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This Week's Top Articles

The opportunity cost of low fee structures

Rob Prugue

Beware the investor who knows the price of everything but the value of nothing. Fees are obviously important, but managers should ultimately be evaluated based on their ability to add net and real value to a portfolio.

The fees and costs associated with fund management and superannuation have rightly become an important concern for investors. It is natural that all investors want to acquire the 'best' possible investment option at the lowest possible cost. Particularly in today's world of sustained low cost of capital, maximising net income and returns are hugely important.

Focus on net returns, not only costs

In the ongoing debate surrounding fees, too many investors are putting the cart before the horse. Common sense dictates that when comparing fund manager performance, the logical metric on which to focus is *net return after fees and taxes.* But by approaching investment strategy with a 'fee budget', investors are eliminating from consideration the very investments that might help them achieve higher net returns.

By way of disclosure, I joined an industry super fund close to its launch, and continue to have *all* of my super managed by the same fund. So I am raising this issue as a member of the industry fund structure. To paraphrase Peter Drucker, that which gets measured gets managed. Wearing my other hat as a principal of a major fund manager, my bias is towards metrics directed at diversifiable, sustainable and net returns, after fees and taxes.

There are of course other costs associated with superannuation, such as custody and administration, to name but two, and we should not confuse these separate issues. To be clear, my comments here are squarely focused on management fees charged by product providers.

The broad conversation on the fees and costs associated with our industry is healthy and welcome. It is particularly positive given the likelihood that future costs of capital, and ultimately asset class gross returns, will likely be noticeably lower than yesteryear's 'CPI++' asset class medium-term returns. Today, even the most optimistic forecaster is struggling to suggest any normalised gross returns above CPI. And if we add health care as yet another future expense needed to be immunised, a likely benign real cost of capital environment proves even more problematic for investors.

My concern, nonetheless, is that as the long term cost of capital and asset class returns remain benign, almost by definition the need to break away from benchmark returns will increase. By committing to a more rigid fee budget, perhaps a consequence is the inability to access a more diverse and less benchmark-aware product pool.

To make matters worse, it appears as though within this low return world comes increased market volatility and uncertainty. In my view, we have migrated from a world of market 'volatility' to one of 'uncertainty'. Whereas volatility can be quantified, market risk and expected returns are becoming all too difficult to quantify. Looking at historical data from similar periods of prolonged market instability – the US in the 1970s and Japan in the 1990s – may give a sense of what this may mean to investors. During these periods, these market indices were ranked fourth quartile within market league tables, even on a net of fee basis.

Closer to home, if one looks at benchmark-agnostic Australian equity funds with truly long term track records, they surely wouldn't exist were they unable to deliver net returns above benchmark. In the Mercer Universe of long-only Australian equity managers over a ten-year period, the median manager has outperformed the index on a net of fees basis. This should appeal to the average fund member. There is also a common misconception that active funds are more volatile than the broad benchmark. It's the benchmark which has shown larger increases in volatility, at least more so than the active manager's net returns.

SMSF asset allocation

Ironically, while fees impact *all* members and superannuants, the focus of the debate has been more pronounced and visible within institutional and industry super funds. We have seen a growing army of individuals opting-out of well-diversified industry and retail funds in favour of their own SMSF. The size and depth behind this growth continues to astound me.

According to recent ATO statistics, the SMSF asset pool is heavily skewed towards cash and term deposits. Even under normal circumstances, let alone within this low return environment, this asset class is least able to fund retirees. When one considers that administration and charges associated with running an SMSF often exceed their *gross* nominal cash or term yield, how 'safe' is cash when immunising future pension income?

Any share allocation which may exist is often directed to a mere handful of blue chip Australian names, and almost zero allocation to offshore investments. In the cases where SMSFs do access actively managed Australian equity funds, it's often through Listed Investment Companies (LICs) where, ironically, management fees and entry charges (the cost of an IPO, for example) can be prohibitive.

Many SMSF holders do not appear to appreciate the extent of the choice and level of control that industry or retail fund members already have in selecting investments. It is individuals' desire for control, combined with a blind spot to the actual costs of establishing and running their SMSF, which has helped fuel the SMSF behemoth.

