



Recalibration

Philip of Macedonia in a message to Sparta: “You are advised to submit without further delay, for if I bring my army into your land, I will destroy your farms, slay your people and raze your city.”

Sparta’s reply: “If”

Heyokha's milestones

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What we have seen this quarter

Recalibration

One of the mesmerizing traits of our ancient brain is its negativity bias. In order to survive, our brain is selectively far more interested in what is negative in our environment. Moreover, our brain is also much keener to let us know what is bad. It is fight or flight, a survival mechanism that we inherited from our ancestors back then when life was much more dangerous.

While this mechanism worked excellently for us in the past, our primitive brain has been very slow to adjust. Even in the modern world, where life is significantly safer and the daily threats to our lives are no longer a permanent feature, the built-in negativity-bias prevails. As a result, even when the situation is improving markedly, we often overlook the progress.

Looking at the news of the past few months, the headlines are (as usual) filled with the topics of trade war, macro challenges, and the political mess in many parts of the world, just to name a few. It appears that today, the world is (again, as usual) clouded with negativities.

Closer to home in Indonesia, the negativity-bias has been compounded by the noise around the recent presidential election. One of the fiercely debated subjects concerns Indonesia's progress made in the past few years, especially in connection with infrastructure development, which has been the main focus point of Indonesia's government.

Not for nothing, as many believe that Indonesia can be the next big success story after China, *if* the country would only improve its infrastructure. Yet, at the same time, Indonesia's Infrastructure projects have been associated with problems and long delays, which sometimes lasted decades. Those who have been following Indonesia for long enough may feel they have been hearing the same story being told by politicians over and over again, without seeing much result. So some scepticism is perfectly reasonable.

As investors, we too need to be sceptical. But we also need to be wary of overlooking progress and recognise when it is time to recalibrate our investing mind. We figured that trying out the infrastructure first-hand was a good place to start. Instinctively, we decided to kick the tires and embarked on a trip that took us from Jakarta to Surabaya via the new Trans Java toll road.



Our travel plan and our planning map. Java, which represents 56% of Indonesia's population and 59% of GDP, has many small and beautiful towns and villages. With the new Trans Java toll road, we can now access these places more conveniently than before, just as we did in this trip.

Source: Heyokha

Along the way, we experienced how the government's efforts have resulted in significantly reduced traveling time, witnessed flourishing local shops and restaurants, happy farmers, an odd empty airport, booming hotels, locals enthusiastically adopting tech to improve their lives, much better movement of goods. Last but not least, beautiful sceneries, delicious food, and great company made the 759km journey felt much shorter.

After our trip, we are convinced that it is no longer the question *if* Indonesia is improving infrastructure. Great things are happening. We are thrilled.



Scent of paddy and corn flower in Central Java. Many have been built in Indonesia in the past few years, including irrigation systems that enrich the lives of millions of farmers. It is no longer the question if Indonesia can live up to the promise. The change is already happening.

Spreadsheets are lazy. They don't tell you about people. They don't tell you about communities. But unfortunately, this is how too many business decisions are made today

-Hamdi Ulukaya, the founder of Chobani Yoghurt. Taken from his Ted talk *the Anti-CEO playbook*-

Off We Go!

Twenty-two years ago, one of Heyokha team members took a car trip from Jakarta to Surabaya. Since then, he had vowed to never do that again. Once bitten twice shy. However, after reading about the Trans Java toll road that connects Jakarta to Surabaya since December 2018, we are tempted to try it out.

Back in 1997, the road trip from Jakarta to Surabaya took about 24 hours. It also required serious anger management skill. This time, had we not stopped in many different points along the way, we could have done the entire Jakarta-Surabaya leg within 9 hours. The new road cut the traveling time significantly that initially, it did not register in our mind. Along the way, we continued to be surprised with the condensed traveling time from one city to another in the island of Java. Thus, we felt that we needed to recalibrate our brain constantly.

The trip took us through many small cities and villages, many of which are rarely visited by travellers before the toll road completed. More importantly, we saw first-hand how the new toll road has been a game changer for the local economy. Some of the implications, such as lower logistic costs and lower plane ticket sales, are obvious.

Other implications are less obvious but as important for many businesses operating in Java. For instance, faster delivery speed provides a huge help for transporting time-sensitive goods, such as in the case of BISI's corn seed production as we will discuss on page 15.

To put the new Java toll road into context, the last time a project of this scale was built in Java was executed under the Dutch colonial era. In 1808, Herman Willem Daendels connected Jakarta and Surabaya for the first time. As governor-general of the Dutch East Indies, he needed to defend Java more easily against the invading British. More than 10,000 forced laborers died building this "impossible" road of about 1,000km in one short year. This was the first and last time Jakarta to Surabaya were connected, until recently.

"And those who were seen dancing were thought to be insane by those who could not hear the music"

- Friedrich Nietzsche -

We also learned during this trip that not all of the infrastructure being built has yielded fruit, such as Kertajati Airport. Maybe the choice of location is suboptimal. Or maybe good thing takes time.



Daendels' Great Post Road. Built in 1808, the 1,000km long road was completed within an "impossible" timeframe of only one year. It cut travelling time between Jakarta and Surabaya from 40 days to 7 days.

Source: Wikipedia



A whole new world. New Trans Java Toll Road means much improved connectivity, as the traveling time between Jakarta and Surabaya has been condensed from 20 plus hours to merely 9 hours.
Source: Kompas.com

Our first leg of the trip was spent in bustling traffic to get out of Jakarta. It took us 3.5 hours just to go 115km away from our office. On top of the high traffic volume during rush hour, the traffic was exacerbated by construction works of Jakarta-Cikampek elevated toll road and LRT project.

This is just an example of the infrastructure projects that have yet to be completed. Although it will be beneficial in the long run, we have to bear short term pain, such as inflated current account deficits and heavy traffic. Good things require sacrifices. We believe that in the next 5 years of Jokowi administration, Indonesia would start to reap the benefits.



More to come ... the infrastructure build-up story is still ongoing. Jakarta-Cikampek elevated toll road construction.
Source: Heyokha

“The art of being wise is the art of knowing what to overlook.”

- William James -

First stop: Cipali rest area

After a slow start and fighting hours of traffic, we made our first stop at a rest area on Cipali toll road section in West Java. The first thing that came to mind is to get some snacks and drinks.



