

Q-Series®

ASEAN eCommerce

Is ASEAN at an inflection point for eCommerce?

We are at an inflection point in ASEAN, despite the challenges

Low credit card penetration, inefficient supply chains, inhibitive customs & tax regulation and embryonic internet penetration do not bode well for online e-tailing in ASEAN. Yet business is thriving. We believe 2013/2014 is the inflection point for internet penetration and eCommerce in ASEAN. The region has reached its 'mobile moment', with the majority of traffic coming from mobile devices with the rollout of 3G, and more affordable devices. Thailand and the Philippines have the highest growth in the region, while we think Indonesia has the most potential.

Proprietary analysis to model the market from a bottom-up perspective

Market data suggests online penetration could be as low as 62m users (comScore, 11.6% penetration), we disagree. Our analysis suggests ASEAN has 199m internet users (32% penetration), rising to 294m (48%) within three years. Currently there are 180m active social netizens. Estimates on the size of the eCommerce market vary greatly. We use our proprietary analysis, based on 'Big Data' algorithms, to model the market from a bottom-up perspective. We estimate B2C eCommerce currently grosses only US\$0.5-1.1bn (0.2% of retail sales), but could increase at least fivefold by 2020, with opportunity set as high as US\$35bn. Inclusion of all eCommerce channels could multiply the overall market size.

Analogy with China in 2006-08

The inflection point in China for internet penetration was 2006-08, driven by strong PC sales and rollout of broadband, that more than doubled internet penetration to 22% from 2006 to 2008. 3G rollout from H109 led to a more than doubling of the penetration rate from 2008 to 2013 to 45.5%. Thailand has reached a level one year after the introduction of 3G services that took China 3.5 years post-3G introduction (2009), and it could have a higher penetration rate than China by 2015. Internet penetration is no longer a bottleneck. How this analogy extends to actual eCommerce spend will depend on the emergence of 'price disruptors'; ASEAN 'e-tailing' sites are registering 391m hits per month, with conversion rates increasing from a low base. Traditional retailers are ill prepared; visits to e-tail sites outnumber bricks & mortar retail platforms by 41:1.

Potential beneficiaries

We believe the beneficiaries are limited to telcos (data boom), logistics & warehousing (complex supply chain for e-commerce), and international social media sites (ASEAN is sociable). The theme is to the detriment of traditional bricks & mortar retailers, in our view. Key stocks: XL-Axiata, M1, Maxis, StarHub, SingTel, AIS, SingPost, MLT, and globally Facebook, Google, eBay and Deutsche Post-DHL.

Equity Strategy

Asia

Raymond Maguire

Strategist raymond.maguire@ubs.com +662-613 5758

Youssef Abboud

Analyst youssef.abboud@ubs.com +662-613 5752

Jason DeRise, CFA

Analyst jason.derise@ubs.com +1-212-713 8825

Adrian Joezer

Analyst adrian.joezer@ubs.com +62-21-2554 7032

Chris Oh, CFA

Analyst chris.oh@ubs.com +603-2781 1128

Chirag Saglani

Analyst chirag.saglani@ubs.com +65-6495 5963

Jody Santiago

Analyst jody.santiago@ubs.com +632-784 8812

Eric J. Sheridan

Analyst eric.sheridan@ubs.com +1-212-713 9310

Joshua Tanja, CFA

Analyst joshua.tanja@ubs.com +62-21-2554 7030

Erica Poon Werkun, CFA

Analyst erica-poon.werkun@ubs.com +852-2971 8605

Summary statistics ASEAN* eCommerce market (2013E)

	ID	SG	PH	VN	TH	MY	Aggregate	China	US
Population (m)	244.8	5.3	97.7	88.8	67.9	29.5	534.0	1,344.0	312.0
# Online (m)	75.9	3.9	33.6	31.0	31.2	18.5	194.2	618.0	245.2
% Online	31.0%	74.0%	34.4%	35.0%	46.0%	62.6%	36.4%	46.0%	78.6%
# Facebook users (m)	65	3.4	36	22	26	15.8	168.2	N/A	204
# Social media users (m)	66	3.6	38	24	27	17	175.6	610	213
Retail sales (US\$ bn)	100.2	29.6	34.0	79.6	94.4	98.2	436.0	3,812.0	3,026.7
eCommerce % of retail	0.1%	1.0%	0.3%	0.1%	0.2%	0.2%	0.2%	8.0%	8.7%
Opportunity (US\$ bn) at 5% retail sales	5.0	1.5	1.7	4.0	4.7	4.9	21.8		
Opportunity (US\$ bn) at 8% retail sales	8.0	2.4	2.7	6.4	7.6	7.9	34.9		

Total online estimated at 199m in ASEAN; 194m in table highlights key markets. Source: UBS estimates*

www.ubs.com/investmentresearch

This report has been prepared by UBS Securities (Thailand) Ltd. **ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 60.** UBS does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Contents

Executive summary	3
How to invest in the theme	5
ASEAN vs China e-analogy	9
eCommerce potential in ASEAN	14
A framework for online retailing in ASEAN	16
ASEAN: a social bunch	28
Logistics: complex supply chains	31
eCommerce in Thailand	33
eCommerce in Indonesia	38
What are the challenges?	40
Appendix	44
eCommerce timelines	44
Top shopping traffic sites	49
Example of Thai taxation on goods	56

UBS's Q-Series® products reflect our effort to aggressively anticipate and answer key investment questions, to help drive better investment recommendations. Q-Series® is a trademark of UBS AG.

Raymond Maguire

Strategist raymond.maguire@ubs.com +662-613 5758

Youssef Abboud

Analyst youssef.abboud@ubs.com +662-613 5752

Jason DeRise, CFA

Analyst jason.derise@ubs.com +1-212-713 8825

Adrian Joezer

Analyst adrian.joezer@ubs.com +62-21-2554 7032

Chris Oh, CFA

Analyst chris.oh@ubs.com +603-2781 1128

Chirag Saglani

Analyst chirag.saglani@ubs.com +65-6495 5963

Jody Santiago

Analyst jody.santiago@ubs.com +632-784 8812

Eric J. Sheridan

Analyst eric.sheridan@ubs.com +1-212-713 9310

Joshua Tanja, CFA

Analyst joshua.tanja@ubs.com +62-21-2554 7030

Erica Poon Werkun, CFA

erica-poon.werkun@ubs.com +852-2971 8605

Executive summary

ASEAN has reached its 'mobile moment', with the majority of internet traffic coming from mobile devices; the traditional PC model has been circumvented with the rollout of 3G and more affordable devices, in our view. Smartphone sales volume in Q114 in Indonesia, Vietnam and Thailand increased 45-68% YoY.

- Our analysis suggests ASEAN has 199m internet users (32% penetration),
 177m Facebook users and 180m active social netizens. We expect internet penetration to increase to 48% within three years.
- Based on our proprietary analysis using 'Big data' algorithms from SimilarWeb.com, we have been able to assess traffic data from the top 10,000 shopping websites in each ASEAN market. The monthly shopping website traffic run-rate as of March 2014 was 391m hits in ASEAN (vs China 723m), with an average 'bounce rate' of 46.3% (US average 53.5%, China 35%), implying browsing traction on 210m hits per month. Traditional 'bricks & mortar (B&M)' retailers achieved only 5.1m hits (ex-bounce), implying a 'B&M' Traditional vs 'Online Platform' Hit Ratio (TvO Hit Rate) of 2.4%; that is, online e-tail platforms achieved 41x the number of browsers relative to B&Ms. The TvO Hit Rate for the US is 18.5%, a benchmark not only reflecting a more mature online ecosystem but also the dominance of B&M retailers such as Wal-Mart. In contrast, in China where no national dominant B&M retailer resides, the TvO is 2.5%. An ASEAN TvO of only 2.4% suggests the balance of power is tilting towards the online platforms, and the traditional B&M companies are ill prepared for the structural shift. It has to be a priority for traditional B&M retailers to have a cohesive online strategy and leverage their superior brand awareness (B&M retailers have a lower bounce rate of 39.8% in ASEAN), ...or the platforms will continue to take market share (Aliexpress, Taobao, Alibaba & Tmall constitute 86.1% of all online shopping hits in China).

In the US, traditional retailers have an 18.5% TvO Hit Rate, a benchmark for a maturing eCommerce ecosystem yet reflective of strong B&M national champions...China in contrast, has a TvO of only 2.5%

Singapore is the richest and has the highest internet penetration in ASEAN. With an easily accessible, quality traditional shopping experience and 'mall culture', traditional B&M retailers may feel less risk of online cannibalisation. A TvO Hit Rate of 6.4%, the highest by far in ASEAN, implies a retail model that is more suited to 'traditionals', but we think they should not be complacent. Qoo10.sg, the B2C online platform formed between Giosis Pte and eBay, captured an estimated 5m website hits in April alone, a 141% increase month-on-month (ex-bounce), with the average time spent increasing from 5 minutes to 12 minutes. eBay.com.sg traffic increased 45% month-on-month in April.

While Singapore boasts the highest TvO Hit Rate at 6.4%, online platforms such as Qoo10 are growing fast, e.g +141% MoM in April

Indonesia has the most immature online market, with only 31% internet penetration, yet has the most growth potential. Traditional B&M retailers received less than 1m hits vs 62m for online platforms in March 2014. Mitra Adiperkasa (or MAP), the country's largest retailer, recorded only 170,000 hits in March, according to SimilarWeb, very low for a retailer that hosts brands such as Lacoste, Adidas, Zara, and Tumi to mention just a few. To put this in context, the most popular shopping website in Indonesia is takobagus.com (monthly run rate 19.2m), while lazada.co.id had 6.7m per month.

Indonesia is the most immature online market. MAP, the largest retailer captures only 170,000 monthly hits vs the most popular platform with 19.2m hits

 What is the eCommerce opportunity in ASEAN? Online shopping constitutes 8.0% and 8.7% of retail sales in China and the US, respectively. A similar level of penetration implies a US\$35bn market (UBS estimates eCommerce in the US could reach 15.7% of retail sales by 2018, or US\$566bn). • Using the traffic data analysis outlined above, we assume a conversion rate of 0.5% to 1% (vs US 3%, global 1.2%), with an average online spend per transaction of US\$35.9 (US\$32.8 ex-Singapore; vs US\$165 in the US) implies a current immature eCommerce market grossing US\$528m to US\$1.1bn currently. Our base case five years out is a conversion rate (CVR) of 2%, a US\$60 spend per transaction, equating to an online market of US\$4.86bn, or 8.9x our current 'low-end' scenario, or 4.4x the current 'high-end' scenario. Our channel checks suggest a conversion rate of between 0.3% (Indonesia) and 1.6% (Singapore) in ASEAN, with an indicative average order value of between US\$23.31 (Indonesia) and US\$49.99 (Thailand) and an indicative basket size per person in Indonesia of US\$92.27, Singapore US\$110 and US\$122.44 in Thailand.

Analysis of the predominantly B2C market, suggests the current ASEAN eCommerce market is US\$0.5-1.1bn in size, with an opportunity set of US\$35bn

Analogy with the China e-trend: some 18 months ago, Thailand was one of three countries in the world without 3G, alongside North Korea and Cuba. Now, Thailand has reached a level of internet penetration one-year after the introduction of 3G services, that took China 3.5 years post-3G introduction (2009), and the country could have a higher penetration rate than China by 2015. Of the China e-tail market, 70% is C2C, anecdotally we suspect similarities at this stage with ASEAN. Similarities with China are prevalent; Thailand could have a higher internet penetration than China by 2015

A key driver of eCommerce growth in China was penetration of Tier 3 and 4 cities that did not have access to products via the traditional bricks & mortar stores. Similar trends are evident in ASEAN. A recent 'flash sale' in Thailand via LINE App and facilitated by aCommerce.com, had some 42% of sales outside of Bangkok, despite the perception of the immaturity of an 'upcountry' online community. We believe B2C opportunity outside metropolitan areas in ASEAN is significant, and could provide a headwind to the mass expansion plans of traditional 'bricks & mortar'.

eCommerce is not limited to metropolitan areas; rural areas with poor access to product will drive growth, similar to the trend in China

- 67% of the ASEAN online population is under 35 years old; a sociable group, 90% of ASEAN netizens visit social networking sites. Facebook dominates the region. Online retail 'price disruptors' will drive conversion.
- Significant potential in advertising share: Marin Software research suggests that 52% of ad spend still takes place in North America, despite the region only accounting for 15% of Facebook users. Conversely, 28% of Facebook users are located in Asia Pacific, but only 0.71% of the overall Facebook ad spend is dedicated there. Internet-based adex in Thailand grew 53% YoY in 2013 against overall market growth of +0.4%, but only accounts for 0.8% of adex.

Online advertising has significant potential in Asia; Facebook is at the forefront of the trend

The ASEAN Economic Community 2015 (AEC 2015) initiative could be an additional boon for online retailing: while trade tariffs are essentially zero within ASEAN, additional legislation aims to create a national single window to support efficient and electronic customs clearance, policies to support cross-border transportation, and liberalisation to encourage a more competitive logistics industry. The OECD estimates that customs barriers in ASEAN add 10-15% to the price of goods sold.

AEC 2015 could be a boon for online retailing as customs and cross-border transactions are streamlined

How to invest in the theme

The online platforms/social networking: most of the local online eCommerce platforms and social networking sites prevalent in ASEAN are in private hands. The listed global/regional exceptions under our coverage include Facebook, Google, eBay and Naver (LINE). Alibaba/Aliexpress have a significant presence in Singapore and Malaysia (top 10 visited sites).

We reiterate our positive stance on Facebook, Google and eBay

Telecoms a way to play data usage: In Thailand, we estimate data revenue contribution rose from less 10% in 2010 to 28% in 2014 and expect it to reach 45% by 2016 (although at the expense of falling voice revenue). In Indonesia, data traffic grew 141.2% in 2013 for XL Axiata of which data constituted 22.9%. Data in Malaysia contributed 27.1% of total mobile service revenue in 2013, up from 17.4% two years ago. Smartphone sales volume in the Philippines grew threefold in 2012—the fastest in Southeast Asia. Likewise, smartphones' share of the market rose from 9% to 24% in 2012, with data constituting 10% of revenue, doubling since 2011. The key issue is not higher data usage, but how data can be monetised, in our view. This would depend on many factors including: 1) the competitive environment; 2) the regulatory environment, ie, price cap; 3) pricing system, etc. The experience is mixed, however we do believe rising smartphone and internet penetration is generally a positive. Beneficiaries in ASEAN include XL Axiata (beneficiary of rising data usage), M1 and StarHub (beneficiaries of tiered data pricing), SingTel (top pick for ASEAN exposure), Maxis (higher data penetration and tiered pricing), Advanced Info Services and Total Access on rising penetration and data usage, with lower regulatory costs as customers migrate to 3G/4G. We highlight **SingTel**, **XL Axiata** and **Advanced Info Services** as preferred plays.

Telcos are key beneficiaries of rising data usage; we reiterate our positive stance on XL Axiata, M1, StarHub, Maxis and Advanced Info Services

Logistics & warehousing: eCommerce fulfilment requires a more sophisticated supply chain, in order to deal with next-day delivery as well as 'demand spikes' from 'flash sales'. This is driving logistics outsourcing to third-party logistics providers, as is the need for additional warehousing capacity, especially out of key metropolitan areas where there has been a lack of investment. Logistics providers under UBS coverage that have exposure to the theme include Deutsche Post-DHL, SingPost, MLT, and Global Logistics Properties (more China and Japan rather than ASEAN). For further discussion and key players in the logistics industry see p.31.

eCommerce requires more complex supply chain solutions and warehousing capacity; beneficiaries with ASEAN exposure include Deutsche Post-DHL, SingPost and MLT Retailers: Online retailing, especially through platform 'price disruptors' is a key risk to the traditional 'bricks & mortar' retail models. We think retailers must quickly devise a cohesive eCommerce strategy. The UBS retail analysts are reluctant to adjust earnings forecasts at this time, citing the immaturity of the eCommerce market, the launch or soon to be launched eCommerce strategies by traditional 'bricks & mortar' retailers, the low penetration of credit cards, logistical issues and the propensity of consumers for a traditional 'mall' culture. While valid, our analysis suggests the risk is of a clear and present danger, and question the assumptions inherent within terminal value price targets. Retailers especially at risk are those selling consumer electronics, apparel, 'commoditised' household goods, books, music and cosmetics. Globally, the hypermarket model has come under pressure from eCommerce platforms. Within our coverage, in the Philippines, we think SM Investments and Robinsons Retail could be negatively affected due to their dominance in department stores and exposure to specialty stores (both are looking to launch full-scale online products in two to three years; that is arguable two to three years too late). In Thailand, the BIG C hypermarket model would seem at risk yet they arguably have the most advanced eCommerce strategy of any of the 'traditionals' in the region with the launch of its Cdiscount.com platform. Robinsons' high proportion of apparel and cosmetics, and its PowerBuy subsidiary in electronics, are at risk in our view, especially with 'upcountry' netizens becoming more sophisticated. In Indonesia, Mitra Adiperkasa (planetsports.net), Sumber Alfaria (alfaonline.com), Matahari Department **Store** and **Ace Hardware** have either tentatively entered the eCommerce marketplace or are considering it.

Global stocks

Facebook (Buy, US\$90)—As the most visited site in the region, Facebook has much to gain from the rise of eCommerce in ASEAN. First, we note that unlike other regions, a significant volume of C2C eCommerce is conducted via eshops on Facebook (highlighted further in this report). As such, we expect a continued rise in internet penetration and eCommerce adoption to act as a tailwind to Facebook's Asia Payments revenue—as of O1. Asia comprised a mere 9% of Facebook's total payments revenue despite comprising 27% of its daily active users (DAUs), pointing to significant room for growth. Second, a more robust eCommerce market bodes well for Facebook's core advertising business given its significant reach in the region. More specifically, based on our estimates, 89% of ASEAN internet users have a Facebook account and given this audience, we expect retailers to invest in Facebook advertising to drive traffic to their own sites, particularly as more sophisticated advertising tools gain adoption (e.g., FBX retargeting). We note that as of Q1, ad revenue per DAU in US and Canada was US\$6.93—this compares to US\$1.54 in Asia, which again demonstrates significant room for monetisation.

- Google (Buy, US\$665)—While Google is not a traditional eCommerce player, it is the second-most visited site in ASEAN and is a key source for diverting traffic to eCommerce sites in the region. As a result, as eCommerce continues to grow and traditional retailers look to compete better online, we believe Google stands to capture a significant share of incremental marketing dollars, especially as its retail vertical offerings (e.g., Product Listing Ads) are more widely deployed. Furthermore, we believe the proliferation of Android-powered mobile devices in the region should drive increased utilisation of Google's services, thereby enhancing the value of the advertising platform over time. In addition, we believe the company's initiatives to enable Internet access in emerging economies (via connected balloons, drones and satellites) will act as a further tailwind longer term. While Google does not disclose how much revenue is derived from the region, search-marketing firm Kenshoo notes that in general, search CPCs (cost-per-click) are US\$0.49 in Asia-Pacific vs US\$0.68 in the US—the Asia-Pacific figure includes China, Australia and Japan, and as such, we believe CPCs in ASEAN are much lower.
- eBay (Buy, US\$64)—eBay currently operates English and/or local language sites in Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. And while these businesses are small in context of total company revenue, we do see potential for upside given a combination of macro (lower levels of online commerce penetration and faster market growth) and company-specific factors (global export opportunities for sellers, imports and increased selection for buyers). Part of eBay's strategy in international markets is to make global product available in the region (allowing product from eBay sellers in other regions, aided by the recent introduction of the Global Shipping Program in the US), thus giving eBay an advantage in terms of product selection. We note that five of the six ASEAN countries are currently included as part of eBay's GSP. An indirect benefit to eBay associated with growing its business in ASEAN and other international markets relates to PayPal's take rate—by increasing international trade on the Marketplaces platform, PayPal is able to increase the number of high take rate cross-border transactions that it processes. Depending on the particular seller's volumes, the fee can be as much as 100bp higher than the standard 2.9%. For more on eBay's International business please see our 3 March 2014 report titled, 'Countering eBay Fears Part 2: Marketplaces (Eric Sheridan).

