Integrated Wealth Solutions

The Good Life

Ideas, advice, beliefs and perspectives for the enjoyment and education of our clients and friends

Period ending September 2016

Fixed Interest					
Years	**1**	**2**	**3**	**10**	**YTD**
One- year	2.4	2.6	2.6	4.5	1.9
Two-year	2.8	3.0	3.0	5.0	2.4
Five-year	5.4	5.5	5.2	6.7	5.2
Long Term					
Australian Shares					
Large	12.8	6.2	6.3	5.6	6.4
Value	18.6	6.4	5.3	4.9	16.4
Small	26.6	9.8	6.7	5.2	15.5
Global Shares					
Large	1.9	9.7	12.9	4.4	0.5
Value	1.8	6.4	10.4	3.1	1.1
Small	4.5	13.3	13.6	6.3	4.1
Emerging Markets	9.2	2.6	5.7	3.8	13.7
Real Estate	20.9	20.5	17.7	1.6	14.0

Description of Indexes	
One-year FI	DFA Short-Term FI
Two-year FI	DFA Two Yr Div. FI
Five-year FI	DFA Five Yr Div. FI
Long-Term FI	Bloomberg Aus Treas. 10+
Australian Large	DFA Aus Large Co
Australian Value	DFA Aus Value
Australian Small	DFA Aus Small Co
Global Large	DFA Global Large Co
Global Value	DFA Global Value
Global Small	DFA Global Small Co
Emerging Markets	DFA Emerging Markets
Global Real Estate	S&P/ASX 300 REIT Index
	Data presented may be based on a combinationof simulated and actual returns.
	Past performance is not indicative of future performance.

October2016

What We Are Thinking

Dear Reader,

Welcome to the October edition of *The Good Life*. This month, Jim Parker writes about *The Tao of Wealth Management.* He says the path to success in many areas of life is often the result of continual hard work, intense activity and a day-to-day focus on results. By contrast, long-term investment turns that ethos upside down.

Good News

We're continually blown away by what's happening in what we call the EXPONENTIAL WORLD. More than ever, these advances will make many existing companies obsolete.

This month we look at organ regeneration**,** harnessing algae for clean energy power plants; China's first independently designed supercapacitor tram; a virtual reality full-body illusion that improves body image disturbance in anorexia nervosa, and; Germany's parliament which recently passed a resolution to ban the internal combustion engine by 2030.

Hard to believe but they are happening right now.

Inflation

Last month we asked you to ponder a question about inflation.

This month, we continue to look at how we spend our money and the forthcoming rapid *demonetisation* of the cost of living.

Today we'll look at another 2 of the 7 broad areas of spending – food and healthcare. Did you know the cost of food has dropped thirteen-fold over the past century? That inexorable decline will continue.

Meanwhile, artificial intelligence will not only allow us to discover and manufacture new medicines than ever before – in the near future we may be able to compound these new drugs at home using a 3D printer that assembles your perfect medication based on your individual chemistry.

The Tao of Wealth Management

September 29, 2016

The path to success in many areas of life is paved with continual hard work, intense activity and a day-to-day focus on results. In long-term investment, however, that philosophy is turned upside down.

The Chinese philosophy of Taoism has a phrase for this: *"wei wu-wei"*. In English, this translates as to "do without doing". It means that in some areas of life, such as investment, greater activity does not necessarily translate into better results.

That doesn't mean that we should always do nothing. For instance, it's important to regularly rebalance a portfolio so that money is reallocated from strongly performing assets to maintain a desired asset allocation.

But rebalancing is a disciplined, premeditated activity based on each person's circumstances. It contrasts with the "busyness" of reflexively following investment trends and chasing past returns promoted through financial media.

In other words, investment is one area where constant tinkering is not well correlated with success. Look at the person who fitfully watches business TV or who sits up at night researching stock tips. That sort of activity is inevitably counter-productive. It can add cost without any associated benefit.

