



The Fuel of Exuberance and Lessons from Dunkirk

"He's on me." – Collins

"I'm on him." – Farrier

-Dunkirk-

2Q 2017



Heyokha's bullets

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What we have learned this quarter

The Fuel of Exuberance and Lessons from Dunkirk

Can the great escape be repeated?

es, movies again. From *Groundhog Day, Wall Street, Interstellar, Inside Out* to even zombie movies, we have mentioned them all in our previous reports. And here we are, writing about movies again. While previously we used movies to draw parallels to global trends, this time round we have a slightly different angle with war movies.

In addition to seeing all the hardware and action, we are especially attracted to the war genre looking at how the heroes deal with hope and despair. The word is grit and determination. The latest war movie blockbuster "Dunkirk" - another epic movie from the acclaimed director Christopher Nolan- ticked all of these boxes.



The hour between fear and hope, from the movie Dunkirk Source: Time.com

This thrilling movie, with Nolan's trademark use of elastic time, is basically a survival story of soldiers trying to keep it together on their way home while their peers are falling by the dozen, being attacked from the land, the sea and especially the air.

Although not comparable to the horrors of war, we can't help to see parallels with the business world, where disrupted industry incumbents, like retail companies, find themselves in a desperate situation facing continuous raids by innovative (tech) businesses.

heyokha-brothers.com I



Many companies try to save themselves by embarking on digital business transformation projects, but few manage to do so successfully (see appendix III for our blog article about digital strategy). The ones who fail to save themselves may be staring at the horizon in hope of being rescued by the government. But we wonder if authorities can orchestrate another great escape like at Dunkirk.

In <u>our IQ-2016 report</u>, we have written extensively about the expected onslaught of innovation and its political side effects. In this report, we want to highlight the impact of disruptors on investors' fund flows and what implication this has for us as an active investor.

In the following sections, we present two exemplifying cases that imply how money flows require a change of mindset, and lastly, we present an example of an overlooked opportunity for the serious active investor.

"SEAL training was always about proving something. Proving that size did not matter. Proving that the color of your skin was not important. Proving that money did not make you better. Proving that determination and grit were always more important than talent."



-Admiral William H. McRaven Make Your Bed: Little Things That Can Change Your Life...And Maybe the World-



On the subject of grit and determination, the following <u>Ted Talk</u> <u>video</u> by Angela Lee Duckworth is worth listening to. Angela Lee Duckworth is a Professor of Psychology at the University of Pennsylvania. She studies grit & self-control and has made 'grit' the reigning buzzword in education-policy circles.



A lifeline for the cornered active investors

In the world of fund management, it is the active fund managers who are getting a beating from the passive funds in terms of both performance and investor money flows.

Over the 15-year period ending Dec. 2016, 92.15% of large-cap, 95.4% of mid-cap, and 93.21% of small-cap managers trailed their respective benchmarks or closed their funds, according to the S&P Index Versus Active Scorecard¹.

No wonder that the idea of superior active managers seems to be rapidly losing its intellectual legitimacy.

Investors have been voting with their feet.

Numbers vary greatly by source as different definitions are used as to what is an active or passive fund, but all research paints the same picture of money rapidly flowing towards the passive side. Morningstar reported² that in the U.S. alone, equity index funds received \$390 billion in 2016, while their active counterparts saw \$423 billion fly out the door.

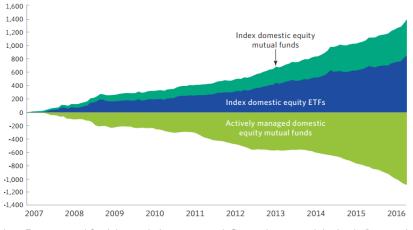
By the end of 2016, about 41.7% of U.S. assets invested in equity funds was allocated to passive funds, up from about 20% in 2007.

According to Moody's definitions, about 28% of all assets under management in the U.S. are passive investments and predicts that passive funds will exceed 50% of U.S. AUM by 2024 at the latest³.

In the fear of underperforming the index, many 'active' investment managers don't dare to stray too far away from the index, thereby effectively transforming themselves into 'closet' indexers which - due to their high fees – are almost guaranteed to underperform passive index funds.

Outflows from domestic equity mutual funds have gone to the ETFs

Cumulative flows to and net share issuance of domestic equity mutual funds and index ETFs, *billions of dollars; monthly, January 2007–December 2016



Note: Equity mutual fund data include net new cash flow and reinvested dividends. Data exclude funds that invest primarily in other funds.

Source: ICI

³ "Asset Managers - Global: Passive Market Share to Overtake Active in the US No Later than 2024", Moody's Investor Service, 2 February 2017

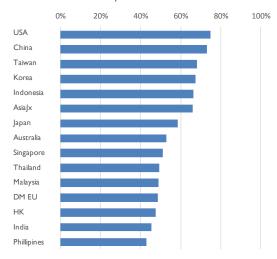
¹ SPIVA U.S. Scorecard Year-End 2016, by S&P Dow Jones Indices

 $^{^{\}rm 2}$ 2016 Global Asset Flows Report, by Morningstar Research, 6 March 2017



Returns concentrated in top 10% stock across the world indices

Return contribution of top 10% stocks to the index YTD 2017



Source: Factset, CLSA

In fact, researchers at the International Centre for Finance at the Yale School of Management - who developed a new measure of active portfolio management called Active Share - found that closet indexers held about 30% of all assets in 2003, compared with almost zero in the 1980s⁴.

The above finding implies that the true pool of funds that is blindly following indexes is even larger than appears from the official fund classifications.

With such high share of uninformed money slushing around, market anomalies are likely to be created. Some⁵ even call ETF's "weapons of mass destruction" that have distorted stock prices, and create the potential for a market selloff.

The reasoning is that if investors decide that there is no need for fundamental research and just blindly purchase index funds and ETF's without any regards to valuation, stock prices will increasingly move in lockstep and disconnect from underlying fundamentals.

An indicator for such decreasing attention to fundamentals could be a recent finding by University of Notre Dame economists.

They learned that, on average, 10-K annual reports filed at the SEC's website by listed firms only get downloaded 28.4 times on the day of- and the day following the filing date.

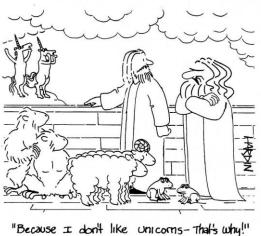
This is an average number that is skewed upward by few highly popular companies. Meaning most companies received even fewer download requests (the median was only 9 downloads).

So, this could mean a lot of stocks are potentially overlooked by a large majority of investors and financial analysts.

Anyway, paradoxically, the more money flows from active to passive funds, the more anomalies and exploitable opportunities emerge for the true active investor / stock picker.

But the question is if a stock picker would be able to capture that mispricing and profit from it.

What would re-rate an undervalued stock if passive money is agnostic about valuation? Well, if we focus on undervalued companies, we believe that over time prices will reflect fundamentals.