So we now have a situation where some institutions appear overzealous within their fee budgeting, while at the same time, many individuals almost disregard fees and charges within the continually growing SMSF sector.

Preoccupation with lowest fee options

This focus on fees needs moderation and greater debate. Moving towards *the lowest* fee option may only lock in broad market volatility. Equally, seeking one's independence can often be *the highest* fee option. Either way, my fear is that some will confuse price with value, or more specifically, with value-add.

Fees *do* matter, but they don't matter more than sustainable net total returns (net of fees, taxes, and of course, inflation). It is important to remember that in the long run, the lowest fee option can have the highest opportunity cost.

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Capital management techniques in LICs

Chris Stott

In the last five years, the Australian Listed Investment Company (LIC) sector has grown at a rapid pace to reach a market capitalisation of over $26 billion. The last year alone saw 15 new LIC offerings and total capital raised touching $1.5 billion. LICs continue to be a popular investment choice for investors on the hunt for dividends in an environment where other asset classes have been struggling to provide similar levels of yield.

In October 2014, I wrote an article about why LICs trade at premiums or discounts to net tangible assets (NTA). In the last three years, the overall LIC sector discount to NTA has narrowed significantly, driven by many factors, including the increased popularity of LICs following the introduction of the FOFA (Future of Financial Advice) reforms and the proliferation of SMSFs. There still remains a small part of the sector trading at a discount to their NTAs, and as a result, we have seen the number of capital management initiatives increase compared to previous years.

Two key techniques to narrow the discount

1. Share buy backs

Share buy backs have had mixed success rates over recent decades. While the technique has worked quickly and effectively for some in narrowing the discount to NTA, it has not been the case for others who have seen their buy back programmes prolonged with no or little narrowing and leading to eventual abandonment of the initiative.

Focusing on more recent times, given the proliferation of LICs in the last few years, uncovers some examples.

Hunter Hall Global Value (ASX: HHV) announced on 27 November 2014 a share buy-back of up to 10% of issued capital. At the date of the announcement, HHV traded at a 9% discount to NTA and had been trading at a discount for the last few years, averaging 16% in the last three years. Five weeks later, the discount to NTA had narrowed to 4%, despite the fact that the company had not started implementing its buy back mechanism. In this case, announcing the buy back on its own seemed to have the desired effect.

Premium Investors (formerly listed on the ASX under the code PRV), a LIC part of the Treasury Group, traded at a discount of 15-25% for many years. It had various buy backs of up to 10% of stock under way over some years, which didn't narrow the discount to NTA to the Board's satisfaction. In August 2012, it announced a buy back of up to 75% of stock, citing the discount to NTA over a prolonged period as the main driver. This particular LIC was sub-scale with around $86 million of funds under management and had a sporadic history of paying dividends. WAM Capital Limited merged with Premium Investors on a NTA for NTA basis in December 2012.

2. Dividend policies

Newer but more established LICs trading at a discount to NTA have been providing shareholders with a formal dividend policy and more forward-looking dividend payment information.

In October 2012, two LICs which are part of Perth-based financial services group Euroz Limited, Westoz Investment Company (ASX: WIC) and Ozgrowth Limited (ASX: OZG), announced the payout of a minimum of 50% of realised profits each year and provided dividend guidance for the following two years. Before the announcement, Westoz was trading at a discount to NTA of 36% and Ozgrowth at 34%. This compares to a much narrower discount at the time of writing of 2% at Westoz and 4% at Ozgrowth.

As mentioned, one of the key drivers of the proliferation of the LIC sector is the chase for fully franked dividends and LICs are now becoming more open in providing dividend policies and guidance, which in my opinion will help narrow the discount to NTA.

Funds may liquidate if discounts persist

In the past decade in Australia, we have seen various LICs either wind up or be taken over in M&A transactions, where the discount to NTA has persisted over protracted time periods. The largest incidence of note was Ellerston GEMS Fund which listed in July 2007. It had a proven track record, a strong investment team, a flexible mandate and raised $600 million in the listing. Just over a year later, and despite a strong outperformance of the fund versus the market during the GFC, the discount to NTA widened to a hefty 24%. The company announced that redemption facilities would be put in place for shareholders to realise NTA over a three-year period and that the LIC would be delisted from the ASX. It delisted in November 2011.