Valuation

Figure 1: Valuation of key eCommerce plays under UBS coverage

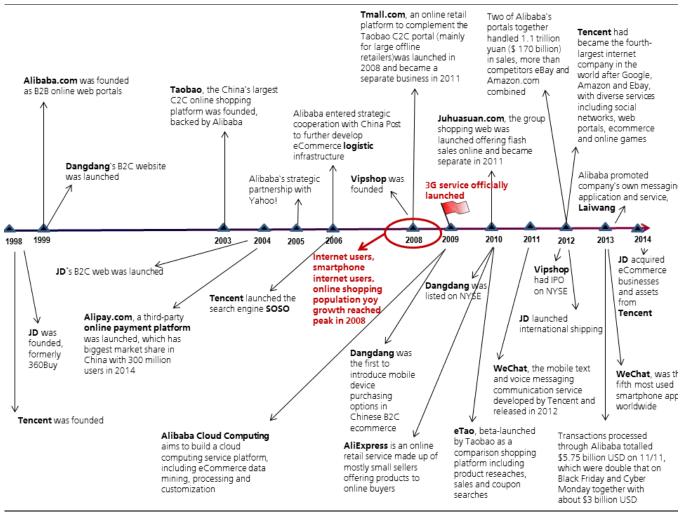
				Share	Price	Mkt cap		PE (x)		ΕV	//EBITDA	(x)	D	iv yield (/////////////////////////////////////
	Country	Sector	Rec	price	target	(US\$ bn)	2014E	2015E	2016E	2014E	2015E	2016E	2014E	2015E	2016E
Naver	Korea	Internet	Buy	795,000	900,000	25.4	39.9	30.2	22.8	27.5	20.9	16.0	0.1%	0.2%	0.3%
eBay	US	Internet	Buy	48.56	64.00	61.5	16.0	13.8	11.8	9.0	7.9	6.7	0.0%	0.0%	0.0%
Facebook	US	Internet	Buy	64.29	90.00	165.0	43.2	32.4	25.4	20.4	14.7	11.7	0.0%	0.0%	0.0%
Google	US	Internet	Buy	559.50	665.00	374.4	20.1	16.7	14.1	12.4	10.2	8.6	0.0%	0.0%	0.0%
Deutsche Post - DHL	Germany	Logistics	N	26.65	25.00	43.7	16.4	13.9	12.8	9.2	8.2	7.5	3.4%	3.8%	4.1%
Global Logistics Prop	Singapore	Logistics	Buy	2.67	3.32	10.3	34.0	28.1	23.7	27.4	25.5	22.5	2.1%	2.1%	2.2%
Mapletree Logistics	Singapore	Logistics	Buy	1.16	1.26	2.3	15.6	15.4	15.2	17.4	17.0	17.8	6.5%	6.5%	6.6%
SingPost	Singapore	Logistics	Buy	1.68	1.75	2.6	20.2	18.5	17.2	12.6	11.6	10.9	3.7%	3.7%	3.7%
Ace Hardware	Indonesia	Retail	Buy	855	970	1.2	27.2	21.3	17.8	19.6	15.3	12.6	1.1%	1.2%	1.5%
Matahari Dept Store	Indonesia	Retail	Buy	13,750	18,400	3.5	25.2	19.1	15.7	17.3	13.4	10.9	0.9%	1.3%	1.7%
Mitra Adiperkasa	Indonesia	Retail	Ν	5,400	6,390	0.8	26.5	16.9	12.2	9.2	7.5	6.1	0.5%	0.5%	0.8%
Sumber Alfaria	Indonesia	Retail	Ν	520	542	1.7	31.7	24.2	17.7	9.2	7.6	6.2	1.1%	1.3%	1.7%
SM Investments	Philippines	Retail	Buy	782	880	14.2	21.2	18.2	15.7	5.2	4.3	3.9	1.7%	1.9%	2.2%
Robinsons	Thailand	Retail	Sell	59	48	2.0	27.8	23.4	20.0	15.0	12.6	10.8	1.8%	2.1%	3.3%
BIGC	Thailand	Retail	Sell	206	184	5.2	20.9	18.3	15.8	12.5	11.1	9.7	1.2%	1.4%	1.6%
XL Axiata	Indonesia	Telecom	Buy	5,250	6,900	3.8	100.7	34.1	19.6	7.6	6.5	5.5	0.0%	0.0%	2.0%
Maxis Berhad	Malaysia	Telecom	Buy	6.75	7.70	15.7	24.0	23.1	21.8	13.0	12.7	12.3	5.9%	4.8%	5.2%
M1 Limited	Singapore	Telecom	Buy	3.57	3.75	2.6	19.4	19.1	18.4	10.8	10.6	10.3	4.2%	4.3%	4.4%
Singapore Telecom	Singapore	Telecom	Buy	3.86	4.50	49.1	16.3	14.9	13.8	9.1	8.5	8.0	4.5%	5.0%	5.4%
StarHub	Singapore	Telecom	Buy	4.26	4.95	5.9	20.0	19.5	18.9	10.5	10.4	10.2	4.7%	4.9%	5.0%
Advanced Info	Thailand	Telecom	Buy	227	252	20.8	17.2	15.1	13.4	9.8	8.6	8.7	5.8%	6.6%	7.5%
Total Access	Thailand	Telecom	N	113	128	8.3	18.5	15.3	14.4	8.3	7.3	6.9	6.3%	7.8%	8.3%

Note: Above data as at 12 June 2014. Source: UBS estimates

ASEAN vs China e-analogy

The inflection point in China for internet usage growth was 2006-08, driven by strong PC sales and the rollout of broadband, with internet penetration more than doubling from 2006 to 2008 to 22%. 3G rollout from H109 then led penetration to double again from 2008 to 2013 to 45.5%, driven by smartphone penetration that increased from 1% in 2008 to 46% by 2014E.

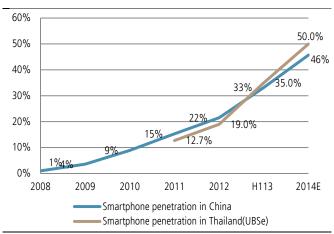
Figure 2: Events timeline for eCommerce development in China



Source: Company data, UBS estimates

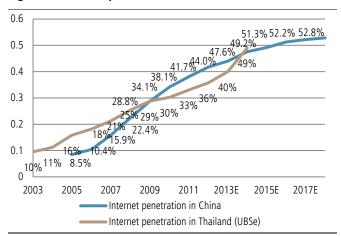
Pre-3G rollout, both Thailand and China had internet penetration sub-30% (China 22%, Thailand 26%), while post-3G it is over 40% for both. With internet penetration in Thailand at 46% (or more), Thailand has reached a level 1.5 years after the introduction of 3G services that took China 3.5 years post-3G introduction (2009), and the country could have a higher penetration rate than China by 2015.

Figure 3: Smartphone penetration



Source: CNNIC, UBS estimates

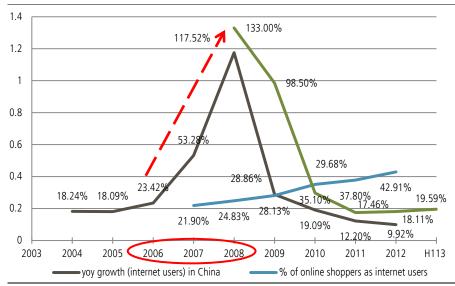
Figure 4: Internet penetration



Source: CNNIC, The 2005-2012 Information and Communication Technology Survey on Household, National Statistical Office

We believe 2006 and 2008 were watershed years for the eCommerce market in China, with an inflection point in internet usage pre-3G introduction in 2009.

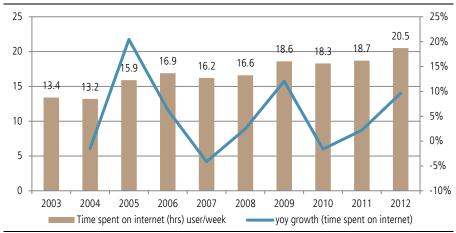
Figure 5: Trend growth of eCommerce market in China



3G licences were awarded and rollout launched in China in October 2009; within 15 months, some 49% of internet users were shopping online. Weekly time spent on the internet had increased from 16.6 hours in 2008 to 20.5 hours by 2012

Source: CNNIC, UBS estimates

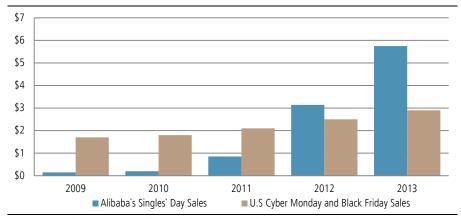
Figure 6: Time spent on internet and YoY growth in China



Source: CNNIC

By 2012, Alibaba's Singles' Day Sales exceeded Black Friday and Cyber Monday online purchases in the US; in 2013, transactions processed through Alibaba totalled US\$5.75bn on Singles' Day (11 November), which were double that on Black Friday and Cyber Monday together with around US\$3bn. Mobile shopping accounted for only 8% of total online shopping in 2013 (vs 8.7% in the US).

Figure 7: Growing eCommerce in China competing with US, US\$ bn

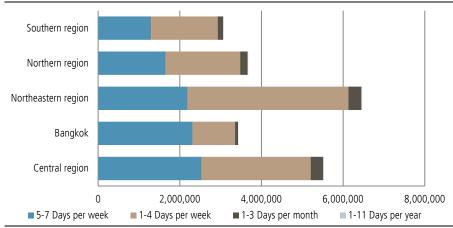


Note: Non-travel eCommerce spending excludes auctions and large corporate purchases. Source: Alibaba Weibo, Comscore, Bloomberg Industries, US Global Investors

While there is a perception that online retailing is predominantly driven by wealthy netizens based in major cities in Asia, we believe a key driver of growth in China, has been internet penetration in Tier 3 and Tier 4 cities, a trend that will be mirrored across ASEAN. While incomes in urban areas are lower, urban netizens spend more time relative to their inner city compatriots online, and often spend a larger proportion of their disposable income online.

Tier 3 and 4 cities were key drivers of the China eCommerce market; we expect similar trends in ASEAN

Figure 8: Thailand: number of computer users by frequency of use, 2013



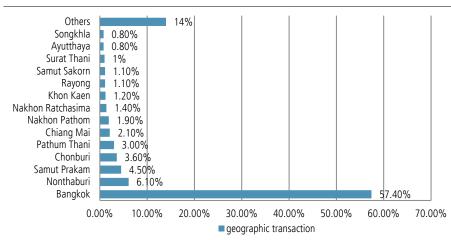
Source: National Statistical Office in Thailand, 2013

Online retail platforms offer a plethora of products and brands previously unavailable to them, in locations where many retailers have yet to establish a presence. This is particularly relevant across ASEAN.

As evidence of the trend, Naver's 'LINE App', which has over 20m subscribers in Thailand alone, has partnered with aCommerce, a regional end-to-end eCommerce service provider, to launch eight 'Flash Sales' since December 2013, offering an exclusive product range for a limited period only. Some 42% of sales were outside of Bangkok.

In Thailand, Line 'Flash Sales' have some 42% of sales outside of Bangkok

Figure 9: Line Flash Sales transaction by region, Thailand



Source: aCommerce Insights, Line Flash Sales, Mobile Commerce Case Study: Thailand

The online clothing venture, Pomelo, founded by David Jou, co-founder and former managing director of Lazada Thailand, also highlights the trend. 40% of sales via the Lazada B2C platform came from provincial areas outside of Bangkok, with half the site's sales coming from referrals via Facebook ads that brought users to the Lazada site.

The key to further maturity and growth in ASEAN online retailing will be dependent not only on continued internet and smartphone penetration, as well as increasing disposable income, but on the development of 'price disruptors', in our view. The precedent in China was online goods in apparel, household products, and recreation and education being offered at up to a 15% discount to those offered in traditional retail channels.

While there are significant cultural and geographic differences between China and the ASEAN online models, the dominance of online offering in China and the potential threat to traditional 'bricks & mortar' retailers is noteworthy; in our online shopping data for China, online shopping traffic is running at 723m hits per month, with a bounce rate of 35%, implying web traction with 470m hits. Traditional retailers command only 15.8m monthly hits, or a Traditional v Online TvO Hit Rate of 2.47%; that is, online retailers/platforms command 40.5x more viewers.

Just four sites command 86.1% of shopping traffic in our sample (see Appendix for top traffic sites per country) according to SimilarWeb data, versus the US where the top four command 27.9% (despite Amazon and eBay commanding a higher absolute level of web traffic). US traditional retailers are also more dominant; Wal-Mart, Bestbuy, Target and Home Depot all make it into the top 10 most visited sites.

Traditional retailers in China and ASEAN are capturing only 2.4-2.5% of online shopping traffic

In China, only four retail platform sites command 86% of online shopping traffic

Figure 10: Top 10 shopping sites in China by monthly traffic

		Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	on site	views	rate	traffic hits	ex-bounce
Aliexpress.com	39.6%	0:07:36	9.46	44.94%	286.50	157.75
Taobao.com	21.6%	0:16:27	14.46	16.04%	156.11	131.07
Alibaba.com	15.9%	0:05:29	5.06	47.67%	115.00	60.18
Tmall.com	9.0%	0:10:53	6.18	31.37%	65.00	44.61
JD.com	3.8%	0:09:30	12.12	13.26%	27.70	24.03
Amazon.cn	2.2%	0:06:20	7.16	26.61%	16.00	11.74
Yhd.com	1.0%	0:08:07	9.98	20.96%	7.00	5.53
ju.taobao.com	0.7%	0:06:22	4.86	31.80%	5.30	3.61
Etao.com	0.6%	0:05:52	4.26	28.85%	4.60	3.27
Yixun.com	0.6%	0:05:47	7.01	30.17%	4.40	3.07

Source: SimilarWeb

Figure 11: Top 10 shopping sites in the US by monthly traffic

		Avg Time	Avg Page	Avg Bounce	Total website	Traffic hits
Domain	Share	On Site	Views	Rate	Traffic hits	ex-bounce
amazon.com	14.4%	0:07:17	7.61	31.5%	821.4	562.5
ebay.com	10.1%	0:09:54	8.37	30.8%	574.7	397.9
walmart.com	2.1%	0:06:46	6.96	28.8%	120.3	85.7
apple.com	1.4%	0:03:32	3.33	37.5%	77.1	48.1
craigslist.org	1.1%	0:02:07	1.55	60.6%	61.2	24.1
bestbuy.com	1.1%	0:05:22	5.82	27.3%	60.4	43.9
target.com	1.0%	0:03:59	4.25	38.5%	55.9	34.4
etsy.com	0.9%	0:07:24	10.48	31.5%	52.1	35.7
groupon.com	0.9%	0:05:20	4.74	36.6%	49.0	31.1
homedepot.com	0.9%	0:06:04	5.43	28.2%	48.9	35.1

Source: SimilarWeb

(While it may seem surprising that Aplle.com only captures 1.4% of traffic with 77.1m monthly hits, the global traffic hit rate for Apple.com is 384m).

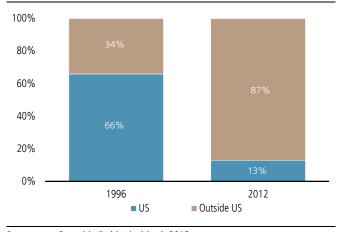
The emergence of major Chinese online platforms in ASEAN, could herald a major shift in retail patterns across the region. As yet, the online retail market is being driven by 'domestic' companies such as Lazada, Zalora, Tokobagus.com, sulit.com.ph, mudah.my (see appendix for major website traffic in each country). However, Alibaba's recent investment in SingPost and the subsequent JV could represent a milestone in terms of entering the ASEAN market.

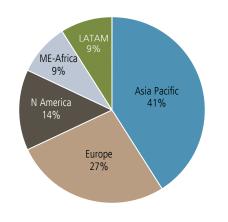
eCommerce potential in ASEAN

There has been a major structural shift in internet usage to Asia Pacific, with the region now representing over 40% of the worldwide audience. This is not surprising with the emergence of increasingly tech savvy (and increasingly wealthy) 'Chindia'.

Figure 12: Internet usage; US no longer the epicentre

Figure 13: Worldwide internet audience 2012





Source: comScore Media Metrix, March 2013

Source: comScore Media Metrix, March 2013

With internet users globally approaching 2,958m, up from 2,518m as of end-2012, primarily driven by emerging markets, we estimate the share of Asia Pacific could be as high as 48%. Industry analysis from comScore suggests internet users in ASEAN account for only 62m people, which is significantly below our estimates.

We believe there are approximately 200m users in ASEAN currently (approximately 7% of global share), and we expect a 47% increase to 294m within three years. This implies the current internet penetration in ASEAN is 32%, and will rise to 48% in three years.

We believe there are some 200m users in ASEAN; we expect a 48% increase in three years

Figure 14: Calculation of internet users & penetration

				% mobile subs				Internet	_
		Mobile	No. of mobile	using data	No. mobile	No. of users using	Implied internet	penetration	Implied 2017E
Country	Population	penetration	subs	services	subs using data	data ie. the internet	penetration	2017E	internet users
('000)	(A)	(B)	(C=A*B)	(D)	(E = C*D)	(F = E/B)	(G=F/A)		
Indonesia	244,776	121%	296,179	31.0%	91,815	75,880	31%	55%	134,627
Thailand	67,912	122%	82,853	46.0%	38,112	31,240	46%	60%	40,747
Malaysia	29,518	132%	38,934	62.6%	24,373	18,478	63%	65%	19,187
Philippines	97,691	112%	109,023	34.4%	37,498	33,600	34%	50%	48,845
Viet Nam*	88,773	148%	131,600	35.0%	46,007	31,035	35%	45%	39,948
Cambodia	14,741	137%	20,200	25.8%	5,207	3,800	26%	30%	4,422
Singapore	5,312	155%	8,234	74.0%	6,093	3,931	74%	75%	3,984
Lao PDR*	6,514	101%	6,600	20.0%	1,320	1,303	20%	30%	1,954
ASEAN	616,614	112%	693,623		250,425	199,267	32%	48%	293,715

Note: *Includes fixed line.

Source: ASEAN Secretariat, VNNIC, APJII, company data, UBS estimates.

Our proprietary analysis is based on a bottom-up analysis of data usage subscriptions to the respective domestic telecom providers, and primarily excludes fixed-line broadband, on the assumption that ASEAN netizens are primarily circumventing the traditional PC model and moving directly to mobile devices. We therefore also assume that fixed-line broadband users will also access data on a mobile device, to ensure no double counting. If this is not the case, including fixed-line usage incrementally would add 10% to our estimates (ie, 220m users in the region).

We believe the rapid growth has been primarily driven by 3G rollout, increasingly affordable smartphone devices, underpinned by a young and increasingly affluent user base that enjoy social networking.

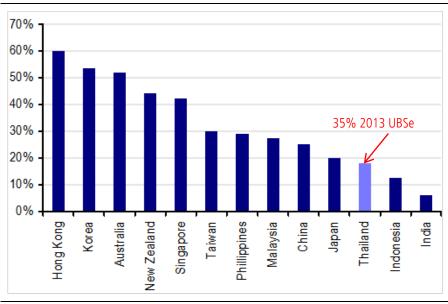
Figure 15: 3G launch across ASEAN



Source: Company data, UBS

The Philippines saw a three-fold increase in smartphone penetration in 2012 alone, while Thailand has increased from 20% in 2012 to 35% plus currently.

Figure 16: Smartphone penetration 2012 (add 2013E Thailand)



Source: UBS estimates

Our conclusion: while still immature and in a growth phase, internet penetration is no longer a bottleneck to eCommerce in the region.

A framework for online retailing in ASEAN

During our analysis of the eCommerce market, we came across a wide spectrum of estimates for the size of the market. According to UPS, eCommerce revenue in Asia Pacific is expected to reach US\$380bn this year and should top US\$500bn in 2015, and by 2017, the estimate is above US\$1trn. However, with the China market alone constituting US\$300bn (of the US\$380bn current estimate for Asia Pacific), it begs the question, is there eCommerce life in Southeast Asia?

Our analysis has focused on the primarily C2C and B2C markets (which we will call X2C), and calculated the current size and potential opportunity set from both a top-down and bottom-up perspective. As a primary goal of the analysis is to ascertain the dynamic between the traditional 'bricks & mortar' retailers and the threat from online retailers, our analysis excludes B2B and G2B/G2C (government to business and consumer).

From a top-down perspective, eCommerce in China constitutes approximately 8% of retail sales and 8.7% in the US. If the ASEAN eCommerce market were to emulate China and the US, it would provide an opportunity set of US\$35bn (8% of retail sales, based on 2013 sales and assuming no growth or inflation). Assuming 5% pa growth in retail sales in the region, the opportunity set increases to US\$49bn by 2020E.

eCommerce markets in China and the US command 8% and 8.7% of retail sales... similar levels in major ASEAN markets translate to a US\$35bn market at current prices, or US\$49bn assuming 5% pa growth in the underlying market by 2020

Figure 17: Summary statistics for *(2013E)

	ID	SG	PH	VN	TH	MY	Aggregate	China	US
Population (m)	244.8	5.3	97.7	88.8	67.9	29.5	534.0	1,344.0	312.0
# Online (m)	75.9	3.9	33.6	31.0	31.2	18.5	194.2	618.0	245.2
% Online	31.0%	74.0%	34.4%	35.0%	46.0%	62.6%	36.4%	46.0%	78.6%
# Facebook users (m)	65	3.4	36	22	26	15.8	168.2	N/A	204
# Social media users (m)	66	3.6	38	24	27	17	175.6	610	213
Retail sales (US\$ bn)	100.2	29.6	34.0	79.6	94.4	98.2	436.0	3,812.0	3,026.7
eCommerce % of retail	0.1%	1.0%	0.3%	0.1%	0.2%	0.2%	0.2%	8.0%	8.7%
Opportunity (US\$ bn) at 5% retail sales	5.0	1.5	1.7	4.0	4.7	4.9	21.8		
Opportunity (US\$ bn) at 8% retail sales	8.0	2.4	2.7	6.4	7.6	7.9	34.9		

Note: *Total online estimated at 199m in ASEAN; 194m in table highlights key markets.

Source: UBS estimates

Where is the current size of the market?

We estimate the X2C online retail market in ASEAN to gross between US\$548m to US\$1.1bn currently, only 0.12-0.24% of total retail sales.