⁴ "How Active Is Your Fund Manager? A New Measure That Predicts Performance", by Martijn Cremers and Antti Petajisto, 31 March 2009

⁵ "ETFs Are 'Weapons of Mass Destruction,' FPA Capital Managers Say", Bloomberg, 27 April 2017



Also, in addition to active investors, the company itself can buy back shares and PE firms or management can take the company private if the opportunity is sufficiently attractive.

Overall, we feel the pendulum has swung too far, mean reversion is inevitable. Valuation does matter.

Considering the trends above, we believe there are - and will be - many overlooked investment opportunities for active investors, such as many small and mid-cap EM equities. Yet, for these opportunities to be captured, we believe a change of mindset is required for the stock pickers.

Active managers can generate excess returns, but only if they live up to their name. What does this mean?

Maybe the stock pickers - who feel they are on the beach of Dunkirk - could learn from their private equity peers. In the sense of staying true to fundamental analysis, not fearing companies that get little attention, and daring to take a long-term view.

"In the short run, the market is a voting machine but in the long run, it is a weighing machine."

-Benjamin Graham-

Divergence in valuation, an aftermath of indexing

When looking at the spread of average price-tobook ratios of big cap companies versus small cap companies across several markets, we notice that big cap companies enjoy higher valuations and that this valuation gap is increasing over time.

We are of course aware of the inconclusive "academic" size-premium debate that has been going on since the early eighties. But what is interesting is that the valuation gap has been widening, while we are seeing accelerated earnings growth in the small cap space.

Big cap companies trade at increasingly higher relative valuations, while small cap earnings growth accelerates faster





Source: Bloomberg

EPS growth comparison between small vs. big cap indices





Money flowing from 'bricks' to tech, and back

Talking about the subject of dislocations in the allocation of capital, it is interesting to note that private companies are the ones getting the biggest slice of the funding pie in Indonesia. And rightfully so, because that is the space occupied by the Indonesian disrupters.

Some notable investments made in 2nd half of 2017 are as follows:

- In late June'17, Alibaba injected close to US\$ Ibn into Lazada⁶, the South East Asia B2C ecommerce platform;
- Two months thereafter, Alibaba invested another US\$ I.1bn⁷. This time into Tokopedia, Indonesia's largest online marketplace, similar to Alibaba's Taobao;
- In July'17 Traveloka raised US\$ 500mn⁸ from a group of investors led by Expedia;
- Within the same month, Grab, the Southeast Asian ride-hailing company, raised US\$ 2bn⁹ from Didi Chuxing and Softbank, not long after it raised USD 750mn in Sept'16;
- 5. In August '17, Tencent and JD.com are reported to lead a US\$1bn round into Gojek.

With total funding of US\$ 5.75bn in just two months (July-Aug'17), it is roughly 10x of what is raised by Indonesia public companies 2017 YTD.

Unlike in Indonesia, the U.S. and China, where the tech giants like Google, Facebook, Amazon, Tencent etc. are listed on the stock exchange, Indonesia does not know any listed equivalent so far.

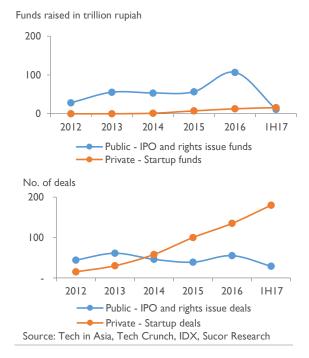
This means that investors who seek exposure to Indonesian disrupters can only do so in the private space.

Fortunately, we have managed to invest in some of the leading tech disruptors in Indonesia.

What's next?

We believe the most interesting development, is that tech companies acquire or form alliances with brick & mortar businesses with increasing frequency and speed.

New issue fund flows in Indonesia are favouring private companies and start-ups over listed firms



The purchase of Whole Foods by Amazon is a good example, just as the many purchases of offline retailers by Alibaba, such as Hema Supermarket.



Alibaba introduces "New Retail Concept" through its Hema Supermarket in Shanghai Source: Alizia.com

 $^{^6}$ "Alibaba ups its stake in Southeast Asia's Lazada with $1 \$ billion investment", by Techcrunch, 28 June 2017

 $^{^7}$ "Tokopedia Dapat Suntikan Rp14,7 Triliun dari Alibaba", by CNN Indonesia, 17 August 2017

 ⁸ "Indonesia: Traveloka raises \$500m from Expedia, East Ventures, JD, others", by Dealstreetasia, 28 July 2017
⁹ "Grab gets \$2B from Didi and SoftBank to fuel bid to defeat

Uber in Southeast Asia", by Techcrunch, 23 July 2017



Looking at these trends, we have no doubt that the same playbook will be applied in Indonesia.

We closely follow and study the Indonesian companies that are potential candidates to be either acquired or to benefit from profitable partnerships with rising tech companies.

As such, we have exposure in a dominant Indonesian mini mart operator. With its 14,000 locations across Indonesia, it is an ideal partner to take on the role as a physical touch point for customers.

There are undoubtedly many more candidates that would benefit from this O2O trend. We will keep our eyes open and continue to follow this closely.



Minimart stores have started to be utilised as a lot of payment point for e-commerce for Indonesia's online travel agency Traveloka. We think this O2O trend is just the beginning.

EMH, real life case

We recently attended the Maybank Bali Marathon and couldn't help but noticing an interesting and recurring phenomenon.



The very adorable local kids cheering the runners

To the credit of the event organiser, a good number of portable toilets was made available to the 10,000+ runners who attended this year.

Oddly, however, we saw some of the portable toilets having very long queues while others seemed abandoned.

Out of curiosity, we asked the people standing in queue around us what was wrong with the abandoned toilets and it appeared that nobody knew the reason.

At the same time, no one was willing to take the risk of losing their spot in the queue only to learn that the abandoned toilets were "undesired" for a good reason.

In contrast to what a believer in the efficient market hypothesis (EMH) would have expected, we found out that the ignored toilets were actually clean and worked perfectly fine.

We have experienced many similar situations in our lives, of course, but time and time again it's just astonishing to see human's tendency to follow the crowds.

But, as the large number of people suddenly queuing behind us showed, it sometimes only takes one contrarian – who desperately needed to take leak - to shift the crowds to the other side...



The overlooked IDR 500tn (US\$ 38bn) opportunity

"Wall Street never changes, the pockets change, the suckers change, the stocks change, but Wall Street never changes, because human nature never changes."

-Jesse Livermore-

The opportunity

The agricultural reforms of Indonesia's current government have been running for about two years now. Many initiatives have been undertaken, with the most notable being the village fund program.

Over the period 2015-2016, some IDR 67.8 trillion¹⁰ (US 5.1 bn) of funds was transferred to the villages under this program. In 2017 alone, the transfer will be around IDR 60 trillion¹¹ (US 4.5bn), and is expected to increase further in the coming years.



