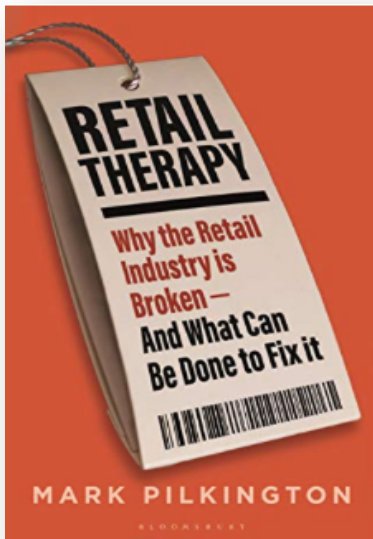


# iApparel Journal

2019 October



MeUnsies



Issey Miyake



Image: Courtesy domusweb.it



# IAJ 2019 October

## CONTENTS

### Special Report

FROM THE DESK OF PUBLISHER

By Andrew Sia 5 – 13

### Fashion & Design

FASHION QUOTE: ISSEY MIYAKE

By Andrew Sia 15 – 18

SUSTAINABLE FASHION: THE WAY TO  
APPROACH IN UK

By Andrew Sia 19 – 24

OPPORTUNITIES FOR SWIMWEAR

by Mimi Sia 25 – 45

OPPORTUNITIES FOR MEN'S UNDERWEAR

by Andrew Sia 46 – 55

### Market Report

GENERATION Z: THE EARTH-SHAKERS  
AND GROUND-BREAKERS

by Caroline Kopas 57 – 64

ECONOMIC INDEXES

by Andrew Sia 65 – 66

GLOBAL ECONOMY PERSPECTIVE

by Andrew Sia 67 – 69

TRADE TARIFFS IS THE  
DOUBLE-EDGED SWORD

by Andrew Sia 70 – 77

THE FORMIDABLE COAL AS THE  
ENERGY RESOURCE

by Andrew Sia 78 – 82

SOME TRUTH ABOUT RECYLING

by Andrew Sia 83– 86

EVERYTHING YOU WOULD LIKE TO  
KNOW ABOUT HUAWEI

By Andrew Sia 87 – 92

### Sustainability

REVISITING OF THE NUCLEAR POWER

by Andrew Sia 94 – 101

THE HAZARDOUS ELECTRONIC  
WASTE

By Andrew Sia 102 – 104

BRITAIN'S NET-ZERO EMISSIONS PLAN

by Andrew Sia 105 – 106

PROGRESS REPORT ON THE PARIS  
CLIMATE AGREEMENT AND STUDY  
OF ALTERNATIVE AND RENEWABLE  
ENERGY PART 5

by Andrew Sia 107 - 118

### Supply Chain

INSIGHT INTO AFRICA - PART 6

by Andrew Sia 120 - 129

A ROADMAP OF CAMBODIA

by Andrew Sia 130 - 143

### Book Report

RETAIL THERAPY, WRITTEN BY MARK  
PILKINGTON AND REVIEWED

by Terri Fisher 145 - 155

## 目錄

### 特別報導

出版者的話

撰寫: Andrew Sia 158 – 165

### 時尚設計

持續時尚:英國零售業所採取的態度

撰寫: Andrew Sia 167 – 172

### 市場報導

經濟指標

撰寫: Andrew Sia 174 – 175

貿易關稅是一把雙刃劍

撰寫: Andrew Sia 176 – 182

煤炭仍然是能源的主導

撰寫: Andrew Sia 183 – 186

廢物回收

撰寫: Andrew Sia 187 – 190

### 環境持續

核能發電的可行性

撰寫: Andrew Sia 192 – 197

巴黎氣候協議進展報告-第五部

撰寫: Andrew Sia 198 – 207

### 供應鏈條

非洲大陸地區的透視 - 第六部

撰寫: Andrew Sia 209 – 215

東埔寨的路線圖

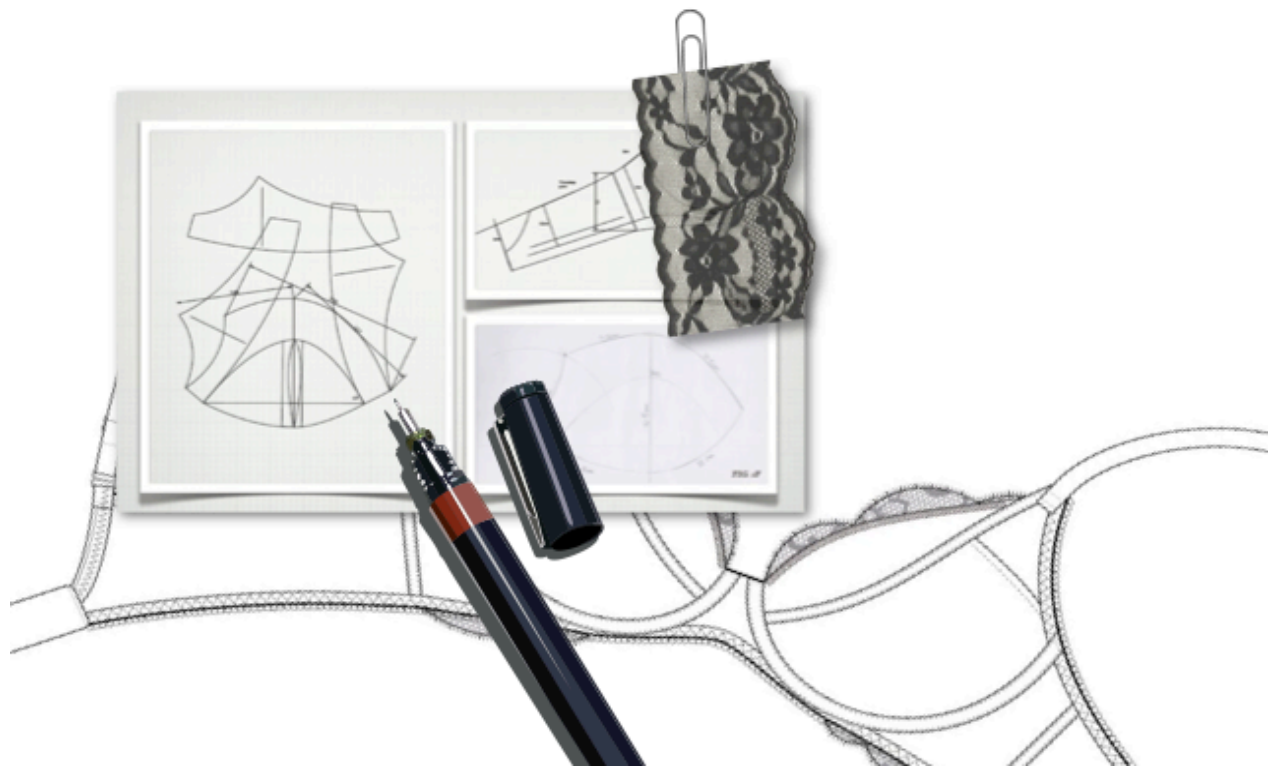
撰寫: Andrew Sia 216 – 227

Welcome to the **iApparel Journal**, created to serve our unique industry. The main focus of this issue is to provide information on market intelligence, fashion and design, technique, supply chain and the sustainability issues that affect us all.

### Our mission statement:

To make the **iAJ** an invaluable tool for the intimate apparel industry for learning, training, sharing and assisting one another.

**iAJ** is issued 4 times a year, and is available as a pdf. Individual articles are also available for purchase. The journal is distributed to select educational institutions for the use of students of fashion design and production.



- Technical
- Supply Chain
- Sustainability
- Fashion & Design
- Market Intelligence
- Entrepreneurship



FROM THE DESK  
OF THE PUBLISHER

## From the Desk of the Publisher



*Courtesy of An Rong Xu from MIT Technology Review*

It has been a long hot summer for many of us. It is very difficult because of the students' protests in the streets of Hong Kong that started as civil discontent, but with the police brutality it turned into riots. I can see that Hong Kong is the city where it is governed by the law, which is different to China to allow us the autonomy after the handover in 1997 and the people will have the rights for the 50 years. It has been emphasized for "one country, two systems" for keeping the basic laws, freedoms in the greater aspects, and many other things that have been familiar to the people of Hong Kong.

One of the basic rights that the people of Hong Kong have is their general election for their own chief executive, but this has not happened after Beijing tried to put already its 4 cronies in that position. In fact, it was three, the second one was the former high-ranking government officer, Donald Tsang, who they used to sit in to cover the first one stepped down abruptly. Obviously, Tung Chi-hwa couldn't take the heat. And unfortunately for the people of Hong Kong, those puppets they continued to put there, were worse than their previous ones.

I lived in the city for 54 years, more than half a century, before I moved to New Jersey. It is sad to see that the city is turning from bad to worse. Many friends have called and asked about the situation and wanted to make sure that our family members are alright. We spent long time on the phone as many of them were frequent travelers to Hong Kong in their earlier years and they experienced very fond memories.

My concerns are with the young students who joined this movement since June. They made many records for the peaceful demonstrations where they could motivate 1.3 million in the first instance, then it was 2 million and followed by 1.7 million people to join the rallies almost on every weekend. And almost all the demonstrations were peaceful but ended up with the police brutality after they tried to break up the crowds. The police went to the extreme by beating the normal people, whether they were demonstrators or they were just passing by. The youngest they picked out from the crowd was in eleven years old and they placed criminal charges on him. They beat up the reporters as well. The crimes that the police committed were unforgivable.

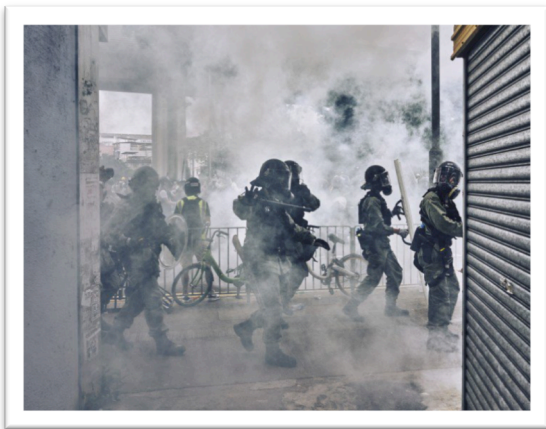
The movement was triggered by the five demands: to formerly withdraw the extradition bill for any suspects to China to face the sentence under the China's justice of law; stepping down of Carrie Lam, the chief executive of Hong Kong; calling for democratic elections without the meddling of China; an independent investigation into police actions; amnesty for those arrested.

At the moment, only one demand was met, the withdraw of the extradition bill, but it arrived too late as the protesters took to the streets already for its thirteen weeks.

Involvement of the syndicates and the military police from across the border from China were found. That created the general sentiment of Hong Kong citizens to the boiling point.

September, is the month that marked the beginning of the new school year, the students have called for the strike, but there is no sight that the government is backing down for the students' demand, and instead in some occasions they sent the police into the campus. My worst fear was the violence in the campus and I am hoping that both sides would refrain from making the matter worse, especially those teenagers in their high school.

In this movement we saw the youngsters have learned from the last Umbrella Movement in 2014. They are more organized and the use of the phone apps allow them to know the whereabouts of the riot police and avoid them. Pinging with news alerts on their mobile phones they know what is happening around them. Everything from supplies of food and water, live maps to help the demonstrators to navigate themselves on the ground for the escape routes, indicating whereabouts are the riot police, icons to show the first aid stations, the supply stations and place to rest.



LIHKG, is like a Reddit forum limited to local internet service provider, is allowing anonymous citizens to exchange names, providing ideas, protest schedules and tactics. They adopted a chat app known as Telegram for their group communication.

Having said that, there seems to have no end to this movement if the government of Hong Kong cannot meet the five demands. The brute-force by the police will continue to agitate the demonstrators.

The whole matter has no end in sight also as Carrie Lam has expressed her intention to apply the emergency powers if the riots would continue. This has further angered the city's citizens.

Now, with a heavy heart, we are back to this issue of the iApparel Journal and we would like to walk you through the following articles we have prepared for you.

## Fashion & Design



**Fashion Quote: By Issey Miyake, "Beauty is like a sunset: it goes as soon as you try to capture it. The beauty you like is precisely that which escapes you".** - It is an attempt that I tried to introduce some of the world-renowned Japanese fashion designers.



**Sustainable Fashion: The Way to Approach in UK** - It is the hot topic for the fashion business that sustainability is becoming more and more important, especially in the eyes of the consumers like the millennials and the Z-Gen. Somehow the fashion business is the second-most polluting industry if we put the complete supply chain into the perspective. We can

pick some ideas to understand how the leading UK retailers are handling it. We can also come to the knowledge that this has not been pursued thoroughly as we need to know that this is not an easy task and will take the full dedication for the complete supply chain across the different countries to arrive at the ideal result. We will continue to look for examples from the key fashion players in the other countries for the comparison. We think that the sharing of this important piece of information will be useful for the fashion industry going forward.



**Opportunities for Swimwear** - It is a piece of article that came across from Mimi and she put it together for this journal. The original article was from the Wall Street Journal. There are the 26 ideas, in their alphabetical orders, and where you can shop for those swimsuits would also be for your interest perhaps.





**Opportunities for Men's Underwear** - At around the same time, I came across this piece of article from the New York Times.

It is a business that is increasing steadily by 5% year-on-year. It is still a healthy sight.

## Market Report

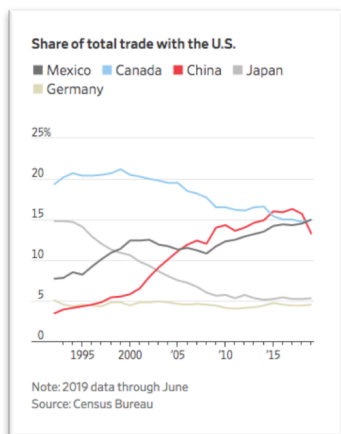
**Generation Z: The Earth-Shakers and Ground-Breakers** by Caroline Kopas - It is an article that the niece of Terri Fisher contributed. It is a such a pleasant thing that this Gen Z is so independent and savvy about their future life.

She shared with us their ideas and openness and also their fears and concerns over the school shootings. I found that the later part to be sad but their readiness to face the lives is something I found to be both brave and incredible.



**Economic Indexes** - I picked up this title when I was reading about the Liaoning's Underwear Index from the Global Times the other day. It looks like Liaoning is picking up in their steel and cement productions that are needed in the Belt Road Initiative.

**Global Economic Perspective** - It is a small recap of the trade situation in the few selected countries and areas for the second quarter of this year. We will follow up and see how it will continue but we can already see that it is not really a good sight out there.



**Trade Tariffs is a Double-Edged Sword** - The article was written a month ago but since then the world has changed a lot as after China announced on August 23, the impose of tariffs on almost all of the remaining US imports for 5% and 10%.

Immediately, US announced the existing punitive tariffs of 25% on \$250 billion will be raised to 30% on October 1. The 10% on the \$300 billion Chinese goods, partially come in effect on September 1 and December 15, will both be raised to 15%. This is a very bad sign and we will need to stay tune and watch this closely.

**The Formidable Coal as the Energy Resource** - The coal is still indispensable for the driving of our society although we have realized about the pollution it brings to our planet and it is also threatening the health to those countries who are over relying on its power generation.



That leads us to watch closely for the Renewable Energy Policy Network for the 21<sup>st</sup> Century (REN21) of what they can lead us.

Coal is still representing 40% of the power generation, the renewable energy is the 19.2%, and nuclear power is only 10%. It is a lot of work that we will have to spend to turn this situation around.



**Some Truth About Recycle** - It all started when China refused to take in any garbage from December 31, 2018 onward and that left the world panic. The biggest items that are calling for the recycle are the plastic containers and the cardboard boxes. Now the US has found that the recycling program is becoming ineffective because too many trashes are mixed with the cardboard and plastic. They are now sending them to the incinerator that can convert the waste into energy and send it back to the electrical grid. Or they can be sent to the landfill. The recycle is not really effective as the reusable is quite limited. The cost for the recycle has increased tremendously in the meantime.

We will need to change our mindset for the approach in order we can come up with the approach which can take everything into the consideration. We are talking about the reeducation of the consumer's behavior with the recyclable and eventually the zero-waste mindset.

One thing that can put us in our deep thought is our shopping online and the piling up of those e-commerce-related cardboard which is like the thorns to our eyes that we can perhaps have very little control. We have to ask for other alternatives for packaging that can allow the repeatable use.

**Everything You Would Like to Know About Huawei** - The last I checked that 5G is still unavailable. My concern is that it is a revolution and not an evolution change and the handset will need to be replaced.

The last we know that Huawei is still on the "entity list", and it is obvious that the US is trying to curb China to become the leader in the 5G technology.



Huawei is in the two parts of the 5G technology, the first one is the handheld smart phone and the second one is the telecom network. The later part has to do with the wireless cellular network and the telecommunication equipment.

Disregarding all the pressure that the US have put on Huawei, for the first 6 months of this year, Huawei has grown 23%. Compared with its competition, Oppo dropped by 18%, Vivo dropped by 19%, Xiaomi dropped by 20%, and Apple dropped by 14%.

It is also entering into the arena of the Internet of Things (IoT) which will use the high-speed connectivity of the 5G and Huawei is blessed by the Chinese government for this area already. I think that the US will have to do a lot of catching up now as IoT is one of the futures for leading the technology.

## Sustainability

**Revisiting of the Nuclear Power** - We pick this one up for the study of the clean energy in this issue. It is representing 10% of the power generation in this world. Instead of seeing that China is traveling near and afar to install new coal-fired power plants in 13 countries, and seeing Germany closing its nuclear reactors and go for coal-fired generation. Japan is also shying away from nuclear power and go for coal.

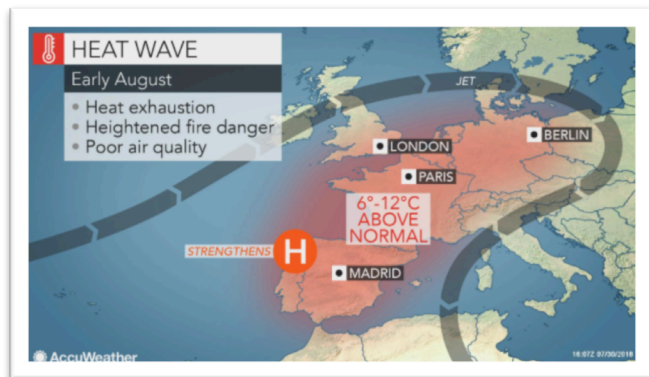
We are talking about renewable energy and clean energy, but it is like take one-step forward and two-step backward, if we are really serious to achieve our goal as set in the Paris Climate Agreement, we have to look for the technology that is readily. To hold the dialogue with the activists for the different areas and try to bring them together is important.

**The Hazardous Electronic Waste** - I opened the article by pointing out that our indispensable lifestyle of pursuing electronic gadgets and on the other hand it is also creating a great amount of the e-waste.



With the new technology, its waste is different from the traditional waste, the e-waste is like the discarded electronic parts of all kinds. Composites are becoming inseparable wastes. We will have to undertake professional trainings in order to handle them and there are agencies that have been set up will need to explore more about their potentials in solving all the challenges.

**Britain's Net-Zero Emission Plan** - Despite of all the challenges the country is facing, the British government is still pushing for the legislation for the country toward the net-zero greenhouse gas emissions by 2050. In June, UK became the first major economy to legislate for a net-zero emissions by 2050.



**Progress Report on the Paris Climate Agreement and Study of Alternative and Renewable Energy - Part 5**

- Part 5 - This is the series that we have dedicated a lot of effort in putting the articles together. It is not difficult for us to realize that we are suffering the global warming as every summer we are dealing with the record-high temperature recorded from the thermostat.

We have repeated ourselves with the situation of the nuclear energy and the three nuclear disasters

that have put the people away.

We reported the tourist industry that has brought the impact on the climate change. We repeated to write about the shipping industry. Last and not the least, we mentioned about the cement industry. There are solutions but they will all need the continuous effort to put our carbon dioxide emissions at bay. Otherwise, we will be doomed very soon.

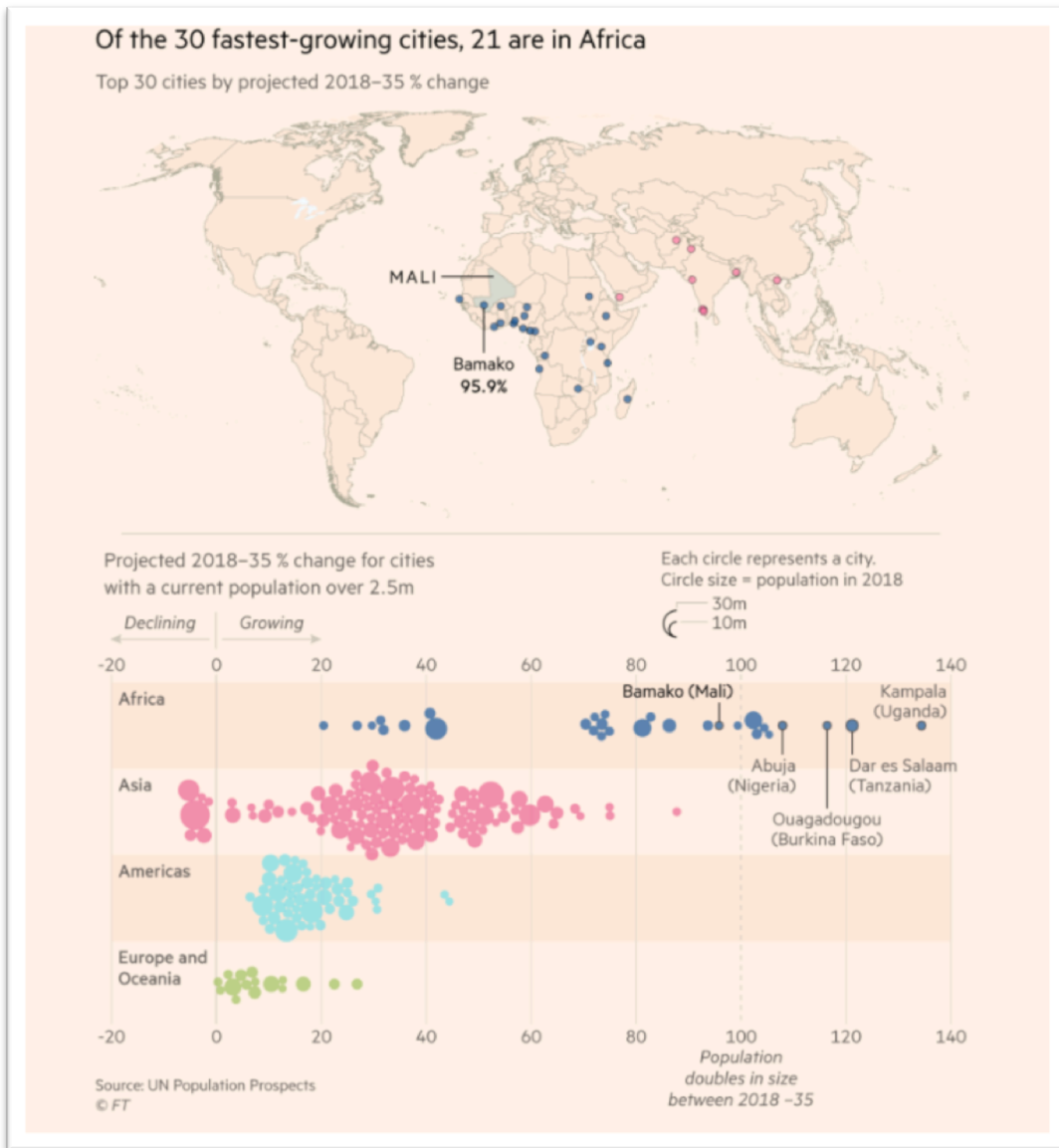
Supply Chain

**Insight into Africa Part 6** - As mentioned in the article, for the original title I was thinking of using the **New Bonanza of Africa**. Africa was like the wild west to the European Powers since 1600, but the **Scramble for Africa** happened in nineteenth century. And by 1914, when almost 90% of Africa was carved out by the Europeans and since then Africa was completely exploited.

Their bottomless greed caused the World War I and the depression followed. Then it further led the powers into World War II. Not to forget that Europe took possession of almost 9 million square miles of land to its overseas colonial possessions. And for the people living on the African continent, British took 30% of its population under them and France took 15%. Not to forget that on the other side of the Earth, the two were ruling colonies all over the South East Asia. The leverage was too big for them and they imploded and decolonization took place in the Far East right after WWII.

This is the sixth time we featured Africa. It is the human's oldest civilization and for the first time there is some hope for this very old continent. We hope that one day the Africans can claim ownership for all the precious metals and agricultural products and start to trade the commodities on the African trading floors.

Before we finished this, we attach the facts that we have found and share this with our readers.



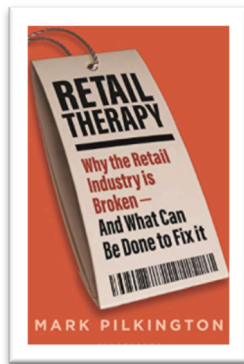


**A Roadmap of Cambodia** - The "Roadmap Series" are the updates for those countries that we have featured previously in our journal. We picked Cambodia and after China has lost the competitiveness to the Southeast Asian countries. It is a relatively small country, with 15 million Khmer. It can also be one of the last countries that has gained its independence in 1985.

The country, together with a lot of neighboring countries were the colonies, came from a very sad history. As we have begun to feature the African countries, we saw the history repeated there as well.

What Cambodia needs now is to educate its people. With the low literacy and no compulsory for the primary education, Cambodia would not have a future.

## Book Report



**Retail Therapy - We all Need** - It is the book report that I have assigned to Terri Fisher to write for our readers. Terri is a veteran for the retail industry and she is giving consulting work to the selective retailers while enjoying her life in Naples, Florida where she can play golf all year round.

She mentioning about recommending this book to be used in the school teaching the retail industry. She pointed out the unawareness of the industry even they saw the approaching of the e-commerce. And today's world is all about technology and we have better to get ready for the millennials and the Gen Z who are our future.

I recommend you to read Terri's article and buy Mark's book afterwards for understanding the way how to save our industry before our drowning.

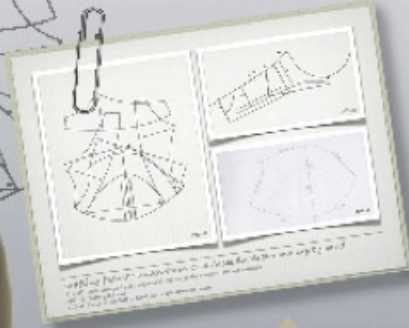
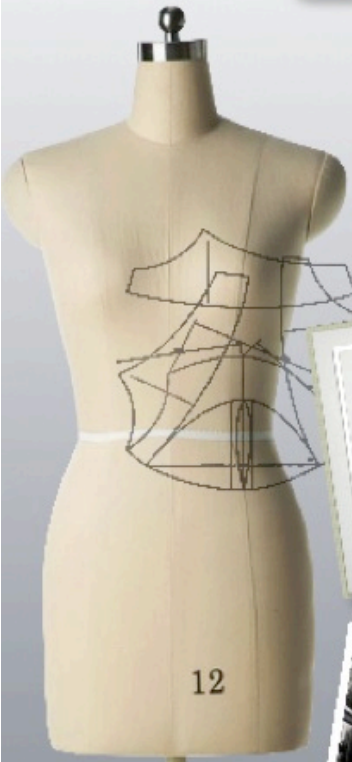
The author, Mark Pilkington, has been a friend of ours since the 1990s. We went all the way back when he was first trying to introduce the brand he founded, Splendour.com in UK. We are still in contact after all these years. Old friends are like a bottle of good wine.

- Technical
- Supply Chain
- Sustainability
- Fashion & Design
- Market Intelligence
- Entrepreneurship

# FASHION & DESIGN



- Technical Design
- Fashion & Trends
- Market Intelligence
- Supply Chain
- Sustainability



122mm

# FASHION QUOTE

## ISSEY MIYAKE

ANDREW SIA



**Fashion Quote: By Issey Miyake, "Beauty is like a sunset: it goes as soon as you try to capture it. The beauty you like is precisely that which escapes you".** - *It is an attempt that I tried to introduce some of the world-renowned Japanese fashion designers.*



Issey Miyake is a world-renowned Japanese fashion designer. He is famous for his futuristic and technology-driven clothing designs. He was born in April 22, 1938 in Hiroshima, Hiroshima Prefecture, Japan. He saw his house destroyed during the dropping of the H-bomb in Hiroshima, which happened on August, 1945 and he was barely a seven-year old boy. He graduated in 1964 from the Tama Art University in Tokyo, one of the top art school in Japan, for the graphic design.

After graduation, he worked in Paris and New York and returned to Tokyo in 1970 and found Miyaki Design Studio, producing high-end women's fashion.

In the late 1980s, he "reinvented" the Fortuny pleat, made famous by Marino Fourty y Madrazo in the early 20<sup>th</sup> century in Spain. Miyaki began to experiment with new methods of pleating that would allow the flexibility of women as well as introduce an ease of care.

Issey Miyaki is known for an overall direction of all lines, even though the individual collections have been designed by his staff since his "retirement" from the fashion world in 1997. From what we seen, he never retires.

- Issey Miyaki - main collection line, subdivided into men and women collections, designed by Dai Fujiwara.
- Issey Miyaki Fête - colorful women's line draws on the technological innovations of pleats.
- Pleats Please Issey Miyaki - polyester jersey garments for women that are first cut and sewn and then pleated in reverse to the conventional way. Miyaki patented the technique in 1993.
- Haat - a women's line designed by Makiko Minagawa.
- POC - custom-collection for men and women using tubes of fabric, machine-processes and can be cut by customers into various shapes.
- 132.5 Issey Miyaki - an evolution of the above concept.
- me Issey Miyaki - a line of "exclusive one-sized shirts that stretch to fit the wearer.
- Bao Bao Issey Miyaki - line of bags.
- Issey Miyaki Watches - men and women's watches.
- Issey Miyaki Perfumes - line of fragrances for men and women.
- Evian by Issey Miyaki - limited edition bottle designed for Evian water.

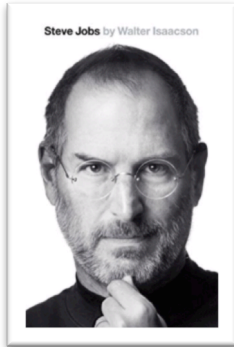


In 2015, Issey Miyaki celebrated 45 years of his career with an extensive exhibition at the National Art Center, Tokyo.

Image: Courtesy domusweb.it

When I was researching about the work of Issey Miyake, I found that he encounter with Steve Jobs which was quite interesting. I am quoting the following for your attention.

*“Steve Jobs, creator of Apple computer, and later when he returned to Apple, he brought along Apple II, the Macintosh, Pixar, iMac, iTunes, iPod, iPhone and iPad, was a friend of Issey Miyake. Steve came to know Issey Miyake through Sony.*



*It was as early as 1980s, Steve asked Akio Morita, chairman of Sony, for the reason of the company’s uniform. It brought out that after the WWII no one had any clothes proper enough to wear for work every day. The company, like Sony, would have to give their workers something to wear to come to work. Over the years a culture was developed in the Japanese companies that it became a way to bond the workers to the companies.*

*Sony began to approach Issey Miyake to create its uniform and it was a jacket with the sleeves that could unzip to make it a vest.*

*Steve brought the idea back to Apple for the company uniform but was booed by his staffs. Instead he ended up wearing the black turtlenecks as a signature and Issey Miyake made him hundreds of them. Steve was recalled by us as wearing black turtlenecks, Levi’s jeans and gray New Balance sneakers.*

*The rest you can read from Walter Isaacson’s authorized biography of Steve Jobs.”*

Issey Miyake was found once quoted “Design is not for philosophy – it’s for life”. I found that this is already a philosophical statement and this can be taken up by many fashion designers.

Before I’ll close this, I have met with someone who actually met with Makiko Minagawa, who was working directly under Issey Miyake for the HaaT line. I would like to attach her quote as the following.

