention will shift to clues to his plans: whom will he appoint as Treasury Secretary, what will he say about the pandemic, etc. etc. On balance we think equity markets will be well supported over the next few months.

Portfolio performance

All Rosevalley portfolios were up during the month, and outperformed the market both on a gross and a net basis. Broadly speaking, the longs contributed while the shorts



detracted. The strongest contributor was the long position in Afterpay (APT), while the worst detractor was the short position in Unibail-Rodamco (URW), a REIT with mainly European exposure. Even though URW went up strongly during the month, overall it has been a good

short in the portfolios for the past nine months: during this period the stock lost almost 70% of its value.

Other performers this month were longs in Xero (XRO) and Ansell (ANN), and other detractors were shorts in Challenger (CGF) and Cimic (CIM).

Longer term performance

Long-term performance continues to look very strong across all time periods for all three portfolios, with realized outperformance running ahead of the expected 21% gross and 16% net p.a. outperformance. We are entering our third year of trading from a position of strength. Portfolio managers tend to be deemed credible if they have a strong three-year track record – we look forward to reaching that milestone!

Execution

This month the rebalancing trades at the start of the month led to some loss relative to the month-end prices, as well as relative to the modelled averages. On the plus side, both borrow costs and trading costs were lower than modelled. There was a slight difference from the model portfolio due to a shortage of available borrow in OSH. Taken together, the net return was 49 bps below the gross return, but 3 bps better than the modelled net return for the month.

Rosevalley 13/3 Execution						
	Model	Realized				
Gross performance	4.39%	4.39%				
deviation from model portfolio		-0.16%				
difference between trade price and end-of-previous- month price	-0.26%	-0.33%				
trading costs	-0.14%	-0.06%				
borrow costs	-0.12%	-0.01%				
accrued vs paid dividends		0.07%				
Reported net performance	3.87%	3.90%				

November Portfolio Manager model overrides

The portfolios for November have two stock substitutions both for the 13/3 and 15/5 portfolios, all driven by sector concentration concerns – a very similar outcome to the previous month. There were no substitutes for the shorts.

	13/3	15/5	
Longs taken out	OZL, SAR	OZL, SAR	
Replaced by	CAR, ANN	FPH, GMG	
Comments	Sector concentration – in both portfolios the next stocks in the list that did not repeat the sector concentration were picked.		

A word on probabilities

We've been publishing the election forecast of The Economist over the past few months – the last one prior to the election is produced below. The large discrepancy between the forecasted wide margin and the actual tight election made us think about the meaning of the percentage probabilities in these types of charts.

What does it mean that Joe Biden has a 96% probability of winning the election? The concept of probabilities is tied to repeated processes. If I roll a die 600 times, I will roll approximately 100 ones, 100 twos, etc. This is what it means to say there is a probability of 1 in 6 that I roll a particular number. But if I roll the die only once, what does that probability really mean?

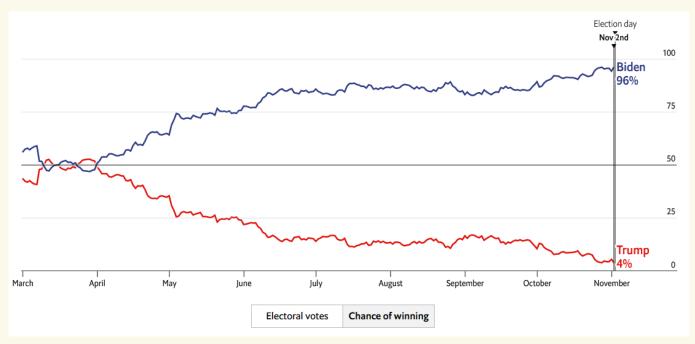
The roots of the theory of Behavioural Science are closely intertwined with this question. Kahneman and Tversky's original experiments were often in the form of: "Would you prefer a certain payment of \$95, or a 50/50 chance of getting \$200?". The concepts of Prospect Theory and Risk Aversion were developed when they noted that people's preferences were different when facing a choice between a certain win and a chance to win something bigger, versus a choice between a certain loss and a chance to lose something less. Behavioural Science also has a lot to say about the (in)ability of people to accurately estimate probabilities.

However, for probabilities to be useful to say something about the future, the element of repetition is crucial. Offer me a choice between a certain gain of \$95 and a 50/50 chance of winning \$200, I may choose the certain \$95. But tell me I get to play this game 10,000 times, and I will surely take the bet over the certain amount – because I know that over those 10,000 times, I will end up very close to getting 5,000 times \$200.