Village fund is used to build road in Bayat Village, Klaten – Central Java. This has been a great help for farmers in transporting the harvest crops.

At the same time, critical messages and shortcomings of the reforms have been reported by certain organisations and by the media.

This calls us to take a step back and take inventory of what has been the impact of the agricultural reforms so far, and whether there is a need to adjust our expectations.

We found that despite many shortcomings and room for improvement, the program has yielded impressive tangible results, such as massive infrastructure construction and growing agriculture output.

We feel the government is dealing with shortcomings in a pragmatic way, perhaps starting without a perfect plan, but constantly adjusting course on its journey.



Newly built roads in South Sulawesi (left) and Klaten, Central Java (right) funded by the village fund

In addition, we found that the funds flowing to the villages is multiples higher than just the village funds alone, amounting to about IDR 500 trillion (US\$ 38bn) in 2017, or about a quarter of the total government budget.

With such serious commitment and the noticeable tangible results so far, we cannot conclude anything else than that agricultural reform is in motion and output will surprise on the upside. Attuned active investors would do well to consider this overlooked opportunity.

¹⁰ IDR 20.8 trillion (US\$ 1.6bn) and IDR 47.0 trillion (US\$ 3.5bn) in 2015 and 2016 respectively, according to revised national budgets (Nota Kuantan ABPN-P 2015, Nota Keuangan ABPN-P 2016) published by the Indonesian Ministry of Finance

 $^{^{\}rm II}$ National budget 2017 (ABPN 2017) published by the Indonesian Ministry of Finance



In this section, we first discuss some of the critiques on the reform program, we then form a view on the tangible results and lastly conclude that we may expect further improvements in all drivers of agricultural output.

Lingering doubts vs. happy farmers

Recently the Indonesian agricultural story has become more mainstream with increased media coverage of its spearheads, such as the village funds, the deployment of military personnel to supervise the reform program and the prospects of Indonesia to achieve self-sufficiency for corn and rice.

Yet, as mentioned, besides noting the positive initiatives, the media has also highlighted some shortcomings and controversies.

The main points of criticism can be allocated to three broad topics: (i) fairness of fund distribution across villages, (ii) the effectiveness of spending at the village level, and (iii) supporting statistics that prove the effectiveness of the government's efforts. We discuss these in more detail below.

(i) Funds to be distributed more fairly

In a policy analysis¹² by the Australian-Indonesian government partnership KOMPAK, it is argued that the current formula used by the Indonesian Government to divide the fund across villages does not sufficiently address the differences in characteristics and the needs of these villages.

With 90% of the village funds being divided equally among villages, they argue, disparity among villages is increased.

The Indonesian government seemed to have considered this effect, as the Director General of the Ministry of Finance, Boediarso Teguh, was cited by Antara News¹³ saying that the government will reduce the portion of the funds that is distributed equally among the villages and re-allocate it to the villages that have high poverty rates.

¹² "Policy Analysis : Village Fund and Poverty Alleviation", by KOMPAK, February 2017

(ii) Village spending to be more effective

The main issues with respect to the spending behaviour of villages can be categorised as follows: 1) Poor project prioritisation, 2) Poor technical implementation, 3) Hindrance to spend locally, and 4) Embezzlement of funds. Again, we see that the government has taken note and acted upon it:

I) Government to guide project prioritysation - In line with a 2015 regulation¹⁴ that sets infrastructure development as the first priority for the Village Fund, data¹⁵ indicates that about 84% of the village funds is allocated to physical infrastructure.

Yet, KOMPAK points out that while infrastructure development can contribute to the alleviation of poverty, oftentimes villages build infrastructure which has little impact on the village economy, like the construction of a village gate.

This, they write, is because investment decisions are often not based on the urgent needs of a village/community, but more likely the desire of the village elite or village officers.

To address the poor selection of investment projects, the government reacted by giving strong direction to the priorities of spending.



During our meeting with Minister of Village, Disadvantaged Regions, and Transmigration, Eko Putro Sandjojo, we learned that The Minister has acknowledged most of the problems and has prepared the road map to solve it.

For example, the newly appointed Village minister, Eko Putro Sandjojo now requires each village to build water retention basins in order for these

 ¹³ "Kemenkeu reformulasi dana desa untuk kurangi kemiskinan",
Antara News, 3 August 2017

¹⁴ Regulation of Minister of Villages, Disadvantaged Regions and Transmigration Number 21 of 2015

¹⁵ "Percepatan pembangunan desa", presented by the Minister of Village at 29 May 2017



villages to continue to receive funding in the following years.

In addition, he will categorise each village based on its potential. Those villages that have strong potential in agriculture (82% of all villages, according to village ministry data), for instance, will be guided to spend more on the infrastructure aimed at improving crop production, etc.



Farmers in East Java counting their blessing.

2) Specialists to help with technical implementation - KOMPAK found that the quality of infrastructure built in 2015 was relatively low and not well maintained. Supposedly, this is because villages lack the required technical expertise to specify and plan projects.

The government is addressing this issue by recruiting village facilitators who are helping village governments to execute their new tasks, like writing village mid-term plans, writing reports and organising village projects.

By December 2016, for example, the Village Ministry had already recruited an army of 27,441 village facilitators. While some reports indicate a lack of technical competence with these facilitators, it is still a good start.

3) Hindrance to spend locally: BUMdes to facilitate local spending? - KOMPAK indicated that certain regulations seem to hinder villages from procuring goods and services from the local community.

For example, one regulation requires village treasurers to withhold income tax (PPH) from expenditures, yet local parties often do not have a

tax identification number. Because of this, local parties miss out on fund allocations.

The planned revival of village owned enterprises (BUMdes) is seen as solution to problem by some. These BUMdes can take on formal role to employ local people and formalise the procurement process. It is interesting to watch this space going forward.

4) More watchdogs to discourage embezzlement. In August this year, Indonesia Corruption Watch reported that at least 110 village fund graft cases are being investigated by law enforcement.

These cases involve a total of 139 individuals, 107 of which are village heads, while the rest are village officials and the village chiefs' wives.

In response to embezzlement by provincial governments, the central government has recently changed the payment scheme through Ministerial Decree No. 50/PMK.07/2017 regarding the transfer management to region and village.

Through this regulation, the Ministry of Finance will transfer the funds directly to its branches closest to the village.

In a bid to improve the monitoring of the village funds, the Indonesian government has recently appointed the former Corruption and Eradication Commission (KPK) deputy chairman Bibit Samad Rianto to lead a newly-established Village Funds Task Force.

According to the government, there are now no less than nine parties involved in monitoring the village funds, including both government and nongovernmental organisations, communities and the media. This indicates that serious efforts are made to ensure the funds are not being misappropriated.

We must admit that such massive spending in villages is indeed obviously prone to corruption. Naturally, a few people will not be able to resist the temptation to enrich themselves.