*“I am always a big fan of Issey Miyake. The appreciation has been extended to all his counterparts. In the winter of 2011, I met the woman behind Issey Miyake, the Director of HaaT, Makiko Minagawa, during a school textile art event in Hong Kong, where she was one of the speakers and critiqued design students’ works.*

*Makiko Minagawa was born in Kyoto, Japan. She graduated from the Kyoto City University of Fine Arts, majoring in textile design and dyeing. During university, she started experimenting with dyeing and weaving techniques in her own atelier. Minagawa joined Miyake Design Studio in 1971 as the Textile Director of Issey Miyake, where she has been focusing on innovative works through research and development. She is keen on Indian traditional craft, leading to a collaborative collection of Asha Sarabhai and Issey Miyake in 1984. In 2000, she launched HaaT, a brand imagined from textiles, under the Issey Miyake Inc and serves as the Director and Textile Designer. Minagawa started teaching as a guest professor in Fabric Dyeing at Tama Art University in 2002. Throughout the years, she has a number of publications and received many important awards, including the Amiko Kujiraoka Prize in 1990, Mainichi Design Prize in 1996 and the Cultural Merit of Kyoto Prefecture in 2007.*

*Minagawa is a humble and low-key designer. She has been devoting a lot of time on high quality textile development. In her design, material is always the first priority. In a sharing session she made to design students, she explained that the development of a fine piece of textiles in her commercial lines could be as long as 2 years, with different testing on weaving, dyeing, washing and finishing, bringing together broad range of technology and craftsmanship, producing long-lasting fashion with a touch of handcraft tradition. The dedication to preserving Japanese heritage is the DNA of the brand."*



# SUSTAINABLE FASHION THE WAY TO APPROACH

ANDREW SIA

## Sustainable Fashion: The Way to Approach in UK



My writing of this article has been after the research from the UK fashion business and observed that they have been emphasizing this for a longer time than the others. It is also the news that I have learned and inspired from the Drapers.

It was to my surprise that members of the parliament, MPs, were criticizing the UK fashion businesses for not prioritizing sustainability in their company policy. It went further to tell them to take social and environmental as issues and urged them to practice thoroughly. In fact, this was published in an interim report by the environmental audit committee as part of its wider enquiry into the sustainability of the fashion industry.

In UK, there are the different organizations that are dedicating to the sustainability fashion approach. We can count them as the following:

- Sustainable Clothing Action Plan (SCAP)
- Microfiber Initiative
- Ethical Trading Initiative (ETI)
- Action Collaboration Transformation (ACT)
- Carbon Trust Standard

They are organizations, some of them are NGOs, would help the companies to engage the criteria to meet the requirements for staying sustainable in their practices. Using the retailers and ask them to drive upstream to get everyone involve is perhaps the most effective way as whoever has the buying power in his hand can always have the final say. Retailers are playing the leading roles through their engagements and initiative to drive the industry towards this goal.

Assessment for the 15 largest fashion retailers on the high street using the questions are set up with the following:

- Sustainable Clothing Action Plan (SCAP)
- Action Collaboration Transformation (ACT)
- Ethical Trading Initiative (ETI)
- Uses recycle material
- Clothing take-back or recycling scheme
- Uses organic/sustainable cotton
- Reuses or recycles unsold stock

The first three questions were asked if they joined these organizations to work toward sustainability. The rest of the questions were relating to their business practices.

The verdicts came out as the following:

- Only Asos, Burberry, M&S, Tesco and Primark are engaged.
- Asda, Arcadia, Debehams, and Next are moderately engaged.
- Amazon, Boohoo, JD Sports, Missguided, Sports Direct and TK Maxx are least engaged.

In according to the finding that the current business model is unsustainable at all, and the retailers' engagements are lagging behind.

We read that the retailers are aiming at the following:

- M&S aimed for 80% of materials coming from sustainable sources by 2025.
- Primark planned to source all cotton sustainably.
- Tesco by 2019 will use all sustainable cotton, 2030 will use all recycle polyester.
- Asos planned 2020 as interim goal of 60% from sustainable source and in 2025 for 100%.
- Burberry planned by 2022 for 100% "Better Cotton Initiative" cotton.
- Tesco would put 40 staffs to inspect factories in Asia to ensure decent standard.

Those least engaged fashion retailers choose not to explain or make any promise, except JD Sports commented the two principal brands that they are using, Nike and Adidas, are representing the 90% of their business, are internationally recognized as industry leaders who are driving sustainability with design and development of their product ranges. But to my opinion that this stopped only at the design stage of the products but not down to the production execution. It is inadequate. JP Sports continued to say that for products supply by third-party brands are unable for them to control.

Here are some of the findings of the fashion retailers that I have picked to introduce their background.



**Asos** - It stands for "As Seen On Screen" which is an online shopping founded in 2000 in London. It is delivering to 196 countries in UK, US and Europe and it has different distribution centers in these regions.

It covers clothing, shoes, and accessories for women and men. Its revenue for 2018 was £2.4 billion and it has 3,722 employees.

It is inexpensive and average for the outerwear is \$40/50 and claimed to have 85,000 products.

I have counted that it has 900 factories supplying Asos in 18 countries. It is widely spread.

**Marks & Spencer** - It was founded in 1884 with the headquarters in London. It has 1,463 locations worldwide with 80,787 employees. It has the turnover of £10.38 billion in 2019.



It covers women, men, kids clothing, lingerie, home and food. It is also very affordable.

It sources in 68 countries and territories from 1,762 factories with 1 million workers in total.

It promotes sustainable cotton, sustainable swimwear made with 100% recycle plastic bottles.

For food, it has the M&S Select Farms with 900 food products from trusted farmers. It carries sustainable seafood. It was the first to introduce Fairtrade products in tea, coffee, chocolate and wine.



**Tesco** - It was founded in 1919 as a grocer. Its headquarters is in Welwyn Garden City, Hertfordshire and has 6,800 shops in UK, Ireland, India, Malaysia, Thailand, Czech Republic, Hungary and Poland.

In total it has 450,000 employees and the turnover of £64 billion. It is the third-largest retailer in the world, and ninth-largest retailer in the world measured by revenues.

It sells books, clothing, electronics, furniture, gasoline, software, financial services, telecoms and internet services.

Tesco forms partnership with Rainforest Alliance in cocoa for their own chocolate brand. It is providing the largest retail electric vehicle charging network in UK. Tesco joins force with WWF to make food more sustainable. Joined the United Nations Sustainable Development Goals with the 17 initiatives as the following.



For clothing they have women, men and kids.

Tesco also has program to support the community.



**Primark** - It is an Irish fast fashion retailer with headquarters in Dublin. It was founded in 1969 in Dublin. It has 368 stores spread out in Europe and also nine stores in the US.

It has a turnover of £6 billion.

It has 70,000 employees and it is selling clothing, including children and babies', accessories, footwear, confectionery, cosmetics and housewares. Economists wrote, *"For many shoppers, Primark has an irresistible offer: amazing trendy clothes at amazingly low prices. The result is a new and even faster kind of fast fashion, which forces consumers to buy heaps of items sometimes even the same ones to use when the first ones worn out, discard them after a few wears and then come back for another batch of new outfits"*.

It is working closely with UNICEF.

I consider that the above are four of the more key players in the sustainable fashion. And I hope that the information will be useful to follow them closely going forward.

I would like to write a bit more about the two points that the fashion retailers stated in their commitments:

- Clothing take-back or recycling scheme
- Reuses or recycles unsold stock

It was not too long, in fact in my July 2018 article, Insight into Africa - Part 2, I mentioned about the use of the second-hand clothes the private companies in the US and Europe are carrying out as the business with the developing countries. They buy surplus donations from charities and ship them to the African countries and the South East Asian countries. This is a multi-billion-dollar business across different continents. We have heard the complains from African countries that these cheap cast-offs hurt their own promising garment industries and drove the tailors out of business from doing the ethnic clothes. The Philippines banned the import because it hurts the people's morale.

It is important to know how do the fashion retailers handle those reused or unsold stock. If it is not going through the right channel then it is creating another problem that would need to avoid.

Perhaps I can write a bit more about the true meaning for being a sustainable fashion manufacturer, we have to observe the following:

- Understand the social and environmental impacts that can bring upon the business.
- Working upstream with suppliers who can share the same concept, but most important the same belief, and eventually the same ethical practice.
- Need the fully integration and capability to control the whole supply chain and use the industrial engineers to create the complete mapping.
- Everything will need to be traceable, and a system to show the details, even down to the level of the individual workers. This is important for the record and most important for the necessary corrective action after any problem is detected.
- Start to use the artificial intelligence back with algorithms for taking more accurate decisions for the management.
- Eliminate unfair labor practices in factories all the way up the supply chain.
- Only practice sustainable policies and actions that can be practicable.



Sustainable Fashion Initiatives will need collaborations from the labor unions, NGOs and retailers for the funding. The fashion manufacturers will perhaps need to stay with the better retailers and brands who can afford better price. The better suppliers will be known as the first-tier vendors will need to be able to fetch a higher price in order to sustain their performance. Those off-price retailers are looking for the cheapest source of supply and their manufacturers are their moving targets as the off-price retailers don't grow and flourish relationship.

Moving towards sustainability will need to share the financial burden fairly. To take up the cost for the change and to share is the correct attitude.

Personally, I am not too crazy about the using of organic or sustainable cotton. Cotton is still the most-used fiber in the apparel industry. It is important to use the long staple cotton and the combed cotton which can make the difference for the hand-feel and eliminate the peeling.

It is important to control the discharge of hazardous chemicals, and to study the way to reduce the use of the water during the dyeing process.

Regarding the re-use and recycle of the garments and the way to handle the unsold stock will be something for the fashion vendors to find out their way. Perhaps buy closer to the market and not to have any over-bought is always a good way.

Industry needs to find a way to collaborate on a broader scale and organize to change on an all-out scale. But at the end of the day we will have to pay attention that there are competitors around you. We have to set up ways to better protect ourselves. The signing of the non-disclosure agreement before entering into any partnership will have to be considered.

Finally, look at other industry, for example the food industry, where they have successful cases that competitors are working together to tackle plastic pollution, food waste and deforestation. We ought to explore more and to learn the best practice from them.

End of the day, I think that those off-price retailers and the fast fashion retailers will need to put their acts together and become a good competitor. Otherwise, don't label yourself as the sustainable fashion.

Before I close, I ask you to visit these websites



Sustainable Clothing Action Plan (SCAP) under WRAP in UK,  
[www.wrap.org.uk](http://www.wrap.org.uk)



Action Collaboration Transformation (ACT) see  
[www.actionlivingwages.com](http://www.actionlivingwages.com)



Ethical Trading Initiative (ETI) see [www.ethicaltrade.org](http://www.ethicaltrade.org)

# OPPORTUNITIES FOR SWIMWEAR

ARTICLE FROM  
THE WALL STREET JOURNAL

MIMI SIA

# Opportunities for Swimwear

## Introduction

Used to be the most difficult decision when a woman has to decide when she is buying a swimwear. In my experience in the production of swimwear, the first swimwear that we were entrusted to develop and to produce was the swimwear for Next Direct, the renowned UK retailer for the yuppies, and it was in the early 1990s. I recalled the style was with the embedded of the cup shape, and because we were known for the bra production, we were being entrusted for this job. I also recalled that it was a one-piece with the tummy-control and it involved a bit of the tailoring design. It sold for two years in the Next Direct which was their catalog business. Their purchasing team told me that the swimsuit was meant for the strolling along the poolside and it was not really meant for swimming.

Our experience with swimwear further developed with the coming on board of the swimwear business with Victoria's Secret in the second half of the 1990s. At the time, they were the leaders for the swimwear business with their famous swimwear catalog, 12 issues plus two for the special occasions. They were also the first company who was selling swimwear all-year round. With all the sub-brands that they created like Very Sexy, Forever Sexy, Secret by Victoria's Secret Swim, Beach Sexy, Gorgeous, and this business were doing \$500 million but to everyone's surprise, they stopped it in 2016. There were lines covering all market segments and it was loved by the market and envied by the competitors.

Today, the swimwear can be considered as the essentials for a woman's wardrobe. She will have different styles for different functions. Also, lifestyle and the attitude have changed as holidays are becoming very popular with consumers. With the using of social media like Instagram and Facebook, the pictures showing the holiday would need the wearers to rush for another new swimsuit so that they can look fresh. This is definitely helping the business.

Please sit on the deck chair and enjoy what we have prepared for you, and summer has already begun on June 21.

We would like to state that this article was inspired by the Wall Street Journal and they spent many pages to introduce the swimwear.

THE WALL STREET JOURNAL

SATURDAY/SUNDAY 22-23 JUNE 2019

## The Definitive List of Summer's Best Swimsuits: An A-to-Z Guide

While it's a cliché that bathing suit shopping is depressing, it need not be given the accommodating and inventive array of options today.

*By: Katharine K. Zarrella*

Updated June 19, 2019 2:22 pm ET

FOR BATHING SUIT shoppers, the selection out there prompts a more interesting array of questions than in the past, when the most pressing style dilemma was “one piece or two?” Designer Lisa Marie Fernandez said the market has expanded exponentially since she launched her eponymous swim line 10 years ago—and she credits the new prominence of swimsuit selfies. “Instagram is the red carpet for swimwear,” she said. Swimsuits are now as considered as the rest of your wardrobe, with brands—taking cues from the runway—using fabrics with more varied textures, clever embellishments and intricate details. Ms. Fernandez designs with a “ready-to-wear philosophy,” which means using materials like seersucker and PVC, and ensuring that her suits can double as admittedly daring daywear (see “C for Cardigan”). But it's not all about style: Sabra Krock, the New York-based creative director and co-owner of Everything But Water, a retailer that's specialized in swimwear for over 30 years, believes quality and fit should be paramount for shoppers. “It seems like it's a teeny little item...but to get swimwear with the right construction to flatter, wear well and fit well is actually much trickier than you would imagine,” she said, noting that fabric with a good amount of stretch is a sign of quality. “Whether you're going on holiday or just spending the summer in it, you are creating memories in your swimsuit,” added Ms. Fernandez. Here, 26 styles you won't forget any time soon.

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS



**A is for Asymmetrical**

Combines '90s minimalism and the elegance of iconic Princess Diana evening wear.

Swimsuit, \$385,

[flagpolenyc.com](http://flagpolenyc.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**B is for Belted**

This waist-defining one-piece can make even the local pool feel like a scene from a retro Bond film.

Swimsuit, \$168,

[solidandstriped.com](http://solidandstriped.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS



**C is for Cardigan**

Ground zero of the swimwear-as-ready-to-wear trend, this quaint cardi can actually take a dip, paired with a bikini bottom.

Cardigan, \$195,

[lisamariefernandez.com](http://lisamariefernandez.com)



PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS



**D is for DTC (Direct-to-Consumer)**

Summer's about easy living, so cut out the middleman (and the associated markup) with brands like this.

Top, \$50, Bottom, \$45,

[summersalt.com](http://summersalt.com)



PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**E is for Eighties**

This neon demon conjures the electric days of “Miami Vice,” for better or worse.

Peixoto Swimsuit, \$114, *the Beverly Hills Bikini Shop*,  
310-550-6331

PHOTO: F. MARTIN RAMIN/THE WALL STREET  
JOURNAL, STYLING BY ANNE CARDENAS



**F is for Fancy**

If you’ve ever wondered what Marie Antoinette would wear to the Hotel Bel-Air, look no further.

Swimsuit, \$275,  
[loveshackfancy.com](http://loveshackfancy.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET  
JOURNAL, STYLING BY ANNE CARDENAS



**G is for Gingham**

You won't risk looking like a picnic blanket in this sweet combo from a hot Scandi brand.

Ganni Top, \$125, Bottom, \$80,

[matchesfashion.com](http://matchesfashion.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS



**H is for Hardware**

Utilitarian clasps give the modest maillot a polished update. Extra intel: It's a Team Tory favorite.

Swimsuit, \$218,

[toryburch.com](http://toryburch.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS







**I is for Inclusive**

For that elusive fit when you're not sample size, Malia Mills's bikinis come in a range of sold-separately supportive pieces.

Top, \$245, Bottom, \$180,

[maliamills.com](http://maliamills.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**J is for Jungle**

Verdant prints will help you blend in when you visit the Costa Rican rain forest—whenever that may be.

Swimsuit, \$100,

[outdoorvoices.com](http://outdoorvoices.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS





**K is for Knit**

A nod to the '70s, Missoni's signature crochet evokes bohemian bliss all'Italiana, if too skimpy for butterfly-strokers.



Swimsuit, \$595, *Missoni*, 212-517-9339

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**L is for Long-sleeved**

A covered-up rebuttal to Rudi Gernreich's scanty infamous 1964 monokini—with built-in sun protection to boot.

Swimsuit, \$220, [coverswim.com](http://coverswim.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS





**M is for Mix-and-match**

Sometimes two prints are better than one, especially when they're as wallet-friendly as these.

SZ Blockprints & J.Crew Top, \$58,  
Bottom, \$48,[jcrew.com](http://jcrew.com)



PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**N is for Nano Print**

An eensy-teensy print may encourage loved ones

to come even closer to inspect it.

Top, \$135, Bottom, \$135,  
[matteau-store.com](http://matteau-store.com)



PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS



**O is for Opulent**

With rich reds and a bustier detail, this floral one-piece drips with dolce-vita, 1%-er decadence.

Swimsuit, \$695, *Dolce & Gabbana*, 212-897-9653

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**P is for Painterly**

A mess-concealing watercolor print proves handy when the ketchup for those beach fries explodes.

Top, \$150, Bottom, \$125,

[marahoffman.com](http://marahoffman.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS





**Q is for Quality**

Since its 1968 inception, Eres has set the swimwear standard with luxe fabrics and cuts that complement the female form.

Top, \$405, Bottom, \$335,

[eresparis.com](http://eresparis.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**R is for Ruffles**

Frills lend feminine flare to a simple cut—and, in this case, emphasize the bust.

Karla Colletto Swimsuit, \$288, *Waterlilies San Francisco*, 415-474-9200

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS





**S is for Sporty**

An ideal perk-up for week two of vacation, when the bubbly and bliss grows blah.

Adidas & Stella McCartney, Top, \$65,  
Bottom, \$50, [adidas.com](http://adidas.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**T is for Triangle**

Miné Mediterranean's less-is-more string style is ideal for week three of said vacation, post-jogs.

Swimsuit, \$285,  
[minemediterranean.com](http://minemediterranean.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS





**U is for Underwire**

New York label Araks, known for creating those iconic “Lost in Translation” pink panties, also does a mean bikini.

Top, \$210, Bottom, \$135,

[araks.com](http://araks.com)



PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS

**V is for V**

Remember J. Lo’s infamous deep plunge Versace dress from 2000? This is kind of like that.

G-Label Swimsuit, \$285,

[goop.com](http://goop.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS





**W is for Wrap**

Why should Diane von Furstenberg's wrap dress get all the fun? You can cinch your suit now, too.

Swimsuit, \$350,

[zimmermannwear.com](http://zimmermannwear.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY JILL TELESNICKI

**X is for X-Lacing**

Crisscross lacing fuses sweetness and seduction—and has the added advantage of expanding post-pizza in Amalfi.

Swimsuit, \$363,

[marysia.com](http://marysia.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL, STYLING BY ANNE CARDENAS







**Y is for Yellow**

An itsy-bitsy-teenie-weenie classic. The only drawback?

Your uncle might sing the tune by the pool.

Top, \$165, Bottom, \$135,

[carolineconstas.com](http://carolineconstas.com)



PHOTO: F. MARTIN RAMIN/THE WALL STREET JOURNAL,  
STYLING BY ANNE CARDENAS

**Z is for Zippers**

Sporty zips in primary hues create an hourglass effect. Zips  
= not a great idea for mothers of toddlers.

Vilebrequin & JCC Swimsuit, \$295

[,vilebrequin.com](http://vilebrequin.com)

PHOTO: F. MARTIN RAMIN/THE WALL STREET  
JOURNAL, STYLING BY ANNE CARDENAS



A MODICUM OF MODESTY / COVER-UPS TO PAIR WITH THE STYLES ABOVE WHENEVER A SWIMSUIT IS NOT QUITE ENOUGH (LUNCH, FOR EXAMPLE)



**V-neck + Vest**

Angles that align: A gauzy caftan with a plunging neckline mirrors the V-neck suit underneath. No protractor necessary. Caftan, \$425, [minemediterranean.com](http://minemediterranean.com)

ILLUSTRATION: LAUREN TAMAKI



### **Sporty + Sarong**

When you are training for a triathlon you obviously want everyone to know, so tie on this bright sarong only when you absolutely must. Sarong, \$48, [aritzia.com](http://aritzia.com)

ILLUSTRATION: LAUREN TAMAKI

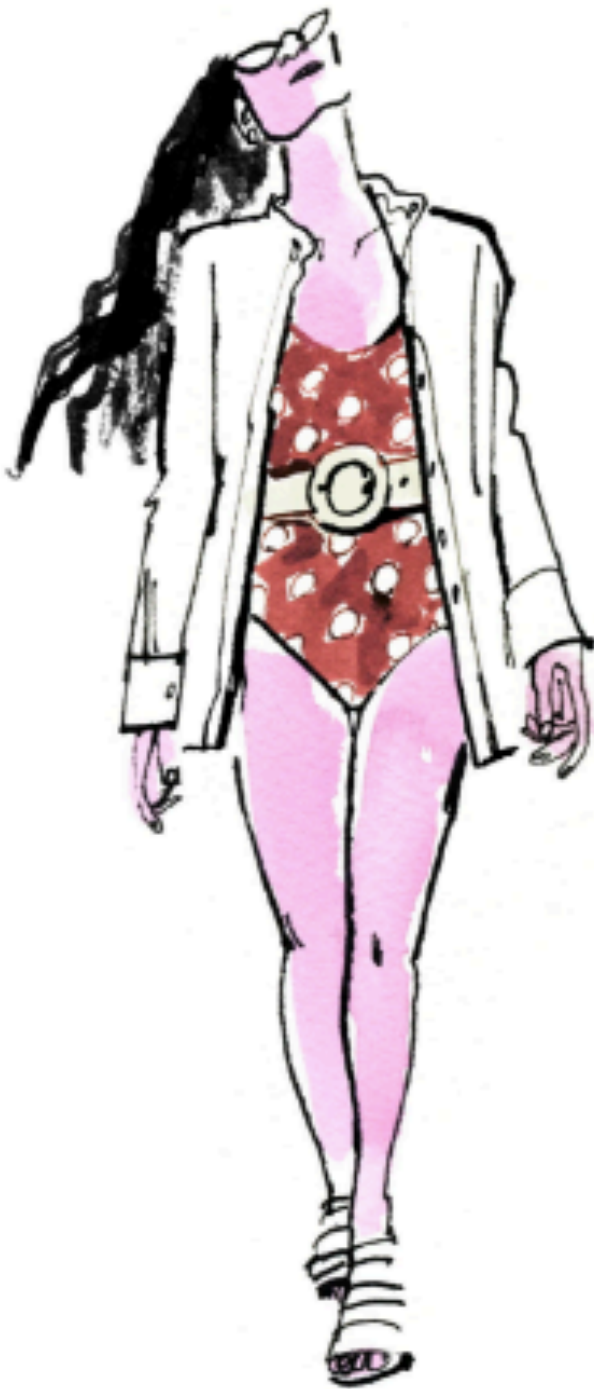


**DTC + Daisy Dukes**

For a short, snappy jaunt to, say, Austin, Tex., show off your latest e-comm-purchased bikini with some short, snappy jorts.

Shorts, \$98. [levi.com](https://www.levi.com)

ILLUSTRATION: LAUREN TAMAKI



**Belted + Button-Up**

Add contrast to this Marilyn Monroe-esque wasp-waisted belted swimsuit with a less overtly sexy linen shirt for a sweet contrast.

Shirt, \$250,

[equipmentfr.com](http://equipmentfr.com)

ILLUSTRATION: LAUREN TAMAKI



**Ruffle + Robe**

This ruffled-suit-and-louche-robe combo is very I-woke-up-like-this-at-my-house-in-Portofino. If that kind of appeals to you. Robe \$395

*figue.com*

ILLUSTRATION: LAUREN TAMAKI

# OPPORTUNITIES FOR MEN'S UNDERWEAR

ANDREW SIA

# Opportunities for Men's Underwear

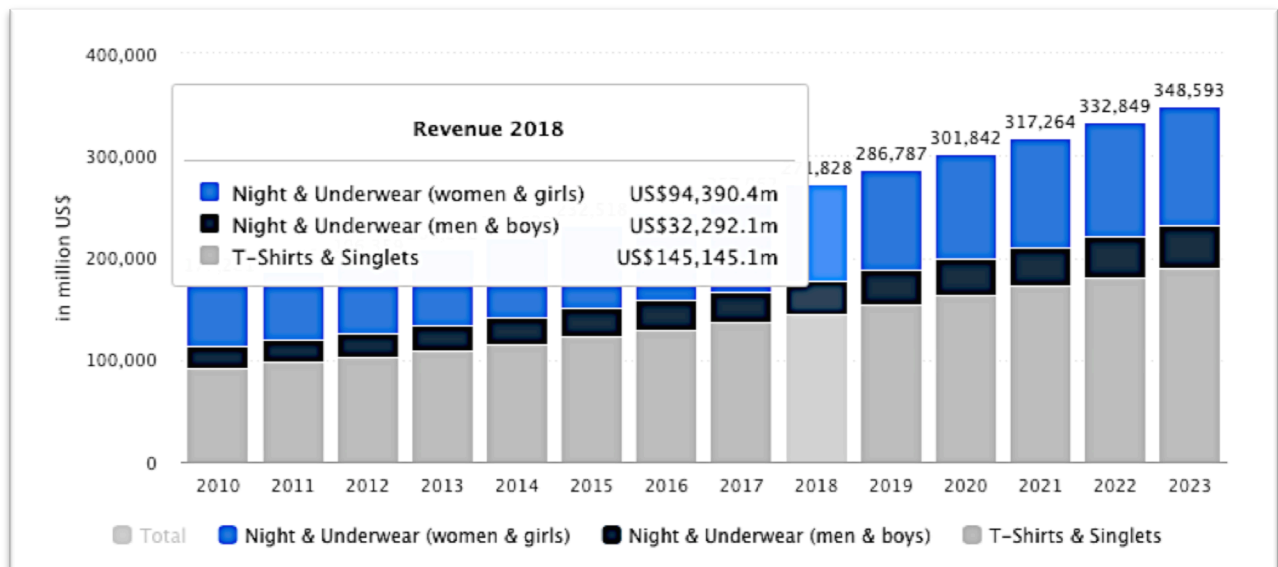
## Introduction

Men's underwear, or should I say that my first pair of boxer shorts was bought for me by my mother. Then I grow older, wife takes over the role. In my youth the cut was looser and it was using the woven fabric. Then it went for the tighter fit and the fabrics were in more selections, stretchy and with different fibers, and yet the cotton was always the choice. Now as I get older I am coming back for the loose fit and in the woven materials. Perhaps life is a full circle and we tend to go back from where we started.



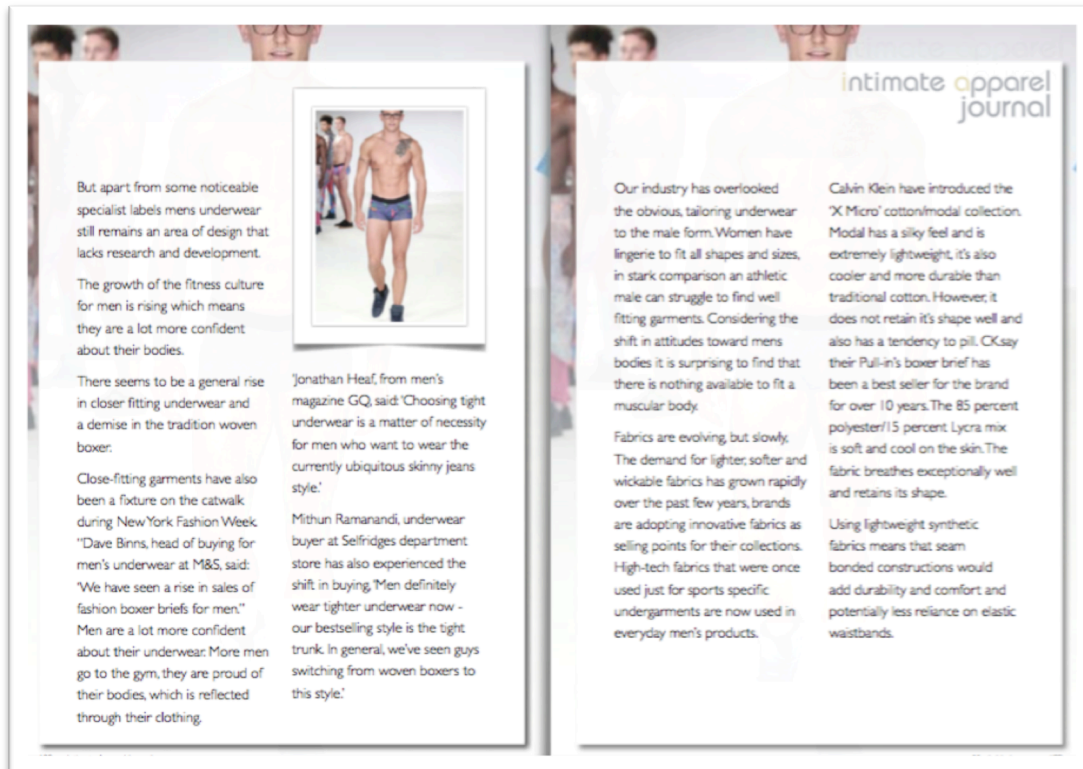
With the career of publishing the journal, I came across articles of the men's article, and it was a while ago, in fact in our March 2015 issue we posted an article for the men's article. I clipped the four pages and filled them in this issue. In that article it quoted the BVD underwear and found that it was a men's underwear brand founded in 1876. It was named after the three founders, Bradley, Voorhees and Day. Today, Berkshire Hathaway owns it and it is under Fruit of the Loom.

From Statista we read that the total revenue in the underwear segment is \$286,787 million in 2019. This market is expected to grow annually by 5%. In the US, it is still the leading market, and is \$52,191,000, which is representing 18%.





I am sharing with you the opening pages of the article as appeared in our March 2016 issue.



Allow me to share with you now the article that I have copied from the New York Times. Here, we are informed with the latest happening with the men's underwear. I hope that you will like them.

## The New York Times

### New Men's Underwear, Briefly

Brands like MeUndies and CDLP are trying to disrupt the market. We gave six pairs a test drive.



By *Max Berlinger*

Here's a news flash: Guys don't like shopping for underwear. Luckily, the same retail forces that disrupted razors, eyeglasses, luggage, mattresses and hair-loss treatments, have set their sights on men's drawers.

In the last decade, a handful of upstart labels are trying to dethrone old faithful like Hanes and Calvin Klein. Hate going to the store? Buy direct online. Forget to replenish worn-out pairs? Get a subscription. Can't choose? Buy several and return rejects for free.

Newcomers like Tommy John and CDLP are also using high-tech fabrics that promise to stay dry, odor free and comfortable, even in swampy conditions.

Still can't decide? We gave six upstart brands a test run, so you don't have to.

## Tommy John



Founded a decade ago, Tommy John is the Harry's Razor of the men's underwear market, with more than six million pairs sold through its website or at big American retailers like Men's Warehouse and Nordstrom.

**Aha Moment:** Aren't billowing undershirts the worst? That's what Tom Patterson, a former medical device salesman from San Diego, thought whenever his undershirts would bunch up under his suits. In 2008, with zero background in clothing, he and Erin Fujimoto (then his girlfriend, now his wife) designed the [Stay-Tucked Undershirt](#) with a tapered profile made of Micro Modal, a silky fabric derived from beech trees. Underwear soon followed.

**Target Guy:** No-nonsense dudes who don't aspire to be [Shawn Mendes](#).

**Sales Twist:** Satisfaction guaranteed for first pair ("the best pair you'll ever wear or it's free").

**Test Drive:** The "horizontal fly" is like a trap door for your privates. Odd and hysterical at first, but surprisingly functional. (\$25 to \$45)

Editors' Picks

## Mack Weldon



If Tommy John is the market leader among these upstarts, Mack Weldon is its techier brother. Primarily an e-commerce brand, the New York company recently opened its first shop, at Hudson Yards.

**Aha Moment:** Brian Berger, a former business executive for WebMD, saw how Lululemon had revolutionized athleisure wear and wondered why the same had not been done for men's underwear. So he took gym-friendly fabrics (breathable, antimicrobial and moisture wicking) and applied them to boxers and briefs.

**Target Guy:** Tech bros who care more about performance than fashion.

**Sales Twist:** Satisfaction guaranteed for [first pair](#). "Loyalty" [members](#) whose spending reaches \$200 get free shipping, 20 percent discount and gifts. Send back old pairs for [recycling](#).

**Test Drive:** The [Airknitx boxer briefs](#) stayed dry and ventilated, even after 60 minutes of treadmill and squats at Barry's Bootcamp. (\$24 to \$38)

## MeUndies



Instagram savvy, socially woke and unabashedly cheeky, MeUndies is a case study in millennial marketing. Based in Culver City, Calif., the company specializes in zany and cartoonish designs that feels like Underoos for adults.

**Aha Moment:** Jonathan Shokrian, an entrepreneur from Los Angeles, got the idea for MeUndies while buying underwear for a European vacation at the mall. He was dismayed by the experience, and a friend on the trip, [Jonathan Neman](#), a founder of Sweetgreen, urged him to start his own company. Mr. Shokrian did, as a subscription service to spare other men from the mall.

**Target Guy:** Guys who want their underwear to reflect their sparkly personalities.  
**Sales Twist:** Get a fresh pair delivered every month. Also, free shipping and returns.

