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LFA – CCIABML RETAIL ACTIVITY INDICATORS LEBANON | SECOND HALF OF 2015

LFA RETAIL OBSERVATORY

الجمعية اللبنانية لتراخيص الإمتياز LEBANESE FRANCHISE ASSOCIATION

LFA - CCIABML RETAIL ACTIVITY INDICATORS

LEBANON | SECOND HALF OF 2015

LFA LEBANESE FRANCHISE ASSOCIATION الجمعية اللبنانية لتراخيص الإمتياز

A semi - annual report prepared by Quant Analysts

Implementing Partner

غرفة التجارة والصناعة والزراعة Chamber of Commerce Industry and Agriculture of Beirut and Mount-Lebanon في بيروت وجبل لبنان

RETAIL ACTIVITY INDICATORS

SECOND HALF OF 2015

A semi-annual report prepared by

Quant Analysts

LFA Implementing Partner

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RETAIL ACTIVITY INDICATORS
SECOND HALF OF 2015

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EXECUTIVE SUMMARY

The retail sales indicators for 2015

1. In 2015, the retail sales indicator for all nine categories of consumer goods and services covered by the **second edition of the LFA-CCIABML Retail Activity Indicators** report moved up by 6.09 percent. That indicator, however, remained 9.55 percent below its 2012 base year level.

2. The trend for the overall indicator of goods and services remained weak and wholly below the base year level all through the three-year period. This is an eloquent expression of the retail industry's dismal sales performance over the report's time frame.

3. The sales indicator for the six categories of consumer goods rose by 5.67 percent in 2015, but stood at a level that stayed 23.63 percent lower than that of its base year.

4. The indicator for the six categories of consumer goods traced a near-flat trend over the 36-month period.

5. In the consumer goods sectors:
- The retail sales indicator for the clothing category recorded a decline of 5.97 percent. That indicator exhibited a strong negative trend within the time series under review.

- The sales indicator for household goods fell by 5.94 percent in 2015, and the trend for that indicator was markedly negative in the period covered by the report.

- The sales indicator for the food and beverages category (which includes supermarkets; confectionery; bakeries; various food stores; and alcoholic beverages) increased by 16.65 percent. The trend traced by that indicator started from a low of more than 33 percent below the base year level and remained below that level throughout the 36-month period.

- The sales indicator for cosmetics and for sports and hobbies items registered upward moves of 12.63 percent and 12.11 percent respectively. The luxury items category of retail saw its sales indicator rise by 3.62 percent.

- The sales indicators for the sports and hobbies goods and for the luxury items categories of retail traced a near-flat trend all along the 36-month time series.

6. In the consumer services sectors:
- The sales indicator for hospitality services recorded the broadest increase as it moved up by 15.31 percent.
- The sales indicator for medical services rose by 5.91 percent.
- The sales indicator for tourism services increased by a minimal 0.76 percent.

7. The sales indicator for the three categories of consumer services increased by 6.64 percent in 2015. That metric reached 18.6 percent above the base year level.

8. In 2015, the retail sales indicators for five out of six categories of consumer goods remained below their base year level.
- The broadest negative gaps between the 2015 sales indicator levels and the base year level were those registered by the indicator for sports and hobbies, which remained 38.64 percent lower than the base year level; the indicator for luxury items remained 36.18 percent below the base year level; the indicator for household goods, stood at 33.99 percent lower than the base year level; and the sales indicator for clothing stayed 28.5 percent below base level.
- The sales indicator for food and beverages remained a significant 16.91 percent below its base level.

9. The retail sales indicators of all three categories of consumer services examined in the report, in addition to the cosmetics sales indicator, attained a level that surpassed the base year level.
- The broadest positive gap was recorded by the sales indicator for medical services (plus 35.11 percent from base year level), followed by the indicator for tourism services (plus 17.24 percent); the indicator for cosmetics (plus 12.43 percent); and the indicator for

hospitality services (plus 3.45 percent).

10. In the second half of 2015, the month-to-month analysis showed that sales indicators in July extended an uptrend that had started around mid second quarter 2015 then fell sharply in the months of August and September. The month of October witnessed mixed performance, whereas November registered an uptick in sales indicators, prefiguring the start of the year's seasonal surge. December lived up to retailers' expectations as the month that invariably saves the year, with sales increasing by a multiple of the average of the year's remaining eleven months.

11. On a quarter-to-quarter basis, the overall indicator for retail sales of the nine categories of consumer goods and services included in the report moved down by 3.53 percent in the fourth quarter of 2015 compared with its level in the preceding quarter, but was up by 1.74 percent compared with the same period of the previous year. In Q3-2015, the overall sales performance indicator was up 14.62 percent from the preceding quarter's level and 8.59 percent higher than its level in the same period of the previous year.