In Taoism, students are taught to let go of things they have no control over. To use an analogy, when you plant a tree, you choose a sunny spot with good soil and water. Apart from regular pruning, you leave the tree to grow.

Likewise, financial science says you are best to direct your investment efforts to things you can control. These include taking account of your own preferences and sensitivities when choosing investment strategies, diversifying your portfolio to moderate the ups and downs, being mindful of the impact of fees and exercising discipline when emotions threaten to blow you off course.

Now while that makes sense, many people find it tough to apply those principles because the media tends to look at investing through a different lens. The focus is on today's news, which is already priced in, or on speculating about tomorrow. It can be interesting, sure. But is it relevant to your long-term plan? Probably not.

So people caught up in the day-to-day stuff constantly switch money managers based on past performance, attempt tactical changes in asset management and respond in a knee-jerk way to news events that turn out to be noise.

Again, the assumption underlying these approaches is that if you put more effort into the external factors, that if you adjust your position constantly based on short-term movements in the market, you will get better results.

Unfortunately, the actual result is that people end up earning poorer long-term returns than are available to them. In fact, even a majority of professional asset managers struggle to earn the returns available to them from a simple index.

According to index provider Standard & Poor's, more than 84% of large cap funds in the US underperformed the benchmark S&P 500 index over the five years to the end of December, 2015. In Europe, this number was more than 80% over the equivalent benchmark there. In Australia, it was 67%.[1] So the demonstrated chances of a manager beating the index are significantly less than 50/50.

And keep in mind that this doesn't take into account the *actual* returns earned by end investors, many of whom further damage their chances by holding concentrated portfolios, over-trading, chasing past performers or attempting to time the market.

A few years ago, one Australian broker gave the game away on "busy" investing. In his final note to clients before retiring to consultancy work, this individual said investors were often their worst enemies.[2]

"The biggest problem appears to be that, despite all the disclaimers, retail flows assume that past performance is a good guide to future outcomes," he said.

"Consequently, money tends to flow to investments that *have* done well, rather than investments that *will* do well. The net result is that the actual returns to investors fall well short not just of benchmark returns, but the returns generated by professional investors. And that keeps people like me employed."

Ultimately, that's just another reminder of the benefits available to disciplined investors who stay focused on what they can control, or as the ancient Chinese proverb says: "By letting it go, it all gets done. The world is won by those who let it go. But when you try and try, the world is beyond the winning."

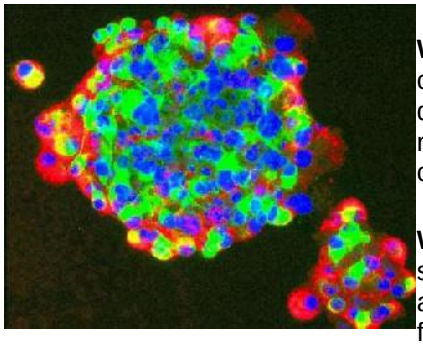
We hope you enjoyed this issue and would like to receive your feedback on articles you would be interested in or ways we can improve our newsletter. We have a lot more information on our website at www.integratedwealthsolutions.com.au where you can register to receive this free monthly newsletter.

John McMorrow
Editor
Disclosure & Disclaimer

That Bit Extra...

More Amazing Research Happenings in the EXPONENTIAL WORLD to Make Our Lives Better

Lab-Grown Stem Cells Regenerate Monkey Hearts



What it is: Researchers at Shinshu University in Japan have brought us one step closer to full-blown organ regeneration. They've successfully repaired five monkeys' damaged hearts using stem cells made from the skin cells of just one monkey. It's reportedly the first time induced pluripotent stem cells (made by stimulating mature cells into a juvenile, adaptable state) have been used to fix heart damage.