Souls Private Equity Limited was a LIC focused, as the name suggests, on the private equity space. In September 2011, parent company, Soul Pattinson (ASX: SOL), made a takeover bid at NTA for the company, which was trading at a 60% discount to NTA prior to the announcement.

Strong demand for LICs but some discounts persist

Even though we are in a 'golden decade' for LICs in Australia, some LICs, particularly the smaller ones, continue to trade at a discount to NTA. More recently issued new LICs which are examples of this include NAOS Emerging Opportunities Company Limited (ASX: NCC), trading at a 12% discount to NTA and Acorn Capital Investment Fund Limited (ASX: ACQ), trading at a 15% discount to NTA at time of writing.

Other factors that we consider to be determinants of trading at a premium or discount to NTA are the liquidity of the stock, the level of marketing by the company or by the contracted investment manager and general levels of shareholder engagement such as direct presentations to shareholders, media exposure and other marketing related activities.

No single method always works

While buy backs have had mixed levels of success in narrowing the discount to NTA, there is no clear evidence that it enhances the share price relative to NTA. In more recent times, some LICs have been providing more dividend guidance and there is evidence to suggest that this has worked for those able to follow this route.

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The potential of smart beta

Jason Hsu

By the early 1970s, finance literature had already documented that the average mutual fund consistently underperformed the market index, net of fees. The literature also demonstrated that a diversified 'market' portfolio would naturally earn a positive equity risk premium without the help of a skilled stock picker. Armed with these academic findings, Paul Samuelson ('*Challenge to Judgement*' 1974, p. 18) challenged investment practitioners to consider creating investment portfolios that track the S&P 500 Index.

Samuelson's short article struck Jack Bogle ('*Lightning Strikes: The Creation of Vanguard, the First Index Mutual Fund, and the Revolution It Spawned*' 2014, p. 42) "like a bolt of lightning". Recounting the early history of Vanguard, Bogle identifies Samuelson's challenge as a major impetus for the creation of the first index mutual fund. Vanguard's low cost index funds, to me, were born out of a deep awareness of the academic literature and a deeper concern for the welfare of the end-investor. Nothing in our industry has so inspired me.

As a champion of smart beta and a spokesperson for Research Affiliates, which regularly debates Vanguard on the definitions of 'beta' and 'index', I am unlikely to be confused for a 'Boglehead'. However, I have the highest respect for Jack Bogle's contributions. In fact, I would love to see the smart beta revolution yield the next wave of low cost investment solutions firmly grounded in academic research and the investor-centric philosophy he championed. However, we're a long ways off from there at the moment and I'm concerned. Let me explain.

The natural conflicts between asset owners and asset managers

It is no secret that investment management firms are profit-seeking organisations relentlessly competing for more assets. Even small investors who are unsure of the difference between active and passive managers know that both are trying to make a living. So, for the record, let's say it loud and clear: investment management is a for-profit enterprise. As such, asset managers and asset owners have a relationship beset with natural conflicts.

Asset owners want fees below 10 basis points (0.10%); asset managers prefer '2% + 20%' (a flat fee of 2% on assets under management plus an additional 20% of outperformance). Asset owners want transparency; asset managers favour black-box opacity. Asset owners want simplicity; asset managers hire rocket scientists to create complex optimized solutions for sex appeal. ('Optimised backtests' sell better irrespective of their actual relationship to future performance.) Asset owners want 'future' outperformance after they fund a manager; asset managers would be satisfied with strong past outperformance to facilitate future asset gathering. Asset owners want a bigger alpha; asset managers would happily sell them the possibility of alpha and charge handsomely for the service of selling hope.

Where does 'smart beta' come in?

So, how does all of this relate to smart beta? Currently, asset managers are arguing heatedly about the right definition for smart beta. Some of our fellow investment managers secretly, and some publicly, hate the smart beta moniker. It's not the 'smart' that annoys them. We all think we are plenty smarter than the market. We simply wish it were called 'smart alpha'. If normal alpha could fetch 'two and twenty', imagine what one could charge for smart alpha!