Alfamart stores at Cipali rest area. Coffee is naturally the sought-after item.
Source: Heyokha

Given the recent “coffee hype” in the VC world driven by Luckin Coffee’s success in China (also Kopi Kenangan and Fore Coffee in Indonesia), we paid extra attention to the coffee offering. We decided to get a cup of coffee in Alfamart. There are two coffee options in the store: to buy from the coffee machine (left), or to make our own coffee using ready to mix coffee powder (right).

Price is affordable at around Rp10,000 (USD 70 cents) per cup. Unfortunately, the taste of the coffee made with the coffee maker is sub-par. We talked to customers who decided to brew his own coffee (right). His reason to buy the coffee there is because of the lack of option despite less than satisfying taste.



Alfamart drinks offering. Instant powdered (and sugary) coffee are more preferable by customers.
Source: Heyokha

Indonesia’s rich coffee culture

Indonesia has a long tradition of coffee, with coffee cultivation has a long history in this archipelago. Even today, the country is still the world’s fourth biggest coffee producer.

Coffee was not a native plant in this part of the world. It was the VOC, the mightiest corporation the world has ever seen, who brought Arabica coffee to Indonesia. The objective of the Dutch VOC was simple and straightforward. They wanted to end the worldwide Arab traders’ monopoly on the coffee trade.

Interestingly, VOC initially chose to plant coffee around Batavia (now Jakarta). Just imagine planting coffee in the posh Menteng and Kebayoran area!

We talked about Daendels and his Great Post Road on page 3. It turned out that Indonesia’s coffee cultivation was also given special attention during his era in 1808 - 1811. Through reformation and infrastructure development, Daendels aimed to increase coffee production in the fertile soil in Priangan, West Java.

His biggest contribution is through the construction of Great Post Road, which significantly cut down logistic time and reduced damaged products, both resulted in higher quality coffee. And with the Great Post Road, it became possible to transport coffee from a rural area in Priangan, to ports in

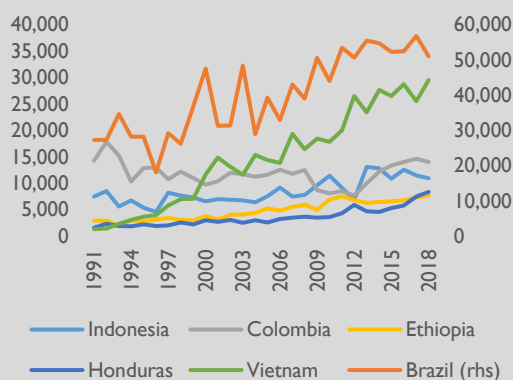
Cirebon and Indramayu, and to warehouses in many parts of West Java.

As for drinking coffee as a culture, Indonesians love to incorporate a great deal of sugar into the coffee mix. When we recently met a producer of 3-in-1 coffee (that is coffee added with sugar and cream), their prevailing mindset was more towards coffee-flavored sugar and milk rather than the other way around.

A local start-up, Kopi Kenangan also made it a priority to acquire and secure palm sugar plantation as part of their supply chain.

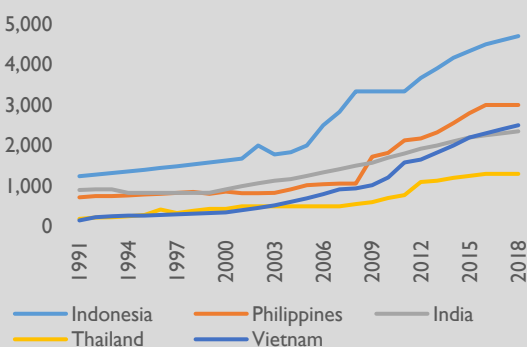
Indonesia is the 4th largest coffee producer

in thousands of 60kg bags



Coffee consumption in Indonesia is growing fast

in thousands of 60kg bags



Source: International Coffee Organization

The rapid expansion of Kopi Kenangan and Fore Coffee signals a strong growing demand for higher quality coffee. It is interesting that Indonesians are starting to embrace almost artisan like coffee.

This could be an enormous trend considering the huge coffee market in Indonesia, which is currently still dominated by instant powdered coffee.

In the media, the spotlight is always on both Kopi Kenangan and Fore Coffee since their concept is similar to Luckin Coffee, the 18-months old company that is now worth US\$ 3.6 billion. However, coffee shops are not the only place to get a coffee.

In some Alfamart stores in Jakarta, we found Jumpstart machines (coffee vending machine operator). Their machines have a much better user interface and also offer plenty of drinks other than coffee. We did a blind testing comparing their coffee with the same products from the more established coffee chain.



Jumpstart coffee machine (left). Our Jumpstart vs. Starbucks blind test. Taste is comparable despite the significant difference in price (right).

Source: Heyokha

The result? We think the taste is at least comparable. Meanwhile, Jumpstart's price tag is only Rp 10,000 (US\$ 70cents) per cup, which suggests 75-80% cheaper than Starbucks or 45-70% cheaper than Kopi Kenangan and Fore Coffee.

With an attractive value proposition, we believe it is reasonable to expect Alfamart to roll out more Jumpstart machines in their stores nationally. Hopefully, bad coffee will no longer be part of a typical road trip.

We are not arguing which business model is better since they target different customer segments and are not competing directly. One thing is for sure, Indonesians are embracing higher quality of coffee.

Second stop: Kertajati Airport - the most tranquil airport in the world?



Gorgeous airport. A lot of upside, but first thing first, a plane is needed.

Source: Heyokha

Kertajati International Airport in West Java, opened in June 2018, was named as one of the country's national strategic projects. As the second largest airport in Indonesia, investment was significant, around Rp5tn (USD 350mn) in total. It was designed as an international airport to divert some traffic from heavily congested Soekarno Hatta airport.



Simply no human in sight. Anywhere in the airport.

Source: Heyokha

Walking into the airport was like a walk into a yoga retreat. Very serene with birds chirping merrily. Definitely too quiet. No plane was in sight. The parking lot was empty. We mean literally empty, not relatively empty.