**Test Drive:** Warning: if you wear a pair of boxer briefs with fire-breathing dragons, it will invite conversation from strangers at the gym, or wherever people can spy your underwear. (\$18 to \$24)

## Nice Laundry



Nothing says preppy like monogrammed socks, except maybe monogrammed underwear. That seems to be the thinking behind Nice Laundry, a New York label that started with athletic, formal and no-show socks, before adding boxer briefs to its lineup in 2016.

**Aha Moment:** Ricky Choi and Phil Moldavski were working at LivingSocial, an online marketplace in Washington, D.C., when they bonded over socks. Mr. Choi, who attended St. Albans School, a prep school in Washington, liked how his friend dressed (slim jeans, nice shirt, dark shoes) but was horrified by his ratty old gym socks. They found their entrepreneurial calling.

**Target Guy:** Possessive prepsters who want to keep track of their undies.  
**Sales Twist:** Free shipping and returns. Old pairs can be sent back for [recycling](#).

**Test Drive:** Soft and lounge-y, like that perfectly worn pair of underwear you love, minus the fraying and holes. (\$22 to \$34)

## CDLP



Designed in Stockholm, made in Portugal and marketed as earth-friendly, CDLP started three years ago and became a fashion favorite. The brand is sold through its website and is carried by influential retailers like Selfridges, Mr. Porter and Barneys New York.

**Aha Moment:** CDLP was founded by two fashionable Swedes — Christian Larson, a filmmaker and music video director; and Andreas Palm, founder of a branding agency — who thought that the men’s underwear market lacked something elegant and eco-friendly.

**Target Guy:** Nordic hipsters with six-pack abs, and effortlessly cool creative types from Brooklyn.

**Sales Twist:** Free shipping on orders above \$69.

**Test Drive:** Silky and sexy, not unlike women’s lingerie, though geared for men with swagger (not to mention flat stomachs). (\$29 to \$39; nine-packs start at \$195)

## SAXX Underwear



Inspired by the shape of catcher's mitt, [SAXX Underwear](#) features a hammock-like compartment that offers extra support and cradles and breathes. The brand appeals to outdoorsy types and is carried by REI and LL Bean.

**Aha Moment:** During a fishing trip in Alaska, Trent Kitsch, a former college baseball player living in Vancouver, British Columbia, spent four days getting chafed by his clammy underwear. He seized on the idea of an athletic cup and, while still in college, secured a \$20,000 student loan and hired a seamstress to create a dozen prototypes.

**Target Guy:** Active bros prone to chafing and discomfort.  
Sales Twist: 30-day satisfaction [guarantee](#).

**Test Drive:** Having fabric flaps cradle your nether region is both strange and comforting. (\$24 to \$40)



- Technical
- Supply Chain
- Sustainability
- Fashion & Design
- Market Intelligence
- Entrepreneurship

# MARKET REPORT



GENERATION Z:  
THE EARTH-SHAKERS  
AND  
GROUND-BREAKERS

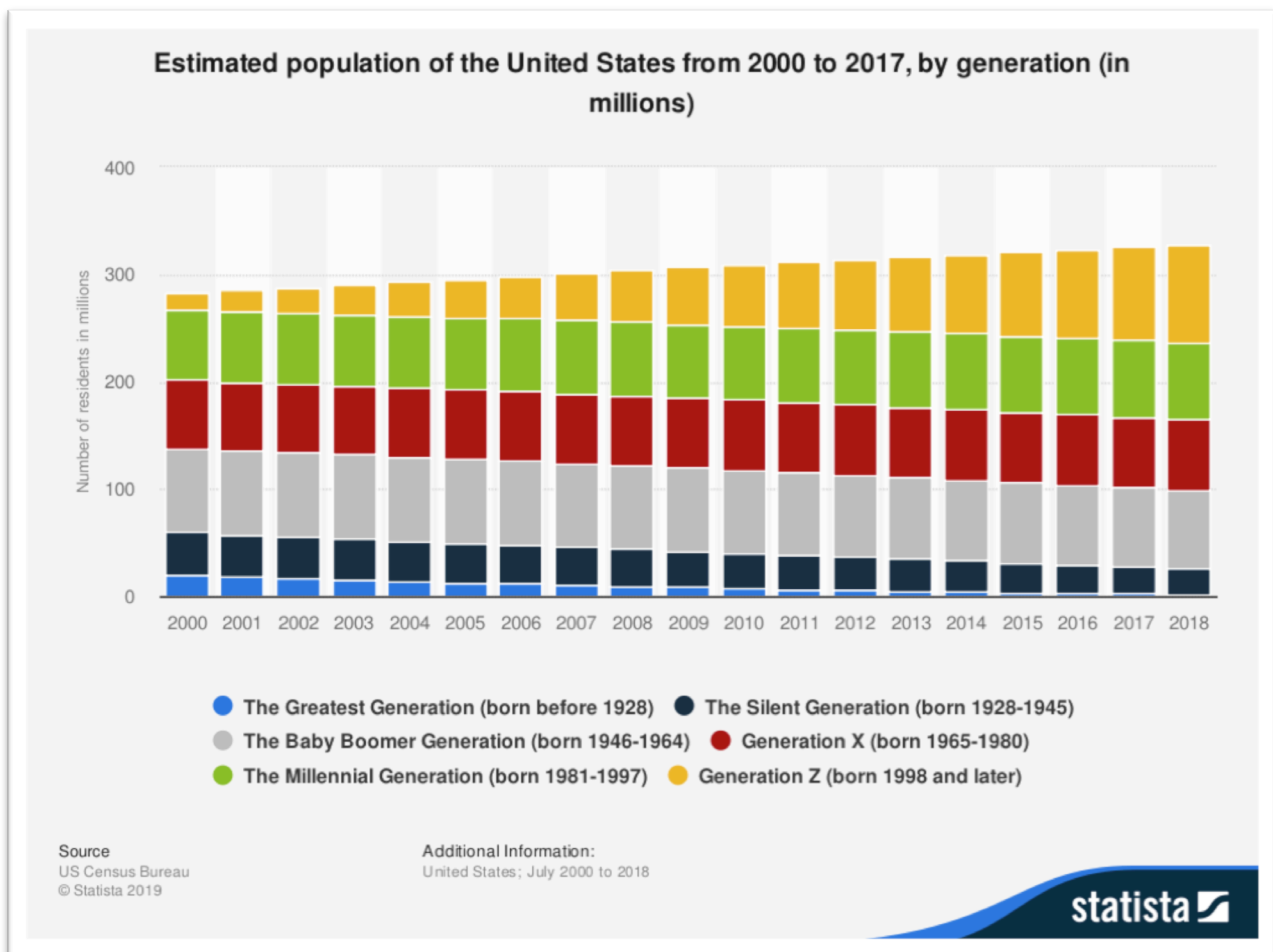
ANDREW SIA

# Generation Z: The Earth-Shakers and Ground-Breakers

## Introduction

This is an article written by Caroline Kopas, a fifteen years old girl, belonging to Gen Z, and she is the niece of Terri Fisher, and she is our Retail Ambassador and furthermore, she is also the President of Platinum Coast Retail Consulting. Terri was talking to her niece in the summer and found that Caroline's view about her generation is very clear and she encouraged her to write this article. I read it with the great interest and decided to use this as the starting of a series looking deeply into our demography. Out from our reports, our retail industry can position themselves to serve the different age group more effectively.

I started the article by sharing a chart that I took from Statista which explains to us everything for the population from 2000 until now.

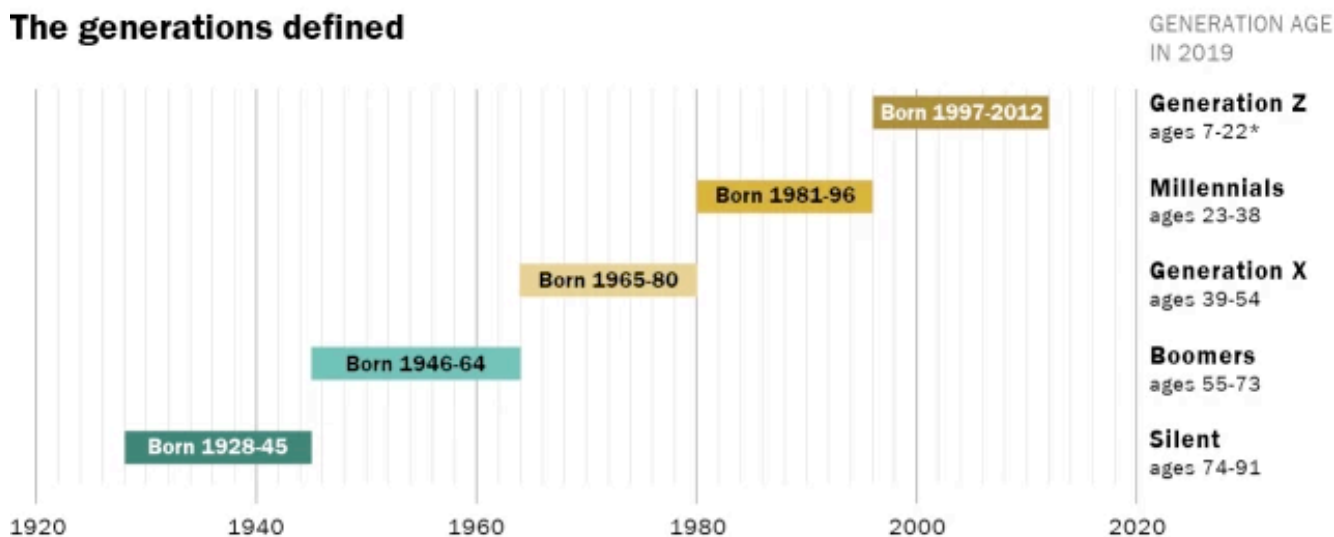


## Gen Z: The Earth-Shakers and Ground-Breakers as presented by Caroline Kopas

I was born in the year of 2004, making me fifteen years old. I know that my age is just a fraction of my life, and with ever-growing technology, that fraction will reduce as the years fly by. But I can assure you, without a doubt, that I and my generation as a whole, won't bide our time until the fraction of life (years lived over lifespan) grows larger. Instead of waiting for an opportunity to arise, we will bend the system until it either makes one for us, or we will make our own. We will make our own change in the world.

I'm part of what's called Generation Z, the generation that follows the Millennials. We are roughly characterized in the seven to twenty-two age range. An interesting thing about my generation, is that we have never known a world without technology. I have never had to scour an encyclopedia to answer a question- I've just had to google it. I've never had the chicken pox, or have had to search the Sunday paper for movie times at the local theater. Funnily enough, my generation has also never known a safe world.

### The generations defined



\*No chronological endpoint has been set for this group. For this analysis, Generation Z is defined as those ages 7 to 22 in 2019.

PEW RESEARCH CENTER

Either being young during 9/11 or born after, the war on terror has always been in the news. Also, in the news about school shootings. Statistically, in a poll seventy-five percent of Gen Z'ers reported mass shootings as a major factor of their stress. In the past school year, my principal sent an email to all of my school's teachers that a local vocational school was on lockdown due to a gun threat. My teacher stopped class, allowed us to use our phones, and gave us a break to contact friends, and think things over. I remember one of my friends crying, and another, usually diligent and obedient, sneaking her phone out for the next two hours trying to figure out what exactly was happening. It turned out to be an empty threat, but that didn't matter.



My school has lockdown drills where we have to barricade the doors and wind up our binders like javelins. We have lockdown drills where we have to hide behind desks in silent, ominous, darkness. We have lockdown drills where one side of the building needs to shelter in place, and where the other has to evacuate. I believe, and I know for certain that my belief is shared by many, that school shootings shouldn't be as big and as common of a threat. So instead of sitting miserably watching the news, and mindlessly suffering through lockdown after lockdown, threat after threat, my generation has called itself to arms, and rallied.

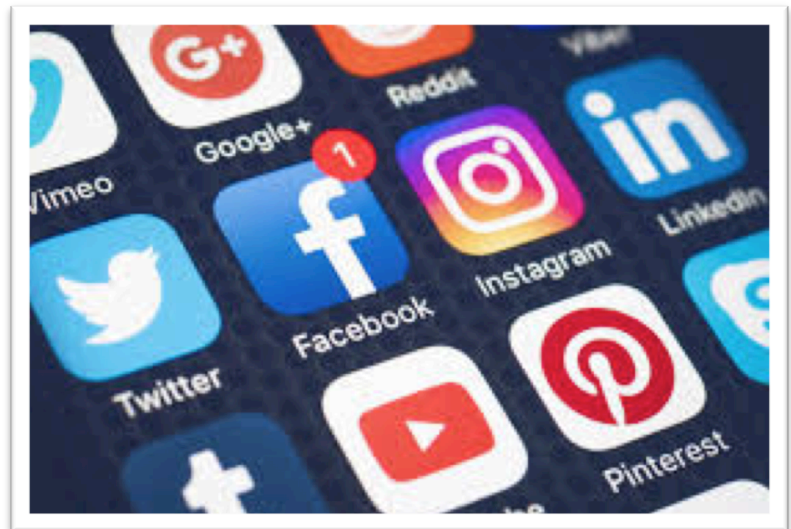
Generation Z is very active and informed in politics and current events. We play one of the leading roles in the fight against climate change, and in gun control. Many of my friends receive alerts on their phones, updating them on hard news. We are not the ignorant children some believe us to be, but a strong voice in world events and politics. We are the future. The kids now will be the presidents, and generals, and executives, and lawyers, and innovators of the future. Not the activists, though, because that we already are.

It's understandable that when so few opportunities present themselves, that people craft their own. Also, understandable, is that when a chance comes, we tend to take it. According to the website [entrepreneur.com](http://entrepreneur.com), forty-one percent of Generation Z's population plan to become entrepreneurs. I understand its appeal in a generation so vastly different from its predecessors, choosing to not work under them certainly could avoid unhappiness and conflict. Plus, who doesn't want to do things their way?

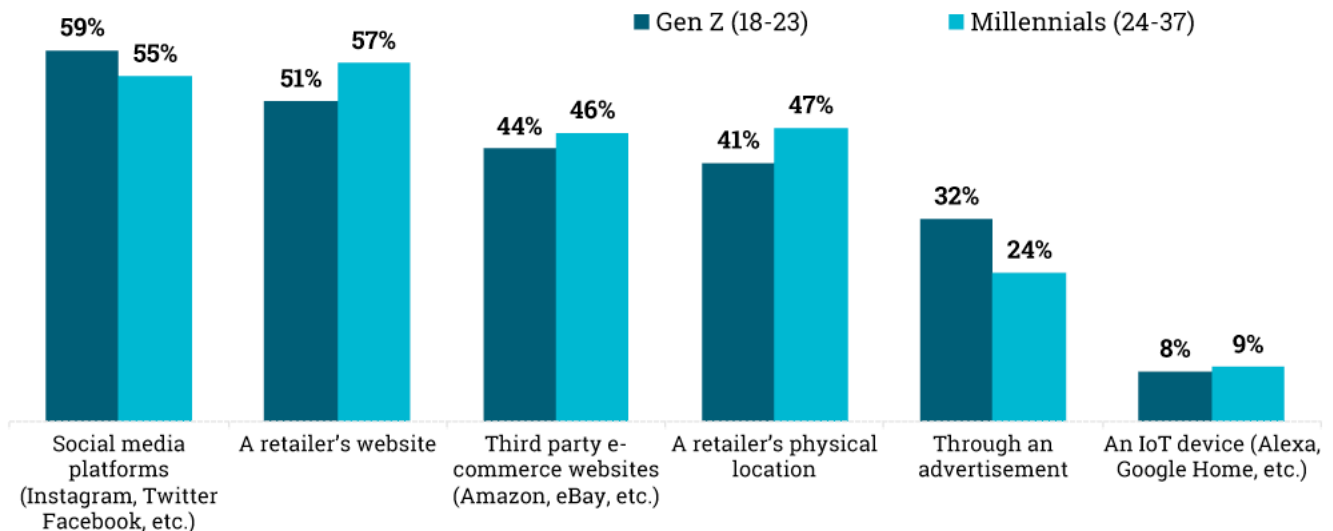




One of the best things, in my opinion, about Generation Z, is the communication. We could know what's happening around the world within seconds, talk to people who live oceans away, and even see what they see. One of the biggest ways this happens is social media. I know that social media, by far, isn't just a Gen Z thing. I know older generations love their Facebook, and even have heavy usage of other platforms such as Instagram, Twitter and Pinterest. Unlike other generations, my generation seems to be signed up for more varying platforms. We can check our Snapchat and see a silly selfie our friend took, then check our Instagram and see celebrities' photos in our feed, then open Twitter for the most recent news, and then maybe to head Reddit, to get a taste of internet culture. Maybe then we can open YouTube, and watch videos. I'm personally not a big social media fan, but even I know enough to see the clear picture: Gen Z has the world at their fingertips. But with all of that and more, I admit that we can have short attention spans. As my generation grows, along with social media, so does advertising and marketing. In fact, there is an entire elective in my high school dedicated to social media marketing. In this new age, ads need to be a little more attention grabbing, shocking, and maybe even a little controversial. Buzz about anything, good or bad, is still buzz, after all.



## Where Young Shoppers Often Discover Products



Published on MarketingCharts.com in September 2018 | Data Source: ViSenze

Based on a survey of more than 1,000 Gen Z (18-23) and Millennial (24-37) consumers in the US and UK

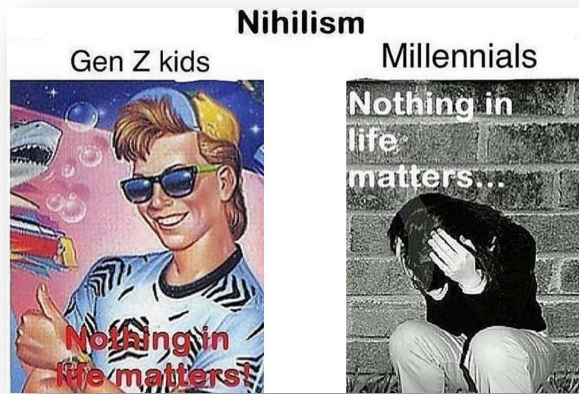
Q: "Where do you often discover products? (Select all that apply)"

On another note, Generation Z is both more aware and tolerant of the world around them. Sometimes awareness and tolerance come hand in hand, such as the case of LGBTQ+ rights, and ever-decline of racism. Some lean more to the aware side, such as mental health. In my high school experience, (which, on a side note, could immensely differ than others'), in terms of the LGBTQ+ community, coming out of the closet is not a giant groundbreaking ordeal anymore. I've learned of the queerness of my friends by off-hand comments, not even measured by them as something to make a big deal out of. I know coming out is a very emotional and big deal to some, but as tolerance and awareness grows, allies become more and more plentiful. Actually, queerness is also becoming more plentiful as well. Two thirds of Gen Z identify as straight, leaving an entire third for people in the LGBTQ+ community. There is less fear of judgement.

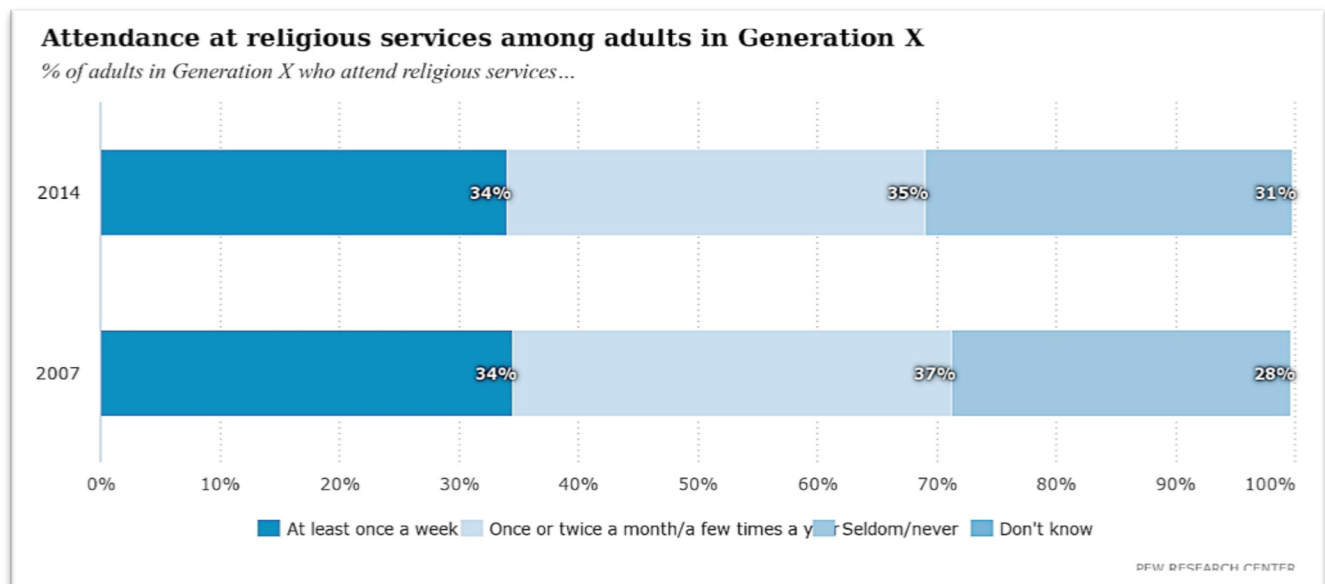


Also, in my high school experience, it is worth noting that never once have I witnessed racism. Granted, around eighty percent of my school is caution, but the fact stands tall nonetheless. In terms of mental health, Generation Z does seem to have a certain negativity also seen in Millennials. Self-deprecating jokes (along

with stupid references) seem to be the root of most of our humor. I personally know people who struggle with depression and anxiety. As with the LGBTQ+ community, Gen Z'ers feel more comfortable sharing this information, and, fortunately, getting help if struggling. My generation, more than any other, is more likely to admit they are dealing with mental illness, and should receive help.



We are also the least religious generation. I'm not sure if it's because of the prevalence of science in our culture, or because in Generation X (which tends to be the bulk of Generation Z's parents), only thirty-four percent say they attend religious services weekly. Nevertheless, the words atheist and agnostic have become more regular and less taboo.



Finally, on the topic of fashion, I'm going to speak from personal experience. More people in my school seem willing to buck up for better quality, name brand, and/or popular goods. While walking from class-to-class in the hallways, I often see different people wearing the same type of clothing, whether style or brand-wise. Some of these, maybe due to the popularity of them, are definitely not the cheapest products. Also, on the topic of fashion, people in my school have no problem wearing a blouse and skirt one day, then sweatpants and a sweatshirt the next. Whatever floats their boat that specific day is what they wear to school. I know people who have even showed up in their pajamas. Gen Z is also part of what's called "cancel culture."



If a brand or celebrity does or says something we don't like, lots of people "cancel" or boycott them and their products.

One of the defining characteristics of Generation Z, in my mind, is the expression of individuality and uniqueness. A girl wearing heels and a sundress could be considered fashionable by Gen Z, but so could a girl be wearing a band shirt and ripped jeans. Gen Z is starting to tear down the walls other generations built, and blur the lines until only the vague outlines remain.

On the topic of shopping, it is becoming less and less of a pastime and more of a necessity. Although we recognize the need and the experience of shopping in store, there's definitely something about convenience. With Amazon, we can buy anything we want from our sofas. And if the shoes don't fit or the laptop cover is too small, we can return it and swap it out for a proper one. Online couponing and promo codes also attract us to online shopping. Earlier in this article I mentioned short attention spans. Although not definite, I feel like it does go hand-in-hand with some level of impatience. If something pops into your head to buy, you could buy it within a few minutes, and have it possibly the next day.

All in all, Gen Z as a whole has proven itself to be leaders, not followers. Together, in our new revolutionary mindsets, we will craft a better, safer, and more inclusive tomorrow. Tomorrow is always sooner than you think, so it's time for a choice: hop on the train, or stand in the tracks, because we are advancing without a second thought of stopping. Here Gen Z comes, world, here we come!

# ECONOMIC INDEXES

ANDREW SIA

# Economic Indexes

When the economy goes tough, people start to loom for indexes. We are sharing some of those with you as the following.

**Underwear Index** - Was first mentioned by Alan Greenspan, former chairman of the US Federal Reserve during the depths of the global financial crisis.

**Big Mac Index** - It was published by the Economist as an informal way of measuring the purchasing power parity (PPP) between two currencies as a test to which market's currency is better as the cost of living.

**Lipstick Index** - It is considered as an inverse indicator as when time is bad, women spend money on lipstick rather than expensive purchases like shoes or clothing.

**High Heels Index** - It is used to predict downturns. People think that women will turn to heels as a means of escape when things are bad.

In China, people in general, mistrust the official statistics. There are other indexes to help them.

**Pickle Index** - It is used to measure the rate of Chinese's urbanization. Migrant laborers like to eat pickles, so when the sales are up in a region it suggests laborers have arrived.

**Li Keqiang Index** - He mentioned that his province, Liaoning province's statistical figures are "manmade" and he tends to track the trend through the province's railway freight volume, electricity consumption and bank loans.

**Liaoning's Underwear Index** - This came from the Global Times cited data from the research of the online retailer JD.com that men's underwear sales jumped 42% in 2017 and 32% in 2018. Liaoning came on top of any other provinces. This index may be coincidentally right because the province's figures for industrial profits, production and consumption have been on the rise. Much of the growth may come from China's stimulation for economy as by almost any measure, China's economy is slowing.

Chinese consumers are cautious, apartments are not selling, in fact, industrial profits are falling. The country's stock market lost a quarter of its value in 2018. China's leaders are navigating a protracted trade war with the US and it is making the matter worse. By reducing the interest rate, Beijing is trying to boost the domestic consumption and China is sitting on a very big market. Hopefully that this will help.

Liaoning is part of China's rust belt and can certainly use some help here with the Liaoning's Underwear Index. Any of the infrastructure program can use the steel and the cement that Liaoning is producing.

# GLOBAL ECONOMIC PERSPECTIVE

ANDREW SIA

## Global Economic Perspective

Global manufacturing is losing its momentum because of the Sino-China trade friction, as well as regional disputes and troubles with the car industry and smartphone. And in the time of uncertainty, consumers on spending have weakened, this would have dragged down the activity of the factories.

This is the report for the second quarter of this year.

**China** - China's manufacturing has been slowing down due to the trade war with the US. Although it has stabilized in July, it is still in the contraction mode. According to Caixin China general manufacturing PMI index of July, it rebounded to 49.9 from 49.4 in June.

It is said that business confidence is picking up. The stronger domestic demand for manufactured goods is offsetting weak export orders from trade tensions and global slowdown. At the beginning of the year, its tax reduction has created a positive effect. And China is slowly moving away from a manufacturing mode towards a servicing and domestic consumption mode.

For the other Asian countries, Nikkei-Markit manufacturing purchasing managers' index has been used. We have the following.

**South Korea** - South Korea's export continue to decline for the eighth month. It is Asia's 4<sup>th</sup> biggest economy. Its June export was \$51.8 billion and for July it was down to \$46.14 billion, which is a drop of 11%. Its year-on-year was 13.7%.

South Korea's index in July it was 47.3 and 47.5 was its previous month.

South Korea's semiconductor industry has suffered the sanction from Japan over the dispute for compensation for forced labor by Japan during the WWII. This is the historic grievances.

Also, Japan stopped the supply for the three materials, fluorinated polyamides, photoresists, and hydrogen fluoride, which Japan produces almost of the world's supply, to South Korea because they claimed that these materials had been illegally shipped to North Korea for them to make weapons.



This is threatening the tech giants of South Korea, Samsung, LG and SK Hynix and this would disrupt the global market for the semiconductors and more than 90% of smartphone screens.

If this dispute cannot be resolved, this can upend security cooperation in the Pacific between Japan, South Korea and the United States. Also, the intelligence-sharing agreement with Japan is crucial to Japan's dealing with South Korea,

**Japan** - Japan is in its third month's contraction, in June it was 49.4 but in July it slides to 49.2

**Taiwan** -Taiwan bounced back in July to 48.1 from a near-eight-year low of 45.5 from June.

**ASEAN countries** - On the whole, the whole SE Asian region where the factory output falling for the first time in two years. Market demand has slide due to weak demand.

In fact, ASEAN countries saw its first decline in output for two years, in July, the purchasing managers' index was 49.5 and it was 49.7 in June as the whole.

Indonesia, largest economy in ASEAN countries declined for the first time in 6 months.

The better developed countries in the region like Malaysia and Singapore continue to deteriorate.

**Europe** - It is heavily depending on globalization and the two goods that are symbolic to this are the smartphone and the automobile. The demand for the new smartphone has weakened as consumers are not looking for any upgrading, and this is affecting Asia's semiconductor factories. The car industry is still trying to come out from the diesel scandal and it is forecasted for a decline in sales this year.

Brexit is an overcast over Europe.

Factories in Turkey are not busy.

Strong US dollar is slowing down Europe's economy. This is costing more money in the global value-chain which is using US dollar for settlement.

In this time of political turmoil, investments have been put off. What is left is servicing, but this is depending on a healthy job market and consumers would need the confidence to spend. And the current weak export market is dragging down the servicing industry. Not to forget that industry supports the job market and that leads to servicing.

The world market is so far still resilient disregard the trade disputes but we need the politicians to be intelligent and not to rock the boat too hard.

We hope that we will be in the position to report in the third quarter.

# TRADE TARIFFS IS THE DOUBLE-EDGED SWORD

ANDREW SIA

# Trade Tariffs is the Double-Edged Sword

## Introduction

It seemed that the trade negotiation between the world's largest economy have hit the wall with the last round at the end of July. Trump placed 10% tariffs on \$300 billion for the balance Chinese goods effective on 1 September, 2019. This is escalating the trade war between the two countries and furthermore posting a threat to the global economic outlook. Trump started the tariffs 18 months ago, and on 1 August he called for the remaining \$300 billion.

He continued by saying, "If they don't want to do business with us anymore, that would be fine with me." Since the beginning of the trade war, Trump has portrayed America always as the winner of this trade war. He publicized that the tariffs are punishing China's economy while generating billions of dollars for the US.

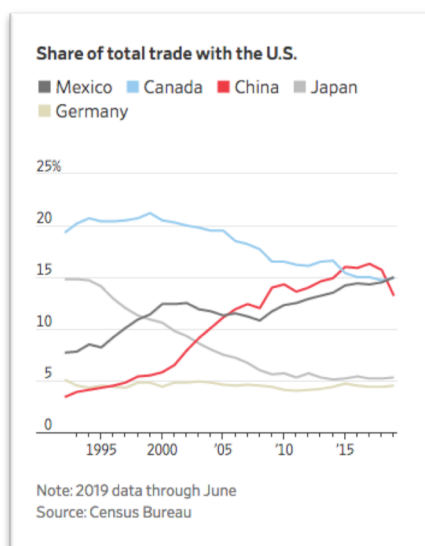
The US economy has nonetheless expanded than other advanced economy for both last year and the first quarter of this year. But global growth has stopped. This is showing that the US appetite for imports have grown but foreign demand for US exports have depressed.

For the trade war, Trump insisted that increasing the tariffs is the best form of leverage. And against the advice from his teams, unfortunately Trump insisted to proceed.

Now that the tariffs is inclusive and it is covering all the categories that US is importing from China. The \$300 billions of China imports are for the first time, targeting US consumers. This is going to hit the US consumers with a very weak retail market already.

## What happened earlier on with the tariffs

Early last year, Trump started with 25% tariffs on \$50 billions of industrial products. Then the 25% on a further \$200 billions of products in the late 2018. Now it is the \$300 billions of which many of those will fall into the consumables.



And because of the tariffs US imposed on China, for the first six months of this year China is no longer its largest trading partner. For the same period, compared to last year, it is reduced to \$271.04 billion or by 14%. It is lower than Mexico's \$309 billion and Canada's 307 billion. According to the record, China has been the number one country in trade with US from 2015 to 2018. For the first 6 months, import from China dropped by 1%, but US to China's export dropped by 19%.

Not only the trade war between US and China is affecting the global economic growth, it is also damaging the US export. Many US economists don't agree to Trump's idea about the way of handling the trade deficit but more agree to the free trade except if the trade deficit is becoming too big and it will affect the US economic growth.



Due to the tariffs, many US companies are moving their operations out from China and relocated them in other countries. Countries like Vietnam, India, Taiwan, and Malaysia are benefiting from this move.

Already it is predicted that Vietnam will expect to reach \$65 billion this year which is 36% increase from 2018. But those are the electronics and clothing.

The last batch of the \$300 billion import from China is covering everything that US import from China. This time it doesn't leave out clothing, shoes, electronics and toys and it is affecting all the consumers.

### **It is affecting the retailers**

Retailers are already battered by the e-commerce, and as the result shops closing and vacant malls is devastating. The National Retail Federation estimates that China supplies 42% of all apparel, 73% of household appliances and 88% of toys sold in the US. So that you know, shoes are accounted for 70% of the import from China.

This threat of tariffs couldn't arrive at a worse time as the margin for the clothing business is at its lowest margin without any room to maneuver. The biggest part of their business is from now until the end of the year and in this five month it will be their make-or-break moment. If I am not wrong that you can say 70% of their total revenue for the year will happen in these five months.