Why is there such a spread in the current range? While there are a multitude of input parameters, the two key differentiating parameters to the aforementioned range is the conversion rate (CVR: the percentage of online surfers who convert to an actual payment transaction) and the average transaction spend. While our channel checks suggest that Thailand for example, has a CVR as high a 1% (vs US at 3% and global average of 1.2% according to statista.com and various other sources), across more immature eCommerce markets the CVR could be as low as 0.5%, reflective of our 'low-end' estimate versus 1% average across ASEAN for the upper end of the range.

For the average spend per transaction, we have used US\$20, with the exception of Singapore (US\$60), Malaysia (US\$60) and Thailand (US\$50) based on discussions with online retailers.

Using bottom-up analysis, we estimate the current (predominantly B2C) eCommerce market in ASEAN could be as low as 0.24% of retail sales, but growing rapidly

The scenario analysis

To assess the potential development of online X2C in the coming years from a bottom-up perspective, we take the annualised website traffic rate, adjusted for a 'bounce rate' (those directed to a site that do not browse it), for the most popular 10,000 shopping sites for each country (data provided by SimilarWeb), assume a conversion rate, and multiply it by the average online spend per transaction.

We have analysed the top 10,000 shopping websites in major ASEAN markets

Our base case assumes an average spend per transaction currently of US\$35.9; broadly speaking US\$20 per transaction for immature or low-income countries and as high as US\$60 for Singapore (vs the US 2013 spend per transaction of up to US\$165.85, according to statista.com).

We estimate average spend per transaction of US\$35.9 vs the US at US\$166.0...

Our channel checks (admittedly on a limited sample size that may not be reflective for the market as a whole) suggest a conversion rate of between 0.3% (Indonesia) and 1.6% (Singapore) across ASEAN (vs global average 1.2% and US 3%), with an indicative average order value of between US\$23.31 (Indonesia) and US\$49.99 (Thailand) and an indicative basket size per person in Indonesia of US\$92.27, Singapore US\$110.00 and US\$122.44 in Thailand.

...implying a current market size of US\$0.5-1.1bn

Figure 18: Scenario analysis on current ASEAN online spend

	ID	SG	PH	VN	TH	MY	Aggregate
Population 2012	244.8	5.3	97.7	88.8	67.9	29.5	534
# Online (m)	75.9	3.9	33.6	31.0	31.2	18.5	194
Top shopping sites (# monthly hits)	62.0	28.0	37.5	35.0	51.0	31.4	245
Est ave online spend (US\$)	20.0	60.0	20.0	20.0	50.0	60.0	35.9
Annualised spend at CVR 0.1%*	14.9	20.1	9.0	8.4	30.6	22.6	106
Annualised spend at CVR 0.2%*	29.8	40.3	18.0	16.8	61.3	45.2	211
Annualised spend at CVR 0.3%*	44.7	60.4	27.0	25.2	91.9	67.8	317
Annualised spend at CVR 0.4%*	60	81	36	34	123	90	423
Annualised spend at CVR 0.5%*	74	101	45	42	153	113	528
Annualised spend at CVR 1.0%*	149	201	90	84	306	226	1,057
Annualised spend at CVR 1.5%*	223	302	135	126	459	339	1,585
Annualised spend at CVR 2.0%*	298	403	180	168	613	452	2,114
Annualised spend at CVR 2.5%*	372	504	225	210	766	565	2,642
Annualised spend at CVR 3.0%*	447	604	270	252	919	678	3,171
Retail sales (US\$ bn)	100.2	29.6	34.0	79.6	94.4	98.2	436
Current ecomm as % retail sales (low)	0.1%	0.3%	0.1%	0.1%	0.2%	0.1%	0.1%
Current ecomm as % retail sales (high)	0.1%	0.7%	0.3%	0.1%	0.3%	0.2%	0.2%
Opportunity in B2C at 5% of retail sales (US\$ bn)	5,010	1,480	1,700	3,980	4,720	4,908	21,798
Opportunity in B2C at 8% of retail sales (US\$ bn)	8,016	2,368	2,720	6,368	7,552	7,853	34,876

Note: ID = Indonesia; SG = Singapore; PH = Philippines; VN = Vietnam; TH = Thailand; MY = Malaysia. Source: SimilarWeb, UBS estimates,

Taking the above methodology to predict the size and growth of the market in the next five years, we assume online penetration growth from the current 199m users to 294m, and assume new netizens have similar website traffic behaviour to those currently. For the purposes of the scenario analysis, we exclude the ASEAN countries not outlined in the table above (statistically immaterial); hence online users for the major markets grow from 194m to 287m.

Our base case five years out is a conversion rate (CVR) of 2% with a US\$60 spend per transaction, equating to an online market of US\$4.86bn, or 8.9x our current 'low-end' scenario, or 4.4x the current 'high-end' scenario.

Figure 19: Scenario analysis for B2C online spend in 5 years (US\$ m)

	ID	SG	PH	VN	TH	MY	Aggregate
Population	244.8	5.3	97.7	88.8	67.9	29.5	534
# Currently online (m)	75.9	3.9	33.6	31.0	31.2	18.5	194
# Online est in 5yrs(mi	134.6	4.0	48.8	39.9	40.7	19.2	287
Top shopping sites (# monthly hits)	110.1	28.4	54.5	45.1	66.6	32.6	337
Annualised spend, CVR 0.5%, \$20*	132.1	34.0	65.4	54.1	79.9	39.1	405
Annualised spend, CVR 0.5%, \$40*	264.2	68.1	130.9	108.1	159.8	78.3	809
Annualised spend, CVR 0.5%, \$60*	396.3	102.1	196.3	162.2	239.7	117.4	1,214
Annualised spend, CVR 0.5%, \$80*	528.4	136.1	261.8	216.2	319.6	156.6	1,619
Annualised spend, CVR 0.5%, \$100*	660.5	170.2	327.2	270.3	399.5	195.7	2,023
Annualised spend, CVR 0.5%, \$120*	792.6	204.2	392.7	324.4	479.4	234.8	2,428
Annualised spend, CVR 0.5%, \$140*	924.7	238.2	458.1	378.4	559.3	274.0	2,833
Annualised spend, CVR 0.5%, \$160*	1,056.8	272.3	523.5	432.5	639.2	313.1	3,237
Annualised spend, CVR 1.0%, \$20*	264.2	68.1	130.9	108.1	159.8	78.3	809
Annualised spend, CVR 1.0%, \$40*	528.4	136.1	261.8	216.2	319.6	156.6	1,619
Annualised spend, CVR 1.0%, \$60*	792.6	204.2	392.7	324.4	479.4	234.8	2,428
Annualised spend, CVR 1.0%, \$80*	1,056.8	272.3	523.5	432.5	639.2	313.1	3,237
Annualised spend, CVR 1.0%, \$100*	1,321.0	340.3	654.4	540.6	799.0	391.4	4,047
Annualised spend, CVR 1.0%, \$120*	1,585.2	408.4	785.3	648.7	958.8	469.7	4,856
Annualised spend, CVR 1.0%, \$140*	1,849.5	476.5	916.2	756.9	1,118.6	547.9	5,665
Annualised spend, CVR 1.0%, \$160*	2,113.7	544.6	1,047.1	865.0	1,278.4	626.2	6,475
Annualised spend, CVR 1.5%, \$20*	396.3	102.1	196.3	162.2	239.7	117.4	1,214
Annualised spend, CVR 1.5%, \$40*	792.6	204.2	392.7	324.4	479.4	234.8	2,428
Annualised spend, CVR 1.5%, \$60*	1,188.9	306.3	589.0	486.6	719.1	352.2	3,642
Annualised spend, CVR 1.5%, \$80*	1,585.2	408.4	785.3	648.7	958.8	469.7	4,856
Annualised spend, CVR 1.5%, \$100*	1,981.6	510.5	981.6	810.9	1,198.5	587.1	6,070
Annualised spend, CVR 1.5%, \$120*	2,377.9	612.6	1,178.0	973.1	1,438.2	704.5	7,284
Annualised spend, CVR 1.5%, \$140*	2,774.2	714.7	1,374.3	1,135.3	1,677.9	821.9	8,498
Annualised spend, CVR 1.5%, \$160*	3,170.5	816.8	1,570.6	1,297.5	1,917.5	939.3	9,712
Annualised spend, CVR 2.0%, \$20*	528.4	136.1	261.8	216.2	319.6	156.6	1,619
Annualised spend, CVR 2.0%, \$40*	1,056.8	272.3	523.5	432.5	639.2	313.1	3,237
Annualised spend, CVR 2.0%, \$60*	1,585.2	408.4	785.3	648.7	958.8	469.7	4,856
Annualised spend, CVR 2.0%, \$80*	2,113.7	544.6	1,047.1	865.0	1,278.4	626.2	6,475
Annualised spend, CVR 2.0%, \$100*	2,642.1	680.7	1,308.8	1,081.2	1,598.0	782.8	8,094
Annualised spend, CVR 2.0%, \$120*	3,170.5	816.8	1,570.6	1,297.5	1,917.5	939.3	9,712
Annualised spend, CVR 2.0%, \$140*	3,698.9	953.0	1,832.4	1,513.7	2,237.1	1,095.9	11,331
Annualised spend, CVR 2.0%, \$160*	4,227.3	1,089.1	2,094.2	1,730.0	2,556.7	1,252.4	12,950
Annualised spend, CVR 2.5%, \$40*	1,321.0	340.3	654.4	540.6	799.0	391.4	4,047
Annualised spend, CVR 2.5%, \$60*	1,981.6	510.5	981.6	810.9	1,198.5	587.1	6,070
Annualised spend, CVR 2.5%, \$80*	2,642.1	680.7	1,308.8	1,081.2	1,598.0	782.8	8,094
Annualised spend, CVR 2.5%, \$100*	3,302.6	850.9	1,636.1	1,351.5	1,997.4	978.4	10,117
Annualised spend, CVR 2.5%, \$120*	3,963.1	1,021.0	1,963.3	1,621.9	2,396.9	1,174.1	12,140
Annualised spend, CVR 2.5%, \$140*	4,623.6	1,191.2	2,290.5	1,892.2	2,796.4	1,369.8	14,164
Annualised spend, CVR 2.5%, \$140*	5,284.1	1,361.4	2,617.7	2,162.5	3,195.9	1,565.5	16,187
Annualised spend, CVR 3.0%, \$40*	1,585.2	408.4	785.3	648.7	958.8	469.7	4,856
Annualised spend, CVR 3.0%, \$60*	2,377.9					704.5	
Annualised spend, CVR 3.0%, \$80*		612.6 816.8	1,178.0 1,570.6	973.1 1 207 5	1,438.2 1,017.5	939.3	7,284 9,712
· · · · · · · · · · · · · · · · · · ·	3,170.5	816.8	1,570.6	1,297.5	1,917.5		
Annualised spend, CVR 3.0%, \$100*	3,963.1 4,755.7	1,021.0	1,963.3	1,621.9	2,396.9	1,174.1	12,140
Annualised spend, CVR 3.0%, \$120* Annualised spend, CVR 3.0%, \$140*	4,755.7 5 548 <i>4</i>	1,225.3 1,429.5	2,355.9	1,946.2 2,270.6	2,876.3 3 355 7	1,409.0 1,643.8	14,568 16,996
•	5,548.4 6.241.0	1,429.5	2,748.6	2,270.6	3,355.7	1,643.8 1,979.6	16,996 10,425
Annualised spend, CVR 3.0%, \$160*	6,341.0	1,633.7	3,141.2	2,595.0	3,835.1	1,878.6	19,425

Note: *Spend per transaction. Source: SimilarWeb, UBS estimates

The sanity check...

The US population is 312m, with an online population of 245.2m, and online retail sales amounted to US\$263.3bn in 2013, according to the US Census Bureau. This implies the average retail spend per capita per year was US\$9,701, and US\$1,074 for online retailing.

Various sources suggest a conversion ratio of 2-3%, with some retailers such as eBay and Amazon commanding double-digit conversions in Q413. While a '50 bucks' rule of thumb is often suggested for the average transaction size, data from staistica.com suggest as high as US\$165/transaction.

Looking at our bottom-up data...according to SimilarWeb, US online retailing sites command 5.7trn hits per month, with a 53.8% bounce rate; that is, 2.65trn 'genuine' hits or traffic that at least stay on the site. With November/December seeing 3x the normal traffic, average monthly traffic over the year was 3.53trn (exbounce). Taking this traffic data, and running a scenario analysis of average spend per transaction (USD, y-axis in table) vs conversion rates (x-axis), in order to achieve the US\$263.3bn of online sales (let's say over US\$250bn), then the often quoted 2-3% conversion rate looks low, as well as the '50 buck' rule.

Conversion rates of web surfers to actual online transactions might be understated, or spend per transaction might be too low

Figure 20: Scenario analysis on US online shopping market

Ave \$ spend vs CVR (x-axis)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
10	4,239	8,477	12,716	16,955	21,193	25,432	29,671	33,910	38,148	42,387
20	8,477	16,955	25,432	33,910	42,387	50,864	59,342	67,819	76,296	84,774
30	12,716	25,432	38,148	50,864	63,580	76,296	89,013	101,729	114,445	127,161
40	16,955	33,910	50,864	67,819	84,774	101,729	118,683	135,638	152,593	169,548
50	21,193	42,387	63,580	84,774	105,967	127,161	148,354	169,548	190,741	211,935
60	25,432	50,864	76,296	101,729	127,161	152,593	178,025	203,457	228,889	254,321
70	29,671	59,342	89,013	118,683	148,354	178,025	207,696	237,367	267,038	296,708
80	33,910	67,819	101,729	135,638	169,548	203,457	237,367	271,276	305,186	339,095
90	38,148	76,296	114,445	152,593	190,741	228,889	267,038	305,186	343,334	381,482
100	42,387	84,774	127,161	169,548	211,935	254,321	296,708	339,095	381,482	423,869
110	46,626	93,251	139,877	186,502	233,128	279,754	326,379	373,005	419,630	466,256
120	50,864	101,729	152,593	203,457	254,321	305,186	356,050	406,914	457,779	508,643
130	55,103	110,206	165,309	220,412	275,515	330,618	385,721	440,824	495,927	551,030
140	59,342	118,683	178,025	237,367	296,708	356,050	415,392	474,733	534,075	593,417
150	63,580	127,161	190,741	254,321	317,902	381,482	445,063	508,643	572,223	635,804
160	67,819	135,638	203,457	271,276	339,095	406,914	474,733	542,552	610,372	678,191
170	72,058	144,116	216,173	288,231	360,289	432,347	504,404	576,462	648,520	720,578
180	76,296	152,593	228,889	305,186	381,482	457,779	534,075	610,372	686,668	762,964
190	80,535	161,070	241,605	322,141	402,676	483,211	563,746	644,281	724,816	805,351
200	84,774	169,548	254,321	339,095	423,869	508,643	593,417	678,191	762,964	847,738

Source: SimilarWeb, UBS estimates

The point is, there is reasonable upside opportunity in the ASEAN online market of higher conversion rates, while admittedly significantly lower transaction value *vis-a-vis* the US due to lower disposable incomes.

Putting a framework around the online threat to B&M

Is that it...only 0.2% of retail sales are being transacted online in ASEAN? Not much of a threat to the 'traditional bricks & mortar' retailers, is it?

Figure 21: Key companies in X2C eCommerce & monthly web traffic ('000s)

Country	B2C marketplaces		B2C multi-brand retailers		B2C private sales & daily deals	3	C2C marketplaces & class	ifieds
	Ebay.com.sg	3,898	Zalora.sg	775	Groupon.sg	1,821	taobao.com	426
	Amazon.com	3,883	singtelshop.com	510	deal.co.sg	1,426	stclassifieds.sg	398
Singapore	Q0010.sg	3,141	asos.com	486	alldealsasia.com	302	olx.com.sg	252
	aliexpress.com	1,469	courts.com.sg	522	Reebonz.com.sg	225	etsy.com	238
	Rakuten.com.sg	294	clozette.co	440	greatsingaporevoucher.com	223	carousell.co	180
	WeLoveShopping.com	6,948	lazada.co.th	4,464	ensogo.com	1,400	pantipmarket.com	3,976
	Tarad.com (Rakuten)	6,848	cdiscount.co.th (BIGC)	1,059	myGroupon.co.th	370	taladrod.com	2,464
Thailand	Ebay.com	3,735	ShopAt7.com (CPALL)	506	mysale.co.th	130	ThaiSecondhand.com	1,140
	hitech.sanook.com	2,813	tescolotus.com	490	thaicitydeals.com	120	OLX.co.th	517
	Amazon.com	2,328	officemate.co.th	398	Reebonz.co.th	15	plazathai.com	504
	Amazon.com	3,318	lazada.co.id	6,639	Groupon.co.id	2,056	Kaskus.co.id	38,800
	Ebay.com	2,262	bhinneka.com	3,279	livingsocial.co.id	1,018	tokobagus.com (olx)	19,073
Indonesia	elevenia.co.id	1,534	zalora.co.id	1,941	evoucher.co.id	138	berniaga.com	13,100
	qoo10.co.id	631	tabloidpulsa.co.id	1,851	Reebonz.co.id	80	Tokopedia.com	3,600
	rakuten.co.id	372	blibli.com	1,054			Bukalapak.com	2,600
	Amazon.com	4,749	lazada.com.ph	4,165	metrodeal.com	2,251	olx.ph	13,766
	Ebay.com	3,959	zalora.com.ph	1,533	ensogo.com.ph	1,224	ayosdito.ph	10,500
Philippines	priceme.com.ph	393	phonearena.com	256	cashcashpinoy.com	1,000	tipidpc.com	1,536
	hallohallomall.com	163	villman.com	238	dealgrocer.com	271	cdrking.com	565
	shopinas.com	20	pcx.com.ph	179	beeconomic.com.ph	22	Lamido.com.ph	290
	lelong.com.my	3,453	lazada.com.my	2,552	livingsocial.com	573	mudah.my	9,221
	Ebay.com	2,747	zalora.com.my	1,118	hulala.com.my	159	taobao.com	534
Malaysia	Amazon.com	2,309	mobile88.com	755	milkadeal.com	154	olx.com.my	352
	aliexpress.com	1,644	ipmart.com.my	466	groupme.my	154	penanglang.my	333
	rakuten.com.my	358			myimart.com	87	etsy.com	182

Source: SimilarWeb, UBS

While the B2C industry is immature, we believe it is growing fast and we estimate that it could grow fivefold or more in the coming five years. Additionally, a significant amount of commerce is transacted on the C2C market, primarily via Facebook e-shops, it cannot be tracked nor quantified. In China, the C2C market is 70% of total 'X2C' eCommerce market. Assuming a similar trend across ASEAN, this would imply B2C plus C2C commerce equates to a more substantial US\$1.8-3.6bn currently. While there is an argument that the C2C market would offer a different retail product to that offered by 'B&M' retailers (often the C2C Facebook e-shops will be individuals who import high-end western brands that are either not offered on the high-street, or can undercut the high-street as they do not declare import or excise tax, and therefore are not scalable), the point is that ultimately, they take wallet share out of disposable income.

The low estimate should not detract from the potential or from the risk to traditional 'B&M' retailers.

Our channel checks with online industry participants highlight the threat of new entrants; examples include the western or Japanese retailers that currently have no presence, yet already source from China/ASEAN, and can now enter the market via an online platform or say a LINE 'flash-sale', without a physical presence.

Another threat could be major Chinese online platforms, with access to tens of thousands of suppliers, appreciating the opportunity ASEAN presents and, strategically deciding to enter the market (our channel checks suggest that such conversations are currently occurring). The recent move by Alibaba is instructive.

Alibaba is taking up a 10.35% stake in SingPost, for around S\$312.5m, and more importantly the companies are setting up a joint venture. In September 2013, TaoBao started to offer users the option to ship their goods to Southeast Asia (sea.toabao.com). Users in Singapore and Malaysia can make purchases via TaoBao, ship their goods to an appointed local freight forwarder in China, which will then ship their goods over. Thus far, the three appointed forwarders are PRouter, Legugo and 4PX. Now, SingPost will be given priority as a delivery partner. SingPost already has a network in Singapore, Malaysia, and Vietnam, and that will be a focus for Alibaba distribution initially, and there will be progressive expansion across Southeast Asia in the coming years. Later in the report, we show Alibaba and Aliexpress are among the 10 most visited sites in Singapore and Malaysia already.

In order to create a framework to ascertain the competitive dynamic between online eCommerce players and those of traditional 'bricks & mortar' retailers (that also have an online offering), we once again look to the 'Big Data' analytics provided by SimilarWeb.

Analysing the monthly traffic data from the top 10,000 shopping websites across each country (major website traffic outlined in the Appendix), adjusting for the 'bounce rate' (the percentage of surfers that are directed to a page but do not continue using that page), then comparing the traffic from 'traditional bricks & mortar' retailer sites, we can ascertain the TvO Hit Ratio (Traditional vs Online Hit Ratio: the number of visitors to traditional retailer websites versus online e-tailers or platforms).

The traffic data for the US provides an interesting benchmark. A 'mature' (or at least 'more mature' than most) online retail market, yet has dominant national 'traditional bricks & mortar' retailers such as Wal-Mart, Home Depot, Costco, etc, the US market provides or steady-state equilibrium as a comparison.

