HEIJIN CAPITAL

HEIJIN CAPITAL BI-WEEKLY INVESTMENT COMMENTARY

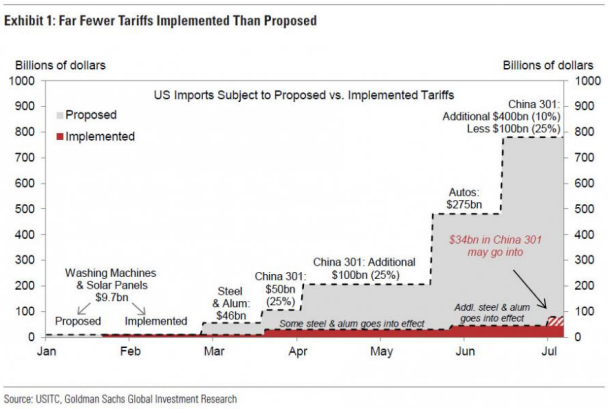
August 11th – August 25th, 2019

STRATEGIC INSIGHTS

Executive Summary

→ General Market Notes:

These past two weeks have not been glorious for equities globally as recessionary scares continue to grow on top of higher volatility from Sino-U.S. trade talks. This week alone U.S. indices slid by >200bps as Xi Jinping announced China's retaliatory measures - $75bn in additional tariffs imposed upon American soybeans, automobiles and oil. Furthermore, an extra 5% tariff will be placed upon U.S. soybeans and oil next month, and automobile tariffs will resume in December. From all this, Heijin sees limited potential for equities to move much higher as investors are finally coming to their senses and acknowledging that this fully-fledged trade war does have a significant impact on markets and that it is difficult to hide. Thus, a cautionary attitude is likely to remain for sometime, which certainly does not bode well for liquidity in global markets…



On another note, the Federal Bank of Kansas City's Jackson Hole economic policy symposium has just come to an end, which should release insights into where central bankers see the global economy going in the near future - definitely something to look out for.

INDEX	CLOSE	2 WEEKS	YTD
Dow Jones Industrial Average	25,629	-2.5%	9.9%
S&P 500 Index	2,847	-2.4%	13.6%
NASDAQ	7,752	-2.6%	16.8%
10-yr Treasury Yield	1.54%	-0.21%	-1.15%
Oil ($/bbl)	$53.87	-1.0%	18.6%
Bonds	$113.78	1.0%	8.7%

*bonds are represented by the iShares Core U.S. Aggregate Bond ETF (NYSEARCA:AGG)

Market Outlook & Strategy

Global Macro

All-Weather Portfolio

Over the past weeks our team received numerous emails from readers asking how they can best navigate the recession that we are calling out. Obviously, the first choice would be to allocate assets with Heijin Capital; however, to people who want to put their faith into their own hands we suggest an all-weather portfolio.

All Weather Portfolios allocate assets in order to maximize return while minimizing volatility. In other words, it tries to offer the highest return possible while being independent from economic cycles. All Weather Portfolio usually use risk parity in order to remain independent from economic cycles. Risk parity is a strategy that combines assets which rally at different times and are thus neutralizing downturns of each other's prices. The simplest example of risk parity are equities and fixed income: equities rally during economic expansion; fixed income rallies during economic contractions. When combining these two assets classes, people can build a portfolio with strong returns and volatility. This brings us to the first all-weather portfolio strategy, namely a 60/40 balanced portfolio.

60/40 balanced portfolio

The simplest and most commonly known strategy to achieve an all-weather portfolio is a 60/40 balanced portfolio strategy. Hereby, 60% of the portfolio's total liquidity is invested into equities usually index tracking portfolios (S&P 500, VTI), and 40% into fixed income, usually very diversified FI portfolios. The reason for the percentages 60 and 40 is not the result of complex mathematical calculations, but rather from backtesting all the combinations using historical prices.

Obviously, 60/40 is just rule of thumb and an approximation of the best equities/fixed income ratio. Those who want to find the perfect asset allocation ratio for their portfolio need to run a backtest themselves. However, the rule "past results are not a guarantee for future returns" holds up even then and the equities/fixed income ratio could change.

Ray Dalio's All Weather Portfolio

Ray Dalio is one of the great advocates of all weather portfolios and he himself has come up with an improved version of the 60/40 balanced portfolio strategy. Since he named his strategy All Weather Portfolio, we will refer to it in uppercase.