Back to the election. We only get to play once. Then what does the 96% probability of a Biden win mean? That it's almost certain that he will win? That's likely how most people interpret it. However, the 96% that the Economist publishes is derived by simulating the election 10,000 times and counting how many times Joe Biden wins. In the simulation Biden won 9,600 times out 10,000 trials, thus the 96% probability. The model has nothing to say about the outcome if you only simulate the election once, which of course is what's happening in reality.

The outcome of the election was much tighter than expected. Does that prove their forecasting model wasn't very good? Not necessarily. If I flip a coin ten times, my prediction of the most likely outcome is 5 heads and 5 tails. If I flip 8 heads and 2 tails, does that mean there was something wrong with my forecast? As mentioned, the Economist's calculation of probability was based on running 10,000 simulations of the election. It was always

going to be the case that the real outcome would be equal to one in that set of 10,000. The fact that it happened to be one that occurred less frequently in the set of 10,000 than some others doesn't really say anything about the quality of the model¹. We would need to re-run the same election 10,000 times before we can say that, and God willing, that's not going to happen!



Source: The Economist

voting versus the polling data may indicate problems with the way the polls are conducted.

 $^{^1}$ This isn't to say the model was good either – just that the observed outcome doesn't give us insight in the quality of the model. Other observations, however, may. In particular, the observed pattern of

Rosevalley is looking for a Sponsor

As most readers are probably aware, the Rosevalley Behavioural Finance Funds are currently run in "Proof of Concept" mode. Of the three portfolios discussed on this website, one (the 10/0) is run with actual money, while one other (the 13/3) is run as a "paper portfolio" with the same broker. The idea is to establish a paper trail that shows the validity of the strategy and that can be independently verified.

The monthly newsletters reflect the purpose of the exercise. The comments on gross vs net, execution, trading costs, etc. reflect the goal of establishing a track record both with regard to the strategy itself and the practical implementation of it. The publication of the full portfolio result of the previous month, and the full portfolio holdings for the following month (which no fund manager would normally do) further serve to create the possibility of independent verification.

We are currently looking for a sponsor to enable us to continue to build out our track record. We are keen to meet with potential clients interested to sponsor these strategies and /or invest alongside us.

Some context for readers who are less familiar with Rosevalley Funds:

Rosevalley is a boutique funds manager with a unique approach to portfolio construction. Rosevalley Funds are constructed using the principles of Behavioural Finance (BF). Behavioural Economics and Behavioural Finance were developed over the past 30 years or so through the work of economists like Tversky, Kahnemann, Thaler, Shefrin. The idea behind BF (and the Rosevalley portfolios) is to study human behaviour as it is, not as classical economic theory says it should be (i.e. BF does not believe humans are always rationally maximizing their utility).

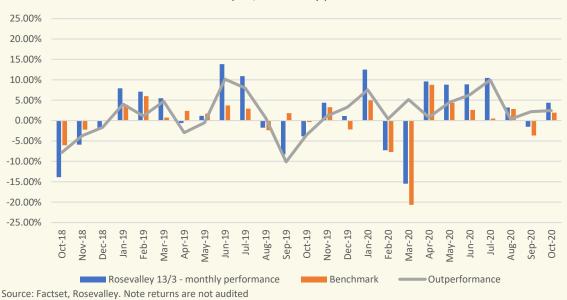
Rosevalley's portfolio construction algorithms are based on these insights. The model yields a ranking of stocks in order of greatest to smallest upside. Portfolio construction then follows by going long the stocks at the top and short the stocks at the bottom. The flagship product is Rosevalley 13/3, which is a 130/30 fund. We also run a 150/50 (Rosevalley 15/5), and a long-only fund (Rosevalley 10/0). Inception for the three portfolios was during November-November 2018.

The portfolios are rebalanced monthly. The Rosevalley team has discretion to make some substitutions, albeit that the bar for those is set high.

The monthly report discusses current events, portfolio performance, trade execution, gross-net differences, next month's portfolio, and broader market and macro expectations.



Rosevalley 13/3 - monthly performance



Rosevalley Funds: The Behavioural Finance Approach

Over the past 30 years Behavioural Finance has emerged as a serious alternative to the Efficient Market Hypothesis. Whereas the Efficient Market Hypothesis starts with the assumption that people (investors) are rational and profit-maximizing, Behavioural Finance builds upon empirical observations of how people actually behave, and goes on to explain securities prices from this principle. Along the development of Behavioural Finance, it has been able to explain many peculiarities that had remained puzzles under the Efficient Market Hypothesis.

Rosevalley Funds portfolios are built around the theoretical and empirical underpinnings of Behavioural Finance, and at heart take advantage of the way human beings behave in the real world.

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