Why it's important: The researchers' ultimate goal is to find an uncontroversial, scalable way to rejuvenate cells for transplantation in heart attack victims. How does aging change when we can regenerate an endless supply of stem cells on demand, from our own bodies? **Join the Discussion**

Spotted by Gregory Scherf / Written by Marissa Brassfield

Harnessing Algae for Clean Energy Power Plants

What it is: Tel Aviv University researchers have used genetic engineering to increase microalgae hydrogen production by an astonishing 400% -- all based on their new discovery of how algae actually produce hydrogen. "Researchers in the past believed that algae only produce hydrogen in the course of a single microburst at dawn lasting just a few minutes," reports Phys.org. "But Dr. Yacoby and his team used highly sensitive technology to discover that algae produce hydrogen from photosynthesis all day long."

Why it's important: Currently, the way we draw hydrogen out of natural gas is inefficient and toxic. What if we could grow our "gasoline" via home algae farms? "Cultivating energy from agriculture is really the next revolution," explains Dr. Yacoby. "There may be other ways to produce hydrogen, but this is the greenest and the only agricultural one." **Join the Discussion** *Spotted by Gregory Scherf / Written by Marissa Brassfield*

China's First Homemade Supercapacitor Tram Unveiled

What it is: CRRC Zhuzhou Locomotive Co., Ltd in Zhuzhou, China has released the nation's first independently designed supercapacitor tram. The train ditches overheard wires and ground electricity altogether; instead, it charges during 30-second stops. Xinhuanet reports the tram can travel at 70 km per hour and carry 380 passengers.

Why it's important: This supercapacitor train solves a number of challenges (logistical, aesthetic, financial, structural and energy, among others) that plague current above-ground public transportation options. Its versatile, environmentally friendly design could eventually enable well-populated areas without existing infrastructure to rapidly expand into modern cities. **Join the Discussion**

Spotted by Sherwin Chan / Written by Marissa Brassfield

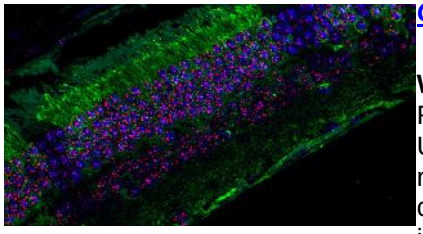
A Virtual Reality Full Body Illusion Improves Body Image Disturbance in Anorexia Nervosa

What it is: A Berlin research team recently published their research on how a virtual reality full-body illusion (FBI) can help anorexia nervosa patients decrease their overestimation of body size. Patients were asked to estimate their body size before introducing the FBI and again after the FBI. While wearing the Oculus Rift DK2, patients experienced simple brush strokes on their abdomen, which were exactly replicated in VR on the avatar's body. The results, although not static, proved that we can change the disturbed experience of body size in anorexia nervosa patients.

Why it's important: We've previously written about VR's tremendous potential for treating depression and PTSD. If VR can also be used to treat psychological issues stemming from negative body image, we may eventually be able to "reprogram" our brains to forgive and forget the "baggage" of other harmful social experiences like bullying, child abuse and possibly even sexual trauma. **Join the Discussion**

Spotted by Richard van Tilborg / Written by Sydney Fulkerson

Scientists Have Created Mice with Hyper-long Telomeres Without Altering the Genes



What it is: The Telomeres and Telomerase Group at the Spanish National Cancer Research Centre (CNIO), in collaboration with the Centre's Transgenic Mice Core Unit, has succeeded in creating mice in the laboratory with hyper-long telomeres and reduced molecular aging. This builds on previous research showing that in vitro culturing of iPS stem cells (derived from adult tissues) resulted in the elongation of iPS telomeres to twice their length. The team successfully created mice with these hyper-long telomeres, resulting in all of the benefits attributed to more youthful telomeres such as lower tumor incidence and a greater capacity to repair DNA damage.