In the US the monthly run-rate for the top shopping website hits is 2.65trn (gross hits of 5.7trn adjusted for a bounce rate of 53.5%). The monthly traffic for the traditional B&Ms is 414m, giving a TvO Hit Rate of 18.5%; that is, online e-tailers and platforms have 5.4x more eyeballs than the 'traditionals'. In this analysis we have put Apple Inc in the 'traditional' camp; excluding Apple, the traditionals would claim 16% of traffic.

As you would expect, the traditional B&M operators, with a physical presence across the country and arguably a brand premium, have a substantially lower 'bounce rate' of 32% vs. 53.5% overall; that is, the majority of consumers that surf their sites are there because they want to be (whether that translates to higher propensity to spend, or whether it is for price comparison is unclear unless we have specific conversion rates per site).

Alibaba's recent stake in SingPost could be a watershed for the competitive landscape across ASEAN

Figure 22: Top shopping website traffic by country (monthly hits in millions)

	Total	Bounce	ex-Bounce	Traditional	Traditional	Traditional	TvO Hit	Online eyeballs v B&Ms
	monthly hits	rate	hits	hits	Bounce Rate	x Bounce	Ratio	(times)
US	5703.0	53.5%	2649.2	608.097	32%	414.209	18.5%	5.4
China*	722.8	35.0%	470.0	15.847	29%	11.322	2.5%	40.5
SG	47.1	40.6%	28.0	2.390	30%	1.675	6.4%	15.7
PH	69.0	45.6%	37.5	0.650	24%	0.493	1.3%	75.0
MY	53.1	40.8%	31.4	0.530	25%	0.400	1.3%	77.6
ID	122.5	49.3%	62.0	0.871	46%	0.474	0.8%	129.9
TH	99.4	48.6%	51.0	4.057	49%	2.077	4.2%	23.6
ASEAN Total**	391.1	46.3%	210.0	8.498	39.8%	5.119	2.4%	41.0

Note: *We use a smaller data set for China, all others 10,000 sites per country. **Major markets.

Source: SimilarWeb

At the opposite end of the spectrum for online capture by traditional B&Ms, is China. Without any major national traditional B&Ms, netizens across China's vast interior, especially in Tier 3 and 4 cities, can access more product online than they can on the 'high-street'. The result is a TvO Hit ratio of only 2.5% (hence Alibaba's TaoBao constitutes 70% of all delivery parcels in China). While we analyse 10,000 sites for the US and each ASEAN country, the data set for China is lower due to the availability of data. Hence, the actual amount of monthly hits is not comparable to the other countries, but the ratios are instructive.

So, where do ASEAN B&Ms sit? As the table above highlights, B&Ms in ASEAN have a low TvO Hit Ratio, ranging from 0.8% in Indonesia to 6.4% for Singapore, with a weighted average of 2.4%.

It would be overly simplistic (as well as inaccurate) to conclude that ASEAN's low TvO Hit Ratio implies that all traditional bricks & mortar retailers are going to lose out on the structural shift to online. ASEAN B&M retailers have better national coverage and brand recognition than their China peers, and we believe the low ratio is in part reflective of the immature nature of eCommerce in the region. However, we also believe the low TvO reflects the slow velocity of B&M retailers to focus and attempt to capture online wallet. The power shift is moving quickly against them, and a cohesive online strategy is now a priority...or online platforms will take significant share of wallet.

Analysing Thailand's web traffic

Analysing web traffic data from SimilarWeb, monthly web hits on the top 10,000 shopping sites totalled 107.8m in March 2014, with a 51.0% bounce rate. Of that, traditional B&M retailers commanded 4.06m with a 49% bounce rate, implying a TvO Hit Rate of 4.2%. Thailand's TvO Hit Rate is the highest in ASEAN, suggesting relatively strong brand recognition and market positioning, and possibly a more developed eCommerce strategy than other countries.

While traditional retailers command 18.5% of online shopping traffic on their respective websites, with the lack of dominant national retailers in China, the TvO Hit Rate is only 2.5%...

...with ASEAN B&Ms capturing only 2.4% of traffic; Singapore at 6.4% and Indonesia with 0.8%

Figure 23: Largest shopping websites in Thailand by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg	Total website	Traffic hits
Domain	Share	change	on site	views	bounce rate	traffic hits	ex-bounce
weloveshopping.com	7.0%	-0.8%	0:03:44	3.44	50.1%	6.948	3.470
Tarad.com	4.8%	-0.5%	0:03:46	3.52	55.9%	5.200	1.732
lazada.co.th	4.5%	17.6%	0:05:20	6.18	46.2%	4.464	2.402
pantipmarket.com	4.0%	4.4%	0:03:13	3.46	61.7%	3.976	1.523
ebay.com	3.4%	21.5%	0:08:22	7.76	42.9%	3.382	1.932
hitech.sanook.com	2.8%	21.7%	0:01:12	2.98	69.1%	2.813	0.869
taladrod.com	2.5%	2.8%	0:15:14	13.81	7.1%	2.464	2.289
amazon.com	2.1%	17.1%	0:04:31	4.92	56.3%	2.088	0.912
rimnam.com	1.9%	32.6%	0:02:23	2.20	59.5%	1.937	0.784
taradplaza.com	1.7%	2.0%	0:02:38	2.06	62.7%	1.648	0.614

Source: SimilarWeb

Traditional B&M retailer traffic is dominated by four companies, constituting 85% of the 'traditional' traffic (ex-bounce): BIGC (29% including Cdiscount.com); The Central Group (25%); Tesco Lotus (15%); CPALL (7-11 brand, 12%); and The Mall Group (3%).

The leading traffic master for the traditional B&M retailers is BIGC with a 29% share among its peers, following its 'soft launch' of the Cdiscount.com platform in mid-Q114 and is looking to fully launch (with full marketing, etc) in the middle of the year. Although to put this in context, its traffic capture among all shopping sites was only 1.2%. The site offers a multitude of stock-keeping units (SKUs) not available in its B&M stores, key to preventing cannabalisation and heavy discounting. We think the results so far are impressive, at least in terms of online interest. According to SimilarWeb, in March (only the second full month of operation), Cdiscount captured 1.06m traffic hits with a bounce rate of 63.6%, increasing to 1.2m hits in April with a 49.7% bounce rate. Experience helps, of course; Cdiscount originated from the Casino retail group in France, and now generates Euro1.6bn revenue there (while according to SimilarWeb, commands 24m monthly visitors with a very low bounce rate of only 27%).

The Central Group, Thailand's largest retailer, acquired a majority stake in Officemate in 2013, and will channel all the groups' brands (for example, Robinson, Power Buy, etc) through that platform for an online product offering. According to SimilarWeb, Officemate received only 0.4m hits in March, but including traffic across all of Central Group's online brands, the aggregate traffic hits are 1m, or 0.526m ex-bounce (bounce rate 48%). However, we believe The Central Group will not fully promote and market the online product until later this year.

Tesco Lotus, the local arm of the UK hypermarket group, commands half a million web hits per month (15% of traditional B&M, 0.6% of total), with an impressive 35.8% bounce rate, the lowest among peers; that is, the vast majority of netizens visiting the site are there specifically to browse and have not been directed inadvertently. Tesco is serious about developing its online strategy, with the acquisition of a minority stake in Lazada, which sells products including electronic goods, books, clothing, toys, homeware and cameras in Thailand, Malaysia, Indonesia, Vietnam and the Philippines (Tesco is only present in Thailand and Malaysia). Lazada intends to become "the Amazon of Southeast Asia"; SimilarWeb data suggests there has been progress towards that goal; Lazada is capturing almost 21m monthly hits across the region, and could be a game-changer for Tesco's strategy.

Figure 24: Most visited in Thailand

Rank	All categories	
1	Facebook	
2	Google.co.th	
3	Youtube.com	
4	Live.com	
5	Pantip.com	
6	Sanook.com	
7	Kapook.com	
8	Dek-D.com	
9	Yahoo.com	
10	Hao123.com	

The Mall Group in Thailand (Emporium, Siam Paragon, The Mall) commanded less than 200,000 hits, with an incredibly high bounce rate of 72%, implying a mere 55,000 hits per month. The company is looking to strengthen the online offering from May 2014.

The 'traditional B&M retailers' have some catching up to do...the sites that are capturing the most traffic in Thailand are online platforms, such as weloveshopping.com (7m hits in March, 3.52m ex-bounce), and lazada.co.th (4.5m, 2.44m ex-bounce), the two most popular shopping sites in the country. However, an online strategy is now a top priority for most executive boards, in our view.

Analysing Indonesia's web traffic

Indonesia has the most immature online market, with only 31% internet penetration, but with the largest population in ASEAN, leading shopping websites achieve 121m traffic hits per month currently, the largest in the region.

The challenge for traditional B&M retailers is significant; of the total 121m shopping website hits that were captured in March 2014 (with a 49.7% bounce rate), less than 1m were for the B&Ms, translating to a TvO Hit Rate of a mere 0.8%, the lowest in ASEAN.

Figure 26: Largest shopping websites in Indo by monthly traffic (March 2014)

		MoM	Avg Time	Avg Page	Avg Bounce	Total website	Traffic hits
Domain	Share	Change	On Site	Views	Rate	Traffic hits	ex-bounce
tokobagus.com	16.6%	-6.2%	0:14:06	19.65	23.6%	17.944	13.707
berniaga.com	10.8%	3.6%	0:09:02	11.75	37.5%	13.100	8.194
lazada.co.id	6.2%	13.8%	0:06:59	6.44	43.9%	6.639	3.725
aliexpress.com	3.7%	17.7%	0:02:02	1.76	72.8%	3.957	1.075
bhinneka.com	3.0%	-2.5%	0:04:53	4.58	47.1%	3.279	1.736
amazon.com	2.8%	-1.5%	0:02:32	2.39	67.0%	3.064	1.010
ebay.com	2.1%	17.7%	0:05:31	4.99	53.8%	2.262	1.046
zalora.co.id	1.8%	11.8%	0:09:22	10.11	28.2%	1.941	1.393
tabloidpulsa.co.id	1.7%	-2.4%	0:07:00	5.91	41.5%	1.851	1.083
indonetwork.co.id	1.4%	3.0%	0:03:51	2.80	56.2%	1.564	0.686

Source: SimilarWeb

Indonesia also has a big C2C market. Among the top 10 most visited shopping websites in April 2014, half belonged to C2C platforms, with the top two spots held by tokobagus.com and berniaga.com. Among the top 10 most visited websites based on all categories and shopping categories as of April 2014, all Indonesian sites belonged to non-listed companies.

Mitra Adiperkasa (MAP) is the country's largest retailer with 1,656 stores in 56 cities. MAP has mandated aCommerce.com, an end-to-end eCommerce provider, to revamp its web and mobile site and provide back-end logistics in order to offer an online product. According to SimilarWeb, the company's current site commands only 170,000 visitors per month (10,000 for the group website, 160,000 for planetsports), very low, we think for a retailer that hosts brands such as Lacoste, Adidas, Zara, and Tumi to mention just a few. To be fair, MAP has only rolled out the sports business into the eCommerce offering (planetsports.net). The sportswear brands it carries are not exclusive, except Reebok (distributorship). For instance, NIKE, Adidas, New Balance are also sold online at lazada.co.id. Again to put MAP's website traffic in context, the most popular website in Indonesia is takobagus.com (17.9m visitors in March, 13.7m ex-bounce), while lazada.co.id captured 6.64m hits, 3.7m ex-bounce. MAP is embarking on a new online strategy; the challenge (and potential) is clear.

Figure 25: Lazada monthly web traffic in ASEAN (March 2014)

15.7% 19.1% 31.7%
15.7%
12.2/0
12.2%
21.3%

Source: SimilarWeb

Figure 27: Most visited in Indonesia

Rank	All categories
1	Facebook
2	Google.com
3	Youtube.com
4	Yahoo.com
5	Google.co.id
6	Twitter.com
7	Kaskus.co.id
8	Detik.com
9	Ask.com
10	Tokobagus.com

Analysing Philippine's web traffic

With rapid internet penetration in recent years, driven by smartphone penetration, shopping websites command some 69m hits per month, the third largest in our data set.

Once again, the traditional B&M retailers do not rank highly; commanding only 650,000 monthly hits, translating to a TvO Hit Ratio of only 1.3%. However, the traffic is 'sticky' with a low 24% bounce rate, vs the 42% ASEAN average.

The online shopping scene is dominated by the C2C platforms Sulit and Naspers' OLX Network, which merged in March 2014, and now commands 20% of total online shopping traffic. The propensity for C2C platforms may be due to the low credit card penetration rate. C2C transactions are usually prevalent when direct bank-to-bank money transfers are undertaken, while amazon.com may be popular due to netizens seeking the latest foreign branded products that are currently unavailable on high street, or due to the high proportion of Filipino workers abroad.

Figure 28: Largest shopping websites in Indo by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits	ex-bounce
sulit.com.ph	11.6%	-37.6%	0:11:23	17.07	26.7%	7.980	5.852
olx.ph	8.4%		0:12:28	20.18	22.3%	5.786	4.497
amazon.com	6.6%	11.6%	0:04:03	3.53	60.9%	4.522	1.768
lazada.com.ph	5.8%	23.8%	0:06:37	7.17	44.3%	4.000	2.228
ebay.com	4.1%	3.3%	0:04:28	4.15	55.7%	2.815	1.246
metrodeal.com	3.3%	27.7%	0:05:42	3.83	48.2%	2.251	1.165
aliexpress.com	3.2%	-5.0%	0:02:09	1.96	72.4%	2.242	0.619
zalora.com.ph	2.2%	16.7%	0:07:59	9.52	36.1%	1.533	0.979
apple.com	1.8%	7.6%	0:03:40	2.97	42.2%	1.268	0.733
ensogo.com.ph	1.8%	17.3%	0:06:21	4.86	37.7%	1.224	0.762

Source: SimilarWeb

Some local sites such as myAyala.com, Filgifts.net, and Islandrose.net have been set up to capture business from the burgeoning Filipino expatriate community, but website traffic has been sub-20,000 in aggregate, according to SimilarWeb.

SM Supermalls, one of the largest traditional B&M retailers with 43 nationwide malls, currently does not have an online eCommerce offering, while attracting approximately 150,000 website traffic hits per month (with a high 54.85% bounce rate)—the highest among 'traditionals', but still low in the context of sulit/olx or more importantly for its business model, lazada.com.ph with 4m hits per month.

Analysing Malaysia's web traffic

Malaysia only constitutes 6.6% of our data set in population terms, but 15.1% of monthly online traffic due to high internet penetration rate of 62.6%. With 53.1m gross traffic websites hits per month, the bounce rate is lower than the ASEAN average at only 40.8%.

Yet despite the relative sophistication, traditional B&M retailers capture barely 0.5m hits per month, at a TvO Hit Rate of 1.3%, in line with the Philippines.

Figure 29: Most visited in PH

Rank	All categories
1	Facebook
2	Google.com.ph
3	Youtube.com
4	Google .com
5	Yahoo.com
6	Twitter.com
7	Ask.com
8	Olx.ph
9	Wikipedia.org
10	Y8.com

Figure 30: Largest shopping websites in MY by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits	ex-bounce
mudah.my	17.4%	-8.2%	0:13:46	20.61	12.3%	9.221	8.085
lelong.com.my	6.5%	-0.8%	0:07:31	5.13	39.9%	3.453	2.074
lazada.com.my	4.8%	17.7%	0:07:39	8.32	36.2%	2.552	1.629
amazon.com	4.0%	19.4%	0:03:11	3.04	61.5%	2.110	0.812
ebay.com	3.2%	-0.3%	0:05:25	5.71	48.4%	1.688	0.871
zalora.com.my	2.1%	3.1%	0:08:28	10.10	28.4%	1.118	0.800
alibaba.com	1.7%	-4.7%	0:04:05	3.13	54.9%	0.902	0.406
mobile88.com	1.4%	8.3%	0:04:30	3.99	18.2%	0.755	0.617
aliexpress.com	1.4%	-9.6%	0:05:37	5.86	53.2%	0.742	0.347
apple.com	1.3%	2.2%	0:03:31	3.20	37.8%	0.689	0.428

Source: SimilarWeb

C2C and B2C platforms dominate shopping web traffic in Malaysia. The most popular shopping website in Malaysia, and ninth in the country over all, is mudah.my, the C2C marketplace that attracts some 9.2m hits per month. Lelong, Lazada and Amazon then capture a further 15% of traffic. Interestingly, two alibaba sites (alibaba.com, aliexpress.com) make it into the top 10, as they do in Singapore. We view the recently announced SingPost and alibaba JV to further penetrate Southeast Asia as a major milestone and a significant negative for traditional B&M retailers.

The most significant traditional B&M traffic is with Tesco Malaysia, capturing 172,000 and 260,000 hits in March and in April, respectively, with only a 24.1% bounce rate. Aeon retail has 100,000 hits per month, with a 15.6% bounce rate, the second largest B&M website traffic. The traffic statistics again are anaemic compared with the sites highlighted above.

Analysing Singapore's web traffic

The most sophisticated online market (highest internet penetration with 74%, slightly below the US at 78.6%), and the richest in ASEAN, Singapore is not regarded as an eCommerce hub.

The high level of quality traditional B&M retailers and 'mall culture', combined with a lack of attractive scalability (that is, low population), suggests that the 'bricks to clicks' thesis could be challenging.

Figure 32: Largest shopping websites in SG by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits	ex-bounce
amazon.com	7.8%	29.8%	0:05:34	5.83	46.4%	3.657	1.960
qoo10.sg	6.7%	3.3%	0:05:09	2.69	48.0%	3.141	1.634
ebay.com	4.6%	7.5%	0:06:12	6.21	42.6%	2.189	1.256
ebay.com.sg	2.9%	0.9%	0:08:29	8.52	23.3%	1.377	1.057
apple.com	1.8%	0.6%	0:02:52	3.02	36.1%	0.846	0.541
aliexpress.com	1.7%	10.0%	0:09:05	9.60	36.3%	0.789	0.502
zalora.sg	1.6%	3.6%	0:07:58	9.72	24.9%	0.775	0.582
alibaba.com	1.4%	-1.2%	0:04:15	3.53	53.5%	0.680	0.316
courts.com.sg	1.1%	13.2%	0:05:32	6.45	26.9%	0.522	0.381
singtelshop.com	1.1%	-4.8%	0:06:43	9.68	18.2%	0.510	0.417

Note: Online payment system.

Source: SimilarWeb

Figure 31: Most visited in MY

Rank	All categories
1	Facebook
2	Google.com
3	Google.com.my
4	Youtube.com
5	Yahoo .com
6	Maybank2u.com.my.com
7	Live.com
8	Twitter.com
9	mudah.my
10	Ask.com

Traditional B&M retailers are capturing 2.1m hits per month, with a very low bounce rate of 24%, perhaps indicating the power of their brands. The TvO Hit Rate of 6.2%, the highest by far in ASEAN, may also reflect a retail model that is more suited to 'traditionals' rather than any indication of the balance of power shifting to the online players.

However, traditional B&M retailers should not be complacent. Monthly shopping website traffic is running at 47m, with a bounce rate of 40.6%, implying a 'true' opportunity set of online shoppers of 28m hits per month. It is growing, the trend is clear.

Qoo10.sg, the B2C online platform formed between Giosis Pte and eBay, captured an estimated 5m website hits in April with only a 21.3% bounce rate (down from 48% in March 2014). That implies 3.93m visitors in the month looking specifically to surf the site, versus 1.63m in March 2014, a 141% increase month-on-month. In addition, the average time spent on the site increased from just over five minutes to over 12 minutes.

A similar trend can be seen with eBay.com.sg; April traffic of 2m with a 23.6% bounce rate versus March with 1.4m hits and a 23.3% bounce rate; that is, exbounce, traffic increased 45% month-on-month.

If that is not evidence enough to concern the traditional B&M retailers, Alibaba/Aliexpress command two of the top 10 traffic positions, and we would expect growth to accelerate following the partnership and equity stake in SingPost.

SingPost offer a B2C platform under the omigo brand. eCommerce was 26% of revenue as of Q114, and grew +30% YoY. It now has 600 clients from 300 a year ago, and we expect revenue growth to sustain at 25-30% pa for the next three to four years. By 2017, we estimate it will make up 44% of sales. Surprisingly, despite the positive surprise from e-commerce revenue in Q114, SimilarWeb data suggests omigo.com.sg only receives 80,000 web hits per month, with a 43.78% bounce rate.

As well as the generic drivers to any retail sales growth (credit cycle, disposable income, etc), we believe the key to whether the potential is realised across the online community, and the rate of growth will depend on the magnitude of ASEAN netizens converting from 'socialites' to 'spenders'.

Figure 33: Most visited in SG

Rank	All categories
1	Facebook
2	Google.com.sg
3	Google.com
4	Youtube.com
5	Yahoo .com
6	Live.com
7	Wikipedia.org
8	Twitter.com
9	Dbs.com.sg
10	Msn.com

ASEAN: a social bunch

With 67% of ASEAN netizens under the age of 35 years, some 90% actively use social media sites.