Yet, while the 139 individuals under investigation may only be the tip of an iceberg, it must be placed into the context of funds flowing to about 75,000(!) villages.



Assuming every village has one head, this equates to only 0.2% of all village heads. In the Indonesian context, that is a big achievement.

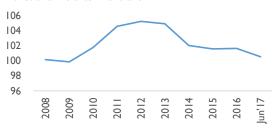
(iii) The right statistics show successful reform efforts

Data from the Indonesian Statistics Agency BPS suggests that the share of people below the poverty line in rural areas has not changed much between Mar-2014 and Mar-2017, hovering around 13.8-14.2% of the rural population.

At the same time, the Farmers Terms of Trade show a deteriorating trend. These statistics give rise to doubts about the effectiveness of the agri reform programs.

Statistics that give rise to doubts about the reform efforts

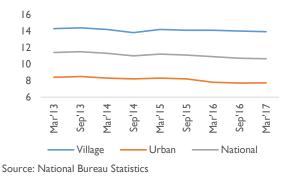
Indonesia Farmers' term of trade



Note: Index crops price received by the farmers divided with index cost of production paid by the farmers

Source: National Bureau Statistics

Percentage of poor people in Indonesia



Yet, it should be noted that the surge in infrastructure spending was primarily funded from phasing out fuel subsidies.

People feel the higher fuel prices directly and immediately in their pockets, while the gains from increased productivity will only follow once the infrastructure projects have been completed and become fully operational.

As such, improvements in poverty levels may be expected to take some time to fully present itself in national statistics.

With respect to the Farmers Terms of Trade, we explain on the next page that it can be dismissed as a metric to measure the effectiveness of the reform programs. Something that is also recognised by certain government agencies¹⁶

To get an impression of the success of the reform program, we rather speak to the beneficiaries themselves: the farmers.

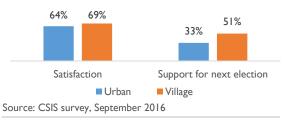
Our site visits have consistently confirmed the success of the reforms, as we have seen the development works at first hand and have heard many success stories from happy farmers and village heads alike.

How does a failing policy explain growing satisfaction among farmers?

Also, as we highlighted in <u>our Q3-2016 report</u>, a survey by the credible political think tank CSIS shows that Jokowi's approval rate and satisfaction about the government programs are highest among farmers across all occupational categories.

Jokowi approval rating based on area

As percentage of total respondent



Likewise, SMRC surveys show that the majority of the respondents consider the village fund program

"Farmers' Terms of Trade: The Concept, Estimation, and Relevance for Farmers' Welfare Indicators" by Muchjidin Rachmat, 2013

¹⁶ The Indonesian Center for Agricultural Socio Economic and Policy Studies published an article about this topic, mentioning its shortcomings as a measure for farmers' welfare. See



Jokowi approval rating based on occupation

As percentage of total respondent



Source: CSIS, September 2016

Public satisfaction toward government program based on occupation

As percentage of total respondent



Source: CSIS, September 2016

to run well in their village, and more importantly, satisfaction increases over time.

If the government is announcing big reforms in agriculture, but the farmers were not seeing the results, you can bet they wouldn't be happy about it. Pure and simple.

Summarising this section, it must be recognised that the government reform program is not without its shortcomings and that its results may not be immediately evident in statistics.

But, what we admire is that the current government is constantly fine-tuning its operations by reacting on the shortcomings noted in the field.

And in the field, the positive effects of the governments programs are non-mistakenly present. In the next section, we will show that the reform programs have indeed shown considerable process, and that efforts have been way more significant as generally appreciated.

Farmers Terms of trade, a misused statistic that does not measure farmers' income

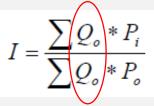
According to the critics, a decline in terms of trade would indicate that farmers' economic position is deteriorating and thus that the reform program is ineffective.

While such conclusion might be an intuitive one, it's not necessarily the right one.

This is because the terms of trade as calculated by the Indonesian Statistics Agency BPS only signals the relative development of input and output prices, but tells nothing about sales quantity and input quality.

As such, it may not say much about farmers' income either. Let us explain.

Farmers' output and input price index is calculated based on Laspeyres price index, the formula is as follow:



Qo means the quantity is a constant factor hence increase in crops harvest does not affect the index.

For example, due to larger supply, a year with a good harvest may yield lower average sales prices as compared to the previous year.

This sales price decline would deteriorate the terms of trade. Yet, due to the higher quantity sold, the good harvest is likely to bring in more money for each farmer as compared to a bad harvest sold at higher prices due to shortage of supply.

Also, the terms of trade measure says nothing about the quality of the inputs. For example, the adoption of higher quality inputs - such as the more expensive, but higher yielding hybrid seeds - may increase input costs.



This would deteriorate the terms of trade. Yet, the higher production yields following the use of these higher quality inputs are not captured in the terms of trade calculation.

We believe the efforts made by the government are primarily aimed at improving the three drivers of production: the surface used for agriculture, yields per hectare and the number of plantings per year.

The terms of trade captures exactly none of these drivers. As such, we may quickly dismiss the usage of terms of trade as a suitable measure to assess the effectiveness of the government reform efforts in the agricultural sector.

BPS and The Indonesian Center for Agricultural Socio Economic and Policy Studies are fully aware that this metric does not measure farmer's income and they are taking steps to improve the methodology to account for this.

Government's commitment to agri reform much higher as anticipated

In previous paragraphs, we discussed the village fund transfers as a driver of prosperity. Yet, this quarter we learned that the total funds flowing to villages from both the central and local governments are much larger than the village fund transfers alone.

This information is not apparent to most people, given that money flows to villages do not only come directly from the village fund transfer budget, but also indirectly from the budgets of the various ministries and local governments. The budgets of the latter are generally not easily available.

Luckily, Heyokha team is not easily deterred by lack of data availability. We reached out to individuals with good knowledge of government budget classification. Combining this access with many hours of work, we were able to figure out what we believe is a good approximation of an aggregated budget, giving insight in the total funds flowing to the villages.

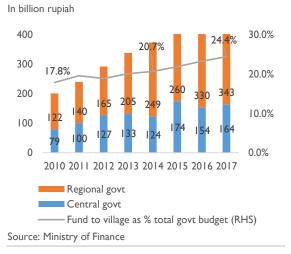
It appears that these flows are really substantial in Indonesian context, amounting to some IDR 508 trillion (US\$ 38bn) in 2017. This is 8.5 times as high as the well-publicised budget for village transfers itself!

Looking at the historical development of the aggregated budget, we see that it has been hovering around 20% of the central government budget up to 2014, after which it increased consistently each year up to 24.4% in 2017.

In absolute terms, the budget increased with a punchy IDR 135 trillion (US\$ 10.2bn) after 2014.

Moreover, we know that so far about 84%¹⁷ of the village funds and a significant part of the ministry budgets¹⁸ have been allocated to physical infrastructure, as opposed to one-off consumption boosts.