In fact, the debate about the right definition for smart beta reminds me of a parallel debate in risk parity. The absurdity of the fixation around definition is best captured by the following comment made by a senior investment consultant: "The conversation in the risk parity space is pure nonsense. Every quant manager argues that they have the most correct method for achieving risk parity in a portfolio. No one seems to address how achieving equal risk contribution for securities in an investment product is actually good for the end investor or why it is even relevant." Isn't it time to stop debating the definition of smart beta and focus on the most important question, "What's in it for the end investor when it comes to smart beta?"

The same core yet simple insight that motivated Jack Bogle to launch a capitalisation-weighted index fund has the potential to be a transformational insight for smart beta as well - and that's simply knowing the right question and having the courage to answer it. Given all we know about modern finance, what is best for investors?

When I think about the original index fund, the promise to investors was clear: a transparent, low-cost, low-governance, high-capacity strategy for accessing the equity risk premium through cap-weighted exposure to market beta. For investors who are under pressure to reduce expenses, who have limited resources for selecting and monitoring active managers, who have extremely large assets, or who have lost faith in active management, the first index mutual fund and its many offshoots delivered on that promise. They provided a portfolio that, over the long horizon, outperformed the average active manager (especially on a net-of-fees basis) while requiring almost no attention. No stock stories, no brilliant but idiosyncratic portfolio managers—and no need for the beauty parade that we call manager selection. Emotionally, index investing deprived clients only of the illusion of control, and in exchange for that trivial sacrifice it entertained them with the daily ups and downs of the market as a whole.

Finance theory and knowledge have advanced tremendously since Vanguard launched the first index mutual fund in 1976. We now know that there is more than just the market factor which generates an equity return premium over time. Eugene Fama won the Nobel Prize in Economics, in part, for demonstrating that there are three reliable sources of equity return. Today the Fama–French three-factor model, or some variant of it, is used by nearly every quantitative analyst to examine equity returns. Robert Shiller won his Nobel Prize in Economics for arguing that investors' enduring behavioral biases can generate persistent anomalies in the financial market that can be exploited for outperformance. The literature today is populated by evidence that value, momentum, and the low beta anomaly are rooted in investors' behavior.

Frontier knowledge has changed

Exactly 40 years later, what would a challenge to our industry like Paul Samuelson's mean? The frontier academic knowledge has changed—there are multiple 'betas', not just the market beta, which provide persistent premia over time. But some things have remained the same. Costs always erode investors' returns and skilled stock picking is unnecessary for successfully investing in these alternative equity betas.

I wish for smart beta to be 2014's answer to Samuelson's challenge just as Vanguard's first index mutual fund was the answer in 1974. We know how to design simple, low-turnover, and well-diversified core-like portfolios which access the premia associated with the various known equity return factors. Through the index chassis, which requires systematic and rules-based portfolio construction and thus promotes transparency, we can lower governance cost and reduce investment management expenses. When designed properly, smart beta strategies can be the prime alternative to active management for our times just as cap-weighted index funds served so admirably in that role for the past four decades.

I would be saddened if the allure of gathering assets causes providers to allow smart beta to deteriorate into the deception of 'backtest alpha'. I hope for a far better outcome. I hope smart beta shakes up the business-as-usual world of investment management. I hope smart beta funds pull assets away from closet indexers and the high-load, high-fee active products which survive, through effective advertising, at the expense of investors. Finally, I hope this disruptive new entrant goes on to transport index investing from the one-factor thinking of old to the multi-factor framework of modern finance. That is the promise of smart beta for me as an investor and an academician. As an asset manager, I aspire to deliver on the promise of smart beta just as the pioneers of indexing did 40 years ago for the cap-weighted market beta.

Jason Hsu is Co-Founder and Vice Chairman of Research Affiliates LLC. This article is general information and does not consider the personal financial circumstances of any investor, and readers should seek their own professional advice.

Who'll win in our National Broadband Network future?

Roger Montgomery

As any investor knows, Telstra has long been attractive to shareholders pursuing its high dividend payout ratio. Its reliable cash flow is attributable to Telstra's ownership of Australia's national copper network which comprises the backbone of Australia's telecommunications infrastructure.

Whilst it is possible for rivals to build competing networks, on a national basis it is generally known to be a poor allocation of capital (consider AAPT's performance in the 2000's and into this current decade) and hence competitors generally will only cherry-pick. That is, they will build a network in areas with high population density as opposed to a national network.