Figure 34: Age profile of ASEAN netizens

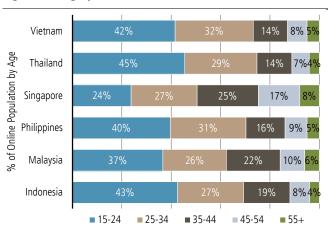
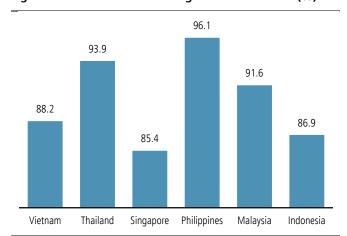


Figure 35: Internet users visiting social media sites (%)



Source: comScore Source: comScore

Thailand and Vietnam spend the most time online, exceeding the global average of 23 hours per week. Across ASEAN, time spent on social networking sites far exceeds the global average.

Figure 36: Time online per week (hours)

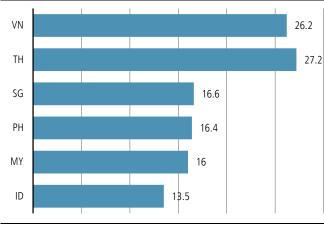
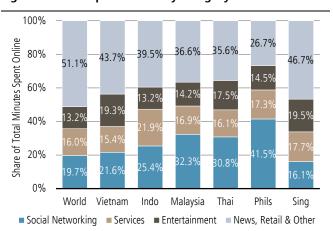


Figure 37: Time spent online by category of use



Source: comScore Source: comScore

Facebook currently has approximately 1,191m users worldwide, of which 28% are in Asia Pacific, of which half are in ASEAN. At 171m users, ASEAN usage is higher than Western Europe and on a par with North America. This is important because the platform is being used to drive the C2C online market with a plethora of Facebook e-shops. We think the challenge for the B2C online market is to break Facebook's dominance, or at least use it constructively to divert traffic to B2C platforms.

Figure 38: Facebook users globally (m)

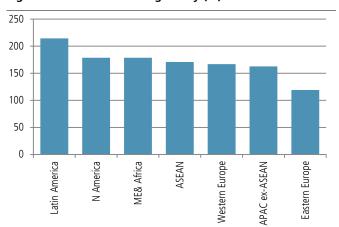
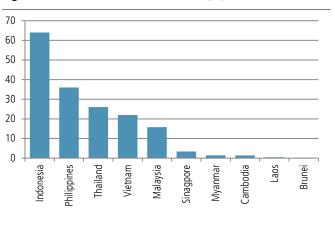


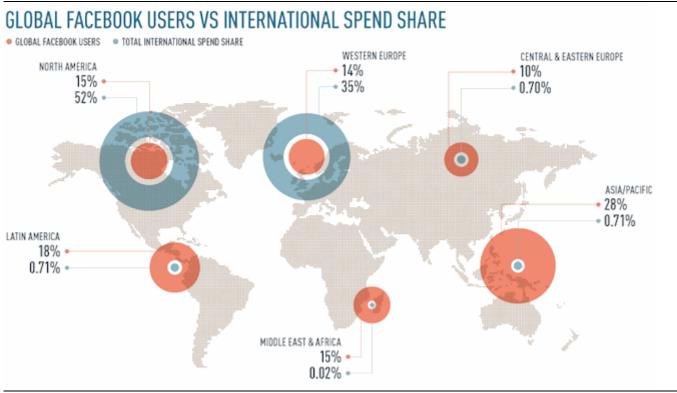
Figure 39: Facebook users in ASEAN (m)



Source: Zocial Rank Source: Zocial Rank

Facebook's dominance is also important for online advertising trends, as we think a significant opportunity exists across Asia for capturing a share of advertising wallet. A study by Facebook Preferred Marketing Developer Marin Software suggests with only 29% of the global Facebook user base, North America and Western Europe represent 87% of advertising spend, while Asia Pacific represents only 0.71% of spend despite a similar level of users.

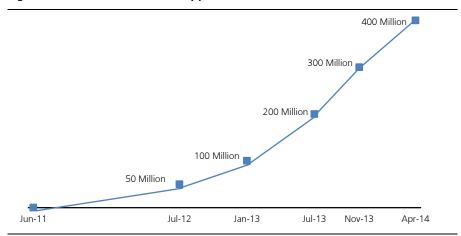
Figure 40: Facebook user penetration & advertising spend [



Source: Marin Software

Naver's LINE App has also made significant inroads in penetrating the ASEAN market. LINE has now passed 400m registered users as of March 2014, a 30% increase in five months, with a YE14 target of 500m.

Figure 41: Global users of LINE App



Source: Naver

Two of the top three origin of users are from ASEAN. Japan has the largest number of users, with 50m, while Thailand and Indonesia come in next with 24m and 20m users, respectively. Indian usage is accelerating with 18m users currently. Line announced a new record of 10bn messages sent in a single day on 21 March.

Japan's Rakuten uses the Line platform to promote sales on its Tarad platform in Thailand. The platform is also being used by brands/manufacturers for direct access to consumers to test consumer appetite. Some 5.5m Thai users have actively opted to receive flash sale promotions via LINE. aCommerce.com, a LINE partner in Thailand, have facilitated eight flash sales this year for small ticket items (average \$20) with sales promotions selling out within 4 seconds to 20 minutes.

No longer do local or international brands need to negotiate shelf space from traditional retailers, or build a bricks & mortar network with heavy promotions...each market with differing degrees of locality can be tested for demand via flash sales and manufacturing and marketing campaigns tailored.

Logistics: complex supply chains

Logistics: is a challenge

While consumer education and 'trust' is the key bottleneck to ecommerce growth in ASEAN, a lack of logistics infrastructure is a key impediment to online shopping, at least in terms of next day delivery. This is especially true across the Indonesian and Philippine archipelagos.

Logistics is a key determinant for success with the eCommerce ecosystem

Inefficient infrastructure in ASEAN is not the only issue; eCommerce supply chains can be significantly more complex than the industrialised pallet model that has been the backbone of the logistics industry. This has led to a number of eCommerce start-ups such as aCommerce.com and velasia.com (Indonesia) offering end-to-end solutions including logistics fulfilment. They argue that 'eCommerce is in our DNA' where as the palletised model is still at the heart of the global players. What they lack in infrastructure, they attempt to make up for in technology and know-how.

Key to this will be the successful adoption of the 4PL model (fourth-party logistics) that is, 'sitting on top' of 3PLs, using technology and data analytics to efficiently manage and co-ordinate multi-network and transportation providers.

The growth of Singapore as a logistics hub in the last couple of decades means that most of the major supply chain management companies have a meaningful presence here, and are investing in growing their Asian footprint, using Singapore as a gateway to ASEAN.

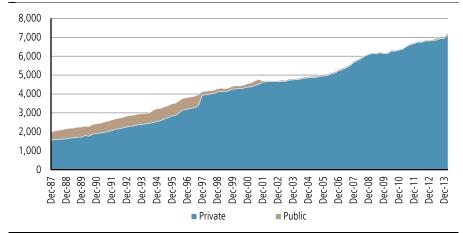
According to the Economic Development Board, 20 of the world's top 25 third-party logistics (3PLs) providers have a presence in Singapore. A number have set up regional or global headquarters functions in Singapore. These include: DHL, Kuehne + Nagel, Sankyu, Schenker, UPS and Yusen Logistics. Other major companies that have a meaningful supply-chain presence in Singapore include Agility, FedEx, TNT, Nippon Express, and NYK Logistics. In recent years, Singapore's postal company SingPost has also ventured into eCommerce and e-fulfilment logistics business to overcome the structural challenges in its core business.

Efficient warehouse infrastructure is an issue in ASEAN, perhaps with the exception of Singapore and to a lesser extent Thailand, both in terms of capacity and location. Warehouse space occupied in Singapore has grown from 2.2m sqm in 1999 to 7.2m currently. This translates into a CAGR of 8.2%.

New entrants are looking to capture share with superior know-how and technology; key will be the success of a 4PL model.

Warehousing infrastructure is important in non-metropolitan areas to ensure efficient time to market, a strong area of growth

Figure 42: Singapore warehouse space occupied ('000 sqm)



Source: CEIC

In Thailand, the 1.8m sqm of warehousing is primarily located on the eastern seaboard or within/around Bangkok, with little upcountry. However, the current capacity is set to increase by 39% in 2014, while land under site preparation exclusively for warehousing, could add a further 2m sqm or +109%, primarily driven by WHA and Ticon Industries (it typically takes up to one year for site preparation, and then 8-12 months for warehouse construction), according to CBRE.

Last-mile delivery can also be challenging, especially in countries with an inefficient post office. Customer experience is key to the success of online retailing, and with a high proportion of transactions based on 'cash-on-delivery', online platforms and retailers require confidence that the last-mile delivery does not tarnish the experience. This has led to many online vendors and providers building dedicated fleets of motorbike distributors in metropolitan areas, as well as using more sophisticated third-party logistics providers.

Listed logistics companies

Listed companies with logistics/warehousing/ distribution exposure in ASEAN are highlighted below.

Figure 43: Consensus based valuation on ASEAN exposed

			Mkt cap	% rev in logistics/		2014E	2015E	2016E
Name	Reuters coder	Rating	(US\$)	distribution	% rev in Asia	PE	PE	PE
Singapore Post	SPOS.SI	Buy	2,484	26.0%	100.0%	20.2	18.5	17.2
MLT	MAPL.SI	Buy	2,288	100.0%	100.0%	15.6	15.4	15.2
Neptune Orient	NEPS.SI	Buy	2,033	17.8%	27.3%	(91.9)	14.2	9.9
CWT Ltd*	CWTD.SI	Not Rated	838	97.9%	100.0%	8.8	7.9	7.2
Keppel T&T*	KTEL.SI	Not Rated	779	67.3%	100.0%	14.7	14.7	12.2
POS Malaysia*	PSHL.KL	Not Rated	820	42.9%	100.0%	17.3	14.9	13.2
GD Express*	GDEX.KL	Not Rated	517	100.0%	100.0%	73.5	70.7	59.0
WHA*	WHA.BK	Not Rated	857	100.0%	100.0%	20.1	18.0	15.4
TICON*	TICON.BK	Not Rated	527	57.0%	100.0%	9.7	9.1	7.2
UPS*	UPS.N	Not Rated	95,501	20.9%	24.7%	20.4	17.9	16.5
DHL	DPWGn.DE	Neutral	44,881	48.0%	15.5%	16.4	13.9	12.8
Kuehne & Nagel	KNIN.VX	Neutral	16,361	24.7%	10.8%	22.6	20.8	19.1
TNT Express	TNTE.AS	Buy	4,852	100.0%	10.5%	22.6	14.6	12.4
Panalpina	PWTN.S	Neutral	3,859	13.5%	26.6%	32.1	24.1	18.1
Kerry Logistics	636.HK	Not Rated	2,682	45.2%	82.7%	20.1	17.7	16.0

Note: Above data as at 12 June 2014. Source: *Bloomberg, UBS estimates.

eCommerce in Thailand

Some 18 months ago, Thailand was one of three countries in the world without 3G, alongside N Korea and Cuba. Credit card penetration of 5% did not bode well for online shopping, while a high import tax was a barrier for the likes of Amazon to enter. Yet, Siam Paragon was the most photographed place in the world on Instagram in 2013, it now has 24m Facebook users, 22m Line App participants (second only to Japan), 5.3m on Youtube (2,500 video uploads/day), 35-40% smartphone penetration, the sixth-highest use globally of mobile internet, and a thriving online community.

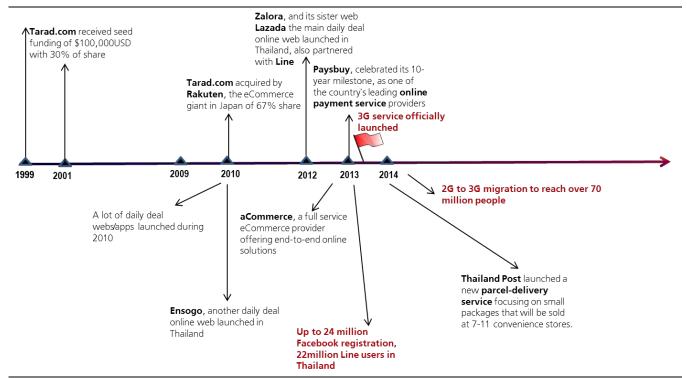


Figure 44: eCommerce development in Thailand

Source: UBS

We assess the prerequisites for a boom in online shopping; internet/mobile penetration, secure payment systems, online platforms, logistics and import tax legislation....and, of course, the primary players.

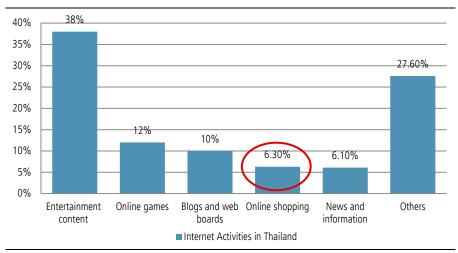
The size of the market

Paypal Research (2012) estimates the Thai online B2C market size to be US\$477m, only 0.5% of total retail sales, with approximately 2.5m online shoppers or 3.8% of the population. Our estimates, based on bottom-up website hits and conversion rates, assuming an average spend per transaction of US\$40 (vs US\$161), implies only US\$144m.

However, if Thailand develops in line with China or the US, with online sales constituting 8% of total retail sales, we estimate the opportunity set would be US\$7.6bn at current prices.

The National Statistics Office estimates the B2B market to be close to US\$9bn, while the Government Comptroller General's Department cites B2G (to Government) to be some US\$12bn via 'e-auction'. The C2C market is anecdotally significant, yet difficult to estimate as the majority of sales are conducted via Facebook stores where payment is done by inter-bank transfer.

Figure 45: Internet activities in Thailand



Source: Truehits.net

Figure 46: eCommerce sales and online shoppers size comparison

2013	Thailand	China	UK	US
eCommerce size as a % of total retail sales	0.3%	7.8%	2.0%	8.7%
Online shoppers as a % of total internet users	14%	49%	44%	73%

Source: Paypal Research, PWC 2012 Outlook for the Retail and Consumer Products Sector in Asia, Office for National Statistics UK, UBS estimates

Internet/Smartphone penetration: not a bottleneck

With less than 5m broadband fixed-line subscriptions (7.5% penetration), we think netizens are bypassing the traditional PC/ laptop model and moving straight to internet usage via mobile handsets. While government data puts internet penetration at 26% in 2012, we estimate this could be as high as 46% currently and rising. With Facebook and Line participation at 24m and 22m users, respectively, in Thailand, suggests penetration of 30-36% assuming consumers do not have multiple accounts (which some will, of course, especially for 'Facebook eshops').

Moreover, AIS alone has 30m subscribers for 'data usage', implying 45% penetration. Industry-wide mobile subscriptions reached 93.7m (1.4x population), an increase of 17% since YE13, of which 42.9m were 3G subscribers. Assuming all 3G subscribers surf the net, implies 65% internet penetration, or since there are 1.4x mobile subs per person, adjusting for this implies penetration of 46%. We estimate 2G to 3G migration will translate to 76m 3G subscribers by YE14 (AIS 16m to 33m; DTAC 10m to 19m; True 14m to 24m), so penetration rates could exceed 60% in 2015. Of the current internet users, 92% go online daily via mobile handsets. We can quibble about the accuracy of the data, but the point is, internet penetration is not a bottleneck to ecommerce in Thailand anymore, and arguably only two years or so behind the China analogy.

Figure 47: Data penetration in Thailand in 2012

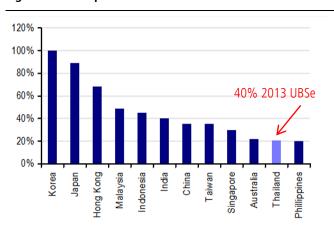
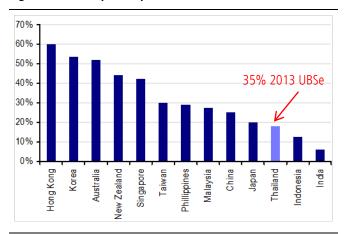


Figure 48: Smartphone penetration in Thailand in 2012

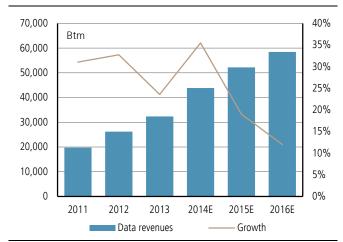


Source: UBS estimates

Source: UBS estimates

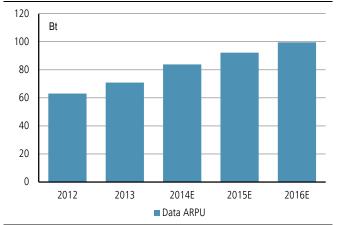
We believe there is still room for growth as data penetration and smartphone penetration remain relatively low. Looking at the telecom companies, we estimate data revenue contribution could rise from less 10% in 2010 to 28% in 2014 and to 45% by 2016. This is mainly supported by an increase in online and internet usage. It would also come at the expense of a fall in voice revenue.

Figure 49: Data revenue growth for AIS...



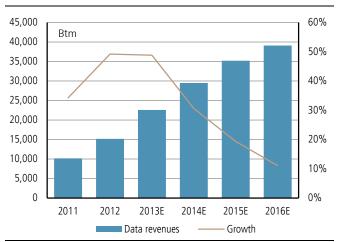
Source: Company data, UBS estimates

Figure 51: Data ARPU—AIS



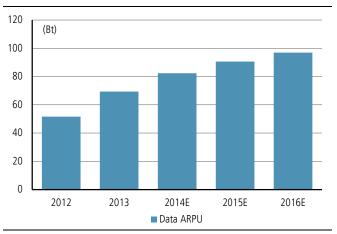
Source: Company data, UBS estimates

Figure 50: ...and DTAC



Source: Company data, UBS estimates

Figure 52: Data ARPU—DTAC



Source: Company data, UBS estimates

A new model for retailing, advertising & product testing

Naver's 'LINE App' has over 230m registered users, primarily in Japan (47m), Thailand (22m), Taiwan (17m), Spain (15m) and Indonesia (14m). Line has partnered with aCommerce, a regional end-to-end eCommerce service provider, to launch eight 'Flash Sales' since December 2013, offering an exclusive product range for a limited period only. Some 5.5m smartphone users subscribed to LINE direct online sales, approximately 25% of the estimated online population in Thailand, with 20,000 shoppers visiting the site simultaneously. Each 'Flash Sale' offered between one and three thousand SKUs, and were sold out in 4-20 minutes, with an average ticket price of Bt652 (US\$20).

Despite the perception of the immaturity of an 'upcountry' online community, some 42% of sales were outside of Bangkok. This could have a profound impact on how product is not only sold, but for online advertising, product demand analysis and data mining. Why only 3000 SKUs per sale? In part, the initiative was launched only recently so is at an experimental stage, but moreover, because of the logistical challenge in delivering a product 'spike' with next day delivery.

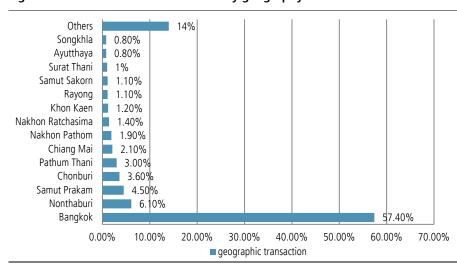


Figure 53: Line Flash Sales transaction by geography

Source: aCommerce Insights, Line Flash Sales, Mobile Commerce Case Study: Thailand

Perhaps the propensity of 'upcountry' netizens should not be a complete surprise; Tier 3 and 4 cities in China have been the driving force for eCommerce development there, while in Thailand, netizens from the northeast are the most frequent online visitors.

Southern region
Northeastern region

Bangkok
Central region

0 1 2 3 4 5 6 7

Millions

1-4 Days per week

1-4 Days per week

1-1 Days per month

1-11 Days per year

Figure 54: Number of computer users by frequency to use, 2013

Source: National Statistical Office in Thailand, 2013

Secure payment systems: are growing, but COD and Bk2Bk prominent

Credit card penetration of c5% is not an inhibitor to online retailing per se. Including debit cards and in-store cards, the penetration rate is closer to 30% in Thailand. There are a plethora of online secure payment systems, ranging from paypal, ThaiEpay.com, Paysbuy.com (a subsidiary of Total Access), Aeon/Swiff and www.123.co.th. We think data from these systems also underestimates the actual online consumption trends; the majority of netizens pay cash on delivery (COD), even if they have a credit card, due to the immaturity of the market (read 'trust' and 'experience' in online retailing). In addition bank-to-bank (Bk2Bk) transfers in the C2C market are common; online banking penetration is 72%.

In more rural communities, ATMs and '7-Eleven' stores are increasingly used for bill payment or money transfers.