Yet, this may change as the government will start diverting 12 flight routes from Bandara Husein Sastranegara in Bandung to Kertajati Airport starting 15 June 2019. The airport has also partnered with 12 companies to provide transportation from nearby cities.

Also, the Cileunyi-Sumedang-Dawuan (Cisumdawu) toll road that connects Kertajati to Bandung is targeted to complete by the end of 2019. With this new toll road, travel time from Bandung will be cut from 2.5 hours to only 45 minutes. Hopefully, these

initiatives would be enough to bring life to the airport.



Alfamart store in the airport registered sales way below Rp8mn (USD 560) per day threshold. Indomaret store next door was not doing any better.

Source: Heyokha

If we look at China, massive infrastructure was built well ahead of demand. Although utilisation can be low for many years, as long as it is well planned, it will still be worthwhile in the long run.

The opposite has been true for Indonesia. For ages, the government has been building infrastructure just to meet existing demand, and by the time the (delayed) project completed, demand has grown well bigger than the capacity. And the cycle repeats.

Making it worse is the history of poor coordination between stakeholders and different part of governments, which has plagued Indonesia's infrastructure development for many years, and limiting economic growth.

The empty airport of Kertajati could be a good sign that the government has learnt from previous mistakes and is now looking ahead of demand, or it might be just another case of poor coordination and mis planning. Only time will tell, and we wish this beautiful airport the best.

Third stop: Aneka Gas Kendal: Central Java domination story to be repeated nationwide?



Aneka Gas air separation plant in Kendal. The first and only air separation plant in Central Java to date.
Source: Heyokha

Just reading annual reports is not enough to learn about a business. To get a thorough understanding of the business process, we visited one of the air separation plant operated by PT Aneka Gas Industri Tbk.

It is located in Kendal Regency, Central Java that is known for its potential for industrial estate given attractive labor cost (about half of Karawang, West Java, a more well-known industrial estate area) and proximity to many infrastructures.

During the visit, other than getting a better understanding of the business process, we also understand the company's moat better. Their business is about the land grab.

Case in point is their plant in Kendal. Started in 1991, the company own 80% market share in Central Java. This strong domination is thanks to the vision of Pak Arief's, the founder of the company, since they dared to build a plant when no one else wanted to.



Aneka Gas filling station in Kendal, Central Java. The company built a massive filling stations network, establishing a solid moat.

Source: Heyokha

The company also guarded its market share through building a filling station network across Central Java to fend off the competitors for gas cylinder demand. Until today, there is no other competitor that has an air separation plant in Central Java.

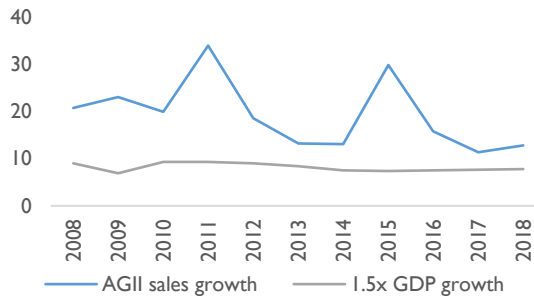
Zooming out nationwide, the company want to repeat their success story in Central Java to outside of Java. The company has built smaller size air separation plants in Sumatera, Kalimantan, Nusa Tenggara, and Sulawesi where competitors have no presence.

In ramping up the utilization, the company has been building a filling station network. This will also discourage competition from the cylinder gas market which is the most attractive segment given its high margin.

Although some may argue that it is a little bit too early, we are not too concerned given the rapid growth in the sector. Historically, the company, as the largest player in the sector has always been growing well above 1.5x of Indonesia GDP growth.

The largest player sales growth has been always well above 1.5x of GDP growth

Aneka Gas sales growth vs. 1.5x Indonesia GDP growth in %



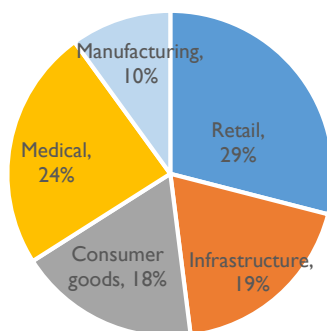
Source: Company data, National Bureau of Statistics Indonesia

Assuming Indonesia GDP continue to grow at 5%, the company will continue to grow at double digits percentage (inc. selling price adjustment). As such, the optimum utilization rate could be achieved within four years which will still translate to attractive IRR and return on investment.

As we wrote in our previous report, the utilization ramp-up could be faster than expected due to the US-China trade war spillover that will benefit Indonesia's manufacturing sector.

The company does not count on manufacturing sector to flourish but they are well equipped to tap the opportunity.

Aneka Gas sales breakdown based on industry (2018)



Revenue from manufacturing sector is only a small portion at the moment.

Source: Company data

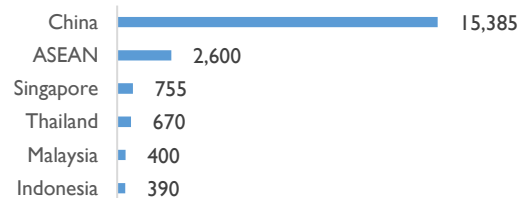
The impact would be tremendous given the size of Chinese manufacturing. With only 1% of Chinese manufacturing moved to Indonesia, it will enlarge Indonesian industrial gas demand by 40%. As the largest players and well-equipped, the company should be the main beneficiary.



Click [here](#) for our 3Q 2018 report.

China gas market is 6x Southeast Asia size

Industrial gas market in 2015, in US\$ million



Source: Gasworld

Even without a strong tailwind, it will still grow fast enough to generate a decent return on investment.

In addition, being the largest air gas company in Indonesia both in term of capacity and distribution footprint, Aneka Gas could find itself as an attractive M&A target for large multinational air gas companies that have been very eager to seek this sort of opportunity.

Case in point, in March 2019, Air Liquide Malaysia offered to acquire Southern Industrial Gas (SIGA MK) Sdn Bhd for RM 226.6mn (US\$ 54mn). The company engages in both manufacturing and distribution of industrial gas, similar to Aneka Gas.

The implied valuation of this transaction is 23x EV/EBITDA and 1.8x Price/Book which represents close to 300% premium compare to Aneka Gas' valuation. As the largest player in the largest market, Aneka Gas valuation looks undemanding.