This means that for a majority of Australia's land masse, Telstra is the only provider of wholesale telecommunications services. This gives a distinct competitive advantage in more sparsely populated regional and rural areas.

On a retail basis, Telstra has seen a divergence in its market share performance over the past few years depending on whether it is the metropolitan broadband market or regional broadband market. As an example, Telstra's share of the metro broadband market fell from almost 50% in 2006 to trailing below 30% by 2013. In regional areas however, Telstra's market share rose from near 40% and almost hit 80% over the same period.

What is going on?

In metro overall areas, TPG Telecom Limited, iiNet Limited and M2 Group Limited as well as others came into the fray with more affordable offers, more competitive bundling and other goodies. Collectively these three firms grew their market share from about 10% in 2006 to approximately 41% by 2014, taking the lion's share of Telstra's decline.

However, Telstra has little competition in regional areas due to the wholesale costs of the copper network being high and expensive to maintain with low population density to spread the cost over. It becomes difficult for many internet service providers to offer retail plans whilst absorbing these higher wholesale costs. A quick view of iiNet and TPG's performance over time shows both with stagnating market shares at around 12% and 4% respectively. M2 Group's share is almost zero. Naturally this advantage isn't as pervasive in metro and CBD areas where wholesale costs are lower which explains the presence of our three smaller retail service providers (RSP's) above.

NBN will change the cozy arrangement

This cozy dynamic however is set to change. As the National Broadband Network (NBN) rolls out to regional areas and equalises wholesale costs for all RSP's, Telstra's regional broadband market share should deteriorate as competitors are able to compete on an economic basis as they have in metro areas. Estimating the regional competitive landscape post-NBN rollout is difficult, however we would expect a similar market structure to that currently in metro areas, with Telstra's competitors market shares growing.

Naturally this would be a boon for shareholders of iiNet, TPG and M2 Group, but one can go further and speculate on what opportunities exist in metro areas for these three firms. Generally, it's known that Telstra's broadband prices in the metro were high but were made more palatable historically by its high service quality. In an NBN world, however, it's questionable whether this will still be the case. All competitors will likely offer more or less the same quality with the NBN connection, and lower price, more bundling and higher customer service will likely be the real differentiators.

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Why long term investing is not easy

Geoff Warren

The benefits of long term investing were outlined in the previous Cuffelinks article in this series. Long term investors have capacity to access a broader range of investment strategies, in part due to an absence of pressure to deliver short term outcomes. And they can exploit opportunities arising from the actions or aversions of the short term investors who often dominate markets. It all sounds good in theory. This article discusses why it is not so easy to do.

The distant future is hard to predict

While any investment is based on expectations about the future, both the challenge of forming a view and the potential implications of getting it wrong are compounded over longer terms.

Predictions about the distant future can be limited and of low confidence. Errors might simply result from poor analysis or bad forecasting. More decisively, the fundamentals may transform in ways that are hard to anticipate. 'Regime shifts' can occur in the underlying profitability of an industry or company, the economic environment, or market conditions. Financial history is littered with instances where supposedly durable features have been turned on their head. In the 1980s, markets were driven by inflation fears; interest rates were 15%-20%; PE ratios above 10 times were considered too expensive; Japan was the leading economy; there was no internet; and Australian media, building materials and gold companies were all highly prized. Banks were considered uninspiring, low-returning investments. All of this has changed. The people in charge also matter for how investments perform, and they too *will* change. The foundations underpinning any long term investment can shift and you don't want to be on the wrong side.

The cost of getting it wrong

Incorrect expectations can have particularly weighty consequences when investing for the long term. Feedback mechanisms are hazy when expectations relate to a future that will not arrive any time soon. Long term investors who invest on false premises stand at risk of underperforming for a considerable period before the error is fully recognised.

Even once an error becomes apparent, extraction from the position can prove problematic. Often an underperforming investment will continue trading at seemingly low prices at which selling may seem unjustified, even though the initial rationale for the position has disappeared, i.e. it can turn into a 'value trap'. Behavioural forces may come into play. The notion that we are 'investing for the long run' might become an excuse to avoid taking action. (This is one side of the 'disposition effect'.) Further, many long term investments entail commitment. For instance, it can be difficult to trade out of unlisted, illiquid or opaque assets. And if their fundamentals are under pressure, a large haircut may be required to secure an exit. Basically, long term investors who make fundamental errors face the risk of getting 'locked-in' to underperforming positions. In contrast, short term investors more typically invest in a manner that facilitates turning over their positions, including the utilisation of stop-losses. They are less likely to get entrapped.