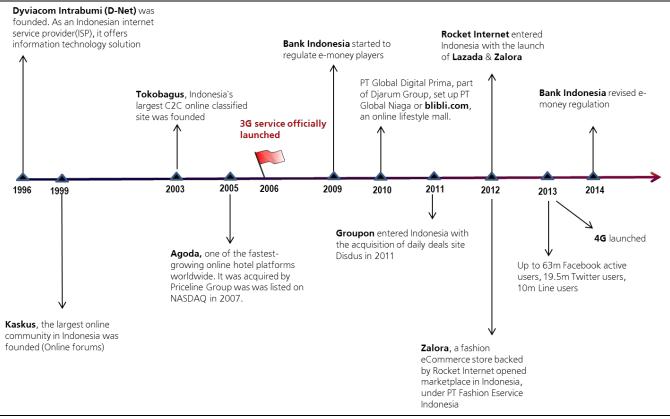
Import tax legislation

The most significant US or Chinese online shopping portals have underpenetrated Thailand or indeed ASEAN. This is probably a timing issue due to the immaturity of the market and we expect entry within three years (note Alibaba's recent JV with SingPost in order to capture ASEAN opportunities). However, it could also be due to the challenge of both local content, local logistics and navigating the often complex and cumbersome tax legislation.

Import tax legislation can significantly inflate the destination selling price; total import duty includes an import tax, excise tax, interior tax, VAT and other/ special duty. The legislation is complex, and depends on multiple variables, from the type of product to where it was manufactured (if a free trade agreement [FTA] is in place, for example) and can result in a product costing three times its initial cost of production at source (see appendix for examples of tax calculation). This can be a major impediment for US or European branded goods. A successful online retailer that aims to attract the mass market must therefore have local, ASEAN or China suppliers (90% of tariffs have been eliminated within ASEAN and between China and ASEAN since 2010).

eCommerce in Indonesia

Figure 55: Timeline for Indonesia eCommerce

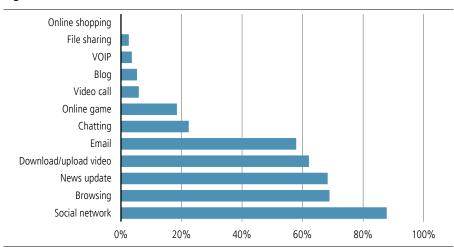


Source: UBS

The eCommerce market

We believe Indonesia is still at the early stage for eCommerce. While growing rapidly, the measurable B2C market in Indonesia is only 0.1-0.2% of total retail sales, versus approximately 8% in the US and China. Based on APJII's survey, Indonesians mostly use internet for social networking (88%), browsing (69%) and news update (68%)—while online shopping remains the least favoured (0.1%). That said, we see upside potential as we estimate that Indonesia's internet penetration is 31% currently and could reach 54% by 2015E.

Figure 56: Internet activities in Indonesia



Source: APJII (2012)

Indonesia also has a big C2C market. Among the top 10 most-visited shopping websites in April 2014, half belonged to C2C platform, with the top two spots held by tokobagus.com and berniaga.com. Despite the reluctance or the ability to pay online, many online shoppers use websites as a platform to arrange a deal, which is transacted offline later. We believe this involves a lot of big ticket items, such as high-value electronics products, automotive, as well as houses. The importance of companies to have online websites has also been rising, as many shoppers conduct online products review before making purchase decision.

Among the top 10 most visited websites based on all categories and shopping categories as of April 2014, all belonged to non-listed companies. We have nevertheless noted rising awareness of traditional retailers as regards the importance of having an eCommerce platform, although the focus has not been much. Within our coverage, Mitra Adiperkasa (Neutral) has an eCommerce platform for sports shoes, cooperating with aCommerce.com, an end-to-end provider.

Figure 57: Most visited websites in Indonesia as of April 2014

Rank	All categories	Rank	Shopping categories	
1	Facebook	1	Tokobagus.com	
2	Google.com	2	Berniaga.com	
3	Youtube.com	3 Lazada.co.id		
4	Yahoo.com	4 Tokopedia.com		
5	Google.co.id	5 Aliexpress.com		
6	Twitter.com	6	Bhinneka.com	
7	Kaskus.co.id	7	Dealshark.com	
8	Detik.com	8	Indonetwork.co.id	
9	Ask.com	9	Ebay.com	
10	Tokobagus.com	10	Zalora.co.id	

Source: SimilarWeb

The most online-purchased products include, among others, clothing, bags, electronics (that is, mobile phones, computers), shoes, tickets (that is, airline tickets, show tickets), and books.

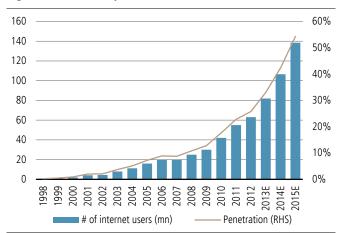
What are the challenges?

We believe the main challenges in the Indonesian eCommerce market include sellers' fraud, uncertainty about product quality, inability to see physical products, and payment safety. With the rising popularity of reputable merchants with a 'product-return policy', we think it is a matter of time for the perception of trust to gradually improve.

3G rollout and rising smartphones sales boost internet penetration

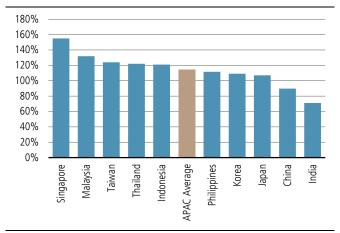
Indonesia has the largest number of internet users in ASEAN, totalling 63mn in Indonesia as of 2012, representing a 26% penetration rate. The internet penetration rate has grown substantially, from 9% in 2006, 31% in Q114, and we expect it to reach 54% by 2015. We believe the increase in penetration will continue to be driven by improvement in 3G infrastructure and the continuing rise in data penetration helped by the rising smartphones penetration. We believe the latter would not only be driven by rising income/capita, but also a decline in smartphone ASPs through the introduction of cheaper models and brands. According to APJII's survey, internet access in Indonesia is dominated by smartphones, followed by desktop computers, laptops, and tablets. This supports our view that the introduction of cheaper smartphones will help boost smartphones sales and consequently active internet users.

Figure 58: Internet penetration trend in Indonesia



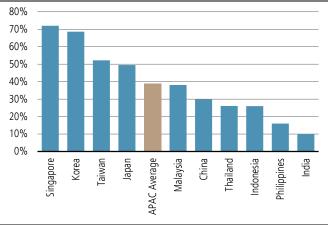
Source: APJII (2012), UBS estimates

Figure 60: Mobile penetration comparison



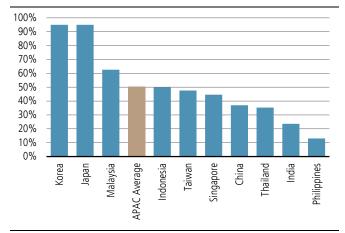
Source: Company data, UBS estimates

Figure 59: Smartphones penetration



Source: Company data, UBS estimates

Figure 61: % of mobile subscribers using data services



Source: Company data, UBS estimates

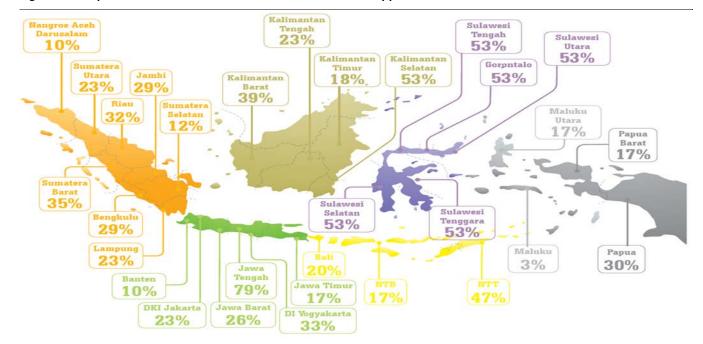


Figure 62: Proportion of Indonesian internet users that have shopped online

Source: APJII

Logistics is a challenge

Indonesia has poor logistics infrastructure, creating a challenge for eCommerce start-ups to offer quick delivery services. Some big eCommerce companies (or those that have strong funding) have their own delivery fleets to increase the level of service and the trust of customers (that is, by facilitating cash on delivery). Others rely on third-parties (such as JNE, a local delivery service provider), which we believe will be challenging for a B2C platform, as Indonesian online shoppers prefer 'cash-on delivery' payment, which is feasible only when using an own-fleet delivery. The lack of scale also makes it difficult for many eCommerce start-ups ito invest in the back-end, as they face competitive pricing with traditional retailers.

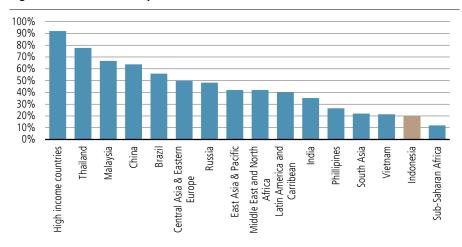
Nonetheless, several end-to-end eCommerce providers, such as velaasia.com and aCommerce.com, have entered the Indonesia market in the past two years. We think these types of companies will help develop eCommerce in Indonesia. Those companies offer a one-stop shop enabling their partners to integrate eCommerce services. For example, aCommerce.com's solutions include warehousing (custom packaging, storage, picking & packing, returns, and next-day delivery), delivery (real-time tracking, 'cash/credit card payment on delivery', channel management and distribution (inventory management), customer acquisition and marketing, strategy and planning, technology platform and integration, customer care and call centre, and creative development and production.

'Cash on delivery 'remains the most preferred payment method

Credit card penetration was only 6% in 2013. Many Indonesians are reluctant to make their payments online, particularly by credit card because of concerns about fraud, on our view. The most preferred method of payment is 'cash on delivery', which is widely offered by major B2C operators. As mentioned earlier, the challenge for 'cash on delivery' is that teCommerce businesses would require their own delivery fleets given poor logistics infrastructure. However, the recent initiatives for end-to-end eCommerce providers should provide a solution as it offers a delivery outsourcing with 'cash on delivery' method.

Several merchants also offer other methods of payment that are generally perceived to be 'safer,' including bank transfer, as well as online payment services such as BCA KlikPay (Bank Central Asia), Mandiri Clickpay (Bank Mandiri), and KasPay (e-wallet services provided by Djarum Group).

Figure 63: Bank account penetration level in 2011



Source: Bank Indonesia, World Bank, Global Financial Inclusion Index 2011

Figure 64: Credit card penetration in Indonesia

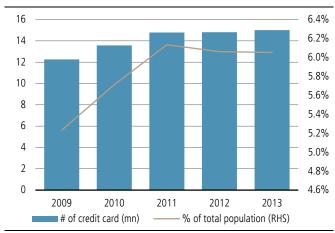
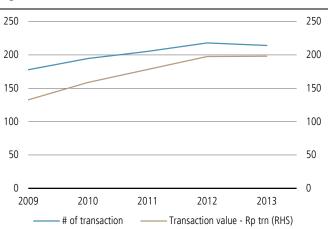


Figure 65: Credit card transaction in Indonesia



Source: AKKI Source: AKKI

How ready are traditional B&M retailers in Indonesia?

Of the five retailers we cover, four have either set up or are considering setting up eCommerce platforms. Ramayana Lestari Sentosa is the only one that appears unprepared for this trend. At this juncture, it is difficult to assess which companies will benefit and those that will not from eCommerce, as this market is in its infancy (only 0.1% of total retail sales).

 Mitra Adiperkasa, the largest high-end retailer, launched planetsports.net in April 2013 as a platform selling sports shoes and sports-related products in cooperation with aCommerce.com. Sales are immaterial; roughly an equivalent of one store, but management has indicated its intention to develop the eCommerce platform.

- Sumber Alfaria, the leading minimarket operator, recently launched alfaonline.com. Again the business is at a very early stage as it only sells selected products and covers limited areas, but we believe that its wide network of stores will help support the eCommerce distribution platform.
- Matahari Department Store, the largest department store operator, appears tp have recognised the opportunities/threats in eCommerce. We believe management has taken steps to prepare for the trend and might unveil its eCommerce strategy in the near future.
- Ace Hardware, the largest home improvement and hardware retailer, is evaluating the online opportunity and may launch an online offering in the near future. The company recently implemented a new SAP system, which might take one year to fully ramp-up.

Downside scenario

Our TvO Hit Rate analysis suggests the traditional B&M retailers are ill-prepared for eCommerce. At this juncture, however, the Indonesian e-commerce market size is still too small to be considered a material threat, while the ramp-up of B&Ms eCommerce platforms might reduce potential disruption. We think the risks are higher for retailers with poor supply-chain management, low brand equity, and high proportion of non-exclusive products.

To analyse the potential threat, we conducted a downside scenario analysis using the following assumptions:

- Our base-case scenario is for Indonesia's online market to reach US\$1.6bn in 2018, based on the assumption of 2% CVR with a US\$60 spend per transaction. This implies a 74% CAGR since 2013, with the proportion of total retail sales growing from 0.1% to 1% in 2018E.
- We apply a 1% cut in our 2018E sales forecast for the retailers, based on our base-case view that online market penetration will grow to 1%.
- Our downside scenario assumes that each company is unable to monetise its eCommerce platform.
- Our downside scenario assumes that there will be no longer brand exclusivity for online distribution.

Based on the above scenario, our sensitivity analysis suggests EPS downside in 2018E (assuming other variables, except COGS and tax, are constant): down 9% for Sumber Alfaria, down 7% for Mitra Adiperkasa, down 5% for Ramayana, down 3% for Ace Hardware, and 2% for Matahari Department Store.

Figure 66: Downside scenario – sensitivity analysis for 2018E numbers

Mitra		Matahari		Ramayana		Ace Hardware			Sumber Alfaria						
P&L (Rp bn)	Base	Bear	Chg	Base	Bear	Chg	Base	Bear	Chg	Base	Bear	Chg	Base	Bear	Chg
Sales	24,217	23,979	-1%	28,851	28,568	-1%	13,315	13,184	-1%	9,780	9,684	-1%	98,186	97,221	-1%
EBIT	1,890	1,773	-6%	4,453	4,356	-2%	689	654	-5%	1,531	1,482	-3%	2,350	2,176	-7%
Net profit	1,159	1,075	-7%	3,744	3,667	-2%	673	642	-5%	1,327	1,288	-3%	1,626	1,480	-9%
EBIT margin	7.8%	7.4%	-0.4%	15.4%	15.2%	-0.2%	5.2%	5.0%	-0.2%	15.7%	15.3%	-0.4%	2.4%	2.2%	-0.2%
Net margin	4.8%	4.5%	-0.3%	13.0%	12.8%	-0.1%	5.1%	4.9%	-0.2%	13.6%	13.3%	-0.3%	1.7%	1.5%	-0.1%

Source: UBS estimates

Appendix

eCommerce timelines

Figure 67: Timeline for China eCommerce

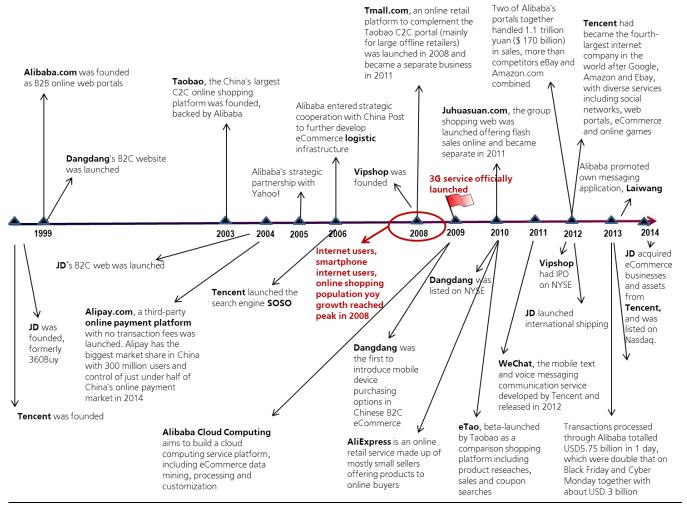


Figure 68: Timeline for Thailand eCommerce

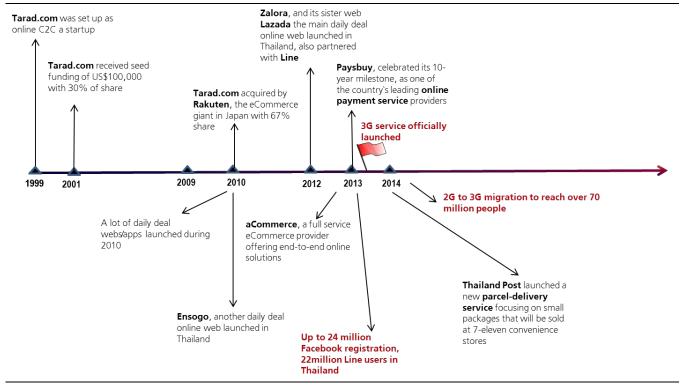


Figure 69: Timeline for Indonesia e-commerce

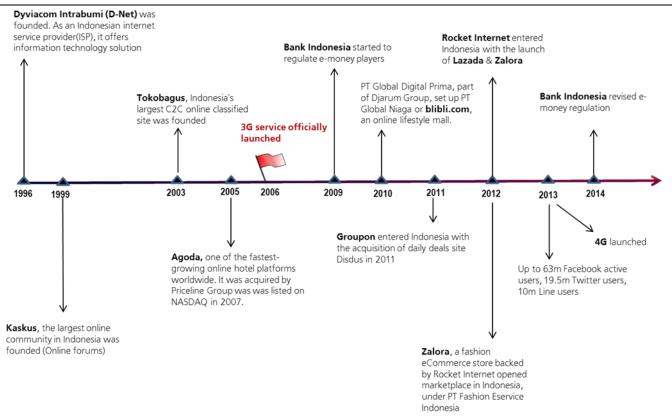


Figure 70: Timeline for Singapore eCommerce

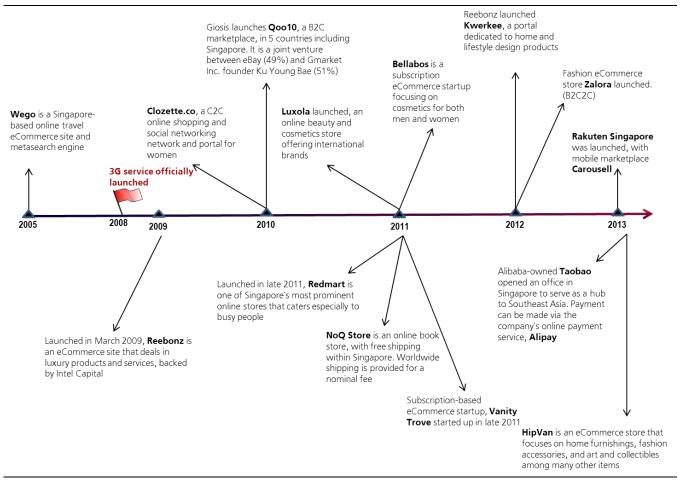


Figure 71: Timeline for Malaysia eCommerce

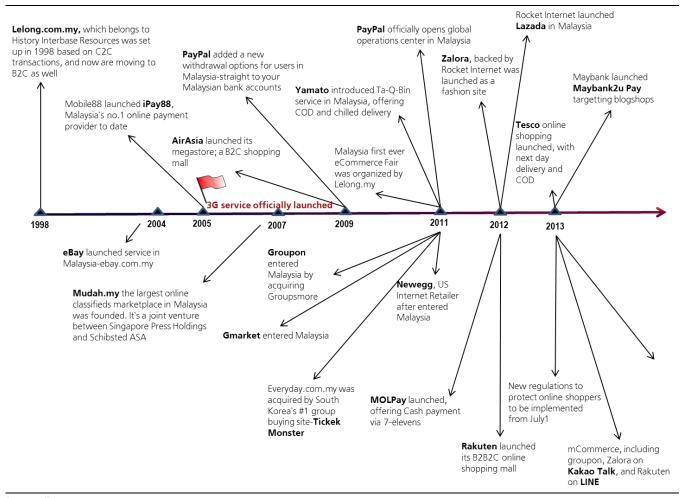


Figure 72: Timeline for Philippine eCommerce

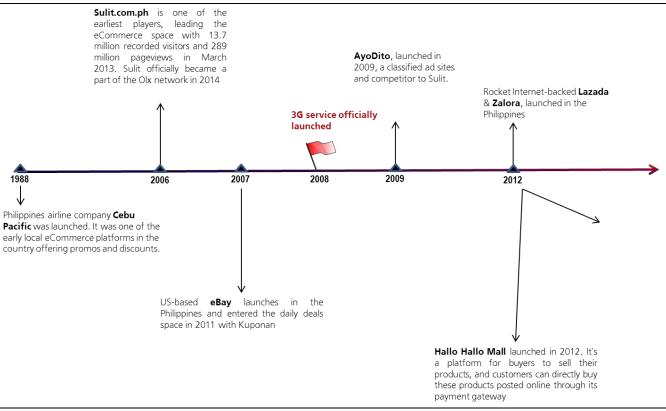


Figure 73: Timeline for Vietnam e-commerce



Top shopping traffic sites

Figure 74: Largest shopping sites in the US by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits*	ex-bounce*
amazon.com	14.4%	21.9%	0:07:17	7.61	31.5%	821	563
ebay.com	10.1%	12.3%	0:09:54	8.37	30.8%	575	398
walmart.com	2.1%	-5.3%	0:06:46	6.96	28.8%	120	86
apple.com	1.4%	-1.0%	0:03:32	3.33	37.5%	77	48
craigslist.org	1.1%	-3.1%	0:02:07	1.55	60.6%	61	24
bestbuy.com	1.1%	-14.8%	0:05:22	5.82	27.3%	60	44
target.com	1.0%	1.5%	0:03:59	4.25	38.5%	56	34
etsy.com	0.9%	-1.6%	0:07:24	10.48	31.5%	52	36
groupon.com	0.9%	2.6%	0:05:20	4.74	36.6%	49	31
homedepot.com	0.9%	14.6%	0:06:04	5.43	28.2%	49	35
newegg.com	0.7%	31.6%	0:05:10	5.18	46.3%	41	22
sears.com	0.6%	0.5%	0:04:57	5.11	39.7%	35	21
aliexpress.com	0.5%	-4.9%	0:05:58	6.61	54.6%	30	14
shoppstop.com	0.5%	9.5%	0:02:48	1.64	66.0%	30	10
overstock.com	0.5%	14.9%	0:05:27	5.17	34.2%	30	20
kohls.com	0.4%	21.9%	0:07:22	9.15	30.2%	25	18
shopathome.com	0.4%	-7.6%	0:02:51	2.02	69.8%	25	7
ticketmaster.com	0.4%	8.7%	0:05:06	5.50	33.2%	24	16
retailmenot.com	0.4%	3.3%	0:02:02	2.29	33.4%	23	16
ikea.com	0.4%	8.3%	0:07:28	13.07	17.2%	20	17
staples.com	0.4%	-9.9%	0:04:33	5.53	37.5%	20	13
shop.nordstrom.com	0.4%	-2.7%	0:05:12	5.76	35.6%	20	13
alibaba.com	0.3%	-6.3%	0:03:39	3.46	53.4%	20	9
macys.com	0.3%	-15.6%	0:03:35	3.48	48.5%	19	10
zappos.com	0.3%	-8.1%	0:04:50	6.03	35.7%	18	12
jcpenney.com	0.3%	-8.9%	0:06:53	8.37	25.7%	17	13
coupons.com	0.3%	-3.9%	0:05:03	3.80	43.7%	17	9
livingsocial.com	0.3%	-3.6%	0:02:39	2.44	54.1%	17	8
zulily.com	0.3%	5.2%	0:07:31	9.61	30.1%	16	11
slickdeals.net	0.3%	-11.9%	0:04:53	2.49	47.3%	16	8
6pm.com	0.3%	23.0%	0:07:18	11.46	28.2%	16	11
dealsea.com	0.3%	-1.7%	0:02:43	1.46	70.6%	15	4
shopping.yahoo.com	0.3%	-3.5%	0:00:46	1.45	79.9%	14	3
tigerdirect.com	0.2%	-23.9%	0:04:31	4.54	40.4%	14	8
rakuten.com	0.2%	37.3%	0:01:45	1.94	65.4%	14	5
satrk.com	0.2%	-3.8%	0:01:33	1.05	85.9%	14	2
toysrus.com	0.2%	1.3%	0:06:52	7.16	27.8%	13	9
ebay.co.uk	0.2%	-1.8%	0:02:58	3.54	53.3%	13	6