Victory is not won in miles but in inches. Win a little now, hold your ground, and later win a little more.

- Louis L'Amour -

Fourth stop: Solo, Central Java

Upon our arrival in Solo, we decided to have dinner at a traditional restaurant. It is nicely decorated despite its small size. Surprisingly, the restaurant got plenty of good reviews on Google. It is astonishing how much influence the internet can bring, even for a small restaurant and warungs.



Sate Klathak Pak AW restaurant. The restaurant owner told us that his business improved markedly after Trans Java connection.

Source: Heyokha

We had a chance to talk with the cashier, who correctly guessed that we are not from the area (probably due to our accent). Apparently, the restaurant got plenty of traffic in the past year, mainly from people who stayed at the hotel across that is doing well.

He saw a noticeable pick up in traffic in the past few months to the hotel, which he suspects was driven by the completion of Trans Java toll road in December 2018. There is an increasing number of customers who came from Jakarta and Surabaya, and apparently, there are plenty of events and visits by government officials lately.

While there could be other contributing factors, we believe that the Trans Java toll road played a big role in bringing traffic to Solo. Trips between Solo and Surabaya take less than 3 enjoyable hours, compared to over 7 hours before, not to mention the poor road condition and stressful traffic. We are not surprised to see the increasing number of visitors to Solo.

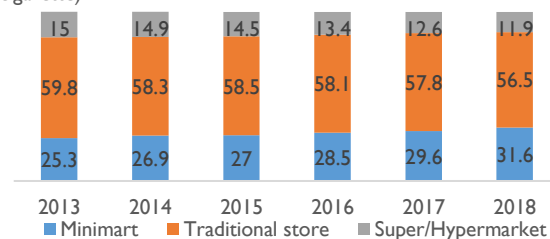
Minimarts and supermarkets

To get a better understanding of the retail industry, we surveyed several minimarts, supermarkets, and the traditional market in the city.

We noticed that there are not many minimarts, certainly far less than in Jakarta or in other major cities. The reason being is not related to the economy but government intervention.

Minimarts have been gaining market share from the large format retailers and traditional channels

Market share of Indonesia's groceries retailing channel (ex-cigarette)



Source: Alfamart company presentation 2018

Since 2016, the regent of Sukoharjo, a regency south of Solo, decided to impose a modern retail moratorium in the attempt to protect the traditional market.

No minimarts can be opened until 2030, and those with expiring permit will not be extended. This year alone, 39 minimarts will be closed down as their lease expires.

While this hinders minimart expansion, it is a solid proof of how well minimarts are doing. So well that the government has to intervene.

In regard to existing minimarts, we found out that e-wallet penetration is quite good. Thanks to the massive cashback offered by Go-pay recently, many people are at least aware of Go-pay.



Alfamart stores in Solo. Interesting to see that ride hailing service Go-jek does not have to be mainstream for e-wallet Go-pay penetration to pick up.

Source: Heyokha

According to several minimart store cashiers that we interviewed, a lot of people used Go-pay during the massive promotion (cashback) period. Post-promotion period, there are still some people that use Go-pay, about 10 transactions per day on average.

We believe this is quite a decent number, considering that we did not see many Go-jek drivers on the street yet, which is the leverage for Go-pay's rapid adoption in Jakarta.

According to a local resident, the motorcycle taxi (ojek) industry is still dominated by traditional ojek that are often found on the corner of the street. Online ojek drivers are still getting a lot of hate from incumbents, often getting yelled at by traditional ojek drivers.

Interesting to see that Go-jek ride-hailing service does not have to be mainstream before people use Go-pay e-wallet. This could be attributed to the definite need of e-wallet services, owing to the lack of banking penetration in Indonesia.



Click [here](#) for our 2Q 2018 report.

According to the World Bank, only 49% of Indonesian adults have a bank account, among the

lowest in the region. Please refer to our previous 2Q 2018 report for more about Go-pay and Indonesia's fintech opportunity.

Currently, adoption of ride-hailing services is increasing especially among millennials. Online ojek can easily be found near universities and big shopping malls. We believe that it is just a matter of time before the online guys dominate, just like the early days in Jakarta.

To get a wider glimpse of the retail industry, we also visited the famous traditional retail and grocery store in Solo, called Pasar Sami Luwes.



Pasar Sami Luwes. Judging by the look, nobody would have guessed that it is one of the most famous malls in Solo. Low profile, Solo style.

Source: Heyokha

According to local residents, Pasar Luwes is the "go-to" place when people want to buy groceries, especially in bulk. It is where a lot of warungs and small shop owners procure their supplies thanks to the cheap price, and even more so for the lower end and local products.



A wide range of product selection at Pasar Sami Luwes. Thanks to its competitive price, many small shop owners procure their supplies here.

Source: Heyokha

Besides groceries, stores are also selling a wide variety of other products ranging from cosmetics, pharmaceuticals, to toys, and almost all of them are mom-and-pop shops. Overall, Pasar Luwes is currently doing very well.

We see a contrast with the examples in Jakarta, where shopping malls that focus on shopping experience (rather than lifestyle and F&B) are severely disrupted by e-commerce, as we discussed in our [4Q 2017 report](#). It seems like tech disruption has yet to reach Solo.

First reform touch by Jokowi

During our road trip, we intentionally chose to rest in Solo, also known as Surakarta, for its food and culture. You can find various delicious Javanese dishes sold for extremely affordable price. For instance, we spent only Rp 54,000 (US\$ 3.8) for lunch for three people.



Lovely heritage buildings in Solo. Kraton Hadiningrat, the palace of the Sultan.
Source: Heyokha

There are also many historic buildings namely, Keraton Kasunan Surakarta, Masjid Agung Surakarta, and Pua Mangkunegaran. On top of that, the traditional market in Solo provides Javanese snacks and handcraft, which are excellent for your road trip souvenir.



Pasar Gede, which means big market, and a happy merchant enjoying a good life.
Source: Heyokha

Despite its rich culture, Surakarta only really gained traction by tourists when the city hosted the World Heritage City conference in 2008.

It was only two years after Solo was accepted as the member of World Heritage City in 2006, thanks to its Mayor back then, Jokowi. Since then, Solo became one of the most visited cities for Indonesian tourists.