Staying the course

If a long term opportunity is correctly identified, exploiting it still relies on the commitment and fortitude to sustain the position. Long term investments might initially generate losses that persist for an uncomfortable period. Various forces could act to undermine commitment in such circumstances. Individuals who suffer doubt may be more susceptible to behavioural influences, such as the inclination to herd with the crowd. Fund managers can be placed under organisational pressures to address underperforming positions. Their investors could redeem funds; investment board support could crumble; or colleagues with a differing view may advocate for reversing the position. The managers themselves could get blamed for the underperformance, and replaced. The decision of whether to hold or fold on a difficult position can be tortured, and markets have a habit of creating maximum pressure to reverse course at exactly the wrong time.

Alignment issues within investment organisations

Investment organisations delegate decisions to 'agents' who may not be fully aligned with a long term approach. Investment staff could be operating on shorter horizons than their organisations, or the strategies they are supposed to pursue, as they are managing their own incentives or careers. Remuneration arrangements that are truly long term are rare in the fund management industry, where regular bonuses are paid. Staff may be concerned about promotion prospects, or their own value in the job market.

Many organisations such as superannuation funds outsource to external investment managers, and securing alignment can be tricky. The horizons of external managers are often limited because short term performance determines both the success of the organisation via the link to funds under management. A long term approach is hard to sustain when those making decisions are following a different agenda.

Avoiding the pitfalls

Long term investing must meet the challenge of dealing with long term uncertainty. As any forecast will likely be wrong, the aim is to build robustness into decisions. Three approaches include:

- Invest with a 'margin of safety' between the price paid and estimated long term value
- Evaluate investments against a wider range of scenarios
- Continually test the long term foundations for a position and don't just set and forget.

A further suggestion is to favour positions that arise from the actions of short term investors in the first place. Long term investing is likely to work because the long term is undervalued in the markets, and not because it is easy. When an opportunity can be traced back to the actions of short term investors – such as the presence of forced sellers or buyers, or reactions to transitory influences – then a long term investor might take comfort that they are on to something.

Geoff Warren is Research Director at the Centre for International Finance and Regulation (CIFR). This article is for general information purposes and readers should seek independent advice about their personal circumstances.

CIFR recently collaborated with the Future Fund on a research project examining long term investing from an institutional investor perspective. This series of Cuffelinks articles aims to bring out the key messages for a broader audience. The (lengthy) full report, which comprises three papers, can be found at: http://www.cifr.edu.au/project/T003.aspx

Burma diary: how millions of people make a living

Graham Hand

I recently spent three weeks in Burma (Myanmar). This article does not provide any insights into investing. Rather, it shows how people in many other countries struggle to survive each day, regardless of how much we think the world is becoming more integrated by trade, travel and communications. Only 30% of Burmese have access to electricity, and millions survive on a few dollars a day.

Part 1: the toil of the gravel carriers

I'm sitting on the upper deck at the back of our river boat watching the lives of the people who work on the muddy banks of the Irrawaddy, one of Asia's great rivers. There are four main activities: unloading gravel from long wooden boats; boat repair; ferrying tourists on rides and selling clothes.

The gravel work should make everyone in Australia grateful for their opportunities. A wide and long wooden boat arrives laden to the brim with gravel, dragged from a source on the river. A plank is thrown from the shore to the boat, and then the ant-like parade of effort begins. A small truck with high sides on the back reverses towards the end of the plank, and eight female 'porters' appear in longhis (the Burmese version of a sari) and checked shirts with long sleeves. Each wears a hat, heavily-padded on the top. They carry heavy plastic tubs, not light and flexible but firm enough to hold a load of gravel.

The first woman walks across the plank and throws her tub into the gravel load on the boat, and men spade the tub to overflowing, then two others in the team heave the tub onto her head, balanced on the padded hat. She puts one hand on the tub to steady it, twists and scurries back across the plank, now bouncing under her weight. She competes with the seven other women for a place on the plank.