Figure 75: Largest shopping sites in China by monthly traffic

		Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	on site	views	rate	traffic hits*	ex-bounce*
Aliexpress.com	39.6%		9.46	44.94%	286.50	157.75
Taobao.com	21.6%	0:16:27	14.46	16.04%	156.11	131.07
Alibaba.com	15.9%	0:05:29	5.06	47.67%	115.00	60.18
Tmall.com	9.0%	0:10:53	6.18	31.37%	65.00	44.61
JD.com	3.8%	0:09:30	12.12	13.26%	27.70	24.03
Amazon.cn	2.2%	0:06:20	7.16	26.61%	16.00	11.74
Yhd.com	1.0%	0:08:07	9.98	20.96%	7.00	5.53
ju.taobao.com	0.7%	0:06:22	4.86	31.80%	5.30	3.61
Etao.com	0.6%	0:05:52	4.26	28.85%	4.60	3.27
Yixun.com	0.6%	0:05:47	7.01	30.17%	4.40	3.07
Ganji.com	0.5%	0:08:45	9.05	27.02%	3.80	2.77
Dangdang.com	0.5%	0:06:19	6.92	24.19%	3.70	2.80
Vmall.com	0.4%	0:06:12	4.95	29.26%	2.70	1.91
Suning.com	0.3%	0:05:29	6.66	19.59%	2.20	1.77
Wanggou.com	0.2%	0:04:41	4.24	43.28%	1.80	1.02
Meituan.com	0.2%	0:07:56	7.74	17.96%	1.80	1.48
51Fanli.com	0.2%	0:06:28	5.95	21.76%	1.50	1.17
Liba.com	0.2%	0:11:10	7.74	38.26%	1.40	0.86
Vancl.com	0.2%	0:06:20	10.9	20.25%	1.20	0.96
Nuomil.com	0.2%	0:06:14	6.51	29.07%	1.20	0.85
zhe800.com	0.2%	0:07:20	4.79	17.29%	1.10	0.91
jumei.com	0.1%	0:05:34	6.29	36.56%	1.00	0.63
Gome.com.cn	0.1%	0:04:50	5.27	36.01%	1.00	0.64
meilishuo.com	0.1%	0:05:57	8.48	44.30%	0.97	0.54
tuan.baidu.com	0.1%	0:04:05	4.3	34.11%	0.89	0.59
lashou.com	0.1%	0:05:45	6.47	29.73%	0.88	0.62
Tuan800.com	0.1%	0:03:58	4.48	42.42%	0.82	0.47
yougou.com	0.1%	0:06:19	9.5	25.47%	0.75	0.56
Mogujie.com	0.1%	0:09:08	12.22	22.08%	0.73	0.57
Hc360.com	0.1%	0:03:10	2.61	55.92%	0.72	0.32
paipai.com	0.1%	0:05:03	3.83	35.41%	0.66	0.43
Yohobuy.com	0.1%	0:07:35	10.02	23.44%	0.65	0.50
Egou.com	0.1%	0:05:26	8.89	29.87%	0.57	0.40
030buy.com	0.1%	0:08:03	8.43	21.71%	0.56	0.44
kongfz.com	0.1%	0:07:26	8.51	41.69%	0.56	0.33
Mizhe.com	0.1%	0:07:45	7.03	18.51%	0.49	0.40
okbuy.com	0.1%	0:06:36	10.69	13.87%	0.40	0.34
jiuxian.com	0.0%	0:03:59	4.68	36.97%	0.31	0.20
yintai.com	0.0%	0:05:54	8.37	27.27%	0.31	0.22
vipshop.com	0.0%	0:23:13	11.03	35.08%	0.18	0.12

Figure 76: Largest shopping sites in Thailand by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits*	ex-bounce*
weloveshopping.com	7.0%	-0.8%	0:03:44	3.44	50.1%	6.948	3.470
tarad.com	4.8%	-10.6%	0:02:31	2.69	66.7%	5.200	1.732
lazada.co.th	4.5%	17.6%	0:05:20	6.18	46.2%	4.464	2.402
pantipmarket.com	4.0%	4.4%	0:03:13	3.46	61.7%	3.976	1.523
ebay.com	3.4%	21.5%	0:08:22	7.76	42.9%	3.382	1.932
hitech.sanook.com	2.8%	21.7%	0:01:12	2.98	69.1%	2.813	0.869
taladrod.com	2.5%	2.8%	0:15:14	13.81	7.1%	2.464	2.289
amazon.com	2.1%	17.1%	0:04:31	4.92	56.3%	2.088	0.912
rimnam.com	1.9%	32.6%	0:02:23	2.20	59.5%	1.937	0.784
taradplaza.com	1.7%	2.0%	0:02:38	2.06	62.7%	1.648	0.614
apple.com	1.5%	4.1%	0:03:22	3.17	38.3%	1.476	0.910
Ensogo.com	1.4%		0:06:29	4.53	38.6%	1.400	0.859
aliexpress.com	1.3%	-40.9%	0:04:22	4.14	59.1%	1.291	0.528
Zalora.co.th	1.2%		0:06:50	8.42	34.4%	1.200	0.788
thaisecondhand.com	1.1%	4.1%	0:02:33	3.13	66.8%	1.140	0.378
cdiscount.co.th	1.1%	61.3%	00:02:17	2.81	63.6%	1.059	0.385
bitsuse.com	0.9%	14.1%	0:07:20	13.52	9.4%	0.934	0.846
market.onlineoops.com	0.7%	1.3%	0:01:25	2.84	76.1%	0.692	0.165
ananmoney.com	0.6%	10.3%	0:01:58	1.62	73.5%	0.630	0.167
thaiticketmajor.com	0.6%	8.7%	0:03:49	7.26	49.0%	0.615	0.314
mocyc.com	0.6%	1.9%	0:04:46	3.88	54.3%	0.599	0.274
alibaba.com	0.6%	0.1%	0:04:17	3.78	56.5%	0.557	0.242
pramool.com	0.5%	2.5%	0:04:37	6.65	65.8%	0.523	0.179
dealfish.co.th	0.5%	-94.0%	0:07:20	9.06	43.0%	0.517	0.295
jib.co.th	0.5%	5.4%	0:05:55	9.44	27.4%	0.507	0.368
shopat7.com	0.5%	-1.3%	0:04:21	5.35	49.0%	0.506	0.258
be2hand.com	0.5%	1.4%	0:01:08	1.95	74.7%	0.505	0.128
plazathai.com	0.5%	-8.1%	0:01:57	2.47	58.4%	0.504	0.209
tescolotus.com	0.5%		00:04:12	5.91	35.8%	0.490	0.314
upnung.com	0.5%	10.7%	0:03:09	3.96	46.5%	0.468	0.251
jamsai.com	0.5%	17.9%	0:07:06	8.00	29.1%	0.467	0.331
advice.co.th	0.5%	8.8%	0:06:13	5.06	24.3%	0.466	0.353
sport.truelife.com	0.5%	-29.9%	0:01:36	1.35	79.0%	0.461	0.097
officemate.co.th	0.4%	9.5%	0:05:25	5.72	48.6%	0.398	0.205
velamall.com	0.4%	7.4%	0:01:17	1.91	71.7%	0.395	0.112
ranthong.com	0.4%	10.9%	0:01:22	1.74	81.2%	0.385	0.073
ebay.co.uk	0.4%	32.4%	0:05:00	4.85	53.0%	0.353	0.166
boransat.net	0.3%	11.9%	0:04:46	4.30	47.3%	0.340	0.179
ikea.com	0.3%	19.4%	0:06:16	10.26	38.1%	0.337	0.208
taradpra.com	0.3%	-3.9%	0:04:05	3.88	58.0%	0.330	0.139

Figure 77: Largest shopping sites in Indonesia by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits*	ex-bounce*
tokobagus.com	16.6%	-6.2%	0:14:06	19.65	23.6%	17.944	13.707
berniaga.com	10.7%		0:09:02	11.75	37.5%	13.100	8.194
lazada.co.id	6.2%	13.8%	0:06:59	6.44	43.9%	6.639	3.725
aliexpress.com	3.7%	17.7%	0:02:02	1.76	72.8%	3.957	1.075
bhinneka.com	3.0%	-2.5%	0:04:53	4.58	47.1%	3.279	1.736
amazon.com	2.8%	-1.5%	0:02:32	2.39	67.0%	3.064	1.010
ebay.com	2.1%	17.7%	0:05:31	4.99	53.8%	2.262	1.046
zalora.co.id	1.8%	11.8%	0:09:22	10.11	28.2%	1.941	1.393
tabloidpulsa.co.id	1.7%	-2.4%	0:07:00	5.91	41.5%	1.851	1.083
indonetwork.co.id	1.4%	3.0%	0:03:51	2.80	56.2%	1.564	0.686
elevenia.co.id	1.4%		0:04:51	5.68	22.5%	1.534	1.189
olx.co.id	1.0%	78.5%	0:01:50	1.70	71.5%	1.129	0.322
blibli.com	1.0%	-3.7%	0:04:03	4.11	54.9%	1.054	0.475
rumahdijual.com	0.9%	4.1%	0:08:50	6.83	35.5%	0.927	0.598
apple.com	0.8%	7.6%	0:03:11	2.81	46.1%	0.887	0.479
sbobet.in	0.8%		0:00:32	1.08	92.4%	0.841	0.064
rumah123.com	0.7%	15.4%	0:06:05	6.96	52.2%	0.789	0.377
alibaba.com	0.7%	-9.7%	0:03:04	2.54	62.6%	0.747	0.279
pelapak.com	0.7%	10.8%	0:01:16	1.28	78.7%	0.721	0.154
jakartanotebook.com	0.6%	16.3%	0:07:00	6.31	36.3%	0.692	0.441
qoo10.co.id	0.6%	-2.4%	0:05:24	2.55	50.3%	0.631	0.314
dinomarket.com	0.6%	1.8%	0:03:32	4.82	63.8%	0.614	0.222
tokoone.com	0.6%	16.6%	0:02:10	2.18	71.9%	0.603	0.169
rajahape.com	0.5%	-16.6%	0:02:05	1.88	69.3%	0.575	0.176
berrybenka.com	0.5%	29.8%	0:07:52	14.06	40.5%	0.544	0.324
situshp.com	0.5%	2.4%	0:05:51	5.57	50.5%	0.537	0.266
ads-id.com	0.4%	96.2%	0:07:22	6.76	53.6%	0.403	0.187
gadgetherald.com	0.4%	77.4%	0:00:49	1.16	88.4%	0.399	0.046
enterkomputer.com	0.4%	49.8%	0:04:25	2.23	35.6%	0.394	0.254
plasabusana.com	0.4%	37.0%	0:06:40	5.16	37.7%	0.381	0.237
rakuten.co.id	0.3%	14.3%	0:04:58	5.00	46.3%	0.372	0.200
bukukita.com	0.3%	3.6%	0:02:31	2.92	71.8%	0.330	0.093
ebay.co.uk	0.3%	10.7%	0:03:20	3.59	60.9%	0.320	0.125
femina.co.id	0.3%	12.8%	0:01:40	1.80	82.3%	0.313	0.055
deherba.com	0.3%	16.0%	0:01:34	1.31	82.8%	0.295	0.051
sonymobile.com	0.3%	10.8%	0:05:12	5.34	40.0%	0.286	0.171
admngronline.com	0.3%	446.3%	0:02:10	1.22	70.2%	0.282	0.084
investasionline.net	0.3%	-9.7%	0:01:53	1.43	73.1%	0.278	0.075
belbuk.com	0.3%	25.9%	0:02:41	3.41	64.5%	0.278	0.098
bekas.com	0.2%	3.1%	0:03:08	3.87	55.4%	0.258	0.115

Figure 78: Largest shopping sites in Philippines by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	Vvews	rate	traffic hits*	ex-bounce*
sulit.com.ph	11.6%	-37.6%	0:11:23	17.07	26.7%	7.980	5.852
olx.ph	8.4%		0:12:28	20.18	22.3%	5.786	4.497
amazon.com	6.6%	11.6%	0:04:03	3.53	60.9%	4.522	1.768
lazada.com.ph	5.8%	23.8%	0:06:37	7.17	44.3%	4.000	2.228
ebay.com	4.1%	3.3%	0:04:28	4.15	55.7%	2.815	1.246
metrodeal.com	3.3%	27.7%	0:05:42	3.83	48.2%	2.251	1.165
aliexpress.com	3.2%	-5.0%	0:02:09	1.96	72.4%	2.242	0.619
zalora.com.ph	2.2%	16.7%	0:07:59	9.52	36.1%	1.533	0.979
apple.com	1.8%	7.6%	0:03:40	2.97	42.2%	1.268	0.733
ensogo.com.ph	1.8%	17.3%	0:06:21	4.86	37.7%	1.224	0.762
tipidpc.com	1.7%	7.1%	0:09:11	7.56	35.5%	1.166	0.753
alibaba.com	1.6%	-8.8%	0:03:49	2.66	58.2%	1.104	0.462
ebay.ph	1.5%	-0.5%	0:11:04	10.06	25.6%	1.036	0.770
cdrking.com	0.8%	4.1%	0:09:04	8.65	20.4%	0.565	0.450
naruget.net	0.7%	12880.5%	0:08:00	2.83	34.6%	0.506	0.331
cmkcellphones.com	0.7%	-0.5%	0:05:22	3.85	50.3%	0.477	0.237
colenak.eu	0.7%	5.3%	0:03:36	2.26	35.4%	0.455	0.294
priceme.com.ph	0.6%	22.0%	0:02:39	2.68	57.9%	0.393	0.165
tipidcp.com	0.5%	-2.6%	0:11:51	10.07	24.0%	0.370	0.282
unbox.ph	0.4%	2.1%	0:03:48	3.55	61.8%	0.302	0.115
dealgrocer.com	0.4%	71.6%	0:04:30	3.34	46.5%	0.271	0.145
ebay.co.uk	0.4%	18.8%	0:03:31	3.27	61.5%	0.266	0.102
phonearena.com	0.4%	-2.1%	0:03:22	3.32	57.6%	0.256	0.109
villman.com	0.3%	8.3%	0:06:04	5.41	40.3%	0.238	0.142
amazon.co.uk	0.3%	-7.8%	0:02:18	2.56	67.9%	0.227	0.073
etsy.com	0.3%	-11.9%	0:05:40	5.03	49.8%	0.221	0.111
admngronline.com	0.3%	134.2%	0:02:18	1.22	70.6%	0.218	0.064
etramping.com	0.3%	18197.6%	0:01:24	1.37	82.4%	0.201	0.035
bpicards.com	0.3%	17.9%	0:03:47	3.82	40.5%	0.187	0.111
pcx.com.ph	0.3%	3.9%	0:08:19	7.71	20.8%	0.179	0.142
barbie.com	0.3%	6.5%	0:12:54	7.06	17.8%	0.178	0.146
loola.com	0.2%	35.9%	0:13:49	4.86	20.9%	0.170	0.135
levidia.ch	0.2%	12.4%	0:06:00	7.66	14.5%	0.166	0.142
sonymobile.com	0.2%	21.2%	0:05:00	4.80	36.8%	0.165	0.104
lazada.com	0.2%	25.8%	0:00:56	0.78	88.3%	0.165	0.019
hallohallomall.com	0.2%	-2.5%	0:16:10	38.84	23.9%	0.163	0.124
nike.com	0.2%	-1.3%	0:03:47	3.40	39.0%	0.154	0.094
openpinoy.com	0.2%	-7.3%	0:07:01	4.91	8.5%	0.148	0.136
pinoytechnoguide.com	0.2%	7.9%	0:01:55	1.44	77.5%	0.145	0.033
walmart.com	0.2%	29.6%	0:04:52	5.33	57.7%	0.133	0.056

Figure 79: Largest shopping sites in Singapore by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits*	ex-bounce*
amazon.com	7.8%	29.8%	0:05:34	5.83	46.4%	3.657	1.960
qoo10.sg	6.7%	3.3%	0:05:09	2.69	48.0%	3.141	1.634
ebay.com	4.6%	7.5%	0:06:12	6.21	42.6%	2.189	1.256
ebay.com.sg	2.9%	0.9%	0:08:29	8.52	23.3%	1.377	1.057
enets.sg	2.6%	16.0%	0:03:41	3.12	10.0%	1.202	1.081
apple.com	1.8%	0.6%	0:02:52	3.02	36.1%	0.846	0.541
aliexpress.com	1.7%	10.0%	0:09:05	9.60	36.3%	0.789	0.502
zalora.sg	1.6%	3.6%	0:07:58	9.72	24.9%	0.775	0.582
alibaba.com	1.4%	-1.2%	0:04:15	3.53	53.5%	0.680	0.316
courts.com.sg	1.1%	13.2%	0:05:32	6.45	26.9%	0.522	0.381
singtelshop.com	1.1%	-4.8%	0:06:43	9.68	18.2%	0.510	0.417
asos.com	1.0%	5.3%	0:10:09	14.51	20.0%	0.486	0.389
taobao.com	0.9%	15.4%	0:02:50	1.45	69.9%	0.426	0.128
stclassifieds.sg	0.8%	5.1%	0:05:31	5.74	43.2%	0.398	0.226
ikea.com	0.8%	2.6%	0:07:10	11.04	26.3%	0.371	0.273
alldealsasia.com	0.6%	20.9%	0:04:49	3.77	46.8%	0.302	0.161
rakuten.com.sg	0.6%	38.4%	0:04:00	6.76	41.8%	0.294	0.171
olx.com.sg	0.5%	-12.6%	0:02:27	2.88	55.7%	0.252	0.112
mustafa.com.sg	0.5%	12.4%	0:01:25	2.01	68.9%	0.251	0.078
etsy.com	0.5%	2.7%	0:06:19	11.81	39.0%	0.238	0.145
ebay.co.uk	0.5%	1.4%	0:04:24	4.29	49.9%	0.229	0.115
lovebonito.com	0.5%	-3.3%	0:04:12	7.51	15.4%	0.228	0.193
amazon.co.uk	0.5%	-1.6%	0:02:35	3.36	56.0%	0.226	0.100
reebonz.com.sg	0.5%	25.4%	0:07:27	7.87	16.9%	0.225	0.187
greatsingaporevoucher	0.5%	-12.9%	0:02:09	1.12	71.0%	0.223	0.065
vpost.com.sg	0.5%	29.0%	0:00:00	4.86	29.3%	0.221	0.156
pricepanda.com.sg	0.5%	0.8%	0:02:31	2.79	53.2%	0.217	0.101
mudah.my	0.4%	8.0%	0:10:42	17.65	18.8%	0.211	0.171
whymobile.com	0.3%	9.0%	0:03:35	3.54	33.3%	0.143	0.095
toggle.sg	0.3%	21.0%	0:06:42	5.22	14.8%	0.136	0.116
greatdeals.com.sg	0.3%	17.8%	0:01:34	1.89	69.3%	0.132	0.040
shop.lenovo.com	0.3%	194.5%	0:03:17	3.21	36.6%	0.131	0.083
flipkart.com	0.3%	21.1%	0:05:52	6.63	30.9%	0.129	0.089
dx.com	0.3%	39.8%	0:07:26	7.49	31.3%	0.129	0.088
axs.com.sq	0.3%	13.1%	0:03:35	2.85	18.5%	0.125	0.102
singaporebrides.com	0.3%	17.4%	0:04:51	3.89	57.3%	0.121	0.051
phonearena.com	0.2%	-4.1%	0:02:48	3.27	59.6%	0.118	0.047
ilovedeals.sg	0.2%	31.8%	0:03:59	3.00	47.3%	0.116	0.061
mobilesquare.com.sg	0.2%	-0.8%	0:02:43	3.58	23.5%	0.112	0.086
comgateway.com	0.2%	21.4%	0:05:07	5.40	29.7%	0.102	0.072