Aggregate budget of central and local governments pouring into the villages



Thus, in our view the surge in government spending in the villages must eventually have a substantial and lasting impact on productivity levels and prosperity.

¹⁷ "Policy Analysis: Village Fund and Poverty Alleviation" by KOMPAK, February 2017

¹⁸ Large budgets for investments in irrigation networks and dams were portrayed in a presentation titled "Bahan informasi rencana

program dan kegiatan di pulau Jawa, Bali, dan Nusa Tenggara TA. 2015", by Ministry of Public Works and Public Housing, December 2014



Progress is tangible and cannot be denied; done is better than perfect

Update by minister shows tangible results

In a presentation by the Village minister at an event organised by the Indonesian investment bank Sucor Sekuritas, a case was made for why the village funds transfers are making an impact. He reported:

<u>I. More transparency</u> - the number of villages that meet compliance requirements aimed at ensuring spending transparency has increased from 60.4% in 2015 to 91.8% in 2016. This is expected to further detract from the temptation to embezzle funds.

2. Improved development stages - a new metric adopted by the Village ministry that indicates the development status of villages (a five-stage scale, with "Very Disadvantaged" being the worst category and "Independent" being the best category) shows that the number of villages classified as "Developing" or better, has increased from 43.4% of all villages in 2015, to 64.2% in 2016.

As it appears, this seems like a major positive shift.

Table: Many villages have levelled up in development status

	Village status	2015	2016	Cł	nange
\odot	Independent	0.1%	1.7%		1.6%
1	Developed	4.9%	15.8%		10.9%
	Developing	38.6%	46.7%		8.1%
	Disadvantaged		29.8%		
8	Very disadvantaged	13.0%	6.1%	-6.9%	
	Total	100.0%	100.0%		

Source: Presentation material by Minister of Villages

<u>3. Lots of new infrastructure</u> – the adjacent table lists the sheer number of infrastructure projects that have been undertaken using the village funds.

The results are astonishing. Just to provide some perspective, if all roads constructed in Indonesia during the last two years were connected, it would be long enough to circle the entire earth, twice! Table: village fund resulted in massive infrastructure-development

22,942	66,884
	00,004
234	512
255	686
4,791	12,596
3,421	10,657
3,005	11,296
	255 4,791 3,421

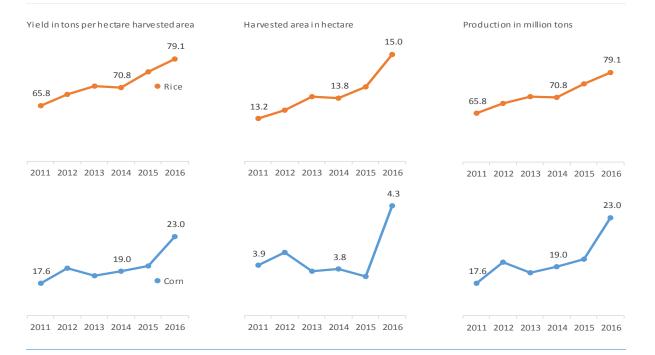
Source: Presentation material by Minister of Villages

Production output continues to advance

As the main efforts of the village funds and other agri-reform initiatives are aimed at improving the output of the agricultural sector, one should not forget to look at the actual production volumes when trying to assess the success of the reform program.

The graphs (on the next page) show that production volumes for Indonesia's two most important farming commodities, i.e. rice and corn, have shown excellent improvement on the back of growth in harvested area and improved yields.





It is hard to argue against this improvement shown below

As production data is not always consistent across different sources, we also looked at typical inputs for farming activities as alternative indicators of production.

Options to look at include the use of seed, fertiliser, and pesticides. We believe that pesticide consumption represents the best proxy for farming activities, as it is least prone to substitution effects.

For example, commercial seed purchases can be substituted by seeds grown by farmers themselves, while commercial fertilisers can be substituted by organic waste.

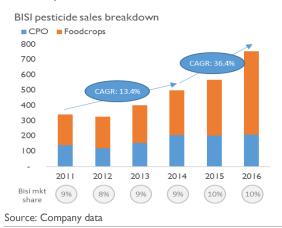
For pesticides, however, there are hardly any substitutes. Homemade organic pesticides, for example, are barely scalable and too ineffective to save one's farmland from becoming an all-you-caneat buffet for insects and pests.

Thus, in our view, pesticides sales by commercial producers should be a fair proxy to indicate production trends in farming activities.

When looking at pesticide sales of BISI, one of Indonesia's major suppliers in this segment, it shows that pesticide sales in regions dominated by food crop production have been growing significantly since the start of the agricultural reforms.

Production growth data supported by pesticides sales levels

In billion rupiah



Given that the BISI market share in pesticide sales has remained stable, it should be safe to assume that the pesticide market has been growing resiliently.



As both production statistics and relevant agricultural input statistics point at accelerated growth after 2014 - the last year of the former governments rule - we feel confident to conclude that the reform efforts of the current administration are having a significant positive impact. Therefore, we expect that the continuation of the reform program is to drive production growth going forward.

Looking at the future: boost of production drivers could double production

Now we have validated that the agriculture reforms are having an impact, we can continue to look at the future.

The math is simple: {Production in tons} = {hectares used for agriculture} x {Yield in tons per hectare} x {# of plantings per year}.

And all drivers of this equation are to be structurally increased on the back of government driven initiatives, including funds of IDR 508tn (US\$ 38bn) to be disbursed in 2017 alone! Let's look at the potential.

Driver I: Agricultural land to expand



New corn planted area in Desa Molamahu, Gorontalo province - Indonesia

It is estimated that for the next twenty years an area the size of Mongolia is expected to be converted by global urban development.

While there is no doubt farmland on Earth is continuing to shrink, Indonesia is one of the places fortunate to be blessed with a huge landmass.

As described in our appendix II "No title No Glory", the Indonesian government is to redistribute assets and further reform the agrarian sector.

The government will begin distributing concessions to the (indigenous) people, cooperatives, and Islamic schools, as well as distributing land certificates to communities.

The size of the land that is to be redistributed is staggering. Currently, the Environment and Forestry Ministry, and the National Land Agency are respectively earmarking 12.7 million and 9 million hectares, to support the program.

To put this into perspective, the total land to be redistributed, i.e. 21.7million ha is even bigger than the current total paddy and corn harvest area combined (19.3million ha).

If we conservatively assume that, say, 25% of the redistributed land would be utilised for agriculture and could be planted at the current planting index of 1.4x per year, this would increase the food crop harvested area by about 39%.

Driver 2: Yields to increase



Hybrid corn seed distributed by the government is planted in Gorontalo, Sulawesi Indonesia

The ongoing government support for better seeds (hybrid seed adoption), pesticides and fertilisers will continue to drive yields.

We admit these factors may be less structural, as the use of these inputs may decrease when government support is reduced.