The sides of the truck are too high for her to lift and empty her load from ground level. Another plank has been laid from the ground to the top of a barrel to form a narrow incline a couple of metres high. She takes a bit of a run to the top of the plank, and with both hands, lifts the load off her head and into the truck. She goes back and does it again.

Back- and neck-breaking work. How long would I last, how many loads? She's a tiny slip of a woman, perhaps a girl, they all are. Is she the one who tried to sell me a T-shirt this morning, the gentle banter of her sales talk proving unsuccessful so a day on the gravel is necessary to avoid going home empty handed? I've been watching for an hour and there's no respite. Sometimes, they queue up on the plank, four or five arriving at the same time, and it bounces, and one loses a load.

Their backs are straight and long and they move on relentlessly. Nobody stops to wipe a brow or take a swig of water despite the hot day. Where's the shirker? Is it a team paid for the entire effort, like a rowing eight, with no scope for slack? Are they selected for stamina and strength, or willingness? They're paid a few dollars a day. How do they set a plan to ensure they are not still carrying tubs of gravel in ten years' time?

Meanwhile, on our boat, as I watch from the comfort of my cushioned lounge chair, most of the passengers have gone on an excursion to see more temples and pagodas. The most common complaint on board is that we simply can't eat any more food - the breakfast is already far more than the muesli or cornflakes we grab at home, and then the soup, salads, main course and dessert for lunch is just too much. At the end of lunch, the dinner menu comes around. We can barely face it, deciding what's for dinner when we're stuffed from lunch.

Down on the bank of the river, the women-ants continue their parade. The gravel in the truck can now be seen above the level of the sides, and relief, the driver hops in and with a massive puff of dirty smoke and raucous blast of the diesel engine, the truck struggles up the gravel-strewn bank. Down on their haunches, the women sit for the first time in at least an hour. For a minute or two. But there's still gravel on the boat. And so the parade begins again, only this time (blessed relief), there's no plank to climb to reach the top of the truck. They carry their load from the boat and dump it in the pile of gravel on the river bank.

Later in the day, the truck will return, and the gravel will be loaded back into the tubs to be run up the plank. Oh dear, double-handling and massive effort. Cheaper to employ someone to reload the gravel than have another truck ready.

A couple of the girls take a wash in the river. It's greeny-brown, not a sewer and not full of litter, but there's no doubt where the effluent and waste along the river goes. I've seen floating turds at times, not many to cause a smell or gather 'on mass', but enough to know that if anyone on our boat fell into the water these girls are cleaning in, they'd rush back to the boat and bathe properly. And worry about their health for a month.

The girls are highly skilled at bathing in public. They walk into the water wearing a longhi and holding a piece of soap. They bathe their head, shoulders, arms, the longhi itself, and probably private parts, as there's a bit of under-longhi action. Then they return to the river bank where a clean longhi lies in a basket, and the new one is carefully rolled into a loop and held over the head. Letting it down, avoiding touching the wet longhi, the new longhi is held in the teeth covering the body while the old longhi is loosened and allowed to fall. The new longhi is then wrapped around the body, and from the river bank, the old longhi is cleaned. Is that it for the day, the only bathing?

The people from our boat return from their excursion, exhausted after another village and three more temples. They're not carrying much this time, unlike earlier visits to the lacquer work factory and the previous day to the silk weavers. Show them the craft work involved, show the months of toil in skills handed down through generations, and the wallets open. The $200 lacquer box is no doubt a top quality souvenir of genuine value, probably taking months to complete the eight coats of lacquer and intricate design work. But pester the same person to buy a carving or painting outside a monument or temple and it will be courteous but hard bargaining over a dollar or two.

Elsewhere along the river bank, a noisy diesel generator has been pounding away all day. It drives an arc welder, wielded by a man in a hoodie working on the side of a large metal boat. No sign of goggles or protective gear, but he does wear sunglasses. How long can eyesight last with an arc light a few feet away. It's now late, going dark, and still he works. Then a hammer comes out and he bashes something into place. Next he grinds, sparks flying brightly in the dusk, before moving along a little and grabbing the welder again. As far as I can tell, he's been doing this since day break. Finally, it's too dark to work and the noise stops. A signal for me to go inside and have my first beer of the day. It's been exhausting, sitting and watching all this work.