Figure 80: Largest shopping sites in Malaysia by monthly traffic (Mar 2014)

		MoM	Avg time	Avg page	Avg bounce	Total website	Traffic hits
Domain	Share	change	on site	views	rate	traffic hits*	ex-bounce*
mudah.my	17.4%	-8.2%	0:13:46	20.61	12.3%	9.221	8.085
lelong.com.my	6.5%	-0.8%	0:07:31	5.13	39.9%	3.453	2.074
lazada.com.my	4.8%	17.7%	0:07:39	8.32	36.2%	2.552	1.629
amazon.com	4.0%	19.4%	0:03:11	3.04	61.5%	2.110	0.812
ebay.com	3.2%	-0.3%	0:05:25	5.71	48.4%	1.688	0.871
zalora.com.my	2.1%	3.1%	0:08:28	10.10	28.4%	1.118	0.800
alibaba.com	1.7%	-4.7%	0:04:05	3.13	54.9%	0.902	0.406
mobile88.com	1.4%	8.3%	0:04:30	3.99	18.2%	0.755	0.617
aliexpress.com	1.4%	-9.6%	0:05:37	5.86	53.2%	0.742	0.347
apple.com	1.3%	2.2%	0:03:31	3.20	37.8%	0.689	0.428
ebay.com.my	1.3%	9.9%	0:08:38	7.86	28.6%	0.685	0.489
livingsocial.com	1.1%	23.3%	0:07:10	4.78	34.7%	0.573	0.374
taobao.com	1.0%	9.8%	0:03:05	1.47	69.5%	0.534	0.163
ipmart.com.my	0.9%	22.5%	0:05:56	5.64	40.5%	0.466	0.277
fuh.my	0.8%	5.7%	0:01:27	1.43	77.4%	0.405	0.091
kerjakosongonline	0.8%	-2.7%	0:04:21	3.34	47.6%	0.401	0.210
rakuten.com.my	0.7%	12.5%	0:04:01	5.35	47.7%	0.358	0.188
olx.com.my	0.7%	20.2%	0:01:51	1.86	66.2%	0.352	0.119
penanglang.my	0.6%	35.0%	0:01:26	1.34	79.3%	0.333	0.069
penulisan2u.my	0.6%	0.9%	0:13:50	5.95	30.5%	0.295	0.205
ebay.co.uk	0.5%	-0.5%	0:04:24	4.91	52.2%	0.290	0.139
ikea.com	0.5%	-3.8%	0:08:51	13.68	27.8%	0.265	0.192
pricepanda.com.my	0.5%	2.1%	0:02:51	3.17	51.8%	0.263	0.127
mcdonalds.com.my	0.5%	-36.3%	0:03:05	2.93	49.9%	0.244	0.122
superbuy.my	0.4%	0.4%	0:04:05	4.16	40.8%	0.238	0.141
dhfun.cn	0.4%	-2.4%	0:06:54	5.33	25.2%	0.227	0.170
qoo10.my	0.4%	1.7%	0:03:32	2.23	58.7%	0.220	0.091
amazon.co.uk	0.4%	-3.0%	0:02:19	3.09	64.8%	0.199	0.070
phonearena.com	0.4%	-5.6%	0:03:25	3.62	55.1%	0.187	0.084
etsy.com	0.3%	6.9%	0:05:17	7.82	45.2%	0.182	0.100
mbocinemas.com	0.3%	-30.4%	0:05:27	6.47	20.9%	0.175	0.138
tesco.com.my	0.3%	11.4%	0:03:31	4.69	24.1%	0.172	0.130
zerodm.net	0.3%	-7.6%	0:07:36	4.01	32.2%	0.171	0.116
mphonline.com	0.3%	32.5%	0:05:57	7.20	36.2%	0.163	0.104
hulala.com.my	0.3%	22.6%	0:05:21	6.80	47.9%	0.159	0.083
milkadeal.com	0.3%	4.6%	0:04:12	3.04	52.9%	0.154	0.073
groupme.my	0.3%	22.3%	0:02:23	2.36	60.4%	0.154	0.061
poplook.com	0.3%	54.0%	0:07:24	7.88	13.6%	0.149	0.129
admngronline.com	0.3%	204.0%	0:02:49	1.30	65.2%	0.148	0.052
sonymobile.com	0.3%	0.7%	0:04:51	5.54	34.6%	0.145	0.095

Example of Thai taxation on goods

Import duty and taxes are due when importing goods into Thailand whether by a private individual or a commercial entity. The valuation method is CIF (Cost, Insurance and Freight), which means that the import duty and taxes payable are calculated on the complete shipping value, which includes the cost of the imported goods, the cost of freight, and the cost of insurance. Generally, these duties levied on any imported goods before releasing them from the custody of Customs; except for goods receiving specific privilege that qualifies according to the law, whereby their duties are reduced or waived.

There are a number of Free Tarde Agreements currently in place;

- AFTA: ASEAN Free Trade Area (10 members: Brunei, Indonesia, Malaysia, Philippines, Singapore, Thai, Cambodia, Loa, Myanmar, and Vietnam)
- ACFTA: ASEAN-China Free Trade Agreement
- AJCEP: ASEAN-Japan Comprehensive Economic Partnership
- AKFTA: ASEAN Republic of Korea Free Trade Agreement
- AIFTA: ASEAN INDIA Free Trade Agreement
- AANZFTA: ASEAN Australia New Zealand Free Trade Area
- TIFTA: Thailand India Free Trade Agreement
- TAFTA: Thailand Australia Free Trade Agreement
- TNZCEP: Thailand New Zealand Closer Economic Partnership
- JTEPA: Japan-Thailand Economic Partnership Agreement

Company "A" imports a U.S. manufactured good into Thailand. The CIF value of the imported goods and applicable taxes and duties are as follows:

- CIF value of imports = \$100
- Import duty = 60 %
- Special duty = 20 %
- Interior tax = 10 %
- Excise tax = 30 %
- VAT = 7 %

Calculation Method:

- 1. Import duty = (CIF value * rate of import duty) = (\$100 * 60%) = \$60
- 2. Special Duty = Rate of special duty * Import duty = 20% * \$60 = \$12
- 3. Excise tax = (CIF value + import duty + Special duty) * {Rate of excise tax/1-(1.1 * Rate of excise tax)} = \$5.34
- 4. Interior tax = Excise tax * Rate of interior tax = \$0.54
- 5. Base VAT = (CIF value+ Import duty+ Special duty+ Excise tax + Interior tax) * Rate of VAT = (100 + 60 + 12 + 5.34 + 0.54) *0.07 = \$12.46

Total taxes and duties = 1 + 2 + 3 + 4 + 5 = \$90.34

So the \$100 product (CIF) now costs \$190.34 before any local retail mark-up.

Statement of Risk

We believe investing in emerging markets, including ASEAN, is a high-risk undertaking. Markets are volatile, and the mistiming of inflection points can seriously damage your wealth. A cocktail of micro and macro trends, such as consumer spending, FDI, tourism, exports, fiscal deficits, FX, and government and household debt levels, are extremely difficult to forecast, and while we endeavour to analyse and forecast such trends, we are often wrong.

Required Disclosures

This report has been prepared by UBS Securities (Thailand) Ltd., an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

For information on the ways in which UBS manages conflicts and maintains independence of its research product; historical performance information; and certain additional disclosures concerning UBS research recommendations, please visit www.ubs.com/disclosures. The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission.

Analyst Certification: Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers and were prepared in an independent manner, including with respect to UBS, and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

UBS Investment Research: Global Equity Rating Definitions

UBS 12-Month Rating	Definition	Coverage ¹	IB Services ²
Buy	FSR is > 6% above the MRA.	47%	33%
Neutral	FSR is between -6% and 6% of the MRA.	42%	34%
Sell	FSR is > 6% below the MRA.	11%	23%
UBS Short-Term Rating	Definition	Coverage ³	IB Services ⁴
	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%

Source: UBS. Rating allocations are as of 31 March 2014.

1:Percentage of companies under coverage globally within the 12-month rating category. 2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months. 3:Percentage of companies under coverage globally within the Short-Term rating category. 4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

KEY DEFINITIONS: Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected nearterm (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

EXCEPTIONS AND SPECIAL CASES: UK and European Investment Fund ratings and definitions are: Buy: Positive on factors such as structure, management, performance record, discount; **Neutral:** Neutral on factors such as structure, management, performance record, discount; **Sell:** Negative on factors such as structure, management, performance record, discount. **Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with the NASD and NYSE and therefore are not subject to the restrictions contained in the NASD and NYSE rules on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

UBS Securities (Thailand) Ltd.: Raymond Maguire; Youssef Abboud. UBS Securities LLC: Jason DeRise, CFA; Eric J. Sheridan. PT UBS Securities Indonesia: Adrian Joezer; Joshua Tanja, CFA. UBS Securities Malaysia Sdn Bhd.: Chris Oh, CFA. UBS Securities Pte. Ltd.: Chirag Saglani. UBS Securities Philippines Inc.: Jody Santiago. UBS AG Hong Kong Branch: Erica Poon Werkun, CFA.

Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Ace Hardware Indonesia	ACES.JK	Buy	N/A	Rp855	12 Jun 2014
Advanced Info Services	ADVANC.BK	Buy	N/A	Bt227.00	12 Jun 2014
Big C Supercenter	BIGC.BK	Sell	N/A	Bt206.00	12 Jun 2014
Deutsche Post-DHL	DPWGn.DE	Neutral	N/A	€26.65	12 Jun 2014
eBay ^{6a, 16}	EBAY.O	Buy	N/A	US\$48.56	12 Jun 2014
Facebook ¹⁶	FB.O	Buy	N/A	US\$64.29	12 Jun 2014
Global Logistic Properties	GLPL.SI	Buy	N/A	S\$2.68	12 Jun 2014
Google Inc ^{2, 4, 6a, 6b, 6c, 7, 16, 22}	GOOG.O	Buy	N/A	US\$551.35	12 Jun 2014
M1 Limited	MONE.SI	Buy	N/A	S\$3.57	12 Jun 2014
Mapletree Logistics Trust	MAPL.SI	Buy	N/A	S\$1.16	12 Jun 2014
Matahari Department Store	LPPF.JK	Buy	N/A	Rp13,750	12 Jun 2014
Maxis Berhad	MXSC.KL	Buy	N/A	RM6.75	12 Jun 2014
Mitra Adiperkasa Tbk, PT ⁵	MAPI.JK	Neutral	N/A	Rp5,400	12 Jun 2014
Naver Corp	035420.KS	Buy	N/A	Won795,000	12 Jun 2014
Robinson Department Store	ROBINS.BK	Sell	N/A	Bt58.50	12 Jun 2014
Robinsons Retail Holdings ^{2, 4}	RRHI.PS	Buy	N/A	P67.60	11 Jun 2014
Singapore Post	SPOS.SI	Buy	N/A	S\$1.68	12 Jun 2014
Singapore Telecom ¹²	STEL.SI	Buy	N/A	\$\$3.86	12 Jun 2014
SM Investments Corp. ^{2, 4}	SM.PS	Buy	N/A	P782.00	11 Jun 2014
StarHub	STAR.SI	Buy	N/A	S\$4.26	12 Jun 2014
Sumber Alfaria Trijaya	AMRT.JK	Neutral	N/A	Rp520	12 Jun 2014
Total Access	DTAC.BK	Neutral	N/A	Bt113.00	12 Jun 2014
XL Axiata	EXCL.JK	Buy	N/A	Rp5,250	12 Jun 2014

Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

- 2. UBS AG, its affiliates or subsidiaries has acted as manager/co-manager in the underwriting or placement of securities of this company/entity or one of its affiliates within the past 12 months.
- 4. Within the past 12 months, UBS AG, its affiliates or subsidiaries has received compensation for investment banking services from this company/entity.
- 5. UBS AG, its affiliates or subsidiaries expect to receive or intend to seek compensation for investment banking services from this company/entity within the next three months.
- 6a. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and investment banking services are being, or have been, provided.
- 6b. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and non-investment banking securities-related services are being, or have been, provided.
- 6c. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and non-securities services are being, or have been, provided.
- 7. Within the past 12 months, UBS Securities LLC has received compensation for products and services other than investment banking services from this company/entity.
- 12. An employee of UBS AG is an officer, director, or advisory board member of this company.
- 16. UBS Securities LLC makes a market in the securities and/or ADRs of this company.

22. UBS AG, its affiliates or subsidiaries held other significant financial interests in this company/entity as of last month's end (or the prior month's end if this report is dated less than 10 working days after the most recent month's end).

For a complete set of disclosure statements associated with the companies discussed in this report, including information on valuation and risk, please contact UBS Securities LLC, 1285 Avenue of Americas, New York, NY 10019, USA, Attention: Publishing Administration.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

Global Disclaimer

This document has been prepared by UBS Securities (Thailand) Ltd., an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject UBS to any registration or licensing requirement within such jurisdiction. It is published solely for information purposes; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in this document ('the Information'), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any opinions expressed in this document may change without notice and may differ or be contrary to opinions expressed by other business areas or groups of UBS. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party.

Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. Investments involve risks, and investors should exercise prudence and their own judgement in making their investment decisions. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors. Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries. Clients should contact their local sales representative.

The value of any investment or income may go down as well as up, and investors may not get back the full amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the Information.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

Research will initiate, update and cease coverage solely at the discretion of UBS Investment Bank Research Management. The analysis contained in this document is based on numerous assumptions. Different assumptions could result in materially different results. The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this document is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS Investment Bank as a whole, of which investment banking, sales and trading are a part.

For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms in the UK) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

United Kingdom and the rest of Europe: Except as otherwise specified herein, this material is distributed by UBS Limited to persons who are eligible counterparties or professional clients. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

France: Prepared by UBS Limited and distributed by UBS Limited and UBS Securities France S.A. UBS Securities France S.A. is regulated by the ACP (Autorité de Contrôle Prudentiel) and the Autorité des Marchés Financiers (AMF). Where an analyst of UBS Securities France S.A. has contributed to this document, the document is also deemed to have been prepared by UBS Securities France S.A. Germany: Prepared by UBS Limited and distributed by UBS Limited and UBS Deutschland AG. UBS Deutschland AG is regulated by the Bundesanstalt fur Finanzdienstleistungsaufsicht (BaFin). Spain: Prepared by UBS Limited and distributed by UBS Limited and UBS Securities España SV, SA. UBS Securities España SV, SA is regulated by the Comisión Nacional del Mercado de Valores (CNMV). Turkey: Distributed by UBS Limited. No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey. UBS AG is not licensed by the Turkish Capital Market Board under the provisions of the Capital Market Law (Law No. 6362). Accordingly, neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the Capital Market Board. However, according to article 15 (d) (ii) of the Decree No. 32, there is no restriction on the purchase or sale of the securities abroad by residents of the Republic of Turkey. **Poland:** Distributed by UBS Limited (spolka z ograniczona odpowiedzialnoscia) Oddział w Polsce. **Russia:** Prepared and distributed by UBS Securities CJSC. **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. **Italy:** Prepared by UBS Limited and distributed by UBS Limited and UBS Italia Sim S.p.A. UBS Italia Sim S.p.A. is regulated by the Bank of Italy and by the Commissione Nazionale per le Società e la Borsa (CONSOB). Where an analyst of UBS Italia Sim S.p.A. has contributed to this document, the document is also deemed to have been prepared by UBS Italia Sim S.p.A. South Africa: Distributed by UBS South Africa (Pty) Limited, an authorised user of the JSE and an authorised Financial Services Provider. Israel: This material is distributed by UBS Limited. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. UBS Securities Israel Ltd is a licensed Investment Marketer that is supervised by the Israel Securities Authority (ISA). UBS Limited and its affiliates incorporated outside Israel are not licensed under the Israeli Advisory Law. This Material is being issued only to and/or is directed only at persons who are Qualified Investors within the meaning of the Israeli Advisory Law, and this material must not be relied on or acted upon by any other persons. **Saudi Arabia:** This document has been issued by UBS AG (and/or any of its subsidiaries, branches or affiliates), a public company limited by shares, incorporated in Switzerland with its registered offices at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH-8001 Zurich. This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi closed joint stock company incorporated in the Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tatweer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tatweer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia is authorized and regulated by the Capital Market Authority to conduct securities business under license number 08113-37. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a **'non-US affiliate'**) to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a document prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this document must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. Canada: Distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member-Canadian Investor Protection Fund, or by another affiliate of UBS AG that is registered to conduct business in Canada or is otherwise exempt from registration. **Brazil:** Except as otherwise specified herein, this material is prepared by UBS Brasil CCTVM S.A. to persons who are eligible investors residing in Brazil, which are considered to be: (i) financial institutions, (ii) insurance firms and investment capital companies, (iii) supplementary pension entities, (iv) entities that hold financial investments higher than R\$300,000.00 and that confirm the status of qualified investors in written, (v) investment funds, (vi) securities portfolio managers and securities consultants duly authorized by Comissão de Valores Mobiliários (CVM), regarding their own investments, and (vii) social security systems created by the Federal Government, States, and Hong Kong: Distributed by UBS Securities Asia Limited. Singapore: Distributed by UBS Securities Pte. Ltd. [mica (p) 107/09/2013 and Co. Reg. No. 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte. Ltd., an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110); or UBS AG, Singapore Branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or document. The recipients of this document represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Co., Ltd. to institutional investors only. Where this document has been prepared by UBS Securities Japan Co., Ltd., UBS Securities Japan Co., Ltd. is the author, publisher and distributor of the document. Distributed by UBS AG, Tokyo Branch to Professional Investors (except as otherwise permitted) in relation to foreign exchange and other banking businesses when relevant. Australia: 1) Distributed by UBS AG (Holder of Australian Financial Services License No. taking outside of Australia and other background of Australia Financial Services License No. 231089). The Information in this document has been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting on the Information, consider the appropriateness of the Information, having regard to their objectives, financial situation and needs. If the Information contained in this document relates to the acquisition, or potential acquisition of a particular financial product by a 'Retail' client as defined by section 761G of the Corporations Act 2001 where a Product Disclosure Statement would be required, the retail client should obtain and consider the Product Disclosure Statement relating to the product before making any decision about whether to acquire the product. 2) Clients of UBS Wealth Management Australia Ltd: This notice is distributed to clients of UBS Wealth Management Australia Ltd ABN 50 005 311 937 (Holder of Australian Financial Services Licence No. 231127), Chifley Tower, 2 Chifley Square, Sydney, New South Wales, NSW 2000, by UBS Wealth Management Australia Ltd. This Document contains general information and/or general advice only and does not constitute personal financial product advice. As such the content of the Document was prepared without taking into account the objectives, financial situation or needs of any specific recipient. Prior to making any investment decision, a recipient should obtain personal financial product advice from an independent adviser and consider any relevant offer documents (including any product disclosure statement) where the acquisition of financial products is being considered. UBS AG is authorised to provide financial product advice in relation to foreign exchange contracts in Australia, and as such UBS AG is responsible for all general advice on foreign exchange and currencies contained herein. **New Zealand:** Distributed by UBS New Zealand Ltd. The information and recommendations in this publication are provided for general information purposes only. To the extent that any such information or recommendations constitute financial advice, they do not take into account any person's particular financial situation or goals. We recommend that recipients seek advice specific to their circumstances from their financial advisor. Dubai: The research distributed by UBS AG Dubai Branch is intended for Professional Clients only and is not for further distribution within the United Arab Emirates. Korea: Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. This document may have been edited or contributed to from time to time by affiliates of UBS Securities Pte. Ltd., Seoul Branch. Malaysia: This material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (253825-x). India: Prepared by UBS Securities India Private Ltd. 2/F, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000 SEBI Registration Numbers: NSE (Capital Market Segment): INB230951431, NSE (F&O Segment) INF230951431, BSE (Capital Market Segment) INB010951437

The disclosures contained in research documents produced by UBS Limited shall be governed by and construed in accordance with English law.

UBS specifically prohibits the redistribution of this document in whole or in part without the written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect. Images may depict objects or elements that are protected by third party copyright, trademarks and other intellectual property rights. © UBS 2014. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