Yet, the impact of better irrigation *will* be structural (more below) and we also believe that once farmers know the potential of hybrid seeds, most will not switch back.

Assuming corn yields could be improved from the current level of 5.35MT per hectare to 6MT per hectare, while keeping conservatively rice yields flat, this would increase yield by a factor of 2%.

Driver 3: Farmers to plant more often

The number of plantings that farmers can achieve in a year is highly dependent on the availability of water. This explains why access to water plays an important role in the reform program.

Of the mentioned IDR 500tn (US\$ 38bn) support mentioned earlier, some IDR 51tn (US\$ 3.8bn) is earmarked for public works, such as irrigation networks.

Given that no less than two-thirds of the Indonesian villages have insufficient access to water retention basins, the government expects that a successful implementation could improve the average Indonesian planting index from 1.4x to 1.9x per year.



Irrigation construction in South Sulawesi will help the farmers to enable them to plant more often.

This development alone, would increase the current food crop harvested area by 36% from 19.3 million ha to 26.3 million ha. This is an area about the size of Ireland!

The combined effect: double production

Current food crop harvested area stands at about 19.3 million ha. When multiplying this with the combined effects of land redistribution (1.39x), planting index improvement (1.36x) and yield improvements (1.02x), we arrive at a factor of 1.94x, meaning Indonesian food crop production has the potential to almost double!

In monetary terms, this would equate to an IDR 358tn (US\$ 27bn) addition to the current annual production level of food crop output.

If this additional revenue would be evenly distributed among the 20.4mln food crop farmers, it would lift the income for each farmer above the Indonesian poverty line. If that is not believed to have an impact, then what has?





Heyokha on the ground: Kalimantan, Borneo

Our off the beaten track tradition, taking it to another level. A memorable trip to untamed forest in Kalimantan.

Spending a lot of time in cities and farmlands, Heyokha team thought it was time to take it to the next level: we made a trip to the tropical forest area of Mahakam Hulu in East Kalimantan, Borneo.

Besides the things we learned during the trip that are relevant for our business, we witnessed wild life in its purest form.

We believe we saw the awesome Malayan Porcupine, Rhinoceros Hornbill, Oriental Pied Hornbill, Black Spitting Cobra, Brahminy Kite and, to less high profile - but nevertheless as fascinating - stick insects, giant ants, leeches (sticking to our legs), loudly buzzing insects, and many type of frogs. While the whole experience was astonishing, it was also very exhausting as most of the trip was made over bumpy muddy paths, either by four-wheeldrive or on foot...

We think that if the infrastructure was better developed, this rain forest trip could easily be one of the most popular excursion trips in the world.

Anyway, on a more serious note, the trip enabled us to confirm with locals that the government's objective to redistribute idle land to the people is already in progress. In addition, we came across the vast assets of a forestry company that may be interesting to look at. We will elaborate more below.



Jungle night trekking, from anxiety to serenity

Mud-drenched clothes, legs covered by leeches, it didn't seem to matter anymore after the darkness fell in the jungle. It was pitch black, and only where we pointed our flashlights could we anxiously try figure out what we were seeing.



We heard cracking sounds in the dense vegetation around us. Was it coming for us? One thing is for sure, in the dark our mind is impeccable at seeing things that are not there.

This didn't seem to apply to our Dayak guide though, who effortlessly led us over slippery mud paths and deep canyons.

How much longer? We asked him. Oh, it's just a cigarette smoke away now, he replied. Good, good... Three (!) hours later, we made it to the waters. It was then, when we reached the center of the serene, that we realised the Kalimantan Jungle was like a treasure in the deep sea, a beauty in the darkness...

Land redistribution started

As we wrote earlier in this report and in our blog "No title No glory", the size of idle state-owned company land that is to be redistributed to Indonesian farmers is staggering.

Currently, the Environment and Forestry Ministry and the National Land Agency have each earmarked 12.7 million and 9 million hectares respectively to be redistributed.

We further wrote that, to support the redistribution of the land, the government planned

to introduce the draft land bill (the first bill to support the Agrarian Law) into the House of Representative in the first week of June 2017 for deliberation.

The bill would provide legal certainty on land rights such as the right to use (HGU) and rights to build (HGB) and to introduce new concepts such as rights to the earth below a plot of land called subterranean rights.

June has passed and the bill is still under review and expected to be passed later this year. In practice however, the government is already redistributing land, we found out.

During the long trip through Borneo, all the way up to the Malaysian border we met military personnel who were being deployed to watch the border between Indonesia and Malaysia.



Army personnel near Indonesia – Malaysia border, virgin forest area Borneo island.

Both the army and local people were telling us that in the border area, farmland is actively being converted to prevent loss of land to Malaysia as happened in two small islands.

A win-win solution that strengthens border protection and creates income for farmers.



Another Dunkirk Style Survivor?

Part of our exciting trip was hosted by the Indonesia's largest integrated forestry company. This allowed us to visit their 800,000 ha natural forestry concession area and to stay in their humble camp in the middle of the Borneo rainforest.

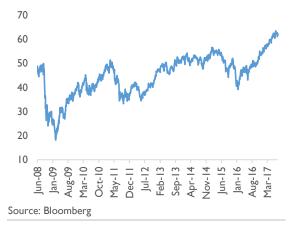


The company is operating in an extremely challenging landscape.

Other than enjoying the astonishing view, we also learned about how the company - active in a heavily regulated industry - managed to survive amid a bombardment of export bans, declining timber prices and hundreds of social and environmental issue cases.

The log & export ban imposed by the government together with a decline in timber prices has turned operational cash flow negative resulting forced them to suspend their operations temporarily.





WOOD US Equity, US\$ per share

After a long negotiated debt restructuring, the business now seems to be back on track. This makes us wonder if this timber company could be "Another Dunkirk style survivor" especially after seeing iShare global timber ETF making a new high vs. the current distressed valuation of the timber company.

It also supported by the architecture trend moving back towards wooden materials as reported by FT^{19} . For practical reasons: timber is beautiful, lightweight, and (learning from our trip to Kalimantan) actually sustainable.



Cross laminated timber (CLT) is expected to stage a comeback for timber as a building material for construction. Source: FT

Furthermore, we start to see the "reinforcement" through the plans of the U.S. government to impose import duty on Chinese and Canadian exports (the largest timber exporters in the world) which is expected to increase timber prices in the U.S, the main export market for our timber company.

We will continue to monitor the development very closely.

Enjoy reading our reports? Check out our <u>website</u> for more!

-The End-

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 $^{^{\}rm 19}$ "Timber advocates reach for the skies", by FT, 15 May 2017



----- Appendix I -----

Nearing corn self-sufficiency, but demand goes beyond borders

Some fear that the current race towards selfsufficiency would lead to an over supplied market.

With last year's corn production increase of 3.4 million tons and imports of only 0.9 tons, a fast conclusion would indeed be that Indonesia is about to achieve corn self-sufficiency in 2017.