The concept behind Ray Dalio's All Weather Portfolio is that he goes models markets beyond the bullish/bearish concept that the 60/40 balanced portfolio uses. Moreover, he uses 4 economic "seaons" to describe the situation of the markets we are currently in: **Inflation**, **Deflation, Economic Growth** and **Economic Slowdown.** Using these seasonalities to model the economy,

Ray Dalio has expanded the 60/40 balanced portfolio to differentiate between intermediate-term (~10 years) and long term (20+ years) bonds and has introduced gold and commodities as asset classes.

More precisely, Ray Dalio's All Weather Portfolio allocates 40% into long-term bonds, 30% into equities, 15% into intermediate term bonds, 7,5% into gold and 7,5 into commodities. Backtests of the All Weather Portfolio have shown that it returned almost 10% annually from 1984-2013, whereby during the worst year the portfolio was down just under 2%. Over the same time period, the S&P 500 had just slightly higher return, but with the downturn of 37% during the worst year.

Golden Butterfly Portfolio

In recent years investment managers have come up with an improvement of Ray Dalio's All Weather portfolio, named golden butterfly portfolio. Promoters of the golden butterfly portfolio object from the All Weather Portfolio that it does not take into consideration that on average the stock market is decade after decade. More precisely, they think the All Weather Portfolio has too much risk parity that covers eventual loss from the equity part of the portfolio which lowers the total return. Thus, the golden butterfly portfolio increases the share of equities from 30% to 40%. Additionally, the golden butterfly portfolio does not have commodities besides gold, which now takes up 20% of the portfolio. So to put numbers straight, the golden butterfly portfolio invests 20% in the overall equities market, 20% into small cap equities, 20% into long-term bonds, 20% into short-term bonds and 20% into gold.

Conclusion

The most important conclusion that can be taken from this article is that there exist simple, cheap and recession resistant portfolio strategies that can be built using 5 ETFs. Moverover, especially the All Weather Portfolio and the Golden Butterfly Portfolio are very interesting for investors who don't know if they need to withdraw all their money in the future, since the total return is similar to index funds, but the max drawdown is extremely low. For the next couple of years, the All Weather Portfolio is probably what people want to invest in, since it gives more importance to treasuries which rally in uncertain times. However, when markets gain traction again it is probably advised to move to a Golden Butterfly Portfolio, since it is a bit more bullish on equities.

However, for people who know they don't withdraw money in the 20 years or more index funds are probably the best strategy, since the overall stock market outperforms the All Weather Portfolio and Golden Butterfly Portfolio on the long term.

Last Remark: For individuals who want to see the above portfolios in action can use Portfolio Analyzer to build their own portfolios and try to optimize them.

Real Estate

Investigating the German Real Estate Market

After more than four years of sharp house price rises, Germany's housing market remains firm. In a country where the housing market has historically been extraordinarily stable, this is a significant shift which RE investors can take advantage of. Decade-long economic growth, more than 1 million refugees, high work-related immigration, record-low unemployment, weak construction supply, *and* low-interest rates all helped to push up the price of housing in Germany, netting an impressive return to its backers.

Here are the YTD figures:

- Apartment prices rose by 10.22% (8.79% inflation-adjusted), up from a y-o-y rise of 4.8% in May 2018 and the highest growth in almost six years.
- New home prices rose by 7.95% (6.55% inflation-adjusted), up from a y-o-y rise of 5.44% a year earlier and the most significant increase since July 2017.
- Existing home prices rose by 8.91% (7.49% inflation-adjusted), slightly down from the previous year's 9.03% growth.

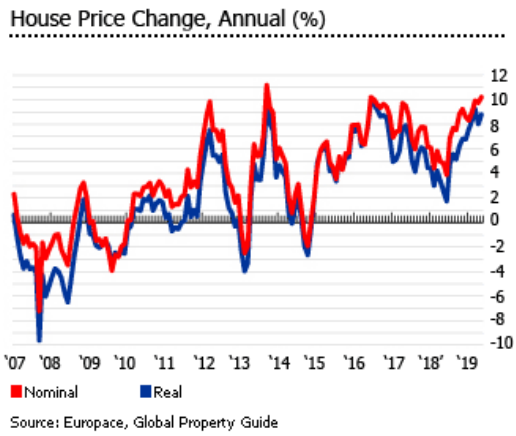
The German hedonic price index rose by 9.01% (7.6% inflation-adjusted) in May 2019 from a year earlier, based on data from the German Federal Institute for Research on Buildings. It was the highest growth since December 2016. Moreover, the German housing market was one of the few that avoided a notable slowdown in the wake of the 2008-09 US housing crisis (refer to the table on the right). Residential property transaction volumes in Germany amounted to €15.1 billion (US$16.9 billion) in 2018, down 3% from the previous year, according to Savills. Despite this, it remains the third-highest transaction volume in the last ten years. There were about 121,823 units traded during 2018, down 4% from a year earlier.