Why it's important: This success means that it's possible to generate adult tissue with longer telomeres without genetic manipulation, giving researchers multiple paths to human longevity and reducing age-related diseases. While it remains to be seen if these mice live longer, iPS cells have tremendous promise in their own right, including being able to make them in a patient-matched manner, raising the possibility of personalized treatments or organ matching without the risk of immune rejection. More resilient stem cells could lead to more effective and powerful stem cell therapies. **Join the Discussion**

Spotted by Brian Vangsgaard / Written by Jason Goodwin

German Lawmakers Vote to Ban the Internal Combustion Engine

What it is: Germany's Bundesrat recently passed a resolution to ban the internal combustion engine beginning in 2030, which would mean that in as little as 14 years, only zero-emission vehicles would be allowed on EU roads. While the bipartisan agreement still needs EU approval, as Forbes notes, "German regulations traditionally have shaped EU and UNECE regulations." The measure also calls on EU automakers to review their current taxation and dues for ways to stimulate emissions-free mobility.

Why it's important: As Peter has previously written, a tsunami of change is coming for the automotive industry, and it's up to automakers to either ride atop this wave or get crushed by it. Germany has already taken action to support its goal of 100% zero-emission vehicles on EU roads by 2030. How will the EU -- and other governments around the world -- respond? **Join the Discussion**

Spotted by Peter Diamandis / Written by Sydney Fulkerson

Inflation Part 3

But what people aren't talking about, and what's getting Peter Diamandis's attention is a forthcoming rapid *demonetisation* of the cost of living.

Meaning … it's getting cheaper and cheaper to meet our basic needs.

How We Spend Our Money Today

Spending habits around the world tell a pretty consistent story – we tend to spend money on many of the same basic products and services.

In the US, in 2011 33% of the average American's income was spent on housing, followed by 16% spent on transportation, 12% spent on food, 6% on healthcare and 5% on entertainment.

In other words, more than 75% of Americans' expenditures come from housing, transportation, food, personal Insurance and health.

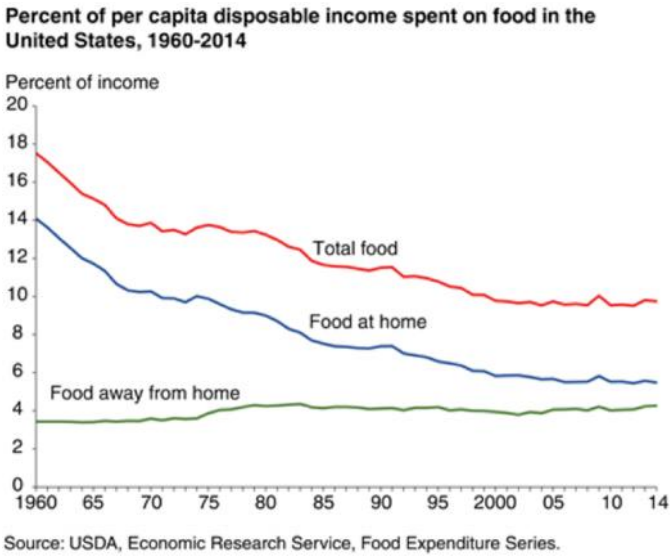
Top 7 categories:

- **Transportation**
- **Food**
- **Healthcare**
- **Housing**
- **Energy**
- **Education**
- **Entertainment.**

Now imagine what would happen if the cost of these items plummeted. Today, we look at another 2 – food and healthcare.

Food:

As I noted in *Abundance*, the cost of food has dropped thirteen-fold over the past century. That reduction will continue.



As noted in the chart above, the cost of food at home has dropped by >50%.

Additional gains will be made as we learn to efficiently produce foods locally through vertical farming (note that 70% of food's final retail price comes from transportation, storage and handling).

Also, as we make genetic and biological advances, we will learn how to increase yield per square meter.

Healthcare:

Healthcare can be roughly split into four major categories: (i) diagnostics, (ii) intervention/surgery, (iii) chronic care and (iv) medicines.