Some retailers, such as Macy's, Nordstrom and Kohl's, with their share prices were hit badly when the announcement for the new tariffs was announced.

Williams-Sonoma, Target's and Dick's Sporting Goods, were hit as well. Yeti, L Brands and Gap were inevitable under this circumstance.

So far, Nike is still performing well due to their global strategy and their business in China is around 23%, and it is unaffected. Having said that, the shoes industry is highly depending to China for the supply, we already mentioned that the shoes is reaching its 70% according to Footwear Distributors and Retailers of America (FDRA). Its members have included Walmart, Nike, Crocs and Steven Madden. Its CEO, Matt Priest said that even the 10% would be destructive to the consumers as there is nowhere to escape.

Some price indications for the increase like, canvas surfing shoes will increase from \$49.99 to \$56.89, boots from \$190 to \$222.27, running shoes from \$150 to \$187.50, but I found that this has already taken the increase of 25% in account.

Companies like Nike, Under Armour and Puma have reduced their dependence to China production and have switched to other neighboring countries already.

In 2018, US imported \$11.4 billion worth of shoes from China. And according to the annual report of Nike, their Vietnam production is 47%, China 26% and Indonesia 21%.

Same for Adidas, they are importing 42% from Vietnam and only 18% from China.

American Apparel and Footwear Association's Rick Helfenbein, said that the increase of the tariffs will have to pass on to the consumers as to move the production out from China is taking long time than expected. It is quite true here that it took 30 years to build up the supply chain in China with the training and setting up for the operation. It will take up several years for the other Southeast Asian countries to build up the supply chain for export. The fact is also that there is no evidence of any manufacturing reshoring in the US because of the process and to rebuild the supply chain is a painstaking matter.

Earlier on, in fact it was in late June, 170 retailers called on Trump and asked to stop the trade war with China. Already the brick-and-mortar stores are losing ground to the e-commerce. For them to bear any additional cost will cause more store closing which will create more job loss.

Earlier on American, retailers have plans to shut 7,000 stores in 2019, and already for 2018, around 6,000 stores were closed. This included liquidations, restructuring and downsizing. Now according to Coresight Research, closure can go as high as 12,000 stores for 2019. Already 50,000 jobs have lost.

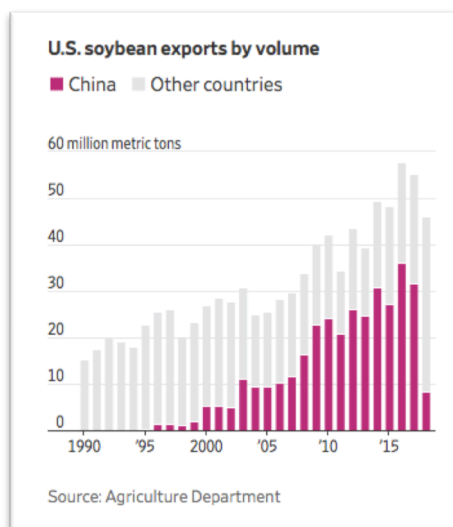
The increasing of the tariffs will bring recession and will add 0.4% to the inflation rate and reduce economic growth by the same amount for 2020.

With China as the "world factory" since 2005, many of the big boxes benefiting from it. It has also been working well with the consumers, and reducing the inflation has prospered the economy. No one loses in this and everyone come out as winners, that is until Trump started to introduce the tariffs.

## It is affecting the farmers



Since the tariffs started 18 months ago by Trump, it backfired and China put the tariffs of 25% in July 2018 on the \$60 billion import from the US. This is affecting largely the import of soybeans from the US farmers.



It was also retaliated on tariffs Trump first imposed on foreign steel and aluminum in the spring of 2018.

Soybean exports was in its all-time high in 2017, it was worth \$21 billion and it was the crop bashed by the tariffs war. With the 25% tariffs from China, it has priced out the soybean and instead of buying from the US, China is switching over to buy from Brazil and Argentina. US export plunged 74% by volume.

The farmers expressed that it is already hard for them to plan the real demand, supply, consumption and rainfall, and now they have to include the geopolitical policy that they are not in that area for predicting.

In 2016, US harvested 117.2 million tons, followed by Brazil at 96.3 million tons and Argentina at 58.8 million tons. China was so much behind, with 12 million tons only.

But the government figures show that the revenue US has collected from tariffs on \$250 billion worth of Chinese goods is not enough to cover the bailout of US farmers, let alone the other industries hurt by the trade tariffs. The tariffs raised from the China's imports accounted for \$20.8 billion in according to the US Customs and Border Protection. But Trump has promised to give \$16 billion in aid to the farmers nevertheless. This goes to the compensation of the loss of sales and the flood and the repeated rain that affected the corn belt.

Also, the cotton exports to China has tumbled as the result of the retaliation. The price for the crop dropped roughly 30% on the commodity market. The stockpiling of US cotton is forecasted at its highest in a decade.

Approval rate for Trump for his performance as the president has gone up to 79% from 74% in June with the farmers as obviously they still believe in his promise. This is also telling us that the politicians have neglected to the pleas of the farmers in the past. It has been a long time that someone has bothered to promise them something.

### **It is affecting the high-tech companies**

One of the companies where everyone is focusing in Huawei, and since US put it on the "entity list", it has blocked companies to supply them without the license. Huawei is the world's largest maker of telecommunications equipment and the second largest for the smartphones. The company was said to be a national-security threat although the practice has been loosening and the US Commerce Department is working on licenses that will allow certain US companies to see semiconductor chips and services that doesn't present a national-security risk. In this respect, we have seen the US has soften its grasp.

But we have also seen that the damage has been created as Huawei is laying off staffs in their US operations. Worldwide it is hiring 180,000 persons and at Huawei's US-based research and development units, they are hiring 850 people there.

In another area where they are handling equipment sales to rural wireless carriers, they have 15,000 people working there.

Not to forget that Huawei bought \$11 billion worth of chips and services from the US in 2018.

The smaller chip makers who have been selling semiconductors in China for decades are feeling the pinch as well. Because of the latest bans on selling the chips to the Chinese companies, they no longer can be seen as the dependable business partners.

Here are those companies that I am referring to and who are feeling the threats because of the trade war. And most of them are from California.



Neo Photonics in San Jose, CA - design and manufacture of advanced hybrid photonics integrated optoelectronic devices for ultra-fast communication network, also including components.



Semtech in Camarillo, CA - is a leading supplier of high-performance analog and mix-signal semiconductor and advanced algorithms.



Micron Technology in Boise, Idaho - is a computer memory and computer data storage including dynamic random-access memory, flash memory and USB flash device.



Broadcom in San Jose, CA - is a designer, developer, manufacturer and global supplier of a broad range of semiconductor and infrastructure software solutions. Its product portfolio serves the data center, networking, software, broadband, wireless, and storage and industrial markets.



International Rectifier in El Segundo, CA - is manufacturing analog and mixed-signal ICs, advanced circuit devices, integrated power systems, and high-performance integrated components for computing.

### **Trade war is affecting China's investment in the US**

We have to realize that this economic cold war has affected China's investment in the US.

Since Trump's entering the White House, we have seen tougher regulatory scrutiny in the US and a less hospitable climate toward Chinese investment. It resulted the Chinese investment to plummet by nearly 90%. As a result, it is affecting a range of industries we have mentioned earlier on, plus the start-ups in the Silicon Valley, and the New York real estate market. Both governments don't trust each other.

For years, China was pouring money into practically everything, auto-industry, energy, agricultural, and this created jobs.

Chinese foreign direct investment in the US fell to \$5.4 billion in 2018 from a peak of \$46.5 billion in 2016. It was a drop of nearly 90%. For this year from January through April, it was \$2.8 billion.

Perhaps the Chinese economy is also slowing down which resulted a stricter control of the outflow of capital. But on the other hand, the investment regulatory group, the Committee on Foreign Investment in the US as headed by the Treasury Department, who has gained power in 2018 that allow it to block a broader array of

transactions in investments in sensitive technologies like telecommunications and computing. Formerly this committee only had the authority to review transactions in which foreign investor took a control stake of an American business. It is now expanded into a broader range of transactions, including joint venture and smaller investments by foreigners in American businesses that are in critical areas.

There were 37 commercial real estate worth of \$2.3 billion acquired by Chinese investors. And for purchases of home, Chinese buyers are still the top foreign buyers for the American properties.

For the equity funds, the investment bankers are more cautious to avoid any raise of red flags.

Investment from China is still a smaller fraction comparing to those from Britain, Canada, Germany and Japan. But China will remain the largest buyer of United States Treasury Securities, although in recent years it has fallen to \$1.1 trillion according to the latest Treasury Department data.

Having said all these, US is still interested to have Chinese buyers in the rural states to buy factories to help to revive its struggling businesses. There are opportunities for buying businesses from owners who are retiring in the poorer states in order that new buyers can continue to provide jobs. An example was the acquisition of a closed paper mill in Ballard County in Kentucky in last year, which reopened this year in May and hired 300 jobs. I feel that this kind of business opportunities that can be plenty and can be welcome by anyone in the community.

### **Trade war is affecting other areas**

The other industries, such as the aviation manufacturing industry, technology companies and medical devices manufacturer, have all lost contracts and revenues due to the retaliation from China against American goods.

Export is about 20% of China's economy and US is its 12%. According to China that its GDP is still growing 6.2% on an annual basis.

### **Current status of China**

According to the latest from IFM, China is more in line now with the rest of the world regarding its economic relationship. For the first time its current account balance has dropped close to zero and for a long time it was running with a big surplus. That led to the complains from the other countries that it was not buying enough to balance the trade. Its domestic demand has grown and it has balanced with its export and foreign investment. Another thing that IFM will like to see is its opening of its domestic market and increasing its imports.

The trade war with the US took its toll on exports but the GDP will still grow at 6.2%, Earlier on the country reduced its tax and hoped to boast the domestic economy to offset the decline of export.

## Conclusion

It is true that companies are leaving China for countries that have no tariffs for US but this doesn't reduce or slow down the imports for the US market. Instead of the goods coming from China, it has benefitted other low-cost countries from shipping into the US market.

There are talks about the further trade negotiation with China to force them to change their business practices to compete on the fair-ground but this is a very long process. Accusing China's theft on intellectual property which Trump claimed at \$50 billion would need a very thorough investigation until the true amount can be obtained. In many cases, it is hard to proof and it wasn't safeguard in the first place.

Trade leaders and businessmen disagreed that trade war doesn't have the negative impact on American businesses. They are supporting the confrontation against China for the trade war but on the other hand would like to see the China market being opened for their access into this vast market. Again, this is an uphill battle that the US businessmen have been fighting for a very long time.

Many studies have been made and they have shown that cost of the tariffs is bore by the American consumers, especially when the tariffs ended with the raising of the prices of those goods. This has been passed to the lower income sectors who spend a larger share of their paycheck on import goods rather than the upper middle class.

In today's world, no state can be staying alone and not open itself and work with the others. What we have seen so far by Donald Trump coming into the office is like a bull crashing in the crystal shop. It is a very big mistake by not looking at the figures and listening to his advisers for any hasty decision. By saying that trade war is easy to win has proved to the US business communities that it is a big mistake. Trade rules and regulations can always be revisited, especially for those that have been adopted and used for a long time. Some adjustments through the renegotiation can make the bilateral agreement more reflecting to the today world's need. A win-win situation is more important than the "I win you lose", which perhaps is where Trump is coming from. That is also the reason why I have used the title of the Trade Tariffs in the Double-Edged Sword and hopefully that something more sensible can be introduced. I hate to see that the passing of the increased tariffs to the lower income sectors are the ones that are taking up the tabs.

The tariffs on the \$300 billion import from China is the last nail on the coffin.

# The Formidable Coal as the Energy Resource

ANDREW SIA

## The Formidable Coal as the Energy Resource



Coal is one of the most important primary fossil fuels, a solid carbon-rich material that is usually brown or black. Composition of coal is mostly carbon with variable amounts of other elements such as hydrogen, sulfur, oxygen and nitrogen. Coal is formed with dead plant matter decayed into peat and deeply buried underground for over millions of years in heat and pressure to convert the peat into coal.

Coal is a fossil fuel burned for heat, it supplies about a quarter of world's primary energy, two-fifths of its electricity. It gives intensive heat and smolder in furnace to make iron and steel and other metals

You can read about the using of coal from China 4000 BC. It enabled the smelting of copper in 1000 BC.

In Europe the earliest reference was by the Greek scientist Theophrastus during his era of 371-287 BC.

In Britain, coal was used during the Bronze Age, 3000-2000 BC. When the Romans went there, they began to exploit them in coalfields in England and Wales by the second century.

During the Industrial Revolution, which took place between 1820 and 1840, all the manufacturing activities were mechanized either by steam power or hydro power. Coal was used extensively in providing steam for all types of manufacturing. The major transportation by steam locomotives in 1853 boosted the use of coal.

The human history entered into an important era and using coal as the main energy resource brought us to where we are today.

Then gradually we found out that using of coal causes many premature deaths and other illnesses. Coal industry also damages the environment and its carbon dioxide emissions which is 40% of the total fossil fuel emissions. It is the cause of the climate change and many countries are moving away from fossil fuel and adopting the renewable energy.

### **Position as taken with coal**

Carbon dioxide emissions had reached 33 billion last year, largely from new coal plants in Asia. Coal accounted for one-third of the increase in emissions of last year. This was all due to last year's global energy demand that rose 2.3%.

Last year renewable power generation grew 7% with solar and wind power at 45% but it is not keeping up with the power need by our world.



Disregard the worldwide slowdown in investment of coal mining and coal-fired generation, and supposedly with more banks and insurers stopping investment in coal. It was caught that Mizuho Financial and Mitsubishi in Japan, Citibank, HSBC, Standard Chartered are still the leading lenders. China, as the country, is accounted to 12% of the direct lending.

Surprisingly, European banks, even though they have restricted the using of coal as their policy, still account for 25% of global lending to top 10 lenders to coal-fired plants.

Japan through its Japan Bank of International Cooperation (JBIC) is funding coal-fired power plant in Vietnam.

Through satellite photos showed ongoing construction of coal-fired plants that those that had been reported as shut down, are still operating.

Climate activists are applying pressure on banks and insurers and they have caused some effect, but no success with China as it is an authoritarian state.



**Sierra Club**, an environmental organization in the US founded in 1892 with the motto of Explore, Enjoy and Protect the Planet.

Another global energy monitor, **Greenpeace**, was founded in 1971.

Greenpeace, the most visible environmental organization in the world, is promoting the use of renewable energies to replace the fossil fuel. Its headquarters is in Amsterdam, the Netherlands. It is a non-government organization (NGO).

We take you to the major countries where the coal mining is dominating the coal resources.

**US** - Heydays of coal mining is over. In the next 20 years, the production will continue to decline. Already 34,000 jobs disappeared in the last decade, and leaving 52,000 coal miners in the US. And Appalachia's mining industry is dying.

In 2018, the coal mining in US decreased to 755 million short tons. Consumption reached its lowest point in nearly 40 years. The decline resulted large scale of bankruptcy of mining companies. Its coal reserves, have 477 billion tons, this exceeds that of oil and gas.

US is consuming 40% less coal than at its peak in 2005. Just a decade ago, thermal coal produced half of the nation's electricity. Now it is about a quarter.

A century ago, there were 860,000 coal miners in America, and by January of this year, only 52,000 left. The Sierra Club estimates only 239 coal-fired plants are left, and in 2007 it was 600. Cost of the newest coal-fired stations was \$1.3 billion and it was opened in 2011. Now the utility mongers prefer cheaper and cleaner natural gas, solar or wind power.



According to the Energy Information Administration (EIA), Wyoming, West Virginia, Kentucky, Illinois, Pennsylvania, are producing 639 short million tons representing 71% of total US coal production.

Coal remains an important factor in the 25 states in which it mined.

**China** – In today' world it is the largest consumer and importer of coal. The share of coal in its energy mix has declined to 60% in 2017. Its coal reserves showing that it has 62 billion tons of anthracite and 52 billion tons of lignite quality coal. It ranks third in the world in terms of total coal reserves and China is behind the US and Russia.

China has another problem, that is the need to protect its 4 million mining jobs and its coal lobbyists are still strong.

All across China there is the short of power as the need for electricity is surging. Together with India, the two countries are accounted for half of the global total of 574 gigawatts (GW) of coal-fired power capacity under developing or operating, with China accounted of 199 gigawatts (GW), 35% of the total. Furthermore, China is lobbying for an additional 290 gigawatts (GW) between now and 2030, up from the current 1,010 gigawatts (GW).

And regarding the promises made in the last meeting at the global climate summit in Katowice, Poland, China is obsessed in keeping its GDP is becoming reckless. It is found that a sharp rise in carbon emissions in China although it was managing quite well in 2017 before the trade war with the US.

Furthermore, China transcends its border to build new coal-fired power plants in 13 countries, many of them are in related to their Belt & Road Initiative. They are built by Chinese companies who are state-owned enterprises and banks, Industrial and Commercial Bank of China (ICBC), and Bank of China who have committed to more than a quarter of the funding.

**India** - It has the fifth largest coal reserves in the world, and is the fourth largest producer of coal. As of March 2018, it has 319.04 billion metric tons of the reserve. It produced 675.4 million metric tons in 2017-2018. The production of lignite was 46.26 million tons.

Coal is the primary source of electricity generation in India and accounted for 70.69%, the lignite was accounted for 3.64%.

**Australia** - It is accounted for about a third of world's export. Followed by Indonesia and Russia.

You can find the coal mining mainly in Queensland, New South Wales and Victoria. About 75% of coal mined in Australia is exported, its main export is to eastern Asia mostly for electricity generation. As already mentioned that Australia is the biggest net exporter of coal, with 32% of global exports and the fourth-highest producer with 6.9% of global production, 503 metric tons of the 7,269 metric tons. 77% of production was exported, 389 metric tons out of 503 metric tons.

The burning of coal for electricity produces 29% of Australia's total greenhouse gas emissions, based on Clean Energy Regulation data.

Two types of coal, high-quality bituminous coal (black coal) or low-quality lignite (brown coal), are found in Australia.

## Conclusion

During the First Industrial Revolution in 1800, the use of coal was systematic and effective. We are now into the Fourth Industrial Revolution and our use of energy will need to be updated in order that we can sustain in our environment.

We introduced already in our earlier issue, in fact our April 2018 issue, we mentioned about the REN21 which stands for Renewable Energy Policy Network for the 21<sup>st</sup> Century. We introduced it as a global renewable energy policy network launched in June 2004 after branching off from the International Conference for Renewable Energies in Bonn, Germany.



It is a think tank and global multi-stakeholder network which is focused on renewable energy policy. Its goal is to facilitate policy development, knowledge exchange, and joint action for a rapid global transition to renewable energy. REN21 it brings together governments, non-governmental organizations, research and academic institutions, international organizations, and industry to learn from one another and advance the adoption of renewable energy.

REN21 Secretariat is based at UN Environment in Paris, France and it is registered as non-profit association under German law. The organization has more than 65-member organizations as of 2019.

Unfortunately, the renewable energy only accounts for 19.2% of global energy consumption and it is largely inadequate.

Coal, as the whole, is still representing 40% of the global energy.

Nuclear is about 10% and it is the most controversial energy resource and to change will be very difficult because of the psychological effect.

It looks like that it is really a long way for us to catch up with this change which is becoming more desperate.

# SOME TRUTHS ABOUT RECYCLING

ANDREW SIA

# Some Truths About Recycling

## **Some facts**

Do you know that more than 270 million tons of waste are recycled around the world? The world has produced 6.3 billion tons of plastic waste since 1950s, and half of it was in the last 16 years. Plastic waste is closely following steel and cement.

Companies and brokers were buying the waste and after the recycling process turned it into useful materials and this at one time was a very profitable business.

The household recycling started to collect from curbside of residential in the 1980s.

## **What happened to China?**

On 31 December 2017 China slammed its door to imports of recycling material. China declared that it is no longer the dumping ground for the waste. The reason that China used was dirty and hazardous and it is posing a threat to its environment.

The new policy announced by China and named "National Sword Program", and this policy erupted the waste business across the world. China and Hong Kong collectively bought 60% of the plastic waste exported by the G7 countries. And a year later after they have announced the "National Sword Program", they took only 10%. We have to know that previously China was the world's biggest customers for plastic and paper.

All the waste-management companies have lost hundreds of millions of business as China's decision has caused a global crisis to them. All of a sudden trash are stockpiling in the developed countries and their incinerators are working in full blast and it is still inadequate to solve the problem. China is still accepting some of the waste but insist on some level of cleanliness and required the countries who are disposing their waste would need to select and to process before.

China began the "world-factory" in 1990s and it consumed a lot of raw materials and at the same time the materials coming from the recycling. For instance, the plastic pellets made from the recycled material that can be turned into many everyday items. China needs paper, metals, and can get these from recycling.

With ships sailing full load to the developed countries and return with scraps for recycling benefits the shipping industry. Otherwise the containers would return to China empty.

Paper recycling made China first female billionaire, Zhang Yin, for her company Nine Dragon who was importing papers from the US for her paper mills in China.

By combining China's demand, plus its cheap labor and lax environmental regulations, turned it into the world's recycling hub.

Together with HK, they imported \$81 billion worth of plastic scrap between 1988 to 2016. Until China made up its determination to clean up its environment, it began to target the recycling industry. Corruption and poor environmental control brought the determination from China to launch the "National Sword Program" and the world's dumping ground for the waste was diminished.

Right afterwards, a third of China's 1,700 licensed importers relocated to the South East Asian countries to look for their fortunes. Because of their recklessness, they are referred as "cowboys".

And with China refusal of the plastic scraps, they found the way into South East Asian countries. The prices of the plastic scrap also collapsed. Also, the prices for the low-grade papers dropped. Following the ban from China, the waste flowed into South East Asian countries.

## **The taking over from the SE Asian countries**

Since the beginning, the recycle industry has been plagued by allegations of smuggling, corruption and pollution and these have now been exposed to the publics.

Immediately Malaysia became the biggest importer for plastic scrap. Vietnam also doubled its business. Indonesia rose by 56% but Thailand increased by 1,370%.

The Port of Laem Chabang on eastern coast of Thailand becomes the main port of entry for plastic, electronic waste. with its six-lane highway and a railway, becoming Thailand's busiest port. And because of the stringent disposal requirement, falsely declared shipping documents were given to customs as plastic. This led to raids on scrap-processing facilities, dump sites and ports.

Inspectors found that plastic scraps were sent to facilities that are unqualified for processing and they are posing threats for this business. In Thailand, it is foreseen a ban would have to take place soon. The unlawful scrap importers importing plastic scraps in containers but actually smuggling and using electronic waste as the cover. Scrap-processing facilities sprung up like wildfire near the port area, and complains of pollution by the local residences.

Ecological Alert and Recovery Thailand, a non-profit group noted that 1,300 companies involved in recycling, landfills, or processing electronic waste in the eight provinces around the port. Surge in electronic wastes for old computer parts, keyboards and mobile phones are illegally being processed.

It didn't take too long for these Southeast Asian countries to notice the adversary of the recycling business. Even though of its good concept and the respectable objective, the waste would have to dump somewhere in the world and to be processed. They found that the US, European countries, Japan, and Korea, and lastly, China, are turning away from this multi-billion business.

As a result, Thailand stopped issuing licenses, Malaysia control strictly and freeze imports of plastic wastes.

It is noticed that the electronic waste is far more toxic to process than most household plastic, because it contains a range of harmful substances, including heavy metals such as lead. And Basel Action Network, another non-profit group focused on hazardous waste trade.



Controls are on the way after the Basel Convention and the importing country must be aware of the import contents and if their recycling facilities can really handle. Basel Convention is known as The Basel Convention on Control of Transboundary Movements of Hazardous Wastes and Their Disposal. This convention was open for signature on 22 March 1989, entered into force on 5 May 1992. As of October 2018, 186 states and European Union are members in the convention. Haiti and the US signed but not rectified it.

The scrap traders are regulated and that will lead more countries that would have to follow China and move away from this business.

### **Trends going forward**

In the long run, developed countries will have to focus on their own recycling capacity. European commissioner of environmental already estimated that an additional 250 sorting facilities, 300 recycling plants will be needed by 2025.

In the US we begin to see the recycling being sent to the landfill, and it is the reverse after a decade of growth in recycling program. It is also sending 30% less plastic scraps compared to the year before.

The Chinese investors are in the US, buying paper pulps and plastic pellets, and recycling plants are invested. Also, for the paper mills, biggest maker of paper and cardboard from China, Nine Dragon, is buying two paper mills in the US. Already recycling companies are investing in Georgia, South Carolina, Alabama and Kentucky.

China is the world's largest importers for plastic pellets instead of the processor of plastic scrap.

### **Closing remark**

In the last 30 years, we have the global boom in single-use, and disposable plastic and paper products. China's ban is like an alarm clock to us. We need a systemic change, we have to look into our root problem, and we have to reconsider reuse our resources instead of consuming it endlessly and sometimes, even recklessly.

Those single-use packaging, plastic bags, straws, all should be redesigned for reuse. We should bring bottles, containers and shopping bags for grocery.

We have to improve the recycling. To send our household waste is going to the landfills and the incinerators are not good enough. We have to know that after 40 years of recycle and we are still unsuccessful.

Good model ought to be advocated and should gain traction across the world for the best practice. It was zero waste during our grandparents' day. In those days, we don't have single-use coffee cups, bottled water, plastic sandwich wraps, Amazon packing boxes. If we start to think for what we actually can avoid to use, we can save a lot.

That should leave us a lot of thinking to do.



# EVERYTHING YOU WOULD LIKE TO KNOW ABOUT HUAWEI

ANDREW SIA





## Everything You Would Like To Know About Huawei

### Current situation in Europe



Verizon cellularsale.com

National security fears over Huawei are going to stall the world going forward from 4G to 5G. Those with the capability of introducing the mobile phone in 5G to the market are the key players like Huawei, Nokia, Ericsson, Samsung and ZTE. But the technologies are in the hand of Intel, Google, Micro Devices, Qualcomm and Nvidia.

European operators know that banning Huawei will further delay the launching of 5G. It will increase the costs, and also jeopardize the upgrading of the existing 4G, as its network density is lower than China and US. Europe is falling behind in competition and innovation. They have rightly said, "If we are afraid of competition, innovation will stand still."

5G will reach their market after 2020 and already 37 major cities out of 40 have signed Huawei's 5G-rollout.

### Situation in UK

Experts from the UK National Cyber Security Center have concluded that the risks from Huawei can be mitigated, even in the more complex 5G networks.

Knowing that 5G will be crucial to the future functions and reliant on the Internet of Things (IoT).

If UK let Huawei to participate in its 5G telecom networks which may undermine the confidence with their intelligence partner such as US but also France, Germany and Japan. There is also the disagreement on China between UK's ex-Prime Minister, Theresa May, and her cabinet. But their new prime minister who will come into the office soon will have to decide this.

This is adding the further uncertainty at this point.

### Situation in US

In the major cities in US, the service providers like Verizon, AT&A, Sprint and T-Mobile, are rolling out 5G. Setting up of the small-cell antenna sites which in 2018 US had 349,344 cell sites and by 2026, it is estimated

that an additional of 769,000 will be needed. Laying fibers under the pavements where a lot of laborious work is required.

5G networks don't work like previously wireless cellular networks where 2G, 3G and 4G are relying on large towers with powerful antennas that can cover many square miles. 5G networks are using smaller cells that are placed more closely together. It is in shorter range with higher frequency radio waves to deliver 10 to 100-times faster speed. The smaller cells must be placed 800 to 1,000 feet apart. They can go anywhere, for instance, on buildings, lampposts, telephone poles and they look less seizing. The small size antennas are typically like the pizza box. It is estimated that 266 million Americans will buy the 5G mobile phones by the end of this year. I think that this is a bit bullish.

The three leading cellphone vendors are Apple, Samsung and Huawei and globally they will represent 50% of the business. In US, we have to choose between Apple and Samsung only. But it is July already when we are preparing this article, I tried to shop for a new cellular phone and found that all the vendors, Apple, LG, ZTE, Samsung, are still promoting 4G only.

We learned further that the network is almost completed and the device will be ready soon. And last November, the US government had auctioned the digital spectrum.

## **Situation in China**

China Mobile and China Unicom, the two largest mobile carriers, will dominate the first rollout in the 40 cities by the end of this year. China is estimated to have 350,000 5G operable base stations.

Huawei, with the support of the state, is going to lead the 5G and we have not to overlook its multiple businesses, mobile phone and the building of the cell sites, are the two-prongs of their approaches.

Already 65 million Chinese have access to 5G and eventually it will mean 1.2 billion users in China.

Huawei has been developing 5G over a decade.

## **Huawei in US**

In the Corn Belt in US, it includes Iowa, Illinois, Indiana, southern part of Michigan, eastern Nebraska, eastern Kansas, southern Minnesota, part of Missouri, South Dakota, North Dakota, Ohio, Wisconsin, Michigan, and Kentucky, where it is all level-land with very low density of population. The cellular signal is very weak and reception is poor. It is not likely to improve although complains have been lodged with the service providers.

With Trump putting the ban of the purchase from Huawei who poses a national security threat who is also a major supplier of equipment to rural wireless companies. Disregard Huawei is willing to supply transmission gear for transmitting cell signals with the overall cost far less than other options.

Also, some of these areas are so remote that they are receiving subsidies from government for those smaller service providers. But Huawei's status is now in doubt and the smaller carriers are worried also for their existence.

We have to know that Huawei can supply much different technology, including smartphones, but its main revenue is coming from the sales of equipment that moves data through networks to devices. Only a few of the companies, like Ericsson from Sweden, is the distant second, and Nokia from Finland, which is in the third position, are selling the comparable gears. Huawei is the largest among the three; it sells to 500 carriers in more than 170 nations using its technology. Already Huawei is providing equipment to a quarter of America's smallest wireless carriers, according to the Rural Wireless Association, which represents 55 small carriers, said that it would cost its members \$800 million to \$1 billion to replace equipment from Huawei and ZTE.

Already the trade war between US and China is taking an effect on the farmers, and now the banning from using the Huawei equipment would be a double blow to the remote area where the communication can only be done through the wireless service.

### Internet of Things (IoT)



One of the things that it can do is to connect the factory floors to the companies through sensors to monitor manufacturing lines is through Internet. In this area, the Chinese government gives Huawei this potential market to build up the standards and eventually to bring this out to the world. It is already estimated by China that this industrial sector to the IoT was worth \$44 billion in 2018 and it is going to grow 25% year-on-year.

At the moment, there is no IoT standard and no clear industry leader in this arena for its hardware and platform. We are referring to the chips to operate the systems, networks, border gateways, platform, security and data analysis. But Huawei has it all and has also the scale to set de facto standards.

IoT needs the 5G for the high-speed connectivity to transfer bulk data from industrial devices for analysis.



A major international body, 3<sup>rd</sup> Generation Partnership Project (3GPP), has the standard of 5G, but the standards for IoT has yet to be set.

Huawei, in this respect, is ahead of the game and has the advantage in its networking products. For the platform, Huawei has Amazon and Google as the competitors. For the chips, it is Intel and Qualcomm.

Again, I would like to use the quote, "If we are afraid of competition, innovation will stand still."

## **Who exactly is Huawei?**

It is a company, with its headquarters in Shenzhen, employs 180,000 people in more than 170 countries, selling smartphones, providing cloud services, makes microchips, runs undersea cables for global internet traffic.

Unfortunately, it is crossing the line between self-achieved competitive achievement and ethically dubious methods of pursuing it. It is almost like "by hook or by crook" to achieve its goal. And because of this, Washington is citing risks to national security against the use of Huawei technology and the dealing with them.

Currently, Huawei owns the world's largest intellectual property rights for the 5G standards. We found it quoting, "We respect the integrity of intellectual property rights for our own business, as well as peer, partner and competitor companies." I found that it is ironic.

But during the latest G20, Trump released his grasp on Huawei, and allows Huawei to purchase some key components from the US companies. This avoids the further deterioration in the economic outlook for now but this didn't provide any concrete timetable for resolving the trade dispute.

The hardliners in China claimed victory but the west can read this as the concession Trump made to the high-tech companies back home as the restriction of sales based on the reason of national security will damage the economy of the chip industry as well. Trump also can't hold firm because of the 2020 election that is coming up soon.

Intel, Advance Micro Devices, Qualcomm and Nvidia, together their revenue makes more than 63% selling in the Asia-Pacific region.

Huawei spent \$11 billion last year on the US chips, software and other products. Huawei also buys an array of US products, including smart phone chips from Qualcomm that go into their \$51 billion consumer-products business and more sophisticated components from Xilinx that goes into base stations and the other telecom equipment.

The once industrial leaders, Motorola and Cisco, are only a fraction of Huawei's size. It claimed to spend \$15.2 billion for research in 2018 and it is closely following Google, Amazon and Samsung.