Solo is always about art, even the street mural is done meticulously.
Source: Heyokha

Not only has Jokowi been successful in putting Solo on the map for tourists, he has also organized the city very well. Numerous street vendors are relocated to a proper marketplace without any conflicts. He revitalized green spaces and parks.



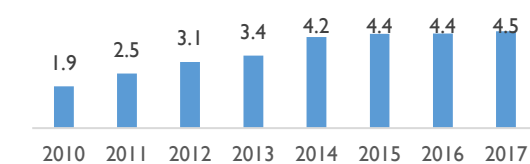
More colonial heritage and iconic sites in Solo, definitely worth going to for your next holiday destination.

Source: Heyokha

All of his government programs are well communicated to the people routinely. No wonder he won his second term as the mayor with 90% of the votes, compared to his previous term of only 36.62%. We truly enjoyed our stay in Solo not only because of its food and culture, but also because we experienced the first reforms initiated by Jokowi.

Solo saw a significant growth in tourism

No. tourists visiting Solo, in million



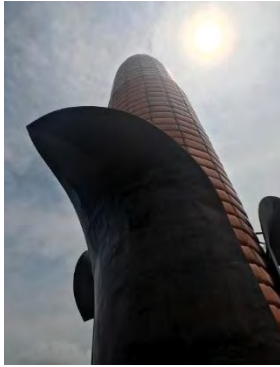
Source: Central Java National Bureau of Statistics

Before moving up to the capital of Indonesia, President Jokowi was the mayor of Solo for two periods. It would be interesting to see if he could reproduce the success story of Solo across the archipelago.

“Don't tell me how hard you work. Tell me how much you get done.”

- James Ling -

Fifth stop: Manggis Mojosongo Village, Boyolali, Central Java



Unicorn, Boyolali style.
Source: Heyokha

During our trip, we came across Manggis Village in Boyolali, Central Java. The Boyolali region is an important producer of rice and corn in Java.

The corn monument in Boyolali is a fitting testament to the importance of corn to the residents of Boyolali. All the signs of a

prosperous town are easy to spot in Boyolali. We captured some of them in the pictures below.



Ageng Mosque, Boyolali, built in 2015, sign of better life?
Source: Heyokha



Pendopo located in Kidul Central Park of Boyolali. Pendopo is a key component of Javanese palaces, typically located in front of the main building, and serves as ritual spaces or as a place to receive guests. A symbol of prosperity.
Source: Heyokha

We also took the opportunity to visit a farmer's house. His name is Zaini, a father of a young daughter. Despite having a mature age of 44th, he is the youngest farmer in his village.

Unlike many of his peers, Zaini thinks farming is his calling. He also believes that with the government agricultural reform, corn farming can be very promising for his young family.



Zaini, a happy farmer, and his young daughter.
Source: Heyokha

Most of the government reform efforts that we mentioned in our [4Q 2015 report](#) are still happening. Village fund has been used to build roads and bridges, allowing farmers to transport their harvest in a much more efficient way.

Dam and irrigation networks have been restored and significantly expanded. Small army units in the villages (Babinsa) are still very much involved in making a real mark in the farming sector. All are good.

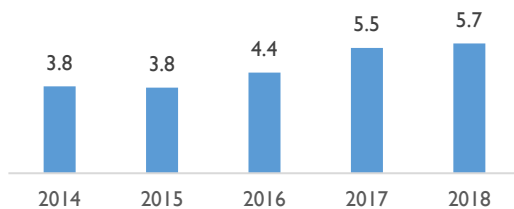


Beautiful view of corn field ready to be harvested.
Source: Heyokha

In fact, Zaini mentioned that he has already earned as much as what tobacco farmers in Java typically earn. Tobacco farmers are generally perceived to be the most elite group of farmers in Indonesia, in term of income. Thanks to the elevated corn price, the planting pattern in his village has shifted from corn-paddy-paddy to corn-corn-paddy.

Indonesia's corn harvested area expanded rapidly, thanks to the irrigations and dams build up

Indonesia's corn harvested area in million hectares



Source: Ministry of Agriculture

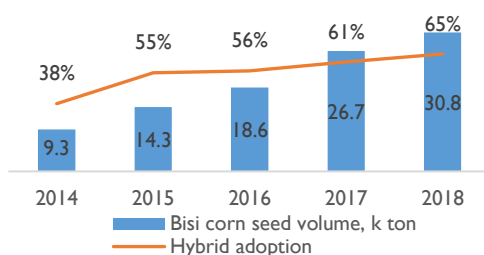
Zaini is a happy man but he believes the best is yet to come. More reforms to elevate farming in Indonesia are expected in the coming years.

While Zaini did not get any free corn seed allocation last year, he is luckier this year. Maybe the election effect has done some good for him. The government has stepped up free corn seed allocation for Central Java from 1,400 tons in 2018 to 2,000 tons this year.

Zaini has also been appointed as head of the local farmer association, despite his young age. It seems like his familiarity with smartphone put him ahead in the pecking order. His farmer association received corn seed aid for 15ha of planting, out of 20ha being proposed.

With utmost confidence, Zaini stated that the 18 members of his association will buy the remaining seed requirement from the free market. His reasoning is very simple and straightforward.

Indonesia's largest hybrid corn seed maker seeing volume growth given increase in hybrid adoption and harvested area



Source: Ministry of Agriculture

The seed represents a tiny part of the planting cost but makes a huge difference in the quantity and quality of his output. And by now, the farmers in his village have fully learned that, economically, it makes so much sense to plant high-quality hybrid seeds. It does not pay to play it cheap.

Another interesting finding from the trip is that farmers in Boyolali are now able to join the rank of hybrid corn seed producing farmers. All of the corn seed processing facilities in Indonesia are located in East Java. And science demands harvested corn seeds to be transported for processing within 12 hours after being harvested.

This requirement means no corn farmer in the western and central part of Central Java can previously produce hybrid corn seeds, despite very attractive risk-reward of being such.

Trans Java road means many corn farmers in Central Java are now able to produce hybrid corn seed. A big win-win for farmers and seed producers.

And a big win for Indonesia, as more farmers producing high-quality corn seeds will help to make sure that high-quality seeds are sufficient to meet demand. High-quality hybrid seeds are such an important part of the agricultural reform program.