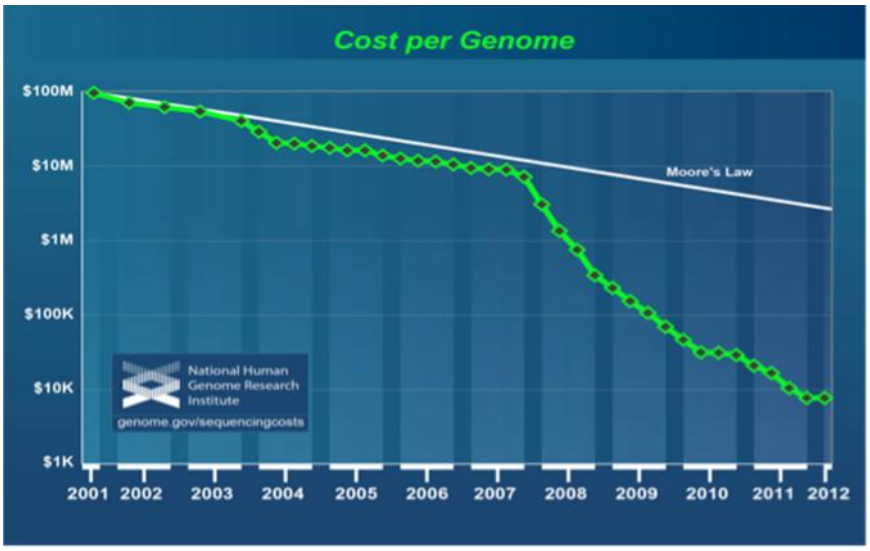
(i) Diagnostics: AI has already demonstrated the ability to diagnose cancer patients better than the best doctors, image and diagnose pathology, look at genomics data and draw conclusions, and/or sort through gigabytes of phenotypic data… all for the cost of electricity.

(ii) Intervention/Surgery: In the near future, the best surgeons in the world will be robots, and they'll be able to move with precision and image a surgical field in high magnification. Each robotic surgeon can call upon the data from millions of previous robotic surgeries, outperforming the most experienced human counterpart. Again, with the cost asymptotically approaching zero.

(iii) Chronic/Eldercare: Taking care of the aging of chronically ill will again be done most efficiently through Robots.

(iv) Medicines: Medicines will be discovered and manufactured more efficiently by AI's, and perhaps in the near future, be compounded at home with the aid of a 3D printing machine that assembles your perfect medicines based on the needs and blood chemistries in that very moment.

It's also worth noting the price of genomics sequencing is plummeting (as you'll see below, five times the rate of Moore's Law). Accurate sequencing should allow us to predict which diseases you're likely to develop, and which drugs are of highest use to treat you.



The plummeting cost to sequence the human genome (Source: NHGRI)

Take a look at the table below, see a pattern? Neither did we. So we work with the markets instead of being busy trying to beat them. This also saves you a lot of money (around $900 p.a. (or 0.9%) for every $100,000 Invested).

Randomness of Returns

Understanding the short and long term behaviour of asset classes may help investors manage their expectations.

Year ending 31 Dec	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Highest Return	11.57%	32.29%	31.30%	43.20%	34.21%	25.15%	9.23%	57.43%	13.05%	10.51%	21.64%	53.62%	32.93%	12.13%
	4.77%	17.92%	27.99%	23.65%	27.63%	17.05%	7.60%	40.86%	10.66%	5.00%	21.00%	47.00%	14.72%	11.55%
	-3.53%	16.45%	26.84%	22.79%	24.27%	16.12%	-24.92%	38.38%	9.28%	0.61%	20.54%	46.94%	13.36%	11.50%
	-3.66%	13.76%	26.64%	21.67%	23.43%	10.28%	-25.33%	36.19%	7.22%	-5.55%	16.74%	24.54%	11.40%	10.16%
	-8.63%	11.20%	20.68%	19.59%	22.98%	6.73%	-26.80%	11.73%	4.66%	-5.63%	16.08%	21.54%	10.37%	7.05%
	-9.12%	6.59%	19.48%	17.07%	16.41%	6.63%	-31.60%	8.03%	4.30%	-9.08%	14.38%	18.32%	6.97%	3.35%
	-14.70%	4.90%	13.91%	17.00%	11.74%	-2.12%	-37.21%	3.47%	1.69%	-9.82%	14.06%	13.03%	6.93%	2.33%
	-23.65%	3.23%	10.26%	16.69%	9.07%	-7.18%	-41.23%	2.24%	0.83%	-9.94%	9.66%	2.87%	6.13%	2.14%
	-27.17%	2.12%	8.92%	6.62%	6.02%	-9.53%	-41.23%	0.77%	-1.94%	-18.44%	6.58%	2.27%	2.69%	0.51%
Lowest Return	-27.22%	-0.52%	5.62%	5.74%	4.41%	-20.75%	-53.17%	-1.80%	-4.35%	-21.43%	3.97%	-0.76%	-3.81%	-4.30%