Hedonic House Price Index, Annual Change (%)		
Year	Nominal	Inflation-adjusted
2009	-1.89	-2.68
2010	3.56	2.23
2011	4.71	2.67
2012	4.57	2.48
2013	3.21	1.75
2014	3.71	3.51
2015	5.57	5.28
2016	10.22	8.40
2017	4.71	3.00
2018	7.96	6.14
Source: Destatis, the Federal Statistical Office of Germany		

Residential property transaction volumes in Germany amounted to €15.1 billion (US$16.9 billion) in 2018, down 3% from the previous year, according to Savills. Despite this, it remains the third-highest transaction volume in the last ten years. There were about 121,823 units traded during 2018, down 4% from a year earlier. Low construction activity is an added cause for the continued increase in house prices. Housing supply is simply not keeping up with demand. In 2018, dwelling permits dropped slightly by 0.2% y-o-y to 347,292 while dwelling completions rose by a minuscule 0.9% y-o-y to 287,352 units, according to Destatis, the Federal Statistical Office of Germany. This is insufficient, due to a rising urban population and a recent surge of migrants. In the medium term, it was estimated that the country needs to build around 400,000 flats annually to prevent housing shortages in cities. In Q1 2019, dwelling permits fell by 2.8% to 75,600 units compared to the same period last year.

Is it a bubble? If so, when will it burst?

Thats a good question - and the answer is twofold. Despite the price rises, Deutsche Bundesbank, Germany's central bank, has ruled out the existence of a full-blown property bubble - at least for the foreseeable future. This view is maintained by Michael Voigtlaender, a professor at the Cologne Institute of Economic Research. "Rising prices on their own aren't enough to create a bubble - you have to look at the fundamentals," he said in an interview with the FT. "We have a stable mortgage market with steady equity ratios, and fairly moderate levels of home construction." Market crashes are typically caused by too much construction, and the opposite is true in many German cities. Led by immigration and the continuous labour market uptrend, house prices and rents will likely continue to rise. Even at current levels, the willingness to take out loans ought to continue, due to extremely low-interest rates. The nationwide cycle looks set to continue until 2022 or beyond, estimated by Deutsche Bank.



However, Germany's economy is now slowing. In 2018, the economy registered a growth of just 1.4%, down from 2.2% in 2017 and the weakest expansion in five years, according to Destatis. Europe's largest economy continues to struggle this year, with GDP rising by a meager 0.4% y-o-y in Q1 2019. As such, the government recently cuts its growth projection this year to 0.5%, half the pace previously forecast. So, when evaluating the attractiveness of investing in the German housing market one must be careful to not have their opinion swayed by record high house price growth and record low interest rates. The catch is, Germany is on the brink of a recession.

Local House Prices (Condensed)

In the next commentary, we will talk about individual hotspots in the German housing market and which areas to pay close attention to. For the sake of keeping this piece short, we will simply summarise this information.

In North-East Germany:

- In Berlin, apartments saw sharp price rises of 11.16% in Q1 2019 to a median price of €4,050 per square metre. The median price of one- and two-family houses rose by 11.24% y-o-y to €2,698 per sq. m.
- In Hannover, apartment prices rose by 7.42% to a median price of €2,401 per sq. m. during the year to Q1 2019. Likewise, the median price of one- and two-family houses increased by 7.29% to €2,101 per sq. m.
- In Dresden, median apartment prices soared by 12.01% to €2,586 per sq. m. during the year to Q1 2019, while one- and two-family houses increased 8.06% to €2,445 per sq. m.

In South Germany:

- In Munich, the average apartment price rose by 8.71% to €6,726 per sq. m. during the year to Q1 2019. Prices of one- and two-family houses rose by 5.16% to €5,054 per sq. m. over the same period.
- In Frankfurt, apartment prices rose by 7.51% to €3,447 per sq. m. during the year to Q1 2019. One- and two-family houses had a y-o-y price increase of 9.15% to €2,744 per sq. m.
- Stuttgart had the strongest y-o-y apartment price hike in South Germany in Q1 2019, increasing by 10.77% y-o-y to a median price of €3,400 per sq. m. On the other hand, the median price of one- and two-family houses rose by 7.01% to €3,206 per sq. m.