Huawei is 20-30% less expensive than competition and gives service to small customers. It has joined the \$100 billion club among the high-tech companies.

Huawei started in 1987 by Ren Zhengfei, a former army engineer, who was selling telecom switches and built up the company through his state connection. He knocked off the 2G and started to sell in China. In year 2000, he went to the US and open offices in Plano, Texas and later in Santa Clara, California. He even went to Stockholm and picked the location opposite Ericsson and used the name, Atelier, for four years doing espionage.

Theft and industrial espionage are relatively common in the global tech industry, and Huawei is not the only company who faces accusations of stealing foreign intellectual property. But it was the flagrancy of its plagiarism that sets the difference. It was a very harsh accusation.

The dot.com crash took place at the turn of the century and Huawei was unscathed. Instead it was benefited from hiring more talents from the industry.

3G replaced 2G and entered into the era of smartphone. And from 2000 to 2011, Huawei's revenue rose from \$2 billion to \$30 billion. But during the last ten years, numerous litigations were like crossfires, between Huawei and the tech-world giants.

By the end of 2019, three of the tech-companies, Apple, Samsung and Huawei, will launch 5G and it will begin to replace the existing 4G in a couple of years.

## Conclusion

From what we have seen, 5G was initiated by Huawei, and because of its background and the distrust from the western powers, we have no idea yet if it can be launched as we have spoken. There is the geopolitical issue and like almost every business, the pricing structure is disrupted by China when the state is behind everything. China likes to dominating the market and especially in this hi-tech arena that they want to play the lead.

The free world has yet to see the commercial value of 5G. That leaves the service providers wondering the plunge that they will have to take and if the market is really ready for it?

The 5G has been so bullish in saying that it will connect billions of devices on the roads, in our homes, and in factories will create a new demand, and this seems the bigger revenues for the carriers. We have only heard that the downloading of a movie will be 3.7 seconds compare with 4G will take 2 minutes, and for the hour-long playlist on streaming music providers will take 0.6 second instead of 20 seconds. Will we embrace 5G when it enters into the market?

It went further to tell us that when 5G comes, 4G will be obsolete because it is a revolution this time. It is not like the time before that moving from the different generation to the generation was only an evolution.

I am a bit skeptical about this and I would prefer to wait and see, as especially it is a tug of war of which the US would not like to lose in this technology war. And perhaps in between there is the 4.5G that can be faster and more reliable can bring some improvements already.

- Technical
- Supply Chain
- Sustainability
- Fashion & Design
- Market Intelligence
- Entrepreneurship

# SUSTAINABILITY



# REVISITING OF THE NUCLEAR POWER

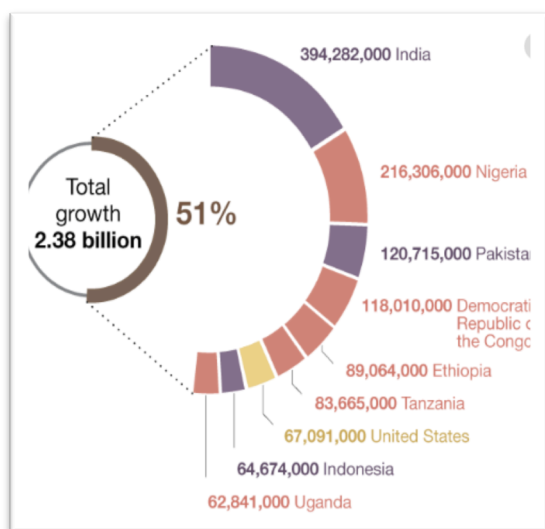
ANDREW SIA

## Revisiting of the Nuclear Power

### Introduction

If we really want to have the zero emissions for the global power generation to happen, we need to turn this to a very big part into the nuclear power. That is using clean energy and move away from fossil fuels for our transportation, our industrial use and our domestic heating.

We have to think in this way, that is to cope with the growing demand of electricity with the world's population reaching 9.7 billion by 2050, we have not too many choices. Half of this population increase is coming from the nine countries: India, Nigeria, Pakistan, The Democratic Republic of Congo, Ethiopia, Tanzania, Indonesia, Egypt and United States. And most fastest growing populations are from the developing countries.



Nationalgeographic.co

These developing countries are already under the challenges from poverty, have to deal with hunger and malnutrition, need to improve health and education, and to achieving a better life. And now these countries have to bear with the burden of population growth, is bringing the immense pressure to these countries and to the world.

Not to forget that by the end of this century, the world population will hit 11 billion. Life expectancy is expected to reach 77.1 years in 2050 against the current 72.6 years. Not to forget that it was 64.2 years in 1990.

With this surge of the population, and the improvement for their basic needs in life, we will need more electricity. In order to have the clean energy, and if we are only expecting the solution to come from renewable energy alone, this is a fantasy and it is not practical.

Both wind and solar will need the storage when they turn weak during the day. We need the battery to store them, but the scale is too gigantic and besides the materials used for the battery is toxic and there is a process to dispose it after use is worrying.



## The choice of nuclear power

It is a realistic solution and some of the people will be very skeptical about this especially the Greenpeace and the advocates. Nuclear plants were built already 30 years ago in the United States and France. They have been producing cheap and clean energy.



Korea has its cheapest source of energy from the nuclear plant.

It is commonly known that building the new nuclear power plants is prohibitively expensive. And because of this, the economics are driving the people away.

Also, a lot of safety features have been built into the power plant because of the public fear for the accidents. To eliminate the fear, the reactors are overly designed.

It is now that rediscovering the lost ability, trying to build in the safety features, and using the new blueprints repeatedly, to allow the cost to be more affordable.

It is known that the French have two types of reactors, whilst the US have been producing one-of-a kind that have driven the cost so high until no one can afford to buy the knowhow from them anymore.

Actually, this problem can be solved already by the Chinese and the South Koreans who can build reactors at one-sixth of the current US cost.

If China is determined to build more reactors, it can reduce the world's total carbon emissions by 10%.

United States can start to supply the world with its fourth-generation reactors if its politicians, activists and regulators will allow it. The developing countries will need it and it is a new business for the US to use their expertise and to create high-value-added jobs in the US labor market. Recently, the Congress passed the Nuclear Energy Innovation and Modernization Act (NEIMA) and both political party welcome innovation, entrepreneurship, exports and jobs.

In order to make this happen, this approach will need a regulatory framework and the licensing process for execution. The US government will need to buy into the idea for the clean energy transformation, with supportive regulation, streamlining the approval process, investment in research and development that can move the producers and consumers away from carbon.

I think that one of the most key points is to stop the lobbying for the fossil oil producers and let it be known about the challenge we are facing with our future being doomed if we don't make the switchover. I know that this is going to be very hard as the whole supply chain is so well established and intact and with a lot of old money around that are used to grease the legislations that have been to their favor.

Nuclear power is the safest form of energy humanity has even used. We have heard about the accidents which we have featured in our previous issues already. In 60 years of nuclear power, there were only three accidents that have alarmed the world.

- Three Mile Island in 1979, no one was killed.
- Fukushima in 2011, no one was killed, instead they were only killed during tsunami.
- Chernobyl in 1986, killed 31 in accident, and perhaps several thousand from cancer afterwards.

If we looked back, mining accidents, hydroelectric dam failures, natural gas explosions, oil train and oil truck crashes, they have killed many people around the world.

Nuclear power plants cannot explode like nuclear bombs and they have not contributed to weapons proliferation because of the robust international control. There are 24 countries who have nuclear power but no capability to build nuclear weapons. Only North Korea and Israel have nuclear weapons but they don't have nuclear power. Whatever we have been confused are only our perception. This can perhaps put a lot of people at ease.



Nuclear waste is quite compact and for the 60 years of its history, the waste has been stored in concrete casks and pools, and it can become less radioactive over time. It is far easier to solve than the coal waste which have been dumped but often laden with toxic arsenic, mercury, and lead that can last forever.

Before we would continue the current status of the nuclear power generators with the major players, we would like to point out the role of an international organization that promotes nuclear power and supports the global nuclear industry. It is the World Nuclear Association. It covers all parts of the nuclear fuel circle, including uranium mining, uranium conversion, uranium enrichment, nuclear fuel fabrication, nuclear plant manufacturing, transportation method, the disposal of used nuclear fuel and also the nuclear electric generation.

It was started in 2001 and it has 70% of the world's nuclear power countries as members. Its headquarters is in London, UK. With members located in 35 countries representing 80% of the world's population. It provides a full service to its members including the aforesaid.

## **Nuclear power generation key players**

We pick out certain industrial countries and share their situations with you as the following.

**Germany** - With the population of 83 million, have set a good example for renewable energy at 40%, and currently it is a mix of wind and solar at 25%. But Germany is still depending on lignite which is at 20%. Employment involve in the lignite is 20,000 people and they are from the poorer region of the country.

It has the world-renowned car industry which is important to Germany. But switching from biofuel to EV operating with battery is not an overnight matter.

Germany has 10 nuclear power stations in service. For the other power generations, we can refer to the following.

- Nuclear, 72.2 terawatt-hour of electricity, at 13.2%
- Lignite, 134 terawatt-hour of electricity, at 24.5%
- Coal, 81.7 terawatt-hour of electricity, at 14.9%
- Natural gas, 49.1 terawatt-hour of electricity, at 9%
- Hydroelectricity, 5 terawatt-hour of electricity, 3%

Also, Germany is vowed to shut its nuclear plants in 2022.

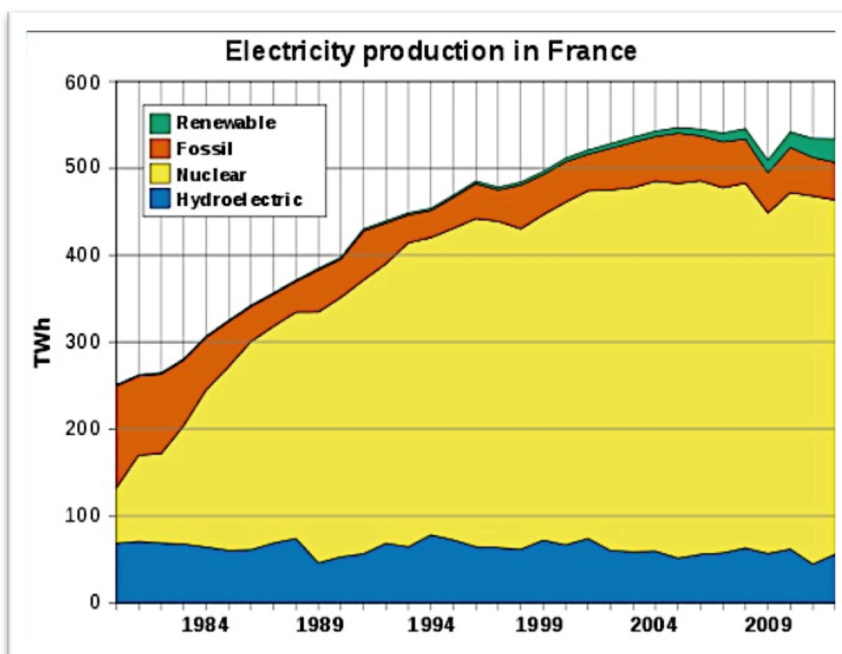
**Canada** - It is the world's second largest producer of hydroelectricity, and it is consuming 25.7% of its total energy consumption. Fossil oil representing 30.9% and natural gas for 28.1%.

Canada has 19 commercial nuclear reactors, producing 95.6 terawatt-hour of electricity, accounted for 16.6% of the total electric energy generation.

**United States** - It has 99 commercial nuclear reactors with a net capacity of 100,350 megawatts. 65 of them are pressurized water reactors and 34 boiling water reactors. In 2016, its 850.3 terawatt-hours of electricity which accounted for the nation's 19.7% total electric power generation. Nuclear energy comprised nearly 60% of US emission-free generation. It is also the world's largest producer of commercial nuclear power, which is at 33% of the world's nuclear electricity.

There are nuclear plants shutting down and new ones are planned and under construction.

**France** - It has 58 nuclear reactors. It is a major source of energy in France and it is representing 40% of its energy consumption. It is owned by the French government with around 85% shares in its hand.



France exported 38 terawatt-hours of electricity to its neighboring countries.

It was the result of the oil crisis in 1973, "Messmer Plan" a huge nuclear power program aimed at generating all of France's electricity from nuclear power.

You will find electricity position in France where the renewable energy is very minimal.

**China** - It has 46 nuclear reactors in operation with a capacity of 42.8 gigawatts and 11 under construction with an additional of 10.8 gigawatts. By 2020, China planned for 58 gigawatts in total capacity.

It is third in the world and around one tenth of the global nuclear power is generated in China. Nuclear power contributed 42% of the total Chinese electricity production with 294.4 terawatt-hours of electricity.

With the concerns over its air quality, the threat of climate change, and the shortage of fossil fuel, nuclear power is China's alternative to coal.

**Russia** - It is one of the world's largest producers of nuclear energy. In 2018, it was 202.87 terawatt-hours of electricity, or 20.8% of all power generation. It has 29 nuclear reactors in operation.

Russia is considered as the expert of the nuclear disaster that leads to its leading edge to the safety of this technology. Russia is trying ambitiously to sell the Russian-built reactors overseas. Currently it has 39 reactors under construction and have planned for overseas installation.

**Japan** - Nuclear power energy was a national strategy of Japan. Prior to its earthquake followed by tsunami in 2011, Japan was generating 30% of its electrical power from nuclear reactors and the plan was to increase it to 40%.

As of February 2019, there are 42 operable reactors in Japan but out of this, only 9 reactors from the 5 power plants are operating.

After the meltdown of the reactor of the Fukushima, more than 80% of the Japanese were anti-nuclear and distrusted the government's information on radiation. What followed were panics and resulted many plants remain idle.

Japan will need to have nuclear energy to meet its obligation under the Paris Climate Agreement, and nuclear energy will need to make up the 20-22% of its need in electric generation.

Recently in 2018, Japanese government revised its energy plan to update the 2030 target to:



- Nuclear energy 20-22%
- Liquefied natural gas 27%
- Coal 25%
- Renewables 23%
- Oil 3%

This will reduce Japan's carbon emissions by 26% compared to 2013. It will also mean the self-sufficiency to about 24% by 2030 from the 8% in 2016.

Japan is in the epicenter of earthquake. Positions of nuclear power plants are shown.

**UK** - UK generates around a quarter of its electricity as of 2016 and projected to a third by 2035. It has 15 operational reactors in 7 plants.

The Brexit as announced on 26 January 2017 resulted the UK to notify the European Atomic Energy Community (Euratom) of its intention to withdraw and leaving a wide range of implications for Britain's nuclear industry, its regulation and research, its access to nuclear materials and the impacts about 20 nuclear cooperation agreements with non-EU countries.

All this is yet to be solved.

**Spain** - Spain has five active nuclear power plants with seven reactors producing 21% of the total electricity generation.

**South Korea** - It has 23 nuclear reactors generating 20.5 gigawatts of electricity. This is 22% of South Korea's total electrical generation.

**India** - It has 22 nuclear reactors and 7 nuclear power plants in operation. Nuclear power is its fifth largest source of electricity after coal, gas, hydroelectricity and wind power. A total of 35 terawatt-hours of electricity supplied 3.22% of Indian electricity in 2017.

In 2010, India drew up a plan to reach a nuclear power capacity of 63 gigawatts by 2032. What followed by 2011 Fukushima nuclear disaster in Japan caused a lot of protests and questioning about its safety to fossil fuels.

In general, nuclear power in India has suffered from the low capacity factors. One of the reasons for the low capacity factor is the lack of nuclear fuel. It has to rely on uranium imports to fuel its nuclear power industry. It has been relying on Russia for uranium as one of its sources.

**Sweden** - Sweden is dominated by nuclear power and hydroelectricity and it is about the equal contribution. It has 8 nuclear reactors in its 3 operational nuclear power plants.

In Europe, it was France and Sweden who have been going for decarbonizing in the last decade. They emit less than a tenth of the world's average of carbon dioxide per kilowatt-hour. They did this with nuclear power.

Sweden replaced all its fossil fuel power stations with nuclear power stations in 20 years.

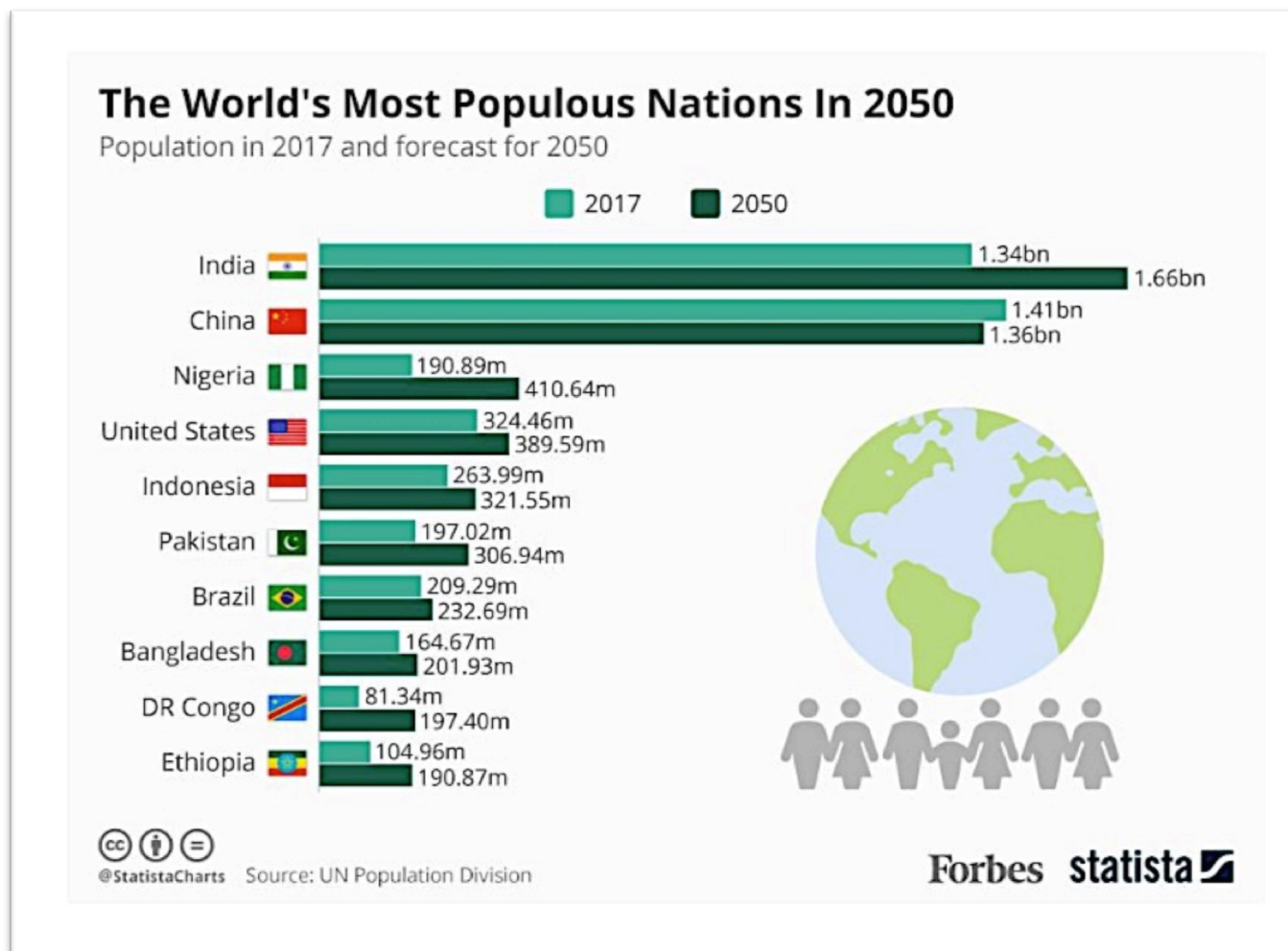
**Finland** - It is a very small country with 5.3 million population and it has 4 nuclear power plants with four nuclear reactors in operation. And according to the government's information, there are 10 trees for every citizen. The country is very green.

**Conclusion**

The three accidents, although the most recent one in Japan in Fukushima in 2011, was caused by the natural calamity, in fact it was an earthquake off the Japanese coast, triggered the tsunami. It sent the ripple around the world and protestors were demonstrating in many countries by denouncing nuclear energy. I don't know how long it will take for the people to change their impression and knowing it is the alternative to shift our reliance from the fossil fuel to the clean energy, I just don't see any better solution.

Knowing that the world is going to deal with a total population close to 10 billion and this is adding the pressure on our world leaders to come quickly for a solution.

Renewable energy is preferable, but it is not absolutely dependable as we have noticed the pros and cons. We will have to continue to explore and have to beat the fast increasing of the population before it is too late.



**Countries that are favoring the renewable energy**

# THE HAZARDOUS ELECTRONIC WASTE

ANDREW SIA

## The Hazardous Electronic Waste

We have to know that with our indispensable lifestyle of pursuing electronic gadgets that has created the increasing amount of e-waste. This includes everything from computer monitors to television sets to cellphones and beyond.

The regular garbage collectors are not equipped to deal with the e-waste. Although it is collected as recyclables to try to retrieve some residual value, and yet it is more complicated than one can comprehend, the e-waste is finally dumped. E-waste can damage the environment by leaking dangerous chemicals into groundwater and harm people who are exposed to the e-waste without any protection.

The well-developed countries have already aware of the toxics as released can cause environmental concern. But now the developing countries are also being affected because the more affordable electronic products that are sold in their market. As well as the solar energy that is used in the rural areas for people without electricity previously. The expired lead-acid batteries used on those rooftop solar panels and lithium batteries for solar lamps are need to be replaced and disposed after use.

There is no proper training for the hazardous materials, and the lack of facilities and equipment to dispose the e-waste.

Take Africa for example, where the dumping of the e-waste is causing a social problem. Take for the e-waste in Das es Salaam, Tanzania as an example. The laborers collect heavy lead acid batteries used in cars, power backup systems and roof top solar systems who most likely to break them up with machetes and drain the acid into the ground. Afterwards, they sell those batteries to factories who would melt the lead scrap in furnaces to resell to dealers. This process pollutes the soil and water with lead and this can lead to brain damage and other health problems.

Already the water and soil around the Msimbazi River are already polluted from battery, steel, paint, food processing and others factory waste. Sample as collected by the Journal of Scientific Research and Reports showed high levels of chromium, copper and lead as indicated by the World Health Organization.

The water from the river is used to irrigate nearby vegetable fields and there is no safe disposal system for industrial waste.



The expired lead acid batteries are from car batteries and power backup systems which are used during frequent blackouts. At the moment, solar products are only a fraction but the amount is increasing because of the industry boom. Already there is an initiative to have 25 to 30 million new solar connections across Africa by 2030 by the United States Agency for International Development (USAID).



Companies mainly in sub-Saharan Africa and South Africa have sold 3.7 million solar energy products, including solar lamps and rooftop solar panels in the first half of 2018.

We have discussed already that solar energy has the merit as a clean-alternatives to fossil fuels and this is contributing to climate change. Solar provides renewable energy that is cleaner than electricity created from diesel generators which is largely used in the developing countries. But we must know that lithium batteries and solar lanterns are often dumped and buried with other trash.

The normal life of the lead acid batteries connected to the rooftop solar systems are from five to eight years. And afterwards they are discarded. Although formal recycling services are provided but unfortunately they are limited.

The proper e-waste management plans have started and proactive action to work with regional government have added hope to the situation. Agencies from the United States and Britain have vowed to give grants to companies addressing solar e-waste in sub-Saharan Africa. An e-waste recycle center has been opened in Rwanda in December 2017.



A company known as Phenix Recycling, working in Tanzania and Uganda, began to receive e-waste for proper recycling that meets international standards. It used to send difficult to recycle circuit boards and lithium batteries to Belgium, and solar panels to South Africa, Israel and Belgium. Phenix also handled conventional recyclable materials like plastic and paper.

Unfortunately, Phenix went out of business last year because of the lack of investors who were willing to fund waste management companies. The only explanation is the understanding of the issue and Phenix might have come into the industry a few years too early.

The picture is the photovoltaic solar panels and it is used to absorb sunlight as the source of energy to generate direct current electricity.

# BRITAIN'S NET-ZERO EMISSION PLAN

ANDREW SIA

## Britain's Net-Zero Emission Plan

Despite of all the challenges the country is facing, the British government is still pushing for the legislation for the country toward the net-zero greenhouse gas emissions by 2050. In June, UK became the first major economy to legislate for a net-zero emissions by 2050.



*Courtesy of strateav-*

We remembered that the industrial revolution started in Britain in 1840 where we moved from horses to coal, then fossil oil and gas, and in order to enter into Industry 4.0 we have to pay attention to things that we have neglected. We have to pay attention to the followings:

Industrialized countries will need to decarbonized to save the Earth by helping the developing countries to become industrialized. But we have also to consider for reducing the carbon emissions while helping them to catch up with meeting their basic needs, such as electricity for everyone, and help them to create economic growth.

UK has taken the lead, and it is now for France and Germany to follow, and eventually EU will join. Already the Nordic countries are passing the law for the net-zero commitment. In fact, eight member-states of EU, Belgium, Denmark, France, Luxembourg, the Netherlands, Portugal, Spain and Sweden have committed to adopt a tougher approach to the EU emissions target in May. Sixteen EU member-states have also signed up to the net-zero emissions. But Poland, Bulgaria and Hungary have opposed due to economic and social grounds.

In this net-zero emissions plan, Europe is taking the initiative, the two biggest economic countries, US and China, are not joining and this is very unfortunate.

Naturally there is the cost, and according to Britain, to achieve the net-zero emissions will cost in between 1 to 2% of the GDP. But it is important to bear in mind that the impact of climate change will cost far greater than doing the catching up afterwards. It was already estimated in the last Paris Climate accord, it cost between Euro 175 to 290 billion investment in annual infrastructure is required

We have already seen the climate change has brought the increasing demand for humanitarian assistance to those immigrants and even refugees from the developing countries. The developing countries are providing the financial aids, peacekeeping for countries under turmoil, and the list goes on.

With the increasing global population, which is coming largely from the developing countries, this situation is becoming desperate. The 2030 goal to reduce 40% of carbon emissions to 1990 level is inadequate to meet the target of Paris accord. We have a lot to catch up.

In September, UN secretary-general António Guterres is holding a climate action summit. He is already asking the world leaders to come with the clear plans and not the flowery speeches. For 2020, UK is volunteering to host the 2020 UN climate talks.

PROGRESS REPORT ON  
THE PARIS CLIMATE  
AGREEMENT AND  
STUDY OF ALTERNATIVE  
AND RENEWABLE  
ENERGY - PART 5

ANDREW SIA

# Progress Report on the Paris Climate Agreement and Study of Alternative and Renewable Energy - Part 5

## Opening Remark

We go back to the recent G20 held in Osaka, Japan during which this point was raised, although the drafted document was intended as the G20 communiqué and yet the hosting country had to bow to the US as US has made it clear its intention to withdraw from the 2015 climate pact. Furthermore, US and Japan are locked in different trade negotiations in agricultural area and car parts. Japan was also seeking for US's pressure to keep Pyongyang at bay with their nuclear threat.

During the G20, Japan gave up the leadership on climate knowing the global carbon emissions reached an all-time high. The G20 communiqué was supposed to deal with a series of issues addressed the global challenge, such as climate change, resource scarcity to combat with air and ocean pollution, marine plastic littering, biodiversity loss and other environmental issues. In this climate change respect, the world has lost its leadership.

We found that Japan has returned to build the new coal-fired power plants after they encountered the nuclear accident with their nuclear reactors in Fukushima in 2011. In fact, Japan is not alone, countries like China and India, have increased their coal-fired generators and the funding of the coal-fired power plants have surged from \$17 billion in 2014 to \$47 billion in 2017. The whole thing is downplayed with economic and political consideration.

We will tackle all the options and challenges and hopefully that we can draw upon your alert and certain measures can be taken up to turn this adverse situation around.

## Introducing United Nations Sustainable Development Goals



Sustainable Development Goals (SDGs) are a collection of 17 global goals set by the United Nations General Assembly in 2015 for the year 2030. They are part of the Resolution 70/1 of the UN General Assembly. The 17 sustainable development goals each has a list of targets that are measured with indicators.

This year, the meeting was held in Tokyo, Japan on 8 May 2019. I handpicked a few of the highlights to introduce this meeting.

The overall awareness of SDGs is under 20%, although it is high in business community, and it is rising fast. There is the big financial gap of \$2.5 trillion per annum and raising money is becoming very important to cover this gap.

Climate change is addressed and looking for new technology to help to achieve the goals as set is important.

Through the SDGs, taking the society to "Society 5" through the four stages we went through already, hunting, agrarian, industrial and information, which reminded me the "Industry 4.0" that we just reported. We are now entering into the fifth phase where digital transformation, creativity and diversity will be key to problem solving and creating value.

Weather volatility is affecting the business practices, such as the unpredictable droughts and floods, hurricanes, wildfires, threat of rising sea levels, and all these lead to losses of human lives and financial disasters. Adopting the new technology to track all these weather behaviors to reduce the losses and to provide the insurance for better coverage. Determine the rules and principles governing finance for sustainability is becoming vital.

A sustainable society should pay attention to its forestry, Japan is the country followed after Finland to have the covering of forest up to 68% of its total land area. According to the census of 2019, Japan has 124.8 million inhabitants living on 377,973 square kilometers of land.

By comparison, Finland has the population of 5.5 million and the land of 338,424 square kilometers.

Japan is very densely populated and yet it is very impressive to have the majority of its land covered by forestry. But the 1964 liberation of the timber market, imports undercut the local timber market. It is expensive to harvest and to transport the timber from Japan's mountainous terrain and many of the forests became neglected and overgrown, unlike how the forestry industry was known for previously.

The self-sufficient ratio for timber was down to 36% but the government is targeting to 50% in 2020 with the wood increasing seen as an environment-friendly renewable resource. It is one of the SDGs objectives to be more sustainable.

For instance, Sumitomo Forestry Company plants 2 million trees every year and it has developed special software for design roads through the forest to allow the passing of heavy equipment. It promotes timber for residential and non-residential buildings. The wood-waste is used to turn into biomasses to generate energy.

We have focused Japan in this report as they have hosted the symposium in Tokyo this year. And we have focused ourselves in sustainability only. There are other important points and we would like to bring your awareness of these goals.

## Heatwave Scorched Europe in End June

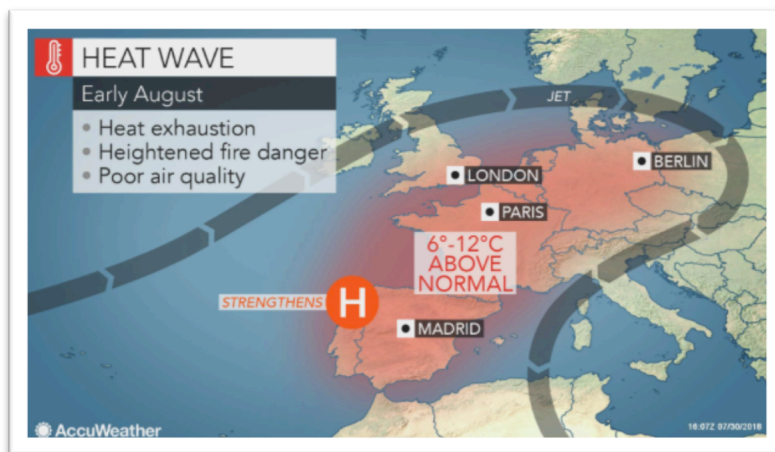
An unusual early heatwave just passed through France, Spain and Germany. The autobahn in Germany melted under the scorching sun. In some part, temperature reached 40 degrees Celsius made the hottest June in history. Extreme heatwaves are expected to be more frequent due to climate change, particularly in southern Europe. Copernicus Climate Change Service showing that it was the hottest month of June since 1880. Actually, it was the hottest June in most part of the world.

The heatwave came from African Sahara and broadcasts on radio and TV to tell the people to stay hydrated and to stay home especially for the elderlies.

It is already mentioned that heatwaves will be twice as common in 2050. It is already recognized that the world won't be able to react in time to cut the carbon emissions. It will be at least 1.5-2 degrees Celsius by 2025. And 2018 was the record year for the carbon emissions, even though that the use of wind and solar rose that year but the renewable energies are still only 13% of the global energy consumption.

Renewable energies will increase, but fossil generated energy will also increase. The global population increasing is the main reason.

It was in 2015, world leaders met in Paris to discuss goal of zero net greenhouse gas emissions by the second half of this century. In December 2018, 200 countries joined the climate talk in Katowice, Poland and went home with a set of rules after two weeks negotiations. We can see that the hours are ticking away and no sight of any improvements with our carbon emissions.



Unless it is a global collective action to limit climate change, with harsh rules and regulations for every country to follow, from where we are now I don't see that this is going to happen. The sacrifice is something that nobody wants to take. Here is the prediction for the temperature of Europe in August.