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Australian Large	-8.63%	13.76%	27.99%	22.79%	23.43%	16.12%	-37.21%	36.19%	0.83%	-9.82%	21.00%	21.54%	6.13%	2.14%
Australian Small	-9.12%	32.29%	26.64%	19.59%	34.21%	17.05%	-53.17%	57.43%	13.05%	-21.43%	6.58%	-0.76%	-3.81%	10.16%
Australian Value	-3.53%	11.20%	31.30%	21.67%	24.27%	10.28%	-41.23%	40.86%	1.69%	-9.94%	21.64%	24.54%	6.97%	0.51%
Global Large	-27.17%	-0.52%	10.26%	17.00%	11.74%	-2.12%	-25.33%	0.77%	-1.94%	-5.55%	14.38%	47.00%	14.72%	11.50%
Global Small	-23.65%	17.92%	19.48%	23.65%	9.07%	-9.53%	-26.80%	11.73%	10.66%	-9.08%	16.08%	53.62%	11.40%	12.13%
Global Value	-27.22%	3.23%	13.91%	17.07%	16.41%	-7.18%	-24.92%	-1.80%	-4.35%	-5.63%	14.06%	46.94%	13.36%	7.05%
Emerging Markets	-14.70%	16.45%	20.68%	43.20%	22.98%	25.15%	-41.23%	38.38%	4.30%	-18.44%	16.74%	13.03%	6.93%	-4.30%
Property	-3.66%	2.12%	26.84%	16.69%	27.63%	-20.75%	-31.60%	2.24%	7.22%	0.61%	20.54%	18.32%	32.93%	11.55%
Cash	4.77%	4.90%	5.62%	5.74%	6.02%	6.73%	7.60%	3.47%	4.66%	5.00%	3.97%	2.87%	2.69%	2.33%
Fixed Interest	11.57%	6.59%	8.92%	6.62%	4.41%	6.63%	9.23%	8.03%	9.28%	10.51%	9.66%	2.27%	10.37%	3.35%

Data is the annual return to 31 December 2015. Data used for each asset class is as follows – Australian Large: S&P/ASX 100 Index (Total Return), Australian Small: S&P/ASX Small Ordinaries Index (Total Return), Australian Value: S&P Australia BMI Value Index (AUD, gross div.), Global Large: MSCI World Index (net div., AUD), Global Small: MSCI World Small Cap Index (net div., AUD), Global Value: MSCI World Value Index (net div., AUD), Emerging Markets: MSCI Emerging Markets Index (net div., AUD), Property: S&P Global REIT Index (net div.), Cash: Bloomberg AusBond Bank Bill Index, Fixed Interest: Barclays Global Aggregate Bond Index (hedged to AUD). S&P/ASX data reproduced with the permission of S&P Index Services Australia. The S&P data are provided by Standard & Poor's Index Services Group. MSCI data copyright MSCI 2016, all rights reserved. Bloomberg indices copyright Bloomberg 2016. Barclays indices copyright Barclays 2016.
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