Real life is in when the gadget is out.

Source: Heyokha

Sixth stop: Ngawi Regency, East Java



The green and beautiful regency of Ngawi, East Java (top). Central park, Ngawi Style (bottom).
Source: Heyokha

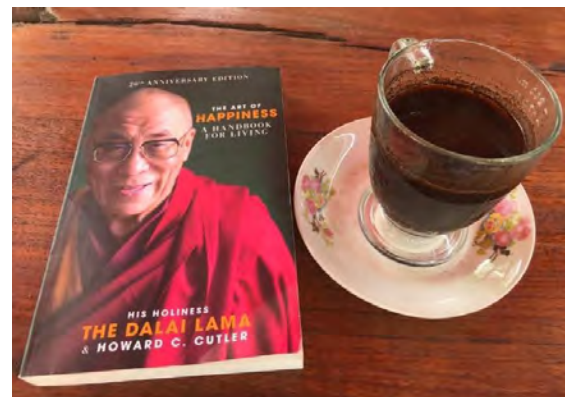
One of the towns that we would probably never visit if there is no toll road access is Ngawi, East Java. This is a small town (by the island of Java standard) with a population of 830 thousand.

Tranquility is probably the best word to describe Ngawi. Very neat, clean and beautiful, with plenty of greeneries found along the side of the street. The residents here enjoy very simple and relaxed lives.

We also got a chance to sit down and enjoy some time in the “alun-alun”, or central park of Ngawi. The park is very cozy and clean. A cup of coffee only costs us Rp3,000 (US\$ 21 cents) and we were allowed to stay as long as we like.

This made us realize how different it is with the environment back in Jakarta. We are used to the dynamic, fast-paced situation, which often causes overthinking, constant worry, and stress. We acknowledge that neither extreme are good, and we have to take the best of both sides.

In the meantime, we really enjoy the beauty of Ngawi Regency and we are sure that there are still many other equally beautiful towns in many parts of Indonesia.



If you have a garden and a library, you have everything you need - Marcus Tullius Cicero.
Source: Heyokha

More of awesome iconic buildings in Ngawi



Baiturrahman Great Mosque, initially built in 1879. Baiturrahman means “A loving home” (top). Van Den Bosch Fort, also known as “sunken fort” as it was built lower than surrounding terrain. The fort was built in the 19th century to oversee trade route along the confluence of Bengawan Solo and Madium River (below).

Source: Heyokha

Ngawi has earned its reputation as one of the main rice and corn producing areas in Java. Naturally, to understand life in this beautiful town, we made a point to visit one of the largest farming supply shops there. This shop mainly focuses on pesticide products, but it also sells a wide range of farming supplies.

The shop owner is Guntoro Sekejaya, a local Ngawi resident in his early 40s. He, like most people there, lives a simple life. His house and shop were only separated by an aluminum door. He works Monday to Saturday, 9 to 5 style. Sunday is a dedicated family time.

Since there is no shopping mall in Ngawi, his typical Sunday is filled with a family trip to Solo. Before the era of Trans Java road, it took about 3 hours to travel by car from Solo to Ngawi. Now the same distance can be covered in 45 minutes.



The farming supplies shop’s modest storefront. Neat and simple, the typical style in Ngawi.

Source: Heyokha

Alternatively, a trip to the big urban center Surabaya takes only 2 hours now vs. previously 5 hours. No wonder that the local people start seeing higher inter-city trade and local tourism in Java post-Trans Java toll road.

Guntoro said that his business has been doing very well and he has no complaints. His agri-shop has been benefitting from President Jokowi’s agricultural reform in the past four years. Data from the Ministry of Agriculture suggests that corn harvested area in Ngawi has gone up at 121% CAGR from 7k ha in 2016 to 34k ha in 2018.

Other than rising business volumes thanks to increased farming activities, Guntoro’s shop benefits from the new Trans Java toll road, as transporting goods has become faster and easier. Overall, this means higher sales volumes for Guntoro.

We also took the opportunity to ask whether farmers will switch to non-hybrid seeds if the government decides to end the free hybrid seed program.

Guntoro believes that after many planting cycles with free hybrid seed from the government, farmers are hooked on high-quality hybrid seeds.

Already, farmers prefer to buy hybrid corn seeds if they do not receive sufficient free seed from the government program. It is hard to find non-hybrid corn seeds in the market today.

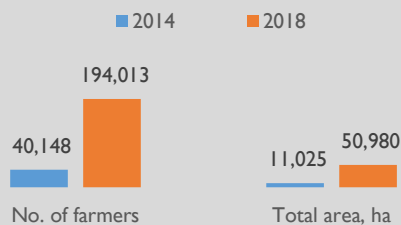
Another interesting finding is that farmers are not price-sensitive. Brand and quality are the main

consideration when choosing a corn seed brand. In fact, farmers typically have made up their mind before they enter the store, as far as corn seed brand is concerned.

In our previous report, we wrote about BISI's moat from the perspective of the strength of their sales force and their research and development. But there is another angle to the company's moat, which lies in the sheer amount of farmer partners they need to handle.

No. of Production farmers saw significant growth +50% CAGR in the last four years

Bisi production farmers in no. of farmers and total area



Source: Company data

Now, to appreciate this, imagine dealing with 194,013 farmers (not employees). You only need some of them to not go by the rule to jeopardize everything. You need a very strong management skills; a moat that is very hard to break. We believe this is one of the reasons why multinational companies find hard to compete with BISI.

The shop owner still has a lot of say in which pesticides brand his customers buy. Unlike in the seed business that's super brand sensitive, brands matter less in pesticide purchases.

It's not just about being different, it's about providing so much value that your customers can't help but tell others about it—with genuine enthusiasm and excitement.

- Tony Robbins, how to create raving fans for your business –



Ngadi, the leader of farmers and forest village association.
Source: Heyokha

We also met with Ngadi, the leader of farmers association and forest village association in the Banyu Urip Village. His members manage about 350ha of forestry area owned by Perhutani (SOE). The farmers are allowed to plant crops in the forestry area as long as they look after the forestry area. Ngadi

manages about 7ha farmland including his own farmland. They have been managing Perhutani's area since the 90s.