## Why Nuclear Energy is Still Unfavorable

It is because of the nasty nuclear accidents that still left the bad memory to the people in general. We are showing some bad examples:



**Chernobyl near Kiev, Ukraine** - We have several bad experiences that casted the shadow for using nuclear energy. One of the most representable cases is still the Chernobyl's and the site is still regarded as the most hazardous for its radiation. The accident of the Reactor 4 at Chernobyl nuclear power plant melted down on April 26, 1986. It took three days for the government to announce an accident took place and 346,000 people were evacuated from an area of 1,000 square miles around the reactor. The official death toll from the Soviet government was just 31 persons. The UN estimated that 9,000 people have died, or will die due to the radiation that leads to cancer. Today, the area is still not safe.

**Three Mile Island in Dauphin County, Pennsylvania** - It was a partial meltdown of reactor number 2 that led to radiation leak on March 28, 1979. It was the most significant accident in the US commercial nuclear power plant history. Immediately the anti-nuclear movement activists expressed concern about the regional health threats from the accident. Later on, there was no finding statistically for any significant increase linking to the accident with cancers as substantiated. Cleanup began in August 1979 and ended in December 1993. The total cleanup cost ran up to \$1 billion.

**Fukushima Daiichi in Okuma, Fukushima Prefecture** - It was started by the earthquake followed by the tsunami on 11 March 2011 and the tsunami flooded the emergency generators that were providing power to water-pumps that cooled the reactors. The loss of coolant led to three nuclear reactors meltdown, hydrogen-air explosions, release of radioactive materials in Units 1, 2 and 3 and raised concerns over reactor 4. The investigation commission found that the causes of the accident could have been foreseeable but the plant operators failed to meet basic safety requirements and feared any oversight could have led to lawsuits and protestors against the nuclear plants. Two employees died from earthquake. More than 171,000 people evacuated and failed to return home since then. No evidence in miscarriages, physical and mental disorders in babies born after the accident.

### **Japan's Approach to Renewable Energy**

It is starting with Namie, in Fukushima prefecture, where it is only five miles from the meltdown of the nuclear reactors; the government is trying to recreate the renewable energy. It is the hydrogen, a hard-to-handle fuel that hasn't been used in the large-scale power generation. It can be used as the supplement intermittent for solar and wind power.

Until 2018, Namie was abandoned because of the exposure to radiation. The town has 1,000 inhabitants, only 5% of its pre-disaster level.

By 2040, Fukushima plans to cover 100% of its energy demand with non-nuclear renewable energy. But the liquid hydrogen can be very explosive and every precaution will be taken to prevent hydrogen leakage. Actually in 2011 a hydrogen explosion damaged the roof and the walls of one of the reactors.

Japanese felt that they are indebted to the people in Namie who have been working there before the nuclear accident. They want to help them to stand up again from where they failed and not to be accepting the defect. This is very much of their Japanese Bushido spirit. And already they have added the renewable energy where more than a gigawatt of solar energy have been added. This means more than 3 million solar panels have been used and other means of energy are on the way, such as the offshore wind power and geothermal energy.



They will need to overcome with the cost as solar energy is unreliable and the use of battery for storage and using the stored power during the night is very costly. The hydrogen energy can be brought in to reduce the cost. Hydrogen is considered as the renewable energy and it will need the source of energy to be brought in to split the water into hydrogen and oxygen.



Nuclear Energy Institute

Fukushima is in its transitional period and it is costly to its taxpayers. It is now in the absence of sufficient nuclear power, Japan is heavily relying on coal. Both Japan and Germany have vowed to shut its nuclear power plant by 2022 in the wake of Fukushima's disaster. Japan is building wind and solar power and Germany is falling back into coal. For both countries to find the new technology for clean energy is becoming desperate.

### Situations in African Continent

**Nigeria** - It is the most populous country in Africa with 200 million in total. It is also one of the world's largest oil and gas producers. It has also a very large hydropower. It is located on the west coast of Africa. With all these resources, Nigeria's 60% of the population have no access to reliable electricity. And about 75% of the rural inhabitants don't have power. Power plant is generated by gas and it represents 85% of its power generation. But the rebels in the south are attacking the gas pipelines.



Nigeria's power plants are able to generate 13,000 megawatts of electricity, but because of the rebels, grid constrains, poor maintenance, technical problems, its power plants produce only 4,000 megawatts.

With its population expecting to double by 2050, and according to UN it may reach 1 billion by the end of this century, Nigerian government have to do something very quickly.

In 2015, Nigeria joins the world and signed for the renewable energy as part of the member-nations in the Paris Climate Agreement. It created a renewable energy department to make the country more independent from other costly energy resources. It aimed for 30,000 megawatts by 2030 and a third of it will come from renewable resources such as hydropower and solar. This is the big picture, but for the immediate solution, the solar power mini-grid, at the lower cost is serving the need in the rural areas.

Instead of using the gasoline generator to power the appliances, the people can connect now to a new solar mini-grid set up in the villages for power. Currently six pilot mini-grids operating since January and February of this year in five Nigerian states give 15,000 people access to reliable electricity. The mini-grids are partially funded by the European Union in collaboration with the Nigerian government. By 2020, it is said that more solar mini-grids will eventually reach 100,000 people. It is nothing new but it is reliable and convenient to provide low-cost electricity to rural areas.

Increasing the renewable energy and move away from gasoline generators for generating electricity, this reduce greenhouse gas emissions and clean air for the health of the inhabitants.

**Kenya** - Kenya signed with China for the construction of the first coal-fired power station for the planned capacity of 1,050 megawatts. This will boost Kenya's power output by almost 50%. This will solve the frequent blackouts and cutting the cost for consumers.



The site is located in the coast of the Indian Ocean, and 14 miles north of Lamu, a tourist destination and UNESCO World Heritage site. The environmentalists said the plant would pollute the air and destroy mangroves and the breeding grounds of endangered species. Kenya's court blocked this project and ruled that the power plant must complete a new environmental and social impact assessment before regulators will consider authorizing construction.

This is part of China's Belt & Road Initiative and now would have to fold.

### Tourist Industry's Impact on Climate Change

Statistics from the United Nations World Tourism Organization indicate that tourism is responsible for roughly 5% of the world's carbon emissions, although the true figure is almost double. The World Travel and Tourism Council was inspired by the Paris Climate Agreement that was signed in 2015 by 195 countries. The agreement is meant for reducing carbon emissions by keeping temperature increase by 2 degrees Celsius from pre-industrial level.



**Reducing carbon emissions** - The industry is finding the effective way to reduce its carbon footprint. It is focusing in hotel industry, tourism companies, ground and air transportation and shopping malls.

For instance, the hotels are using HVAC, lighting, utilities, laundry department, kitchen, and switching from the electric generators to the renewable sources will reduce the carbon emissions.

Cruise lines are using purification systems to remove sulfur dioxide emissions from its ship's engine exhaust. Study of liquified biogas, using dead fish and other organic waste as the renewable fuel to power the ship.

Tour operators are maximizing routes to reduce carbon emissions by cutting back inland-flight schedules and use ground transportation such as train. Reducing the number of cars for reaching tourist hotspots by using mass transportation system to the mountainous prime spots where a lot of hiking will take place in summer and skiing and snowboarding in winter.

**Education and training** - Luxury travel network Virtuoso, with a business of \$23.7 billion in revenue, has introduced a sustainable tourism initiative in 2017 that offers the network's 17,500 agents regular access to webinars and live sessions on the role of global warming plays on tourism.

Other travel agents, hotel managers and cruise line operators are selling trips that exclusively include those hotels working hard toward low-carbon or carbon neutral operations. Environmental awareness is becoming a selling point for the tourism industry.

**Important figures for the global travel and tourism industry** - From Statista we collected the following statistics and facts.

- Global tourism revenue: \$1.34 trillion
- Total contribution of travel and tourism to global economy: \$8.37 trillion
- Number of international tourist arrivals worldwide: 1.323 billion
- Number of European tourist arrivals: 670.6 million
- International tourism expenditure in the US: \$135 billion
- China's market share of tourism expenditure: 21.4%
- Global hotel industry total retail value: \$570.18 billion
- Number of Hilton Worldwide guestrooms: 870,982
- Revenue of the cruise industry worldwide: \$35.5 billion
- Number of ocean cruise passengers worldwide: 30 million

**Conclusion of the Tourist Industry** - Reducing the carbon emissions through the conferences as reported about the Paris Climate Agreement have made the people's awareness. The global warming caused the climate change in Caribbean region has intensified. The Caribbean destined cruises are affected by the hurricanes. The African tours have stopped by hot weathers or torrential rains. River cruises in Europe have detoured by the low water level cause by the drought. Global warming has been disrupting the tourism industry.

Through trainings and education, people will get to know the importance of saving our environment and learn the importance of sustainability in their daily lives as well.

### **Whereabouts is US in the Picture?**

We read that in the US the coal-burning power plants are shutting down so rapidly because they have been so uncompetitive with other kinds of energy. Despite Trump's administration trying to save them when he first came to the White House. In fact, the country is aware of the climate change and they have looked it seriously without mentioning it. They are cutting back the use of coal and gas and looking for clean and abundant wind and solar energy.

In the Southeast and other region, natural gas continues to dominate because of its reliability and low price driven by fracking, which is becoming more popular. Energy companies nationwide plan to add at least 150 new gas plants and thousands of miles of pipelines in the years ahead.

We have to know that for the gas-fired plants, they emit half as much carbon than coal. This will help the impact of the global warming. Knowing that to meet the zero emissions by 2050 is not going to meet but some states like California and New Mexico are pushing for energy bill to switch entirely carbon-free electricity sources by 2040.

In fact, switching from coal to gas has taken place since 2005 and those pro-renewable groups have invested in power plants that are cutting the carbon emissions. Investment in gas power plant has not been really in favor as there are cleaner and cheaper solutions and at this instance the US is split.

But gas is still very cost-effective and reliable although solar is still being preferred. The problem with solar power is the storage and can still have the energy when the sun is not shining. The lithium-ion batteries are still very expensive.

Location for the wind power is very important. There are also areas where the construction of the wind turbines can be sensitive and they won't be permitted. But to my surprise that the use of solar, wind and batteries for the storage are cheaper than gas in some states. Obviously, they can find cheap natural gas from the nearby fracking in Ohio, Pennsylvania and West Virginia and because of the shale gas revolution; it is delaying in the evolution of renewable energy.

In the US, 29 states are requiring their utilities to get a certain percentage of their power from wind and solar.

States like California, Colorado, Maine, Nevada, New Mexico, New York and Washington have all passed laws aiming to get 100% of their electricity from carbon-free resources by 2050. This means that they will not be using the gas power plants. This will be made possible by Federal government's subsidy without passing the increasing part to the consumers.

But developing new technologies such as burning the clean hydrogen, capture the carbon from burning the gas and store it underground, even advanced nuclear power and new energy storage techniques are happening. Research and support from the government will help them to be realized.

But Trump and his administration have made no secret of his plans to dismantle environment laws. Although his efforts have been thwarted in court, but his administration is confident of victory in a new round of legal battles. In this fight, he is going to deny all the findings done by the scientists and his reason behind his effort is beyond any comprehension.

## More on the Shipping Lines

Shipping is the blood vein of the global economy and 90% of the trade is done via seaborne. It is also one of the most polluted industries and it is causing 2 to 3% of the world's total greenhouse gas emissions. In 2018, more than 90,000 ships crisscrossed the oceans to bring the goods around. In total they burned nearly 2 billion barrels of the heaviest fuel oil made out of the dirtiest dregs of the barrel of crude. The vessels release large quantities of pollutants into the air, principally in the form of sulfur dioxide, nitrogen dioxide and particle matters. This is endangering human health especially along the key shipping routes.

The health impact created by the bunker fuel is affecting people living along the ports and coastlines of the developing countries. This pollution causes 14 million cases of childhood asthma and 400,000 premature deaths a year from lung cancer to cardiovascular disease. If using the lower sulfur fuels can reduce more than a third of deaths attributed to shipping.

From the International Council on Clean Transportation found that 64% of transport attributable to pollution related deaths, from shipping it is still accounted for 16%.

Shipping fuel contains sulfur concentration more than 3,500 times greater than diesel. International Maritime Organization (IMO), a UN agency, is getting the sulfur content down from 3.5% to 0.5% by 2020. This change will cost the global economy \$1 trillion over five years.

There are two approaches for the shipping companies, one is to use the low sulfur content fuel oil, and another is to install exhaust scrubbers to strip out the sulfur from the vessel's exhaustion. Some of the systems would store the waste on board and dispose them on shore. Some will just discharge into the ocean.



Under the IMO rule, starting 2020, the sulfur content will have to limit to 0.5% from 3.5% and the ship owners are calculating the cost and hedging themselves for the fuel price. Formerly, the shipping companies have functioned as the vast waste disposal system for the oil industry. They are using the toxic black sludge that comes after the refinery, which is coming after diesel, petrol and other lighter fuels. They used to burn them for powering the vessels and discharge them as exhaust into the atmospheric air.

Behind the scene, IMO has been negotiating with 174 member nations over the past 12 years to come down with the sulfur ruling for the carbon emissions. The reformers are countries like France, Germany, UK and Sweden pushing for the reform whilst Saudi Arabia, who produces high-sulfur crude, opposes it. Even if the environmental impact to the world has been alerted, but political elements are added during the course.

Those who have improved their refineries would have benefitted from this act. Maersk, world's largest container shipping company who is operating 639 vessels, already mentioned that the switching to low sulfur-fuel would cost them \$2 billion more. This means their annual fuel costs will be 50% more expensive.



The low-sulfur fuels are also used for aviation and trucking industry, and now with the demand from shipping industry, the price will be soaring. The US shippers are already lobbying the Trump administration for exemption and they are taking advantage over the re-election time.

Majority of the shippers will comply to the IMO 2020's ruling and it is either to retrofit the vessels with scrubbers or to spend the money on the low-sulfur fuel. Another way is the "slow steaming" by imposing the speed on the vessels and immediately this will reduce carbon emissions.

The next is the IMO 2050, which is to reduce the emissions more significantly. The talk of reducing 2% of the shipping industry's global emissions can mean the almost zero emissions. The electric-battery powered vessels, wind-propulsion, hydrogen-driven engines, are a few of the considerations for the next generation. Anyway, the commercial vessels last between 20 to 30 years and the new generation of shipping vessels will be ready for the IMO 2050.

### **Let's Talk About Cement**

To date, a lot of focus in combating global warming has been spent on electric power industry, many monies has been poured into the clean energy sources like wind and solar. But other manufacturing industries, which are estimated of a quarter of carbon emissions, will also need to tackle and to curb their roles in the climate change.



Cement, is an industry, which is producing a material for the building of our civilization and it is used to build homes, offices, roads and every main infrastructure that we can think of. It is the glue that binds together the sand and the gravel to form them into concrete. It is using a high-temperature kiln and during the process, high heat and large amount of energy is used in the chemical process. It is estimated of producing 7% of the total global carbon dioxide emissions.

The new way of producing the cement is claiming that it can reduce as much as 70% of its emissions by using the new chemical formulas and smarter process to make cement.

At this early stage, the building companies are skeptical to change as this new technology has yet to be proven. It is switching from the traditional products to an alternative product. Buildings and any infrastructures are meant to last and trial runs are required to convince for the change. Safety is vital in case of any switching over.

Solidia Technologies is the company behind this. It is based in Piscataway, New Jersey. It has the support from a well-known Silicon Valley venture capital company known as Kleiner Perkins Caufield & Byers and oil company like BP and Total of France.

This new technology was developed at Rutgers University in New Brunswick, New Jersey.

We can understand the concern for something like concretes that are using in buildings and the house must not fall down and it is unlike the pavers for walkways, driveways and patios where if a block is broken and it can be replaced without any risk.

### **Final Conclusion**

We started with the report of the G20 in the last days of June and we found that shallowness of Trump and his administration bullying Japan, which resulted the G20 communiqué to fail its honorable mission.

We will study more about the United Nations Sustainable Development Goals as there are more areas for us to explore and hopefully that we can find more consensus there.

Since our last report that appeared in our April issue, we found that everything is still very much governed by world economy and coal-fired generators are still in favor to the renewable energies. It is going to be an uphill battle for the Paris Climate activists.



- Technical
- Supply Chain
- Sustainability
- Fashion & Design
- Market Intelligence
- Entrepreneurship

# SUPPLY CHAIN





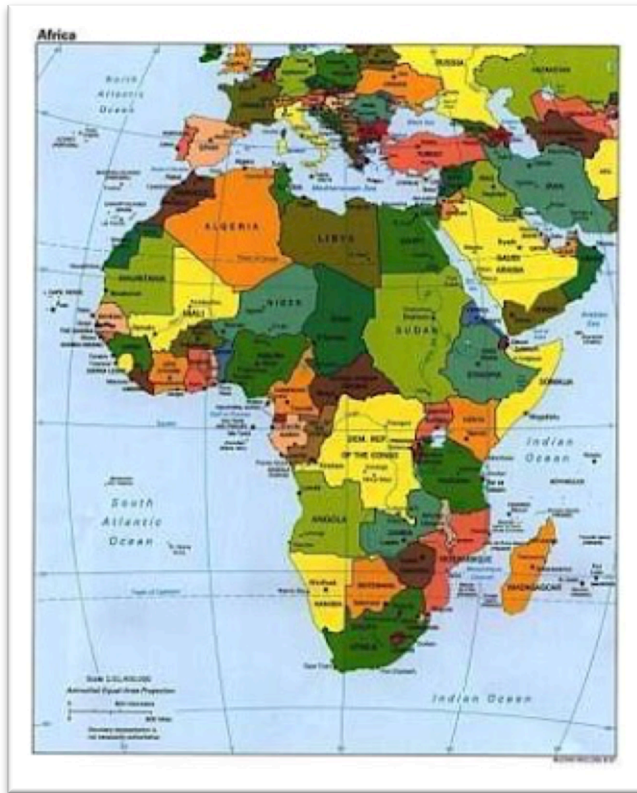
# INSIGHT INTO AFRICA

## PART 6

ANDREW SIA

## Insight into Africa Part 6

### Introduction



Africa is the world's second largest and second most-populous continent. Asia is the world's largest in both categories. Our memory about Africa is its vast pastures where herds of animals are roaming freely. Its tribes are the indigenous people who lived there since the dawn of civilization. The earliest homo sapiens found in Ethiopia was dated to 200,000 years ago.

Africa has a very large ethnicities, cultures and languages. It is also the oldest inhabited territory on Earth with the human species originating from this continent.

After the evolution of Homo sapiens approximately 150,000 years in Africa, it was mainly populated by groups of hunter-gatherers. The beginning of the migration took place 50,000 years ago and began to populate the rest of the globe. They crossed the strait between Yemen on the Arabian Peninsula and Djibouti and Eritrea in the Horn of Africa where the Red Sea is. Or they crossed the Strait of Gibraltar in Morocco, and also the Isthmus of Suez in Egypt.

Some saying that the "Out of Africa" theory dispersals of modern humans possibly beginning as early as 270,000 years ago.

### Early History

It was around 3300 BC, the historical record of the Pharaonic civilization of Ancient Egypt, considered as one of the world's earliest civilizations, the Egyptian state started from the north east corner of the African continent along the Red Sea. It continued to influence around that area until 343 BC.

European exploration of African began with Ancient Greek and Romans. In 332 BC, Alexandra the Great founded Alexandria in Egypt. The Romans conquered North Africa's Mediterranean coastline and integrated the area into the Roman Empire.

In the early days, Africa possessed as many as 10,000 different states under different sorts of rules.

### Insight into Africa in the Nineteenth Century

Scramble for Africa, also known as the Partition of Africa or Conquest of Africa.

Scramble for Africa took place at the end of the nineteenth century was the time that European powers were claiming for the entire African continent. With the limited knowledge of the hinterland, they bargained and haggled over the separate sphere of interest that they wanted to establish there.

Then they proceeded to carve up the African continent and marked the boundaries for the new territories. They mostly ended up with drawing the straight lines on the map without any consideration of the traditional monarchies, chiefdoms and African tribes that lived on the land.

Terrains on the ground were unfathomed and unknown of, as well as mountains, lakes and rivers were not given any consideration. They are treating the African land and the people on the continental Africa like the chessboard.

It reached its climax by 1914 when almost 90% of the continent was taken up, with the exception of Ethiopia, a portion of Somalia and Liberia was untouched.

African societies were ripped apart and new boundaries simply cut through 190 culture groups without any consideration for their common history, culture, language or even religion.



By the time the Scramble of Africa was over, 10,000 African polities had been amalgamated into forty European colonies and protectorates, the African continent was colonized.

What were brought afterward, we found fighting of the chiefdoms against the rulers, the Muslim sheikhs fought with the British, and the tribes turned into guerrillas.

It all began in 1840, and the European powers had established small trading posts along the African continent and they were all staying along the coast. For instance, the Portuguese was in Angola and Mozambique, British was holding to the Cape of Good Hope and the French was in Algeria.

The Industrial Revolution also brought along the colonization as rapid advancements in transportation and communication brought along the steamships, railways and telegraphs. Advancement in medicine brought healing to tropical diseases and malaria, the most commonly seen disease, was able to put under control.

Acquisition of military and naval bases for strategic purposes have further fueled by new shipping vessels powered by steam engines that would require coal storage, provisions and maintenance. Defense bases were built to protect the sea routes and communication lines, and international waterways such as the Suez Canal, the key waterway between the East and the West was under the control of the British.

Colonies were seen as the "balance of power", and not only the resources but also the large native populations were also a source of military power. And to remain as powers, wars were waged and large number of soldiers were taken from the colonies and engaged in many of the colonial wars and in the coming World Wars.

For the following years, the continuous expansion of power resulted many fighting that not only led to loss of financial but led to the Long Depression from 1873 to 1896. The United States, the only country on Earth, suffered from October 1873 to March 1879, for the 65 months, resulted the longest-lasting contraction eclipsing the Great Depression's 43 months of prolonged contraction. In between that period of time, 18,000 businesses went bankrupt, including 89 railroads. Also, ten states and hundreds of banks went bankrupt. Unemployment peaked during the time.

The New Imperialism period took place by the end of the 19<sup>th</sup> century. Europe added almost 9 million square miles to its overseas colonial possessions, with itself a little bit less than 4 million square miles. It was between the period of 1885 to 1914, Britain took nearly 30% of Africa's population under its control, France took 15%, Portugal took 11%, Germany took 9%, Belgium took 7% and Italy took 1%.

This political expansion led to a succession of crises and it finally exploded in August 1914 when the rivalries and alliances created a domino effect that drew the major European nations into World War I. Austria-Hungary attacked Serbia to avenge the murder of Austrian crown prince Francis Ferdinand. It resulted Russia took side with Serbia and Germany intervened to support Austria-Hungary against Russia. This followed by France, Belgium, Britain into war against Germany and drew United States into what had become World War 1.

World War I was fought in Europe from 1914 to 1918. It was until the end of WWI, the reshuffle of territories took place again and being the defected country, Germany's possessions were partitioned between Britain, France and Belgium.

### **Africa in the 19<sup>th</sup> Century**

Before the decolonization, Britain and France had the largest land holdings, with Belgium, Italy, Portugal and Spain holding the rest of the land.

The good thing is the abolition of slave trade toward the end of last century. The Western Powers in Africa were tapping into its natural resources, the minerals with gold in particular and agriculture in its rubber plantation which led to exploitation of resources and cheap labor.

This continue until the mid-20<sup>th</sup> century and slow up the progress of the independence of the African states. It was only until 1977, all the 54 African countries had seceded from European colonial rules.



During the two world wars, African soldiers were enlisted into imperial militaries. This led to a deeper awareness and the expectation of greater respect and self-determination and was left largely unfulfilled.

For the early African nationalists, decolonization became a moral imperative.

In 1945, during the Fifth Pan-African Congress, the African nationalists demanded the end of colonialism.

And it was as early as in the 1930s, a small elite of leaders were educated in the western world and began to conceive the idea such as self-determination. The leading nationalists such as Jomo Kenyatta from Kenya, Kwame Nkrumah from Ghana, Julius Nyerere from Tanzania, Léopold Sédar Senghor from Senegal, Nnamdi Azikiwe from Nigeria and Félix Houphouët-Boigny from Ivory Coast.

But none of the African countries were qualified to become an independent state as the colonial powers didn't built Africa to integrate it into the world economy. This was built mainly for exploitation of its resources to benefit the colonizers and it was never meant to help and put the Africans on their feet.

Dependency theory has been established to allow resources flow from a periphery of the poor and underdeveloped states to a core of wealthy states and enriching them at the expense of the former. So, we still can find today that the world economy is relying on primary commodities such as copper from Zambia, cobalt from Democratic Republic of the Congo, tea from Kenya, and diamond from South Africa.

## The Decolonization of Africa

The majorities took place in the mid-to-late 1950s and 1960s. The sudden and radical regime changed on the continent as colonial governments gave way to independent states. Unfortunately, this was often unorganized and marred with violence and political turmoil. The widespread unrest and revolts took place.

French Algeria, Portuguese Angola, the Belgium Congo and British Kenya were caught in the bloodiest revolts.

The post-war debt also didn't allow the European powers to use the resources from Africa to maintain their control of their African colonies. The African nationalists were able to negotiate the decolonization quickly with the least casualties.

Ghana came off from the British control on March 6, 1957 and became the first sub-Saharan African country to gain its independence from European colonization.

Although we have noticed South Africa was independent from the British on May 31, 1910 and this was followed by Egypt on February 28, 1922.

Libya was independent from Italy on December 24, 1951. And Tunisia from France on March 20, 1956. And those were the earlier ones. The last was Sahrawi Arab Democratic Republic from Spain on February 27, 1976.

### **The New Scramble for Africa**

In fact, the second scramble took place during the cold war, when the East and West vied for the allegiance of newly independent African states, The Soviet Union backed the Marxist tyrants and the US put up their despots who claimed to believe in capitalism. This didn't last for too long.

The third surge is underway now and governments and businesses from all around the world are rushing into Africa to strengthen diplomacy, developing strategy and tightening commercial connections. Hopefully that this time the Africans will come up as the biggest beneficiaries.

This time the extent of foreign engagement is unprecedented. Start with diplomacy, from 2010 to 2016, more than 320 embassies were opened in Africa. The combat with jihadism where US and France is supporting technology to combat in Sahel. China is now the largest arms seller to sub-Sahara Africa and Africa already has defense-technologies tied with 45 countries. The oil-rich Arab states are building bases on the Horn of Africa and used African mercenaries.

Since 2006, Africa's three biggest trading partners were America, China and France. But by 2018, China took over as number one, followed by India and America. France was pushed back to number seven.

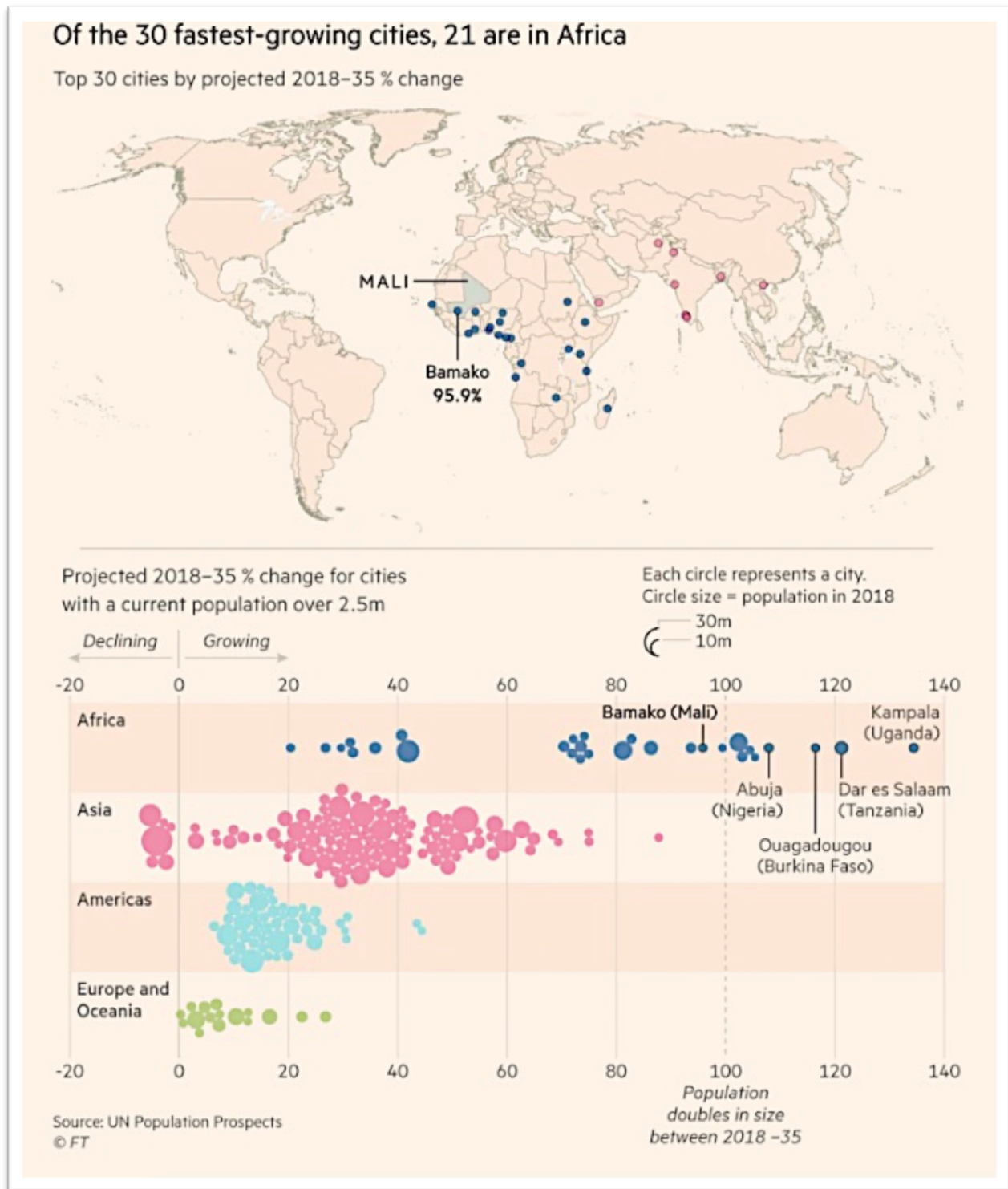
Trade with Europe has grown by 41% but the biggest foreign direct investment are the companies from the US, Britain and France. But China, with its state-owned enterprises are catching up.

The stereotype of foreigners in Africa is the neocolonial exploiters. They are interested only in the continent's natural resources and they are ready to bribe the local important figures. There are far too many oil and mineral ventures that are corrupted and unfortunately there are far too many corrupted African leaders. Deals with Russia and China are usually murky and not transparent.

But there are the positive side as well, for instance, the ports being built, insurance companies being set up and mobile-phone services being provided. Factories in Ethiopia and Rwanda set up by China are operating.

Without any announcement, Africa has become the world's most rapidly urbanizing continent. From 2018 to 2035, UN predicts that the world's 10% fastest growing cities will be in Africa. According to the World Bank, 472 million people in sub-Sahara Africa live in cities. It is predicted by 2040 Africa's urban population will more than double to 1 billion because of the high birth rate and migration from the countryside.

We can see further facts that we have collected about Africa and we like to share them as the following.



Source: United Nations 2018 World Urbanization Prospects data, visualization by the Financial Times

We bring you to the African continent to let you witness the “New Scramble of Africa” with the key players as the following:

**Djibouti** - It is known as the country located in the Horn of Africa. It is bordered by Eritrea in the north, Ethiopia in the west and south, and Somalia in its southeast. On the east of its border, Djibouti has the entrance to Red Sea and Gulf of Aden. You can see a third of global shipping vessels sailing by this little country of north-east Africa. America has its permanent military base here in Africa. The French, Japanese and Italian have their military bases there as well.

China has its base also. And although Djibouti is small, it has a multipurpose port, a railway to Ethiopia and the free-trade zone under construction, and once completed will be the largest in Africa. They are all built by Chinese state-owned enterprises and are partly run by them.

We have selected the most important trading partners with sub-Saharan Africa and give some of the highlights as the following.

**China** - There are now 10,000 Chinese businesses on the African continent. Chinese are the favorable investors in Africa. China is providing financial aid in exchange of political and military connections.

Last year when it hosted the Forum on Africa-China Co-Operation, it drawn more African leaders than the annual meeting of the United Nations General Assembly.

China made 79 visits to Africa so far for this decade.

China has also persuaded nearly every African state to ditch diplomatic recognition of Taiwan.

China wants to be seen as a power with intercontinental connectivity. East Africa is its counterpart of the “Maritime Silk Road”. And because of more than 1 million of Chinese living in Africa, it wants to give protection.

China’s trade increase from 2006 to 2018 was 226%. China invested \$40 billion in 2016.

**Turkey** - It has 26 embassies in Africa. The Turkish airline has covered 50 African cities for instance and it is helping the transportation. The Turkish Biyanet Foundation has just opened the largest mosque in east Africa in Djibouti.