Indonesian corn import, in million metric ton



Source: US Department of Agriculture

We argue, however, that self-sufficiency is further away as it may appear, and that the market for corn is not limited to the domestic market only.

The reason why we think that corn self-sufficiency is a bit further down the road, is because our understanding from feed millers is that part of the "real" demand for corn is currently being substituted with other commodities (such as wheat, soybean, and sorghum) due to a shortage of supply.

For example, the USDA reported²⁰ that - due to import quota imposed by the Indonesian government - about one million tons of wheat was imported by Indonesian feed millers in 2016 to fill the gap between the supply and demand for corn.

Indonesian wheat consumption for animal feed

In million metric ton 0.15 0.15 0.17 0.17 2011 2012 2013 2014 2015 2016 Source: US Department of Agriculture

²⁰ Indonesia Grain and Feed Update July 2017, USDA

This would mean that in 2016, the demand for corn was at least 1.9 million tons in excess of production (being the 0.9 million tons of imports, plus 1.0 million tons of substituted demand).

From this we may deduce that self-sufficiency is more likely to be achieved around 2019, assuming the animal feed industry maintains its current growth path.

However, there is no need to assume that the domestic market is the limit. On the contrary.

We learned from our recent trip to the province of Gorontalo in Sulawesi, that the province has been exporting corn to the Philippines (which is just about 700km north to Sulawesi, much closer than Jakarta which is about 2,000km away).

Asian countries are massive importers of corn. Yet, corn exporters located far away from Asia

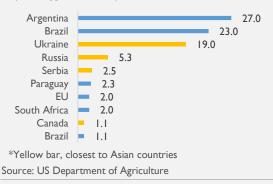
Asia corn import in million metric ton



Southeast Asia East Asia

Source: US Department of Agriculture

Top 10 biggest corn exporter in million metric ton





This speaks volumes about the competitiveness of the Indonesian corn industry.

The reality is that Asian countries have been recording massive corn deficits for years in a row and have primarily relied on imports from South America to satisfy their demand.

Importing from such a distant location makes for steep logistic costs. These amount to some USD 80/ton, increasing the landed price for corn to about USD 237/ton (based on USD 4.00/bushel).

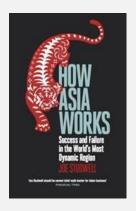
This is actually comparable to the Indonesian domestic corn price of USD 235/ton. So, it's very much possible that Indonesian corn can be offered at competitive prices within a certain geographical range, potentially including most of the ASEAN countries.

Once Indonesia has tackled the challenge of securing corn self-sufficiency, the opportunity to export awaits.



----- Appendix II ------

No Title No Glory



In our fourth quarter 2015 report, we referred to a book titled "How Asia Works" by Joe Studwell. In this insightful book, the author pointed out that with most resources often being concentrated in agriculture, this sector offers poor countries the most direct and immediate opportunity to increase economic output.

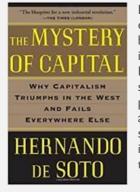
Yet, (concentrated) land ownership by landlords is often preventing tenant farmers from creating wealth for themselves.

For this reason, it is important that land ownership is not too concentrated and that farmer can obtain legal title to the land they farm. Besides increasing farmers' income, this has also proven to increase production output.

In addition to having a better sense of ownership, farmers can use the legal title to their land to obtain funding for production inputs such as seeds, fertilisers, beasts of burden and machinery.

In return, enabling farmers to create wealth initiates a virtuous circle such as higher productivity, higher consumer good demand, better trade balance, and more room for industrial investments.

The importance of land ownership is also stressed in the book "The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else" written by the Peruvian economist Hernando de Soto.



However, de Soto's extensive research (block by block and farm by farm) in Asia, Africa, the Middle East, and Latin America suggests that most of the poor already possess the assets they need to make a success of capitalism. Even in the poorest countries, the poor save money.

Yet, they hold these resources in defective forms: houses built on land for which ownership rights are not adequately recorded, unincorporated businesses with undefined liability, industries located in areas where financiers and investors cannot see them.

Because the rights to these possessions are not adequately documented, these assets cannot readily be turned into capital, cannot be traded outside of a narrow local circle where people know and trust each other, cannot be used as collateral for a loan, and cannot be used as a share against an investment.

The world outside the West lacks the representational process that allows every parcel of land, every building, every piece of equipment, is represented in a property document.

This is the sign of vast hidden process connects all these assets to the rest of the economy. They have houses and land but no titles; crops but no deeds; business but not statutes of incorporation.

It is the unavailability of these essential representations that explains why many parts outside the West have not been able to produce sufficient capital to make their domestic capitalism works.

Indonesian government making crucial steps in support of farmers

The administration of President Jokowi appears to agree that agriculture and land reforms are an important stepping stone to Indonesia's transformation, as the Indonesian land reform program is about to gain momentum.

We have been writing extensively about the agrarian and farming reform programs as being one of the key pillars for the Jokowi administration.

According to data from the Indonesian Coordinating Minister for Economic Affairs, at least 5 million farmer households left the agricultural sector between 2003 and 2013.

These people moved to jobs in the informal sector, working in urban areas and abroad. Many farmers who remain in the agricultural sector either own relatively small plots of land or have sold all the land that they owned. This resulted in a low rate of land ownership among the farmers.

President Jokowi is about to redistribute assets and further reform the agrarian sector. The government will begin distributing concessions to the (indigenous) people, cooperatives, and Islamic schools,



as well as distributing land certificates to communities.

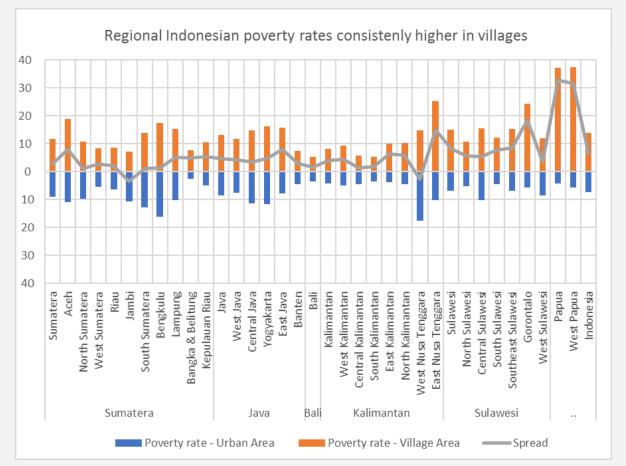
The size of the land that is to be redistributed is staggering. Currently, the Environment and Forestry Ministry and the National Land Agency are respectively earmarking 12.7 million and 9 million hectares, to support the program.

To put this into perspective, the total land to be redistributed, i.e. 21.7million ha is even bigger than the current total paddy and corn harvest area combined (19.2mn ha).