Part 2: retail therapy, Burma-style

The river boats bringing in Westerners pull up on the muddy banks of the Irrawaddy all day. From this spot, the Mingun Temple is a short walk away, and as each boat approaches the shore, the ox carts and tuk tuks move along the bank, hoping for custom. Young sailors rush off the tourist boats and drive wooden stakes into the mud, and long ropes are thrown over and tied to the stakes. A gangplank is lowered and the wealth pours off.

There are few young people among the Westerners here. These are expensive river cruises, $500 to $1,000 a night, and the backpackers are not seeing Burma (Myanmar) this way. They are on the back of a bus which costs a few cents to travel across town. No, these are the moneyed retirees, who are seeing Burma because it's in this year's Top 10 Travel Destinations you must see before everyone else. They've cruised Alaska, done the river from Moscow to St Petersburg, Budapest is old news and Africa is a potential new frontier

Down the gangplank they move tentatively, because although have led fit and prosperous lives, often working hard until their families were finally off their hands, they are in their 60's to 80's and the limbs don't move too well. There's plenty of girth. The young Burmese guides help them to land, knowing that their guests will later wash their hands in the knowledge they've been touched by a local.

For many living on the river bank, a day's work involves serving these wealthy people. A young girl is here to meet every ship that arrives, a hat in each hand and another dozen on her head. She hopes for rain or bright sunshine, as hat sales are slow on cooler, dry days. She spots her ideal target - a bald, older man walking alone without a wife to tell him he doesn't need his tenth hat. Suddenly, with perfect timing, the sun bursts through the clouds, and she tells him the hat looks "good for you" and "special deal for you, only $5". He spends more than that on sunscreen, and what about the freckles on his bald patch that he's been worrying about at the moment. He takes a look at the hat, and she registers from thousands of such encounters that she has a sale if she plays it right from here. She knows only a few words of English but they are all she needs. "Sun" she says, pointing skywards with the hat she thinks he will like, and he allows her to put it on his head. It's not a perfect fit, his head is a bit large, she knows exactly where a bigger size is among the pile on her own head. But he shakes his head and says "too much", and of course it's too much, she'll be happy with $2 but he'll pay $3. "OK, this one, better for you, only $4", and its fits perfectly. "$3" he says, and the deal is done.

On a good day, she'll sell 20 hats, give the money to her family, who are all so proud of her. The Westerners think they are good at bargaining, they walk away until the seller becomes so desperate, that the power lies with money. But in a country where a man works a day for a few dollars, the price of a hat is not set on the streets of London or New York.

Along the banks, there is a hierarchy of transport services. The cheapest is the ox carts, simple bamboo wagons with wooden wheels pulled by a couple of Brahmin bulls. They can go closest to the water, over the ruts and stones, and have first dibs on the travellers with the least money. There are no seats, just a dirty mat on a platform. Then the tuk tuk drivers further up the bank, offering the comparative comfort of a covered ride and a seat. They also prefer rain to discourage these intrepid travellers from taking the short hike to the temple themselves. That's the trouble with these visitors to the new frontiers like Burma. They want to do as much as possible themselves, even though they are older than their parents ever dreamed of living. And older than these Burmese are likely to live even now.

Gradually, the groups that left the boats two hours earlier return from the nearby temples and pagodas. More of a straggly group this time, some returning earlier to avoid exhaustion, others tired of yet another religious site, others following the crowd, haggling with the locals. There's the guy videoing everything - quite what he does with hundreds of hours of shaky images when he returns to England is a horrifying thought - "Would you like to see my Burma video?"

Tick that box on that temple, the one that was an attempt by King Bodawphaya in 1790 to build the largest temple in the world but halted after 25 years when he fell sick. It remains unfinished and is probably the greatest pile of bricks in the world, more a mountain than a building.

Now, back on the boat, leaving behind the hawkers and the ox cart drivers, where's my cup of tea and a biscuit? Freshly baked cake, just what I needed. Didn't you love the gold leaf work, how do they hammer the gold leaf so finely for 10 hours a day? And despite having nothing, living next to the cows and all that litter, how happy those little children looked. They just bathe in the dirty river whenever they want. And the whole family lives in that tiny bamboo house, looking after grandma. Don't you just love this country!