Its leader, Erdogan, paid more than 30 visits to African countries mostly in the sub-Saharan.

In 2017, Turkey built its largest overseas military base and its first in Somalia.

Trade increase with Africa was 216%.

**India** - It is following China’s footsteps. It has announced that it would build 18 more embassies in Africa. Narendra Modi visited eight African countries during his five years in power.

India is developing a network of radar and listening posts around the Indian Ocean. A base in Seychelles was blocked earlier on. But its army hosted a military exercise with a number of African states, including Tanzania, Kenya and South Africa.

Trade between India and African countries increased by 292%, although you can say that in 2008 it was very low.



**Japan** - It is because of China's expansion in Africa, Japan is enlarging its base in Djibouti.

**Russia** - It is set to host its first Forum on Russia-Africa Co-Operation. They have offered themselves to help the African states to fight with their rebels. In the former days of the Soviet Union, they were known to train the African soldiers and this kind of relationship is maintained. You can find the Russian advisers in Zimbabwe, Guinea and Madagascar.

Trade increase with Africa was 335%.

**France** - President Macron visited the African continent for nine times since he became the French president.

**US** - It took Trump 18 months to fill the top Africa job in the State Department. In fact, since his taking over, US has cut funding in developing and diplomatic programs. It even went further to announce 10% reduction in troops in Africa. For trade, US reduced 45% compared from 2006 to 2016.

### China's Presence in Africa

We cannot write about Africa without mentioning China in these days. It is like in the last century that you can't forget the colonies when you were talki[ng about the African continent.



It was as recently as 3 September 2018, China hosted the 2-day Beijing Summit of the Forum on China-Africa Cooperation (FOCAC). Xi Jinping spoke to the representatives of 54 African countries and pledged \$60 billion for African development over the next three years plus 50,000 scholarships.

Forum on China-Africa Cooperation (FOCAC) is a triennial summit forum began as the Ministerial Conference in Beijing in October 2000. It changed to the FOCAC Summit in November 2006. Since then China bankrolled the African states in loans and aids. One of the areas that China has looked upon Africa as a customer for their excess capacity.

The western powers were warning the African states for the debt trap as carefully planned by China but China said that the cooperation is only for the good intention and without any purpose for China.

Although Kenya criticized bitterly about their debt of \$3.3 billion for a China-built railway which was the result of corruption.

Between 2006 to 2016, \$125 billions were lent to the African countries. But at this forum, Xi exempted some very poor states from debt-payments due in 2018.

It is already a decade that China surpassed the US to become Africa's largest trading partner and its two-way trade last year reached \$170 billion. This is four times larger than the US-African commerce.

## Conclusion

Originally this article was known as the New Bonanza of Africa. This title could have been very appropriate as it is reflecting something like a gold rush and we have seen a lot of countries who are rushing to the African continent to find their fortune.

We mentioned earlier on about the Industrial Revolution which also brought along the colonization with the help of the advancements in transportation and communication. They introduced the steamships, railways and telegraphs. Breakthrough in medication brought healing for tropical diseases and malaria, the most commonly seen disease, was able to put under control.

Isn't this all seem too familiar in today's situation? Airports and seaports, industrial parks are setting up in many African cities. And with the telecommunications, the Africa continent is well connected and with an annual growth of 44% since 2000, African mobile subscription numbers are higher than ever. It has already 479.2 million mobile phone subscribers in the top ten African countries.

If we compare this time with the European race for colonies in the late 19<sup>th</sup> century, the Africans will be able to tell you the difference now. The African's natural resources are still attractive to the great powers. But at this time the African's states are keen to build and will take a stake in what is now at the global economic view for this world's second-most-populous continent and its geopolitical position.

African is becoming an international playing field for the global economy and the Africans are the primary players this time. Access to Africa's natural resources will remain crucial. The African countries are aware that the economics are not only related to commodities. One-third of the African countries are expecting their GDP growth by 5% per year in the next five years.

African countries, Mali, Mauritania, Morocco, Mozambique, Sudan and Tanzania have recently struck agricultural deals with the Gulf countries. On the other hand, countries are exporting to Africa and creating the demand for the African countries. What African countries need now is to trade in both import and export.

What Africa needs are the democracy and transparency and use them as the antidotes to corruption. Unfortunately, countries like Russia and China do not care about democracy in Africa and they claim that their policy is not to interfere.

# A ROADMAP OF CAMBODIA

ANDREW SIA

## A Roadmap of Cambodia



### Introduction

The Kingdom of Cambodia which was known as Kampuchea from 1976-1989.

We have reported on Cambodia in our July 2015 issue and we would suggest you read the two articles together.

Cambodia is a very small country but the country has a very long history intertwined with its neighbors, Vietnam and Laos. With the expansion of the French colonization and the grouping of the French Indochina, added the misery to the history of Cambodia.

For more than a hundred years, Cambodia was in the crossfires before it gained independence in 1993.

Cambodia was a protectorate of France from 1867 to 1953 for 85 years and was administered as part of the French Indochina. It was a grouping of French colonial territories in Southeast Asia. A grouping of the three Vietnamese regions of Tonkin from the north, Annam from the center, and Cochinchina from the south with Cambodia was formed in 1887. Laos was added in 1893 and the leased Chinese territories of Guangzhouwan, a small enclave on the southern coast of China ceded by Qing China to France as a leased territory and administered as an outlier of French Indochina in 1898. The capital was moved from Saigon in Cochinchina to Hanoi on Tonkin in 1902 and again to Da Lat in Annam in 1939. In 1945, it was moved back to Hanoi.

In the Second World War, France fell to Germany and the colony was under Japanese occupation until March 1945. After the surrender of Japan, a communist group led by Ho Chi Minh declared the independence of Vietnam. France took back French Indochina and an independence war, known as First Indochina War, broke out in late 1946 between French and Viet Minh. This led to the State of Vietnam proclaimed in 1949, and the independence of the Kingdom of Laos was declared on October 22, 1953, and Kingdom of Cambodia was declared on November 9, 1953.

Followed by the Geneva Accord of 1954, French evacuated Vietnam and French Indochina also came to an end. Not to forget that the communist movements in Cambodia and Vietnam began before WWII and originally it was meant to fight French colonial rule in Indochina.

When French Indochina was given independence, Cambodia became a constitutional monarchy under King Norodom Sihanouk but Cambodia lost control over the Mekong Delta to Vietnam. When the Vietnam War escalated, Sihanouk allowed the Vietnamese communists to use Cambodia as a sanctuary and a supply route for their arms and other aid to their armed forces fighting in South Korea. The country was dragged into the Vietnam War.

In one of Sihanouk's visits to Beijing in 1970, he was ousted by a military coup led by Prime Minister Lon Nol and Prince Sirik Matak. This coup led to the install of the right-wing Pro-US Khmer Republic. But the disposed king, Norodom Sihanouk, gave his support to his former enemies, the Khmer Rouge. Together with the Vietnamese communists, the Viet Cong and Khmer Rouge gained control of some of the territories that resulted in the US bombing of Cambodia from 1969 to 1973.

On the other hand, the Khmer Republic's leadership was split, Lon Nol, Sihanouk's cousin Sirik Matak and the National Assembly leader in Tam and no party was interested to lead, it was left to Lon Nol to handle it alone. The administration was weakened and corrupted.

The communist insurgency inside Cambodia continued to grow with help from North Vietnam. The Communist Party of Kampuchea began to control 60% of the territory and 25% of its population. Lon Nol lose control and the country was full refugees.

On New Year's Day of 1975, the Khmer Rouge led by Pol Pot took Phnom Penh and they changed the name of the country to Democratic Kampuchea. They copied Maoist China during the Great Leap Forward, evacuated the cities, sent the entire population on forced marches to rural places for hard labor work. They brought the country backward and discarded the western medicines, destroyed the temples, libraries and anything related to the western world.

The Cambodian genocide happened between 1975 until 1979, and as the result in the deaths of approximately 1.5-2 million people, which was about a quarter of Cambodia's population at the time. This genocide was caused by Khmer Rouge and the notorious Pol Pot together with Ieng Sary, who was the leading member of Cambodia's communist movement.

In November 1978, Vietnam troop invaded Cambodia in response to a border raid by the Khmer Rouge. The Khmer Rouge was ousted by Vietnam and the Vietnamese backed People Republic of Kampuchea, with the support of Soviet Union. This finally led to the Cambodian-Vietnamese War, which was an armed conflict between the Soviet, Republic of Vietnam and the Democratic Kampuchea. This was between December 1978 to September 1989 for 10 years, 9 months and 1 day.

The Kampuchean People's Revolutionary Party, a party pro-Soviet and partly created by Vietnam in 1951, together with a group of Khmer Rouge who fled Cambodia from Pol Pot, created the People Republic of Kampuchea. Together with a royalist faction of Khmer Rouge led by Sihanouk and the Khmer People's National Liberation Front formed the Coalition Government of Democratic Kampuchea in 1981. This gained recognition by the United Nations way back. And later the refusal of Vietnam to withdraw from Cambodia after the long process led to economic sanctions by the US and the allies.

The Paris Peace Accords in 1991 and governed by a United Nations mission for 1992-1993. The United Nations Transitional Authority (UNTAC) in Cambodia was established in February 1992 under the United Nations Security Council Resolution 745 in agreement with State of Cambodia. UNTAC was the de facto government of the country at the time with 15,900 military, 3,400 civilian police, 2,000 civilians and 450 UN volunteers and supported by local staffs and interpreters.

UNTAC aimed to restore peace and civil government in a country ruined by decades of civil war and Cold War. All the effort was to help Cambodia to have the free and fair elections for a new constitution.

It motivated 50,000 Cambodian citizens serve as electoral staff and 900 international polling station officers were seconded from different government departments. 46 participating countries provided military observation. The whole operation cost was \$1.6 billion. The elections took place on May 13, 1993.



Monarchy restored September 24, 1993 and Norodom Sihanouk was restored as King of Cambodia, and the new regime demanded the Vietnamese communists to leave Cambodia. Although Sihanouk was restored as the king but all the power was in the hands of the government after the UNTAC sponsored elections.

The stability was destroyed by a coup took place in 1997, and as a result, co-premier Hun Sen ousted the other co-premier that resulted also in bloodshed. The country is now under Hun Sen, the Prime Minister, reconstructed the country and led some political stability through a multiparty democracy under a constitutional monarchy. Hun Sen has served as prime minister of Cambodia since 1985.



Today Cambodia is an authoritarian dictatorship state. The king, Norodom Sihamoni, has been a puppet since long.

### Key Facts

- Official name - Kingdom of Cambodia
- Capital - Phnom Penh
- Government type - Multi-party democracy under constitutional monarchy
- Population - 15,288,489 (March 2019 census)
- Land area - 181,035 square kilometers
- GDP (nominal) - \$13.8 billion
  - Per capita - \$846.70
- GDP (PPP) - \$70.242 billion
  - Per capita - \$4,322

### Currency

US\$1 to Riel 4,093 (September 2019)

### Geographic



It has an area of 181,035 kilometers and it is entirely within the tropics. It has the borders of north and west with Thailand. Its northeast to Laos and east and southeast with Vietnam. It has a 443 kilometers coastline along the Gulf of Thailand.

**Weather**

Cambodia is like the rest of Southeast Asia and it is dominated by monsoons.

Cambodia has a temperature range from 21 to 35 degrees Celsius. It has two distinctive seasons; the rainy season runs from May to October and temperature can drop to 22 degrees Celsius. The dry season lasts from November to April with temperature up to 40 degrees Celsius.

According to the International Development Research Center and the United Nations, Cambodia is considered as Southeast Asia’s most venerable country to be affected by climate change. It is as extensive as to all its provinces but the rural coastal populations are in particular. There are these shortages of clean water but on the other hand the extreme flooding, mudslides, higher sea levels.



**Administrative Divisions**



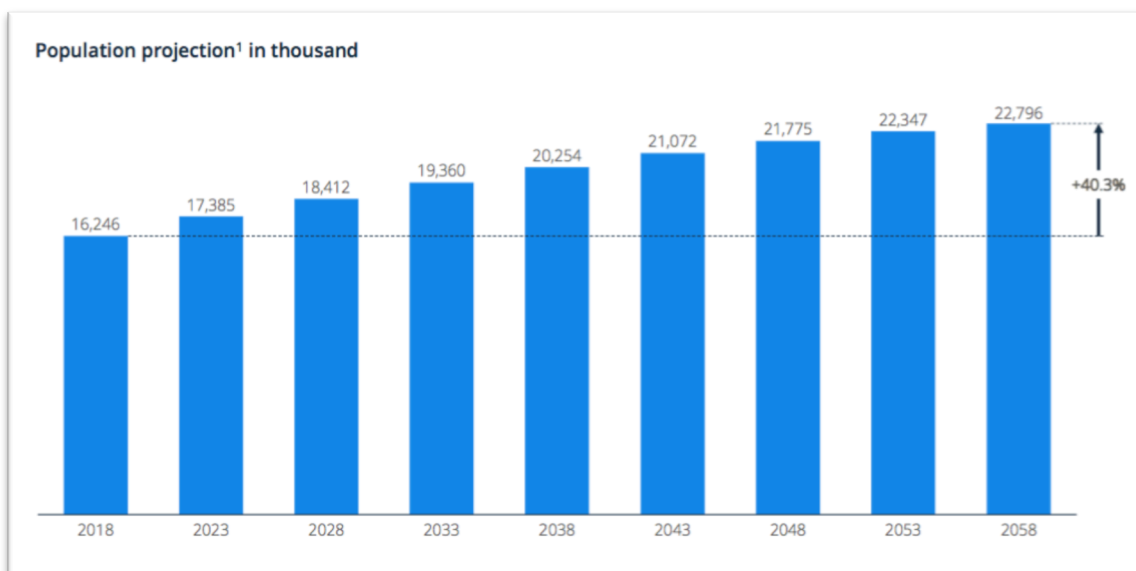
The autonomous municipality and provinces of Cambodia are first-level administrative divisions. Cambodia is divided into 25 provinces including the autonomous municipality.

Municipalities and districts are the second-level administrative divisions of Cambodia. The provinces are subdivided into 159 districts and 26 municipalities. Then the districts and municipalities are further divided into communes and quarters.

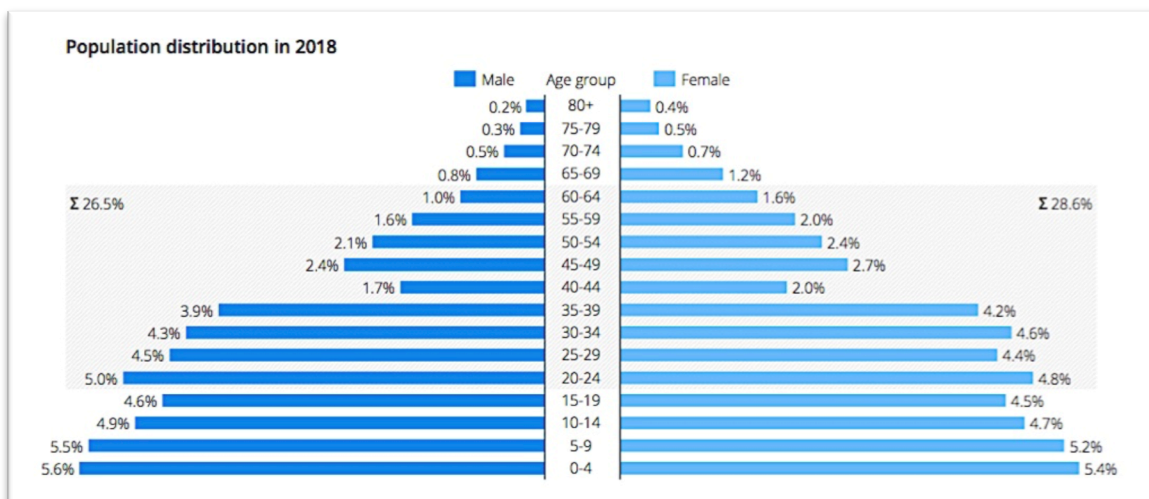
**Demographics**

Cambodia has a population of 15,288,489 and a growth of 1.5%, and Phnom Penh has the largest urban area of 2 million in population. 97.6% of the population is Khmer. The population has been projected to reach 22,796,000 in 2058 which is an increase of 40% from now on. For the incremental part, for male it is about 4 million, and for female it is about 4.3 million.

We can also find out that for the age group from 44 to 44, it has the exceptional low percentage, it was during the period of the genocide of the Khmer Rouge led by Pol Pot and the people were evacuated from the cities and sent to the rural part of the country to carry out hard labor work. The fertility rate during the period was extremely low.

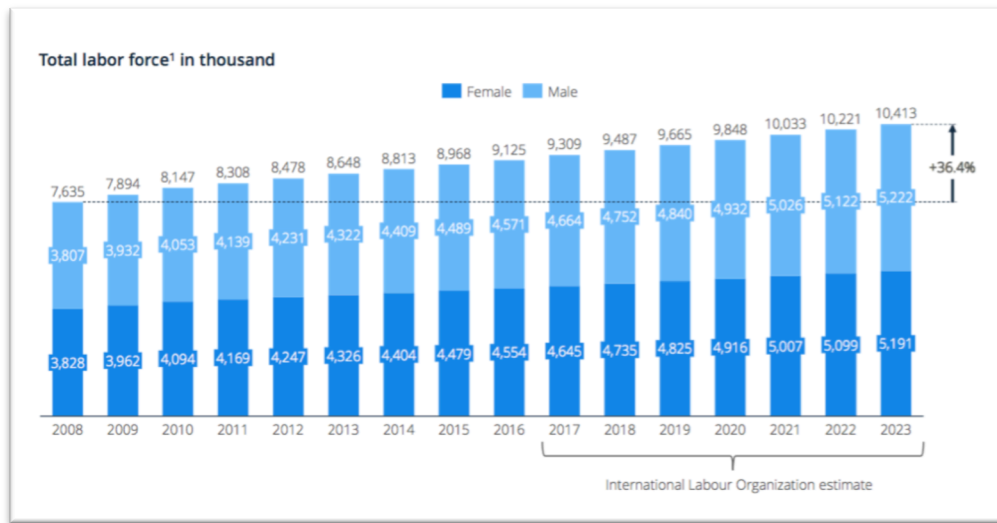


We can refer to the following for the population distribution by the sex and the age group. The core part, from the age of 20 to 64, for the male it is representing 26.5%. For the core part of the female, it is 28.6%.





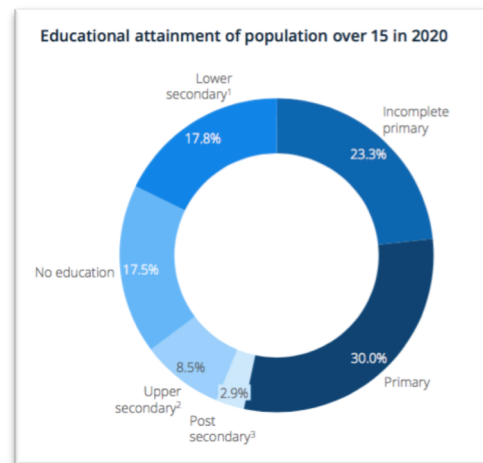
Cambodia, although a small country, but you can find the labor force growing from 9.665 million to 10.413 in 2023 by 7.7% which is only 4 years away. And the labors are relatively young.



Majority of the workers in the manufacturing industry are working in the garment and footwear. This represents 80% of the country’s export. This sector employs 335,400 workers and out of this 91% are female.

Both garment and footwear are considered as the labor-intensive industry that doesn’t require any higher education. We can find that the education level in Cambodia is at its lowest level, and almost 90% have received very minimal education.

The country has a minimum level of human development of 58.2% which ranks #146 in comparison of 189 countries.



**Other Facts** - Taken from World Almanac 2019

People	Population	16,449,519	
	Age Distribution	<15	30.8%
		65+	4.4%
	Growth	1.5%	
	Urban Population	23.4%	
	Ethnic Group	Khmer	

Geography	Total Area	69,696 square miles
	Arable Land	21.50%
	Capital	Phnom Penh

Major City's Population	Phnom Penh	1,952,329
-------------------------	------------	-----------

Economy	Industries	Tourism	
		Garments	
		Construction	
		Rice milling	
		Fishing	
		Wood	
		Wood products	
		Rubber	
		Cement	
		Gem mining	
		Textiles	
	Chief agriculture	Rice	
		Rubber	
		Corn	
		Vegetables	
		Cashews	
		Cassava	
		Silk	
	Natural resources	Oil and gas	
		Timber	
		Gemstones	
		Iron ore	
		Manganese	
		Phosphates	
	Labor force	Agricultural	26.7%
		Industry	27%
		Services	46.3%
	Unemployment	0.20%	

Finance	GDP (billion)	\$64.3		
	Per capita	\$847		
	GDP growth	6.90%		
	Import (billion)	\$14.3	China	34.1%
			Singapore	12.8%
			Thailand	12.4%
			Vietnam	10.1%
	Export (billion)	\$10.50	US	21.5%
			UK	9.0%
			Germany	8.6%
			Japan	7.6%
			China	6.9%
Canada			6.7%	
Tourism (billion)	\$3.20			
Budget (billion)	\$4.70			
Inflation	2.9%			

Transportation	Railways	399 miles under construction	
	Airports	6	

Communications	Telephone	0.8 per 100	
	Mobile	116 per 100	
	Broadband	50.2 per 100	
	Internet	34%	

Health	Expenditure	6.00%	
	Life expectancy	Male	62.7
		Female	67.9
	Births	22.5 per 1,000	
	Death	7.4 per 1,000	
	Infant mortality	46.1 per 1,000	
	Undernourished	18.5%	
	HIV	0.5%	

Education	Compulsory	n/a	
	Literacy	77.2%	

Religion	Buddhist	96.5%	
	Muslim	1.9%	

Language	Khmer		
----------	-------	--	--

**Economy**

In 2017, Cambodia’s per capita income was \$4,322 in PPP and \$846.7 in nominal per capita. Cambodia came out from the status of a Least Developed Country to a Lower-Middle Income country. The rural households are depending on agriculture and rice, fish, timber, garment and rubber are Cambodia’s major exports.

**Real GDP per capita<sup>1</sup> in US\$<sup>2</sup> in 2018**

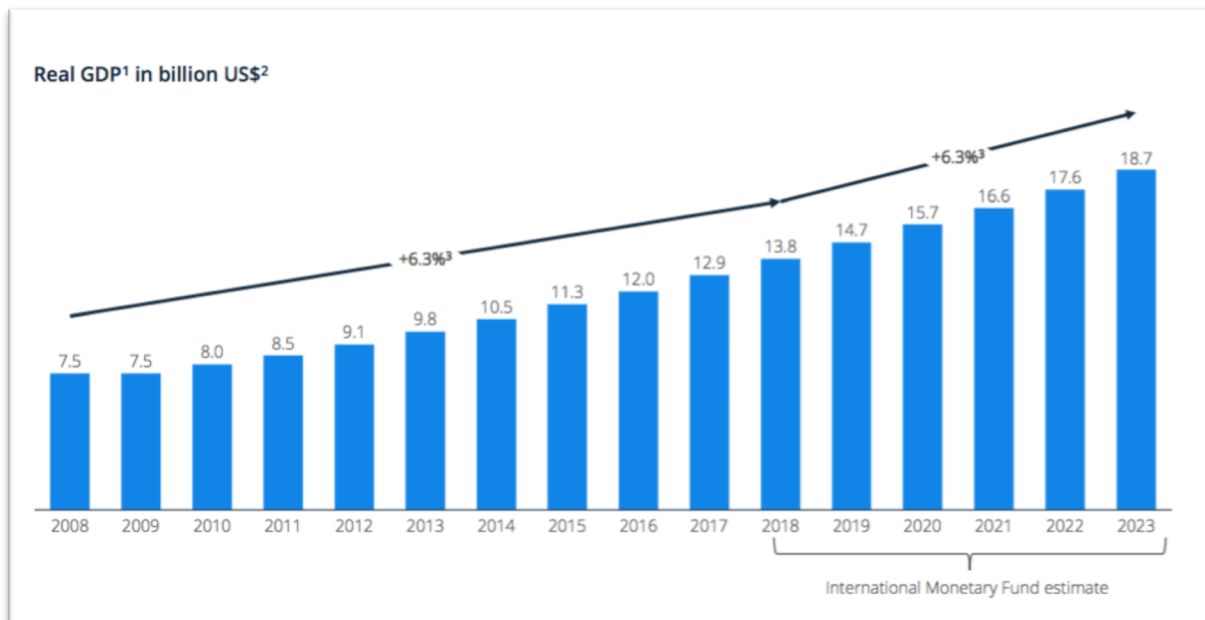
#	Country	GDP	#	Country	GDP	#	Country	GDP	#	Country	GDP	#	Country	GDP
1	Luxembourg	111,404	30	Slovenia	26,841	59	Turkmenistan	8,561	88	Ukraine	3,086	117	Angola	1,219
2	Norway	99,968	31	South Korea	26,783	60	Uruguay	8,328	89	Guyana	2,976	118	Pakistan	1,003
3	Qatar	82,251	32	Cyprus	25,312	61	Belarus	8,316	90	Armenia	2,804	119	Zimbabwe	992
4	Switzerland	79,567	33	Portugal	24,851	62	South Africa	7,492	91	Albania	2,731	120	Bangladesh	971
5	Ireland	78,275	34	Greece	23,614	63	Dominican Republic	7,336	92	Nigeria	2,422	121	Moldova	949
6	Iceland	67,038	35	Czechia	23,459	64	Botswana	7,081	93	Paraguay	2,416	122	Djibouti	887
7	Australia	64,087	36	Bahrain	23,054	65	Serbia	6,200	94	Azerbaijan	2,363	123	Rwanda	867
8	Denmark	62,543	37	Saudi Arabia	21,062	66	Brazil	6,164	95	Algeria	2,313	124	Laos	864
9	Singapore	56,354	38	Slovakia	20,718	67	Suriname	6,048	96	Venezuela	2,310	<b>125</b>	<b>Cambodia</b>	<b>847</b>
10	Netherlands	55,380	39	Estonia	19,717	68	Montenegro	5,896	97	Georgia	2,191	126	Cameroon	836
<b>11</b>	<b>United States</b>	<b>53,820</b>	40	Oman	17,731	69	Bosnia and Herzegovina	5,746	98	India	2,185	127	Tanzania	834
12	Japan	53,306	41	Lithuania	17,685	70	Argentina	5,418	99	Philippines	1,952	128	Senegal	824
13	Sweden	51,942	42	Chile	16,688	71	Peru	5,326	100	Bhutan	1,947	129	Chad	796
14	Austria	50,150	43	Poland	16,461	72	Colombia	4,868	101	Guatemala	1,936	130	Uganda	747
15	Belgium	49,447	44	Latvia	16,132	73	Jamaica	4,517	102	Vietnam	1,920	131	Gambia	707
16	Finland	48,515	45	Croatia	15,846	74	Indonesia	4,323	103	Libya	1,784	132	Kyrgyzstan	675
17	Germany	48,104	46	Russia	15,217	75	Macedonia	4,314	104	Jordan	1,748	133	Yemen	666
18	Canada	47,558	47	Hungary	13,975	76	Mongolia	4,246	105	Honduras	1,691	134	Ethiopia	663
19	United Kingdom	45,812	48	Turkey	13,816	77	Ecuador	4,217	106	Ivory Coast	1,655	135	South Sudan	662
20	France	44,956	49	Equatorial Guinea	12,049	78	Iraq	4,055	107	Zambia	1,634	136	Mozambique	620
21	Hong Kong	43,986	50	Malaysia	11,767	79	Timor-Leste	4,023	108	Nicaragua	1,622	137	Malawi	474
22	Italy	35,294	51	Costa Rica	11,397	80	Tunisia	3,989	109	Myanmar	1,602	138	Burkina Faso	437
23	Israel	34,841	52	Romania	11,346	81	Gabon	3,719	110	Ghana	1,562	139	Mali	433
24	United Arab Emirates	33,829	53	Mexico	10,990	82	Belize	3,632	111	El Salvador	1,504	140	Sierra Leone	433
25	Spain	33,593	54	Panama	10,362	83	Thailand	3,589	112	Bolivia	1,354	141	Nepal	407
26	New Zealand	31,830	55	China	9,771	84	Morocco	3,393	113	Republic of the Congo	1,333	142	Afghanistan	344
27	Brunei Darussalam	31,744	56	Lebanon	9,576	85	Egypt	3,315	114	Sudan	1,329	143	Congo (Dem Rep) <sup>1</sup>	280
28	Kuwait	30,830	57	Kazakhstan	8,772	86	Namibia	3,228	115	Uzbekistan	1,291	144	Tajikistan	261
29	Malta	28,684	58	Bulgaria	8,688	87	Iran	3,132	116	Kenya	1,288	145	Niger	228

For the easy reference, I listed the following countries that are the hot spots for manufacturing in these days. This is referring to the GDP per capita.

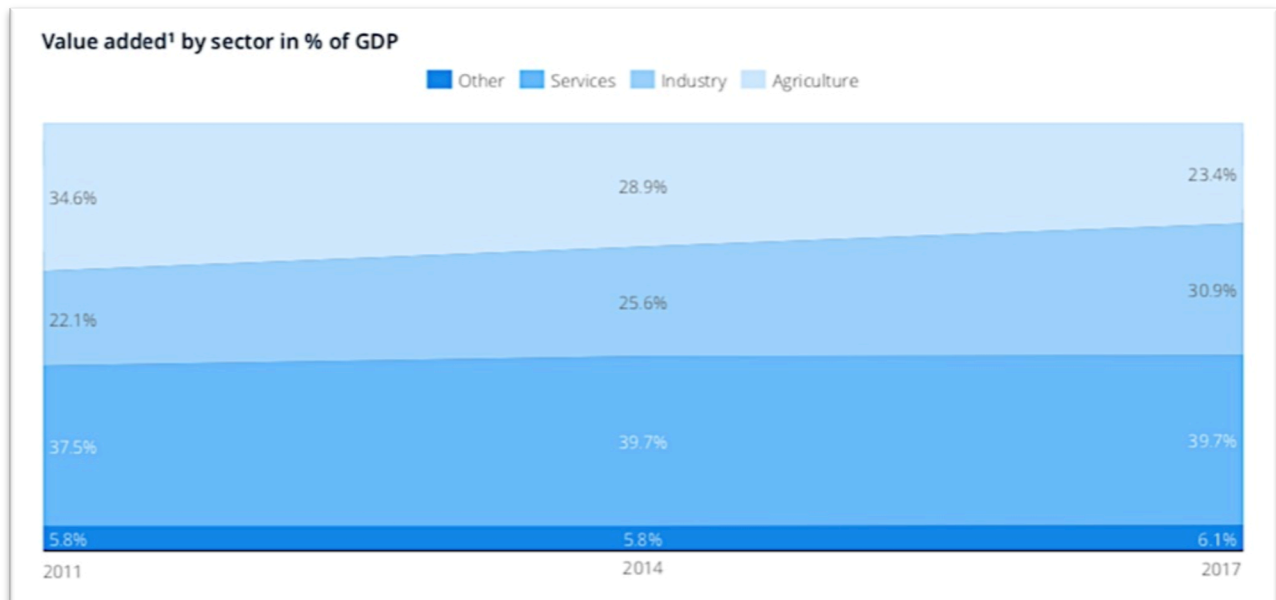
- China - \$9,771
- Indonesia - \$4,323
- Thailand - \$3,589
- India - \$2,185
- Philippines - \$1,952
- Vietnam - \$1,920
- Myanmar - \$1,602
- Bangladesh - \$971
- Laos - \$864
- Cambodia - \$847
- Ethiopia - \$663

Throughout the period from 2001 to 2010, the annual average GDP growth for the country was 7.7% making it one of the world’s top ten countries with the highest annual average GDP growth.

Going forward, for GDP is forecasted to grow by 6.3% per annum from 2018 to 2023.



In Cambodia the value for each sector in the GDP is mapped out as the following:



- Servicing industry - 39.7%
- Manufacturing industry - 30.9%
- Agricultural industry - 23.4%
- Others - 6.1%

Tourism was the fastest growing industry, and in 1997 it was 219,000 for tourist arrival in Cambodia to over 3 million in 2017.

For the two decades of economic growth have made Cambodia a global leader in reducing poverty. Cambodia ranked fourth in terms of the fastest poverty reduction in the world from 2004-2008.

There are oil and natural gas deposits found beneath Cambodia's territorial.

One of the largest challenges is still the fact that the older population often lacks education, especially in the countryside. The political instability and corruption within the government discourage foreign investment and delay foreign aid. Bribes are often demanded from companies operating in Cambodia when permits and licenses are required.

The law for the organized labor union is very loose in Cambodia. There were 3,166 unions for more than 500,000 workers employed in the country's 557 garment and textile exporting companies and 58 footwear factories. The country needs a trade union law as the factory cannot work with the existence of multiple unions. This is putting the investors off from investment in Cambodia.