Corn farm in the forestry area, Banyu Urip Village, Ngawi Regency.
Source: Heyokha

This cooperation with Perhutani is a win-win solution. The farmer gets an extra income while Perhutani does not need to hire a dedicated forest ranger, and this will help the government to achieve food self-sufficiency.

We also learned that recently there are more Perhutani's areas used by the farmers to plant the crop. In fact, Perhutani reported about 200k ha of their area being planted with corn.

Regarding the government's aid, he and his farmer association members have received the free corn seed from the government in the past few years. They are also content with the current corn price.

Thanks to Jokowi's regime, their income has improved significantly. No wonder in this village, Jokowi won by 90% and in the whole Ngawi Regency, Jokowi won by 78%.

As Jokowi is re-elected for the second term, we expect the pace of the agri-reform to accelerate further from here.

Investment Implication

When connectivity between cities improves, the most obvious benefits are efficiency gains in the form of cost savings and higher asset turnover. Yet, as we observed there are also other - less obvious implications.

Obvious impact

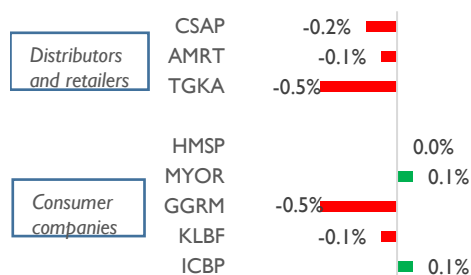
1) Lower transportation cost for companies

With the new Trans Java toll road, traveling time is cut by half. This means that trip frequency could be doubled using the same vehicle fleet, significantly reducing the fixed costs per trip. The beneficiaries are the majority of consumer and manufacturing companies, retailers, etc.

According to CLSA, Kalbe Farma attributed its reduced delivery cost (as a percentage of sales) to better infrastructure. Also, Pan Brothers, one of the leading textile company based in Solo, claimed that Semarang-Solo toll road (part of Trans Java) has cut their delivery time to Tanjung Mas port, Semarang, from 3 hours to only one hour.

Most of the companies seeing lower transportation cost as % of sales

Transportation/logistics cost as % of sales in major consumer and retailer companies, change YoY in 1Q19



Source: Companies data

2) Working capital improvement

As the traveling time between warehouses and retailers has been reduced significantly and become more predictable, inventory buffers can be reduced.

This is confirmed when we visited one of the agri-shop that supply pesticides in Ngawi, East Java. If mom & pop can take advantage of this, then modern retailers should be able to take advantage of it too.

Less obvious impact

1) Widening the coverage area of travel time-sensitive goods

There are certain goods for which speed of delivery is paramount. For this type of goods, companies need to build more hubs or branches to cover a certain area.

With improving delivery speed, each hub or branch can serve a wider coverage area. For instance, the industrial gas provider needs to be able to deliver oxygen for medical consumption within a few hours. As result of the infrastructure improvements, we believe each air separation plant can now cover more hospitals than before.

Another example is a seed company that needs to transport and process its seedlings within 12 hours after being harvested to maintain its quality. Previously, this seed company could only rely on farmers located in East Java and some Eastern part of Central Java for seed production.

However, with toll road access, the company can expand its farmers' production coverage area to the whole Central Java province, without building an extra dedicated processing plant in Central Java.

We can imagine that this benefit also applies to cold chain logistics providers and suppliers of perishable goods like bread, etc.

2) Accelerating E-commerce adoption in the suburb areas

One of the challenges to accelerate e-commerce adoption is logistics (besides payments, obviously).

In Indonesia, delivery is expensive and takes a long time. For instance, shipping cost from Jakarta to lower-tier cities in Central Java such as Ngawi, Boyolali, etc is about Rp 25,000/kg (US\$ 1.74) and it will take about 3 working days to get delivered.

Such transportation cost, we imagine that ordering goods online will only make sense if the basket size is at least Rp 250,000. This makes it hard for e-commerce companies to acquire clients with lower purchasing power. Meanwhile, those who have strong purchasing power might be hindered by the long wait.

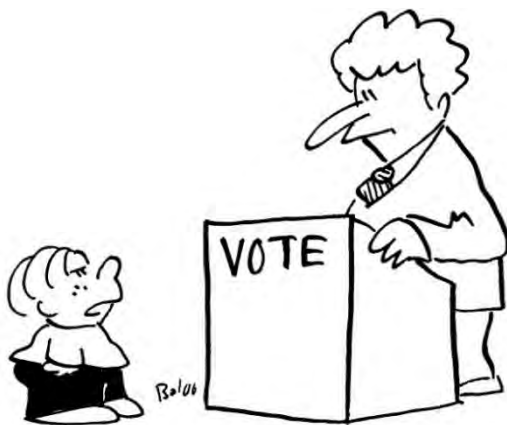
With better infrastructure, the outcome for e-commerce are faster delivery and lower shipping cost. These two should accelerate e-commerce penetration especially in the lower tier cities that solely rely on land transportation for access.

3) Increasing domestic tourism or road-trip tourism

Going on a road-trip is not something that is very common for Indonesians as we explained in the introduction of this report. The most common road trips are generally between Jakarta-Bandung due to the toll road access, or Surabaya-Malang and Jogja-Solo given the short distance.

Now with the new toll road access, Semarang-Jogja, Surabaya-Solo, or even Surabaya-Semarang is feasible for short weekend getaway. As such, we foresee this will benefit companies that start tapping into shuttle travel services like Blue Bird through their acquisition in Cititrans.

At the moment, Cititrans only serves the Jakarta-Bandung route, with the Trans Java toll road, they are now looking to expand throughout Java. In addition, hotels should see their occupancy rates improve and the local restaurants will earn better revenues which are confirmed by our discussion with the hotel and restaurant in Solo.



"This 'infrastructure' stuff you keep talking about — does it have anything do do with vegetables?"

Opposition of the current government attacks the infrastructure build up by saying that poor people can't "consume" infrastructure.

Obviously, the above is not solely caused by the Trans Java toll road. There are plenty of other

infrastructure projects, including roads and bridges built through the village fund. Aside from building infrastructure, government effort in bringing down the dwelling time and slashing down the bureaucracy will also improve efficiency.

Another thing that we have learned during our trip is that tech adoption - such e-wallet, online food delivery, and ride hailing - is still quite low in the region.