Assuming that all the distributed land will be used to plant rice and corn, the wealth creation would be around some US\$ 40 billion (4.6% of Indonesia GDP), just from agriculture output alone. In support of the land redistribution scheme, the national land agency (BPN) under the Agrarian and Spatial Planning Ministry aims to issue 5 million land ownership certificates this year, while the goals for 2018 and 2019 are 7 million and 9 million certificates, respectively.

They have issued about 250,000 land ownership certificates per May 2017. If this program will be executed according to plan, all the land in this country will be registered by 2025.

To support the redistribution of the land, the government plans to introduce the draft land bill (the first bill to support the Agrarian Law) into the House of Representative in the first week of June 2017 for deliberation.



Note: In general, poverty rates are significantly higher in villages as compared to urban areas (14% in village vs. 7.4% in rural). We think that income inequality can be reduced by agriculture and agrarian reforms.

Source: Ministry of Village, Disadvantage Region, and Transmigration



The bill would provide legal certainty on land rights such as the right to use (HGU) and rights to build (HGB) and to introduce new concepts such as rights to the earth below a plot of land called subterranean rights.

With the land redistribution program and agrarian reforms, President Jokowi provides a way for people to provide secure collateral to the banks.

Heyokha has validated the progress on the ground...

Our post sell-side experience gives us a new meaning to the words "off the beaten track". We trust that embarking on a journey of discovery and getting our feet dirty provides us with unique firsthand experiences. This allows us to discover new ideas or angles for our investment thesis.

During our trip to West Nusa Tenggara province in Indonesia in the third quarter of 2016, for example, we witnessed how the regent of Dompu (in West Nusa Tenggara), Bambang Yasin, embarked on a program to allow farmers to convert "forest land" into farmland so that they can plant corn.

Together with a pro-farmer infrastructure build-up, the corn planting program transformed the poor Dompu into a high growth area. With this corn-belt program, the poverty rate was reduced from 23% in 2010 to only 12% in 2015. Click here for our 3Q 2016 report.

Moreover, during an earlier trip to the fishing villages in Kendal, Central Java, we learned that the Jokowi government has been speeding up the process of granting land certificates to the fishermen as well.

...and we have high expectations about the results

We also learn from attending a recent presentation by the Minister of Villages, Disadvantaged Regions and Transmigration, Mr Eko Putro Sandjojo that 82% of the villages in Indonesia rely on agriculture.

After providing a lot of supports for farmers, the government is now working on the crucial part of the agri puzzle, i.e. access to land and legal title of the land. We expect this to translate into better capital formation and increasing farmers' productivity.

The Dompu case described above is a good proof of concept to significantly increase employment and wealth. Copy and paste this across Indonesia and imagine what can happen.



----- Appendix III ------

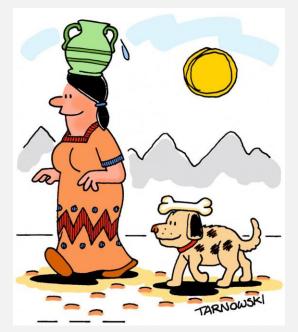
An app alone is not a digital strategy

Heyokha team recently attended the CIMB 11th Indonesia Conference. Admittedly, the venue of the event in Bali is a big pull factor, for obvious reasons.

Yet, we also found out that despite Bali's distractions, the fact that we were being away from hectic Hong Kong or Jakarta helped us to focus and think better. This enables deeper thinking (we discussed this topic in our Q12017 quarterly report).

One key takeaway from the conference, after series of meetings with corporates, is that we noticed how the incumbent businesses are trying hard to embark on - what they believe is a - digital business transformation (DBT). In general, we think the DBT has not been easy for the incumbents.

Before we discuss some examples from these meetings, we would like to point out that a recent McKinsey survey has both the good news and the bad news for the incumbents and their DBT journey.



Imitative innovation unlikely to solve problems in the best possible way

Let's start with the good news. Only 35% of companies' revenues globally are digitised. This means incumbent companies across different industries still have time to act. The bad news? While 90% of companies indicated that they are engaged in some form of digitalisation, only 16% have responded with a bold strategy and at scale. The study also found out that incumbents often respond to disruption forces by engaging in "imitative innovation".

Back to the takeaway from the conference, one common "imitative innovation" that we observe during the conference is that many incumbents talked about their apps as a way to embark on DBT.

One auto part company that is part of a big conglomerate is a case in point.

This spare part company tried to justify their app by stating that in some cases, their app will help those whose car battery goes flat in the parking space. Just go to their app, and a new battery will be sent your way.

While we appreciate the thought, we recognised two immediate challenges with this approach. Challenge number one is that to increase the innovator's odds of success, the app should be able to connect the user's problem with a company's solution frequently enough to form a habit.

While flat car battery is annoying or even dangerous, depending on this flat battery situation means a contact with the app once every few years? We can't even remember the last time we encountered a flat battery situation.

Challenge number two, when facing a dead car battery situation, a customer still has an option to just make a phone call to order a new battery.

It appears that the app theoretically solves the problem, but the effort of installing the app while waiting alongside the road is less convenient than just making a simple phone call (to the same company!). More thought is definitely needed for an app to form a daily habit for car owners.

Also, interesting to notice that this auto part company, with their retail and "digital strategy", opts to sell their merchandise at higher prices than in mom and pop stores. This is in contrary to Jeff Bezos' disruption philosophy "your margin is my opportunity".



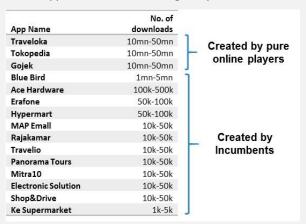
Unfortunately, this spare part company is not unique in employing a half-baked app strategy. For example, a smartphone retailer/distributor was telling us that only 3-4% of the smartphones in Indonesia are purchased on-line, so according to them e-commerce is not really posing a threat.

We think the opposite. Precisely because online smartphone only accounts for 3-4% market share in Indonesia (as opposed to China, about 56%), the incumbents need to be very prepared.

There is a huge room for online start-ups to grab market share and they are trying very hard, 24/7 not 7-Eleven style.

Many incumbents in the disrupted industries such as retail, leisure, and transportation have launched their app as part of the DBT strategy but the number of downloads is minuscule in comparison to app download for pure Indonesian tech start-ups.

No. of app downloads in the Google Playstore



Note: digital companies are way better at getting their apps downloaded. The app of taxi company Blue Bird was popular compared to those of traditional companies, obviously very decent although nowhere close to the tech companies such as Go-Jek.

Among the names above, only leading taxi company Blue Bird who get more than 1mn download on their app. It is worth noting that despite this respectable achievement, Blue Bird still feels the need to form an alliance with Gojek.

A good DBT strategy requires a corresponding organisational, people, and business transformation. Having an app for the sake of having an app is not a sound DBT strategy, in our view. We will incorporate this factor – incumbents' DBT strategy – in our long-term stock picking (short term strategy can differ as we may encounter massively oversold incumbent stocks in the market).