## **The Textile and Garment Industry in Cambodia**

The garment industry represents 80% of the country's export. This sector employs 335,400 workers and out of this 91% are female.

Better Factories Cambodia was created in 2001 as a partnership between the UN's International Labor Organization (ILO) and the International Finance Corporation (IFC), a member of the World Bank Group.

The textile industry is Cambodia's largest source of income. Garment and footwear exports for \$6.3 billion in 2015. This accounts for 16% of the GDP and 80% of the country's export earnings.

The industry employs 700,000 people as garment factory workers, 92% are women, out of the total population of 15 million. There are 689 garment factories in the country. The garment factories are mostly owned by foreign-owned companies from China, Hong Kong, Singapore, Malaysia and South Korea.

Garment factory work is exceedingly repetitive, Workers may be trained only to complete particular garment components for production efficiency, which in this case for one worker who can sew the same seam of a sweater for her fourteen years of employment. As a result, there are limited opportunities for skill advancement and industry progression and workers would become trapped in repetitive entry-level roles, with no skills to pursue her career path. But on the other hand, the country has no compulsory requirement of education of their nationals. The situation is very sad as even in African countries they have a compulsory education system.

Working conditions in garment factories have also found to be hazardous to human health. Workstations are non-ergonomic; air circulation is poor and exposure to dangerous chemicals. This resulted in mass worker fainting.

Unionized is common in garment factories. In many cases, there are different unions under the same roof.

Garment factories are in close proximity to the Capital city, Phnom Penh. The finished garments are transported from the factory to the seaport of Sihanoukville for shipping.

Other key locations for garment manufacturing are Kompong Som, Kompong Speu, Kompong Cham, Kompong Chhnang, Svay Rieng, Takeav and Kandal provinces.

For your easy reference, we attached the map of the provinces.



The market of the EU represents the largest for Cambodia's garment export. Collectively they are representing 40% followed by the US with 30%, Canada 9% and Japan 4%. The major brands who are sourcing from Cambodia are Gap, H&M, Marks and Spencer, Uniqlo and Adidas.

Cambodia's minimum wage is only \$153 per month compare to Thailand at \$250 and Vietnam at \$166 and Cambodia keeps it low to maintain its competitiveness with the neighboring countries.

For the trade agreements, Cambodia is a member of the ASEAN Free Trade Area (AFTA), a regional economic integration pact wherein Cambodia benefits from the Common Effective Preferential Tariff (CEPT) agreement that reduces or eliminates tariffs on the manufactured goods traded between the ten ASEAN member countries.

Cambodia is also a member of the WTO since 2004 and this allows the trade integration with the US and EU.

Cambodia also benefits from the EU's Everything But Arms Scheme (EBA) and this allows low developing countries such as Cambodia the duty-free access to the EU market. However, in October 2018, EU announced that it has launched the procedure for the withdrawal of Cambodia's benefits under EBA over the country's alleged poor human rights record. Cambodia has to find the way to make improvements on the human right front otherwise it will lose their duty-free access to the EU market.

Incentives offered by the Cambodia government such as the 100% foreign equity ownership, tax holiday of up to 9 years, an exemption from import duty on machinery and equipment, and reinvestment of earning is encouraged with special depreciation allowances.

Even though the country is poor in its infrastructure and high energy, but with the low labor cost and the benefits for the investment have made up its shortcoming.

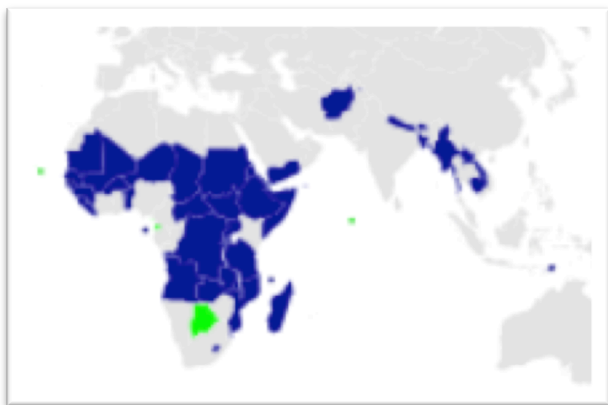
## Conclusion

We featured Cambodia as the country report in our July 2015 issue.

I never have any good impression about Cambodia as I scoffed at the uselessness of the Prince Norodom Sihanouk who frequented China and befriended with Mao Zedong in the late 1950s. He was one of the few friendly states that China had during the time and he was treated highly every time when he was over. But people knew that he was up to something, whether it was the financial aid or the military backup against his rivals. In fact, they staged a coup when he was there in 1970 and he remained in exile and stayed some time in Beijing.

Then we read about the brutality as led by Pol Pot who tortured and drove most of the population out from the cities to the rural area. As the result, it was estimated 1.5-2 million Khmers were dead. We watched the movie, Killing Fields, and we were shocked to see the dead bodies were scattered in the paddy field.

With its leader, which in fact is a dictator, Hun Sen, has been the prime minister since 1985. He is the only leader in the Southeast Asian countries who has been in power for the longest period. He is the friend of Putin but lately he has been very closed with China's Xi Jinping for the Belt Road Initiative.



And because of the poor human right record, the EU is threatening to take away the BEA. They are expecting to see some improvements from him to straighten out the record.

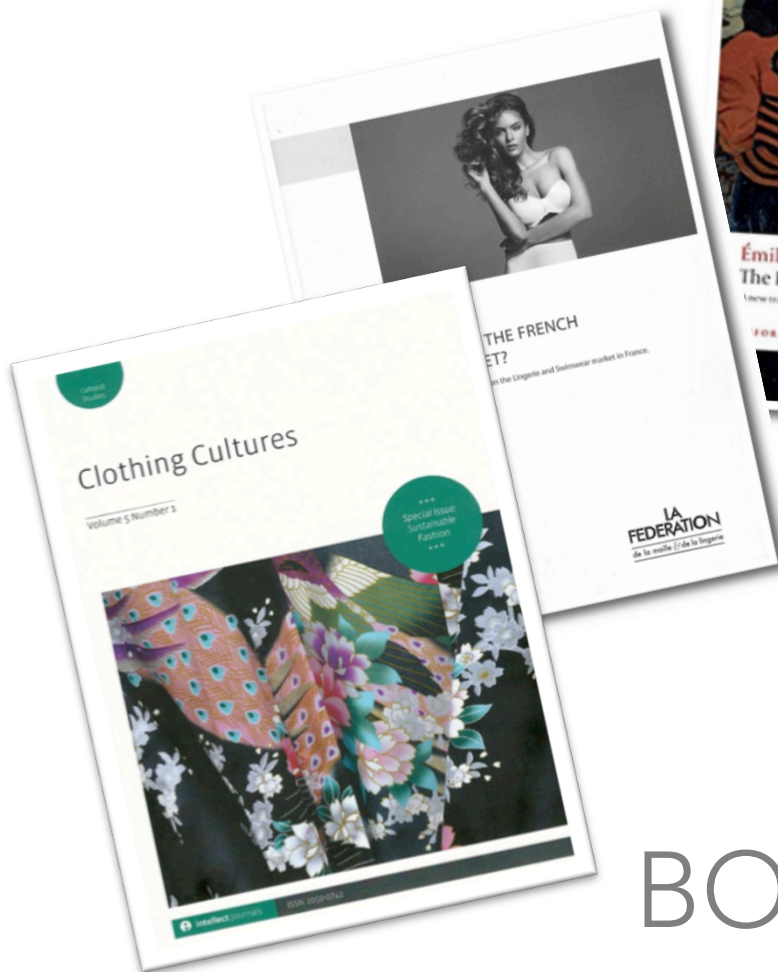
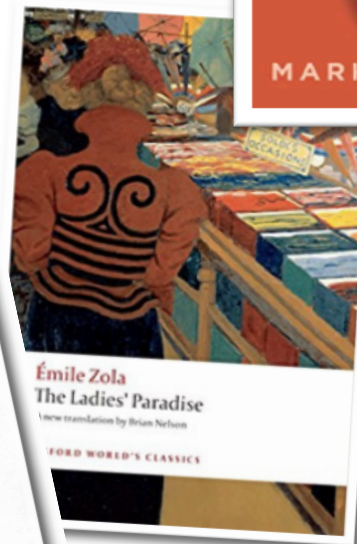
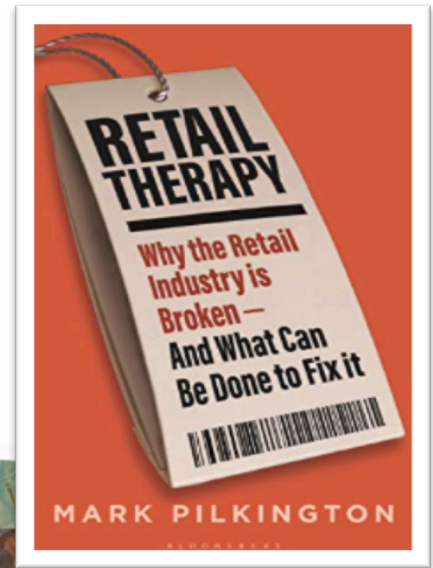
Everything but Arms is an initiative for the least developed countries for the duty-free and quota-free with the exception of armaments. It was introduced in

March 2001. It is also part of the EU's Generalized System of Preferences (GSP) and it has been an attractive incentive for those who invested in Cambodia.

We know several companies who invested in Cambodia and we have seen some changing hands with the ownerships as the labor unions are probably too powerful. It was not uncommon to find several labor unions within the same company. This has proved to be a challenge.



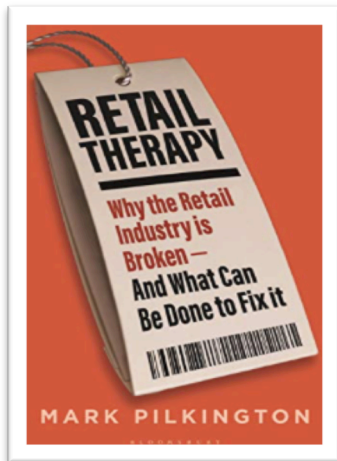
- Technical
- Supply Chain
- Sustainability
- Fashion & Design
- Market Intelligence
- Entrepreneurship



# BOOK REVIEW

# RETAIL THERAPY - WE ALL NEED

ANDREW SIA



## RETAIL THERAPY - WE ALL NEED

By Terri Fisher

A book review of Mark Pilkington's Retail Therapy"

Available at Amazon for hardcover at \$18.99

Kindle at \$9.99

Retailing today is in a severe crisis, we all know that. The crisis is mostly due to antiquated ways of doing business and depending on physical retail stores to do the bulk of the sales vs e-commerce. Retail stores/malls, as we know them today, are dead. E-commerce, innovative ideas and ways of reinventing retail, and technology have come alive and are growing exponentially every day.

As many of my readers know, I have covered "Shoptalk" in Las Vegas for the past 2 years and reported on this "everything retail" show in iApparel Journal. I have told you that I learned more about the future of retail at these conferences than I have learned over the past 5 years on my own. This book, which I will call "Retail Therapy" for simplicities sake, includes almost everything I learned at Shoptalk and more. It is one of the most comprehensive books on retail I have ever read. It should be used in every business and retailing classroom all over the world as the primary text book. No need to travel, just read this book. A glass of wine would help (since you are reading this at home) as the beginning of the book is a bit slow. Trust me though, it picks up steam in the second and third sections. The book is broken out into three sections: 1) Retail apocalypse now! 2) The causes of the crisis in retailing, and 3) How to save retail. Section 3 is extremely interesting!

The book is written about GLOBAL retailing, not just the U.S. The author is from the U.K. but writes about retailers and malls from all over the world. It starts out with the horrifying facts about retail today, "Since 2015 we've seen the escalation of the most severe crisis ever to hit the global retailing industry." Pretty scary stuff to catch your attention! He talks about the over 8000 major brand chain stores who closed their doors in 2017 in the U. S. alone. These brands are not just smaller, weak brands but include behemoths such as Victoria's Secret, Ralph Lauren Polo, and Marks and Spencer. It is affecting all sectors from cheap and cheery to luxury, from fashion to banking, and everything in between. Overall, about 90 percent of US retailers have experienced sales declines. Big ones. The worst victims of them all are the department stores and subsequently all the manufacturers and brands who supply the department stores.

Why should everyone, not just retailers, care? Retailing affects us all in one way or another. According to Pilkington, "Retailing globally had sales of US \$23 trillion in 2015, and represents 31 percent of global GDP, employing literally billions of people." Retailing and its suppliers employ over 25% of the working population!



Unknown Author, licensed under [CC BY-NC-ND](https://creativecommons.org/licenses/by-nc-nd/4.0/)

So, what can we do to halt this collapse? Solutions do exist and Pilkington offers up a good road map to get retail back on track. The biggest issue is that the retailers and industry experts are failing to really understand the problem. Hence Part 2 of the book which covers the CAUSES of the crisis.

Retail Therapy part 1 talks about all the specific retail bankruptcies and insolvencies we have all been hearing about for a few years now: Toys R Us, British Home Stores, Claire's, Sports Authority, Payless Shoe Source, Fredericks of Hollywood, Brookstone, HH Gregg, Radio Shack, Coldwater Creek, Bon Ton, Gander Mountain, Bebe, Gymboree, and unfortunately so many more. Some of the stores that declared bankruptcy reorganized and reopened with a different strategy, usually e-commerce driven. Aeropostale was one of them who through Aerie, its Intimate Apparel Division, has been able to recover quite nicely. Fredericks is now online only. Gordman's was bought by Stage Stores and revamped, closed a lot of stores and cut their inventories dramatically. It remains to be seen if they will succeed. Charming Charlie's only this year closed its stores. Nearly a fifth of US retailers covered by ratings agencies have poor debt ratings. In the UK, 19% of retailers (over 6500 companies) are showing signs of insolvency and many more are in major distress.

Getting back to the worst of the worst, the department stores: who have been declining for a long time, but as the author says are "approaching the end of the road." Such is the scale of the meltdown that analysts, Pilkington, and myself are all questioning whether or not the large department store groups will survive at all. Of all these stores, the most shocking and ridiculous of all is SEARS, which went into Chapter 11 in October of 2018, after already reducing its number of stores from 3555 in 2010 to 1002 in 2017.

As stores close down, there is a ripple affect on restaurants, other stores, and Main Street U.S.A. as well as High Streets in the U.K. The book reviews the effects on the car industry, the banking industry, real estate, and so much more. This book certainly gives you something to think about!

Back to those empty malls...by the 1980's, malls had become the new "Main Streets of America". The mall culture reached its peak in 1992 when the enormous Mall of America opened in Bloomington, Minnesota, which had 5.6 million square feet of retail selling space and eventually housed more than 500 stores. In total, between 1956 and 2005, around 1500 malls were built in the U.S. After that, the growth of the internet began to change shopping habits, and the recession of 2008 hit the sector hard. Younger Americans had begun to look at malls as a feature of their parents' generation. People are simply not going to the mall anymore. There are exceptions to this mall debacle. A+ malls are destinations where shoppers can spend an entire day doing a wide range of activities and they will continue to do well because they are complete entertainment centers as well as retail spaces. They offer up something the customer still wants. Other uses for closed malls have been found but in general malls do not have very adaptable space and often have to be torn down and start over.

The picture is unfortunately no different in the U.K. where retail property is big and important representing 38% of total commercial property in 2016. Canadian retail has also suffered in line with U.S. and U.K. retail. La Senza lingerie has been closing stores both owned and franchised for a number of years, and has gone from over 800 at its peak, to less than 300 stores and counting. Continental Europe presents a mixed picture. Some areas with high e-commerce penetration like Germany and Northern Europe have seen a major impact on retail, whereas others like France, Italy and Spain, where e-commerce is still at a lower level, have seen “considerably less”. In the Far East, Japan has been hit badly. The population is ageing and shrinking which is putting pressure on sales, while Chinese tourism has all but dried up. An important factor here is that the population in Japan is highly concentrated, with 93% living in major cities, making it a natural for e-commerce. Despite all the challenges, the full extent of the current retail crisis affecting the U.S. and the U.K. has yet to reach many other areas of the world, mainly because e-commerce is still relatively new in those markets. Across the whole world, *The Economist* states that as many as 192 million jobs could be threatened over the next few years by this retail apocalypse!



Unknown Author, licensed under [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/)

As written in this book, Mark asks us “Is it possible that the flattening of consumption, and the related decline of retail, is an early indicator of another financial market meltdown and the next Great Recession?”

After years of moving towards free trade, the threat of increased tariffs is very real, and will have a devastating affect on the retailers who import most of their products from low cost countries.

Part 2 of the book talks to the causes of this crisis. Why has retail, which has been so successful of the past 200 or so years, suddenly ran into such a serious problem? Most importantly is what should we all do to survive this apocalypse and to thrive and succeed in the future?

The classic retailing model was essentially a “Push System”. Mass manufacturing required mass consumption. Stores were fundamentally a distribution system, whereby goods were pushed to customers. There was not much attention paid to creating a relationship with the consumer. Despite the fact that the system minimized the costs of production, the length of the supply chain actually added back quite a lot of expense. With all the multiple layers of people involved, each organization needed to add its own mark-up to the cost before passing it on. As a result, products ended up being sold to the consumer at 7 to 8 times the manufacturing cost. Here is where the door opened up wide to e-commerce and its direct-to-consumer selling model.

The culture of retailing was driven by economies of scale, mark-ups, control of information and other basic economics. Large retailers were essentially highly centralized organizations. Success was driven by scale and measured by clearly understood metrics. Investments were large and inherently risky. Pilkington tells us the “culture was therefore cautious and top down...and the level of innovations was relatively low.”

The RISE OF E-COMMERCE changed everything. The advantages of e-commerce were fivefold- what Pilkington calls the "five C's: cost, convenience, control, choice and customer relationship building."



E-commerce is a much lower-fixed-cost model of selling and most pass those savings on to the customers making e-commerce very attractive. Trying on clothes in the privacy of your own home sure beats doing it in the cramped conditions of a store fitting room. I never try anything on in stores!! According to a survey by Dynamic Yield, a research company, only 9 percent of consumers think that shopping in stores is the most convenient way of buying. Another great thing about e-commerce is that it is highly controllable, and most major online services operate very smoothly and consistently once they get going. Then of course there is CHOICE, the ability to display large numbers of products cheaply online dwarfs the capacity of the brick and mortar retail industry with its high rents and inventory costs. In customer relationship building a lot is currently happening with personalization and quantifiable campaigns. Alternative strategies can be tested and measured so as to optimize profitability over time.



The biggest force driving the e-commerce "threat" is of course AMAZON. Its market share of U.S. online business is a "colossal 44 per cent and increasing." Traditional retailers have consistently underestimated Amazon. They have entered the apparel business with a vengeance, even planning a major fashion show, which will become part of the

global fashion calendar. As a result, from a standing start in 2005, it is expected to become the number one online apparel retailer in the U.S. shortly.

The rise of Alibaba in China dwarfs Amazon in scale. Alibaba, which was started by Jack Ma with \$60,000 U.S. dollars in 1999, has grown dramatically to reach "U.S. \$547 billion of GMV in 2017, more than twice the size of Amazon's US \$178 billion). They have surpassed Walmart to become the biggest retailer in the world. This book talks a lot about the broader impact of the technological revolution. This is very important stuff that every retailer needs to study. Things like the huge growth in blogging with some of the star operators attracting massive audiences. The speed at which these influencers have sprung up is quite impressive. Just as the internet has altered the spread of information, the development of social media has changed the way in which people socialize all over the world. In the past it was all primarily face-to-face. No more! Facebook, WhatsApp, Instagram, Twitter and Snapchat have exploded over the last few years. The numbers are mind-blowing. All in all, it is easier and more comfortable for this new generation to socialize in a virtual manner and this partially explains why - according to property agency Cushman & Wakefield - the frequency of mall visits dropped by 50 per cent between 2010 and 2013!

*Retail trends are usually set by younger customers, so if we want to understand the forces that are reshaping retail we need to focus on the differences between the generations - Millennials and Generation Z, and try to*

*understand how they differ from those who came before them. This book goes into detail on this subject and is a MUST-READ section. iApparelJournal also has an article in this issue all about Gen Z. Check it out! These two generations, to sum it up short and sweet are more cautious with money, and very worried about their futures. They are highly educated but know that a college degree does not guarantee them a job. They are frugal with their spending, and really not interested in the "rat race" jobs their parents had. Home ownership rates among young customers have also dropped dramatically. They now either rent, live with their parents or share apartments with friends. They are postponing marriage and having kids. "The lack of household formation has a lot of implications for spending patterns. At the simplest level, people are not buying a lot of the things that go along with starting a new home, like furnishings and household goods." Millennials and Gen Z'ers are VERY socially conscious with a strong desire to do something to help the world. This includes a strong awareness of the need to protect the environment. At the same time, younger people are moving much more to the left politically. According to a 2016 Gallup poll, 55 percent of those under thirty had a favorable view of socialism compared with 35 percent overall. Most young people are embracing sobriety and are also less religious in a formal sense. According to the Pew Research Center, the number of people in the U.S. expressing no affiliation with any of the established religious faiths has increased from 6% in 1992 to 23% in 2015, and among Millennials it is 35%!*

The book goes on to delve into the growth of the "sharing economy" with the most famous examples being Uber and Airbnb. "The Hunt is a fashion app that enables someone to take a picture of any item, and locate where to buy it. The clever thing about the site, is that they do not do anything. All the work is done by their community"! Younger Millennials and Gen Z'ers are more global in their viewpoints and much more diverse: racially, sexually, and in terms of fashion, than any other generation before. Because of this, any attempt to stereotype people seems very objectionable to them. They place a higher value on authenticity than on perfection. If brands and retailers want to reach these new generations of potential customers, they are going to have to re-examine almost every aspect of their business models, and question the very role that their organizations play in society.

The book goes into interesting detail about the death of brands and the rise of private label. This is not a new phenomenon. Perfect brand images are OUT! All this perfection seems boring and artificial to younger Millennials and Gen Z. Think Victoria's Secret, Abercrombie and Fitch, or Polo Ralph Lauren. On the other end of the spectrum are success stores like Aerie who is taking considerable market share away from V.S.

According to Nielson, private label brands are growing at three times the rate of national brands.



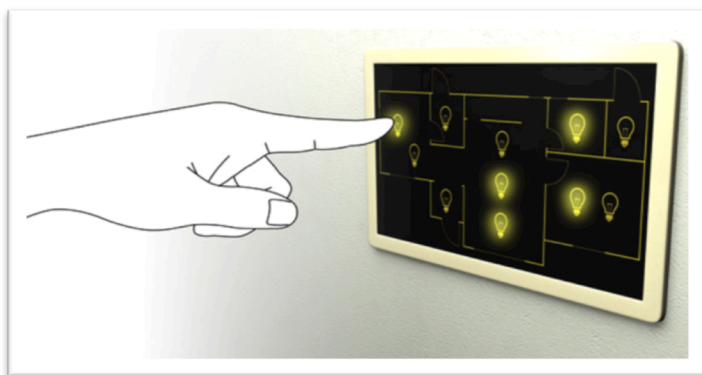
One of the newest mega trends covered in Mark's book is that younger customers are increasingly concerned about the inherent wastefulness of this throwaway culture, and are starting to look to own less, but better-quality items. Marie Kondo is all the rage. These young people want to "do" not "buy". Experience the world instead of buying new clothes that will end up in landfills. The book talks about The RealReal, a second-hand luxury site which booked \$500 million in sales in 2017! The success of ThredUp has launched a host of imitators, which are encouraging people to recycle their clothes. People are even RENTING clothes vs buying.

As we have talked about before in this journal, especially from Shoptalk, is the super rise of Algorithms, Chatbots, and all kinds of Artificial Intelligence. This book helps us all to understand this better. Not to be missed! Essentially, business will equal data + algorithms. I am repeating myself when I ask "Where have all the Merchants gone?"



Another threat to brick and mortar stores is the "Direct-to-Consumer" vertical specialist brand model. The most famous of these are brands like Warby Parker, Everlane, Bonobos, Casper, and Away. They all represent evolving new strategies that are taking the market by storm. "Retail Therapy" goes into detail about lots of new companies doing business in new ways. Just like Shoptalk, you feel like you are learning all about these companies and how they were founded and operate. It is truly fascinating to hear about.

How did retail derail so badly? They knew all about e-commerce but were slow to move. As usual. Pilkington states that the "problem was that seamless multi-channel marketing, or 'bricks and clicks' as it was colloquially known, was complex to deliver". Many retailers had inflexible organizations - for example, they initially organized e-commerce into separate divisions from the stores business (Chico's, Soma, Macy's, and so many others), which made it very hard to create a smooth experience for the consumer. While the e-commerce part was growing fast, it was treated almost as an afterthought. People were stuck in silos, and fought internally to protect their turf. Sound familiar??? The advent of e-commerce turned all retail companies into technology companies; but most retailers failed to understand this. One very surprising thought that came from the book was that in the period 2000 to 2015, not so long ago, when retail should have been focusing on how to deal with the threat of e-commerce, it instead went through the biggest store expansion in history! The number of malls in the U.S. grew by twice the rate of growth of the population between 2000 and 2015.



Unknown Author, licensed under [CC BY-SA-NC](https://creativecommons.org/licenses/by-sa/4.0/)

According to Mark, "although the e-commerce business of many retailers was growing fast, it was not enough to offset the dramatic decline of the retail stores." Pilkington ends Part Two of the book by asking "Can the last one out switch off the lights?"

Part Three tries to give us all some answers on how to save retail. The number one savior seems to be going back to the importance of simplicity. Retailers are trying to do too many things all at once. Since they are in trouble they are reaching out in all directions for help. Mark tells us "So what are these large organizations to do, to keep themselves relevant, and head off impending disaster? What is required is simple, clear thinking."

The ongoing generational change will favor online shopping. As the online market places have grown, we have seen that the variety they offer has massively outstripped the capabilities of physical stores. The enormous choice offered by companies like Amazon and Alibaba simply overwhelm that offered by even the largest big-box stores. The "box" is now virtual rather than physical.



A very important conclusion Mark makes is that “all channels are not equal as a means of distribution. Stores are not the best way of distributing goods – they are simply too expensive, and they cannot carry enough variety.” Stores need to switch tracks quickly before all their customers have been taken away by leaner, smarter companies. What stores should not be, in the future, are glorified warehouses full of inventory that nobody is sure anyone is going to want. The more you dig into the classic store inventory model, the more absurd it seems. Stores need to get lean and come up with new lean ways of doing business. There are lots of examples of these kinds of stores in this book. Some recent examples include Nordstrom Local, Sephora Studio, and Ikea’s new ‘Planning Studios’.



Unknown Author is licensed under [CC BY-SA-NC](https://creativecommons.org/licenses/by-sa/4.0/)

Brand Theatre cannot be stressed enough and Pilkington does a great job of explaining what it is and who is doing it well. Shopping should be an enjoyable process, but all too often it is not. One of the best retailers in the world at understanding brand theatre is Sephora. Their stores have long been leaders in creating a “buzzing, live feel which draws in beauty-loving customers.” Recently they have invested in a new brand theatre format for its flagship stores called TIP – Teach, Inspire, Play – which features high tech makeover centers, facial stations, and more, creating a crossover salon atmosphere. I can spend hours in that store! Other examples highlighted are Burberry, Nike, and Wegmans as leaders in this important endeavor.

Community, community, community! This is a powerful solution to what ails retail. Look at Lululemon and all they have taught us about utilizing the communities where their stores are located. The key to Lululemon’s success lies in the fact that it is more than just another active sportswear store. First and foremost, it represents a strong community based around a shared philosophy of life. The clothing is, in a way, secondary. Although it is possible to create communities online, there is something special about physical contact between people that cannot be replicated in the internet world. Many retailers are starting to use this model. Apple is a brand which has always had a sense of community, even before it had stores. Today Apple stores are a community meeting place, rather than just a space to sell products. They have outstanding classes held daily in their stores that encourage interaction and fun as well as education.

One of the areas where technology can help retailers is in improving customer experiences in store. Another is around automation of the checkout process such as shown in *Amazon Go* stores. Lastly, data optimization is an area where technology can help retailers improve their understanding of customers.

Retailers and brands need to create products that “are so good that they become the conversation.”

Bringing costs down by doing more business online is critical. The internet is collapsing supply chains – and with them, pricing. Multiple mark-ups no longer work. “It is critical that retailers develop their own private label brands to compete” says Pilkington. He further tells us the this may sound a little complex to manage, but the key thing is to keep an eye on the simple facts:

“Consumers are not going to accept big mark-ups anymore;

The key type of brand that is going to be successful in the future is going to be in integrated own label brands; and

The key medium for delivering it is going to be through a web-enabled dispatch, direct to the consumer, potentially aided and abetted by ‘Lean Stores’ acting as brand entry points.”

The solution for wholesale brands would be for them to launch their own direct-to-consumer brands, with a different product lineup and lower pricing from their main brands. In this way they will not alienate their retail customers as much as they would competing directly with them.



Apart from changing their stores, products, and prices, retailers and brands need to modernize their marketing strategies in order to connect with younger consumers. At the macro level, Mark tells us they need to “take on board the move from a push system to a pull system.” Millennials and Gen Z’ers are more interested in quirky, authentic brands, which break conventional stereotypes. They want to interact with brands and to adopt them, making them their own. Today’s brands need to be about more than just making money.

Yes, I just said that money isn’t everything! It is important to believe in something greater, a philosophy that has been shared by all the

leaders of the technological revolution. Brands need to have a HEART! It needs to be something that is built into the fabric of the company and its mission. Retail Therapy talks about a “large scale study by Davas, an advertising agency, called Meaningful Brands, contains disturbing insights for traditional brands. It shows that people would not care if 74% of existing brands disappeared altogether, and that 60% of brand content is seen as ‘just clutter.’” People are looking for brands to play a more significant role, in creating the type of world that they want to see. The brands that will succeed in this new scenario are those that take a cultural perspective, based on clear values, beliefs, and aspirations. Great examples highlighted in the book are Nike, with its emphasis on helping to stay fit through its sponsorship of running clubs around the world and Red Bull, with its series of events getting people to take on exciting physical and sporting challenges. Simply selling things is no longer enough.

In the brave new world of retail in the future, different skills are going to be needed. Technology has to lie at the heart of the company. The problem is that leadership of major retailers tends to come from the stores side of the business, and that world, while it is still a large part of the total sales, is slowly slipping away. In the future, successful retail leaders will have to be technologists at heart. It pains me to say this but it is true.

Along with the technological revolution, the pace of innovation has quickened. Industry after industry has been turned upside down. Retail needs to become more experimental, less centrally controlled and risk-adverse. It needs to put a bigger emphasis on controlled testing. Leadership needs to be more open to letting people fail without driving them out of the organization. To quote Steve Jobs, “It does not make sense to hire smart people and then tell them what to do. We hire smart people so that they can tell us what to do.”



Mark Pilkington goes on to offer up ideas for new shared shopping spaces and new kinds of malls. This is a MUST READ.

The most important thing for survival is to go with the flow of the technological revolution and the generational change, and not to fight against it. The key to the whole solution is to “focus on shifting the transactional side of selling onto the web as quickly as possible, while getting the stores to focus on their value-added marketing roles. The entire system needs to be as simple and waste-free as possible, so that money is not poured into unnecessary things, but invested in a great innovative product, strong service levels and a robust and ethical supply chain. Marketing should focus on involving the customer so that they feel connected to the brand in an authentic way.”

Retailing is a vitally important industry employing hundreds of millions of people around the world. So, it is essential that today’s retail leaders face the current challenges in a positive way.

Mark Pilkington’s comprehensive book outlines the new rules of retailing and provides a clear blueprint on how to move forward.

This book is a fascinating case study of one of the biggest meltdowns in our time. Read it. You won’t regret the time spent pondering his hypotheses and coming up with your own solutions based on his facts and insights. I thoroughly enjoyed it.

With warm regards,



Terri



### **Biography**

Mark Pilkington is an experienced retail chief executive and brand strategy consultant.

After graduating from Oxford University and INSEAD Business School, he joined Courtaulds - a UK FTSE 100 corporation - later becoming CEO of its Gossard business, the brand leader in the European intimates market, where he was responsible for initiating the huge global success of the Wonderbra.

In 1999, he founded Splendour.com - the world's first direct-to-consumer ecommerce brand - with the backing of Marks & Spencer, a large UK retail group. Splendour was acquired by a public company in 2006. Subsequently, Mark was Chief Executive of KOJ Group, a leading retailer, with 850 stores across the MENA region.

His current role is Director of MarkPilkington.net, a London-based strategy consultancy which advises brands and retailers on how to succeed in the rapidly changing world of business.

He is author of 'Retail Therapy. Why the retail industry is broken - and what can be done to fix it', which was published by Bloomsbury Publishing in January 2019. He is in demand as a speaker at international conferences and has had articles published in media such as the Financial Times, The Economist, Forbes and The Times. He is frequently featured as a retail industry expert on broadcast media, such as the BBC and National Public Radio.



**iApparel Journal**

2019 October

[internationalappareljournal.com](http://internationalappareljournal.com)