In West Germany:

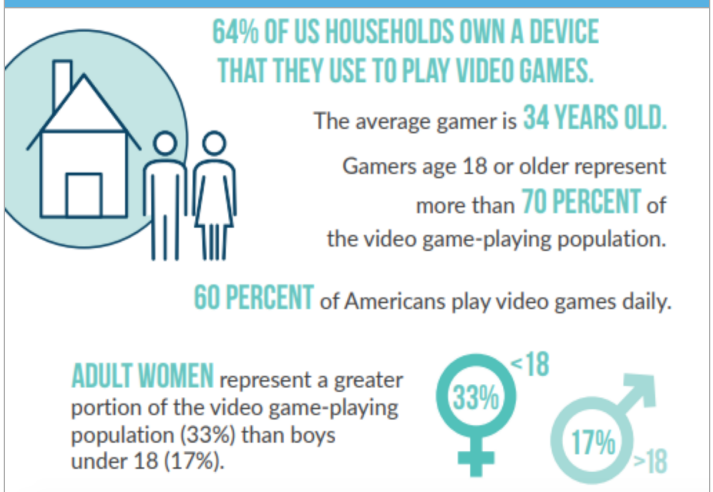
- In Dusseldorf, median apartment prices rose by 7.05% to €2,791 per sq. m. during the year to Q1 2019. Prices of one- and two-family houses also rose by 7.25% to €2,513 per sq. m.
- In Cologne, median apartment prices rose by 9.03% y-o-y to €3,107 per sq. m. in Q1 2019. One- and two-family houses had a price increase of 6.46% y-o-y to €2,472 per sq. m.
- Dortmund had the highest apartment price increase in the region, rising by 12.97% to €1,647 per sq. m. during the year to Q1 2019 while the median price of one- and two-family houses increased 6.25% to €2,125 per sq. m.

Investment Analysis

Can Video Game Therapeutics help 'Level-up' the pharmaceutical industry?

It is no secret that the pharmaceuticals are one of the largest and most lucrative sectors in the market, thus it is no surprise that it was valued at almost 1.2$ trillion in 2018. For many years, in particular, in the USA, there has been a "quick-to-medicate" culture which sees thousands of patients walk out of a doctors appointment with excessive amounts of prescription drugs to minor ailments, or conditions that could be better treated with therapy, etc. This is where the Video Game Therapeutics industry steps in. It's been proven that off the shelf video games have the potential application to be used in both preventative and therapeutic medicine. And with almost 60% of Americans playing video games daily(see fig 1), it's market potential is huge. As over 100 firms are developing digital therapeutics across America and Europe, with over $2 billion in VC behind them.

1. Player Ages and Percentage of US Households That Play Video Games



Source: Entertainment Software Association, "Essential Facts About the Video Game Industry," www.theesa.com, 2018

One of the biggest potential areas for video game therapeutics to break into is the $13 billion per year market, that is the attention disorders such as ADHD and ADD. For many decades Ritalin and Adderall have been the favorites of healthcare professionals to prescribe their patients, many as young as 5 years of age. Of course, the drugs are steeped in controversy due to both the ages of those who are prescribed it and the potential side effects of the drug. This non-pharmacological alternative has the capability too completely revolutionize the industry and drag the healthcare market out of the culture of overprescribing, which is estimated to lead to the premature deaths of over 150,000 Americans per year. Moreover, by integrating people course of taking their medication into a Video Game or app, they are much more likely to stick to it. This will be a massive saving to society, as failure to run a full course of prescription medication as prescribed is associated with 125,000 deaths each year. As well as up to 20% of hospital and nursing home admissions annually. Video Game Therapeutic technology can also greatly assist medical professionals in the early diagnosis of many illnesses. The market for "brain training"

and assessments has more than tripled over the past decade and will be worth an estimated $7.5 billion by the end of 2020. This sector is only set to expand as people begin to live longer and longer, subsequently suffering from age-related diseases like dementia and Alzheimers. There is now a simple app-based test that can determine whether someone is in the early stages of such diseases. Interestingly, it has been proven that even how an elderly person plays the well-known game “Candy Crush” can give insights into their risk of Parkinson's disease.

So what companies do we have our eye on in the Video Game Therapeutics market?

1. **Welldoc** is a leading digital therapeutic company revolutionizing chronic disease management to help transform lives. The Company’s groundbreaking technology helps guide individuals through the complicated journey of living with chronic diseases, to help them self-manage their conditions. Their BlueStar app (the first FDA approved app of its kind) takes a holistic approach to help those with type 2 diabetes. By engaging users to track their medications, labs, activity, nutrition, and psycho-social behavior, BlueStar can provide highly-tailored insights to the individual user. BlueStar’s Smart Visit Report shares insights directly with a user’s existing care team for better decision making. The app has had staggering results with almost double the reduction in A1C hemoglobins compared to usual treatments, resulting in a saving of almost $271 per month per patient.