For instance, we learned that ride-hailing service Go-jek does not have to be mainstream for e-wallet Go-pay penetration to pick up. And some people still use Go-pay e-wallet after the promotion period has ended. This confirms the stickiness of Go-pay as it presents an actual need and creates value for customers, especially with the low banking penetration in Indonesia.

We also learned that tech disruption has yet to reach even big cities, like Solo. Traditional motorcycle taxis are still dominating the industry there, and traditional retail malls, such as Pasar Sami Luwes, seem unimpacted by e-commerce activities. Just like the early days in Jakarta. We believe that this is likely to be the case in most other cities in Indonesia as well.

If we are just sitting in Jakarta, we might think that the room for digital platform growth is limited as it looks like everybody is already using it. While the fact is that in many places outside the capital city, these platforms have barely scratched the surface.

No more "if"

After our road trip we came away convinced that it is no longer the question *if* great things are happening in Indonesia.

President Jokowi has demonstrated track record building-up Solo, Jakarta, and many projects across the county.

Unburdened by re-election concerns, we are excited to see how Jokowi will copy and paste the success stories across the country during his second term.

Enjoy reading our reports? Check out our [website](#) for more!

-The End-

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

What is next? Hardware is improving, now time to develop the Brainware

Infrastructure build-Up by President Jokowi administration in the past 4.5 years

- 718km of the toll road, with another 1,185km to be added by the end of 2019.
- Total toll road in operation has increased by 96% since 2014.

Using the village fund, his administration has built:

- 191,600km of village roads
- 1,140,378 meters of bridges
- 58,931 irrigation facilities
- 4,175 village retention basins

With a lot of infrastructure being built particularly to bring down logistics cost, Indonesia's competitiveness has improved. According to the World Bank Logistics performance index, Indonesia has moved up from rank 53rd in 2014 to 46th in 2018.

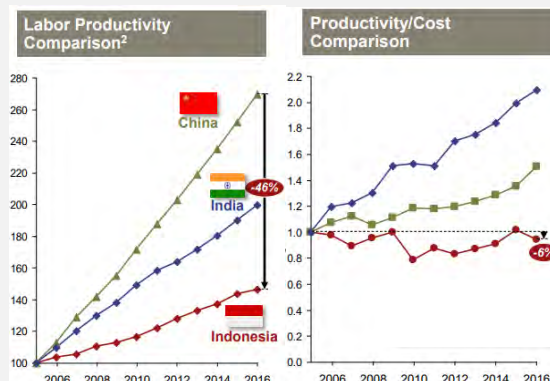
However, as we discussed in our 3Q 2018, Indonesia is still not as attractive as other ASEAN countries such as Vietnam, Malaysia, and Thailand for foreign companies who want to move out their production base from China.

This is intriguing despite that Indonesia has the largest market size and one of the cheapest workforces in the region. This means Indonesia's competitiveness trailed behind other ASEAN countries significantly.

According to the Cobb-Douglas formula, the economic production function is derived from labour input, capital input, and total factor productivity. Total factor productivity is considered one of the key indicators of competitiveness.

The following figure describes how Indonesia's labour productivity growth is lacking behind China and India. The worst part is that Indonesian labour productivity growth is often lower than the increase in labour cost.

Basically, it means that corporates are paying workers more for the same output, and may need to compensate with adjusting the selling price.

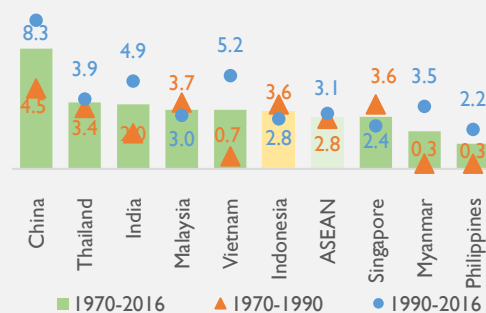


Source: The Conference Board, AT Kearney.

Comparing to other ASEAN countries, Indonesian labour productivity growth is also lower than Vietnam, Malaysia, and Thailand. More importantly, growth in Indonesian labour productivity decelerated while other regional peers have been accelerating.

Indonesia labour productivity growth is the slowest among major ASEAN countries

Labor productivity growth 1970-2016 in %



Indonesia's labour productivity growth between 1990-2016 (orange triangle) decelerated from 1970-1990 period (blue dot), in contrast with the majority of regional peers.

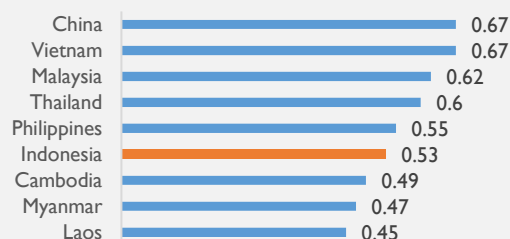
Source: Asian Productivity Organization

The most obvious root cause is the education quality of the labour force. Labour skill is inferior since about 40% of Indonesian labourer have an education level of only primary school or below.

According to World Bank Human Capital index, Indonesia actually has a roughly similar level of expected years of school. However, Indonesia underperforms in terms of education quality, as reflected by the harmonized test scores from major international student achievement testing programs.

Indonesian human capital index is the lower compare to major ASEAN countries

World Bank Human Capital Index



The Human Capital Index (HCI) measures the human capital that a child born today can expect to attain by age 18, given the risks to poor health and poor education that prevail in the country where she lives.

Source: World Bank

In his second term, President Jokowi stressed that human capital improvement will be his main priority. According to the Minister of Industry, the government plans to build Polytechnic (a college equivalent education level that focuses on engineering) in every industrial estate across the country.

Also, the government aims for the country to increase R&D expenditure from less than 0.5% to 2% of GDP. To achieve these objectives, the government will provide “super tax incentives”, offering potential taxable income deduction of two times the total investment in R&D.

Another way the Indonesian government intends to improve labour productivity is through facilitating innovation. As such, it has been really supportive towards techpreneurs as we noted in our previous report.

The concern about higher unemployment rates as a result of automation is not stopping the government from embracing technology as it facilitates the creation of higher skill employment. We are excited to see ongoing reforms in the next five years and will remain alert for investment opportunities in the education and R&D sector.