2. **Akili** is a US-based firm that develops video games to help those afflicted with conditions such as depression, ADHD, autism, and other neurological conditions. Akili’s products that tackle ADHD are designed to deliver sensory and motor stimuli to selectively target and activate specific cognitive neural systems in the brain. By playing the video game those suffering from ADHD must multitask in a ‘fun’ way as the levels get progressively harder thus, in theory, improving their condition. The trials showed improvements in cognition, symptoms, and daily functioning. In some domains, Akili's digital approach was in the range of what drugs can achieve. Akili has received some serious backing with industry giants such as Pfizer and shire, the main producer of ADHD medication, investing in the firm.

It is clear that Video Game therapeutics tap into an underserved market of people who experience mental health issues such as ADHD, addiction, and depression. It is only now that mental health issues are being given the recognition they so rightly deserve, and with suicide now being the largest killer of men under 40, anything that can genuinely improve peoples lives in addition to providing enviable ROI will be a serious contender for our portfolio.

Investment Analysis

Can The RealReal (NASDAQ:REAL) power through this tough e-commerce environment?

The RealReal is an online marketplace for authenticated luxury consignment. Even in a world where everyone sees Amazon as the leader in every segment of the e-commerce industry, the RealReal has actually been able to find a lucrative niche in which neither Amazon or eBay saw huge growth.

The company's main competitive advantage is their extremely rigorous authentication process that ensures all items are 100% authentic. The high cost of this process is the reason why the big players like Amazon, eBay, Alibaba and more do not want to take part in this niche. It would simply leave them with no margins. And, in order to reach profitability the RealReal has to take advantage of economies of scale. The issue now is the tech costs and customer acquisition costs that have stayed very high. For instance, the RealReal's customer acquisition cost is at >$139 (2018), and when taking into account the fact that most first timers will most likely not conduct a transaction above >$400 we can see that it takes time to just simply break-even.

In order to be able to generate cash flow and decent gross profit margins the RealReal has set a steep commission rate of 40%*.

Commission Structure:
a) 50% will always apply for any items priced between $146 and $195.
b) 40% will always apply for any items priced under $145, regardless of the amount of Net Sales you have achieved in the applicable Commission Window, your starting Commission Rate for any Commission Window, or any other Commission Rates that would otherwise apply.
c) A consigner selling above $10,000 worth of goods annually via the platform or selling high-value items will have rates lower than 40%.

Potential growth is essential to the survival of newcomers in industries like e-commerce, but in the case of the RealReal there is little to worry about as the industry of secondhand personal luxury goods is just getting started. Indeed, in some cases growth prospects are severely overstated (e.g. Beyond Meat), which can be detrimental for investors in the long run since a « facade of false hope » can be kept up for only a short period of time. Since as always the numbers always tell the true story. The estimated value of the market for secondhand personal luxury goods stands at $22bn (2018). On top of that, the secondhand luxury market (12%) is growing at 4x that of the overall luxury market (3%), which bodes well for the company's future. Moreover, research conducted by BCG suggested that >60% of consumers in the luxury market would consider purchasing products in the secondhand market. Thus, all in all the market is there and demand is unlikely to become an issue for the RealReal.

Recently, the company diversified into other profitable segments such as high end art, furniture, and jewellery. And some say they should try enter the vintage car market in the near future. These new segments have been incredibly well integrated on their platform and in their stores on top of significantly increasing their cash flow. In fact, in 2018 the total transactional value on the RealReal was >$700m, making revenues stand at >$200m (55% YoY rise from 2017). And with these new products, these figures are undoubtedly going to grow, which has already been the case in their Q2 earnings where there was a 51% growth in revenue compared to Q2 2018.

Lastly, unlike most e-commerce companies, the RealReal has stores in three different locations (2 in NYC, and one in LA), which gives it a real advantage when dealing with customers wanting very high value products. A visit to their SoHo shop in January showed me how their customer service and quality of the shop was basically on par with the most high end brands like Hermès. Their latest store was opened on Madison Avenue (shown in the image), which will most likely make it catch the attention of LVMH and Kering or companies like Amazon (potentially an M&A target if they wanted to expand their 'luxury' product segment).

All in all, Heijin is bullish on the RealReal as it definitely has the growth potential and may even be more recessionary proof than most e-commerce platforms since we suspect the liquidation of high-end goods shall only increase in a global downturn.

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