12. On a half-year-to-half-year basis, the analysis showed that over the three-year period under review, the half-year indicator has not ratcheted up, despite the illusory appearance that it has. The fact that the H2-2015 indicator fell 2.2 percent short of the level it had reached in H2-2014, in addition to the overall pattern of half-yearly change, imply that activity in the retail industry has not yet traced a recovery path.

13. Over the 36-month period reviewed by the report, and synthesizing the trends for the nine categories of consumer goods and services, the overall retail sales indicator drew a trend line with a comparatively weak upward pointing slope. All points on that trend line remained below the base year level, and this constitutes an eloquent expression of the retail industry's dismal sales performance over the period.

About the report

14. The second edition of the Retail Activity Indicators report is best read, examined, and analyzed in conjunction with the first edition, which was termed as the flagship report because it defined the economic, statistical, methodological, and conceptual framework for subsequent iterations.

15. The present report integrated the 36-month long time series for the computation of seasonally adjusted indicators and for trend analysis. Both approaches clearly point to near-stagnation conditions in the country's retail industry.

16. In order to address a drawback of quarter-to-quarter comparisons, the retail industry's prevalent approach for the evaluation of sales performance, the report resorted to month-to-month comparisons in addition to quarter and half-yearly comparisons. The richness of raw data, and the monthly comparisons they afford, account for the report's unequivocal comparative advantage. The analysis showed that monthly comparisons capture significant trend inflection points that are otherwise 'flattened out' by quarterly aggregation. The report also showed that quarterly and half-yearly analysis is not without advantages, and was hence allotted commensurate space and attention.

17. The report's section on methodology deemed it pertinent to address – expressively and in its own way – two common fallacies namely, the base rate neglect fallacy and the fallacy deriving from imprudent heuristic reasoning. The two fallacies were 'cartoonized' – literally – in order to drive home their misleading sways.

The report's rationale

18. The exercise of building retail activity indicators seeks to fill a gap in the national statistics platform, to provide retail enterprises and prospective investors with a quantitative gist of the retail industry, and to put at the disposal of representatives of the retail industry the quantitative basis to carry out their advocacy mission.

FOREWORD

The second edition of the Retail Activity Indicators report, which seeks to assess the retail industry's sales performance in the second half of 2015 and in the year as a whole, comes at a critical juncture for Lebanon's economy.

On a number of counts, the year 2015 was the worst on record in nearly a quarter century. The concurrence of an economic slowdown that saw real growth drop to near zero and the degradation of the country's rating, were aggravated by the brazen deficiency in governance in a backdrop of ominous security threats.

These factors conjointly undermined consumer as well as investor confidence, and was plainly reflected in a marked fall in consumption, especially in the months of August and September. In most sectors of retail, the month of December once again 'saved the year' as sales during the month of year-end festivities accounted for a multiple of the average monthly sales during the remainder of the year.

The Retail Business Confidence Index (RBCI) also reflected anemic sales and the unnerving worries about the prospects of a recovery.

While preserving the integrity of the time series, other areas of the statistical dimension of the report were fine-tuned and some changes were made in the presentation of results. These were not only changes in form as they also led to gains in accuracy.

Heartened by the retail industry response to the first edition of the report – *the flagship report* – which covered the 10-quarter-year period to mid-2015, the second iteration of the Retail Activity Indicators report invested more effort in integrating monthly data for the past three years, and may well be termed as the industry's *reference report*.

Methodology and index building

In the present report's section on methodology, auxiliary notes explained that the process of index building affords no shortcuts and no rules of thumb, and that the country's macroeconomic data offer no set of numbers from which retail sales indicators may be correctly and meaningfully derived or computed. These notes on methodology also touch upon the inferential nature of the exercise and its strengths and limitations.

Demanding as it normally is, the index building process is about choosing the hard way to measure the evolution of economic variables. That process is all the more challenging in the Lebanese context, where there are significant gaps in the economic and business data platforms. In such context, the statistical exercise of 'encapsulating', in a single metric, the evolution of retail sales variables over time puts on many additional layers of complexity.

In our book, an index should claim to be providing a tidy, elegant, concise, accurate and meaningful description of a 'messy' and complex real world. The trade-off in this regard is that the published index cannot possibly spill out the myriads of sub-metrics that it embodies, lest it loses its defining features of neatness, elegance and conciseness and hence becomes itself messy.

Four attributes define a good index:
Timeliness: The practical usefulness of an activity index to business representatives, policy makers and investors hinges almost entirely upon its timely availability.

Accuracy: The index should closely reflect the direction and magnitude of change conveyed by the raw data from which it is derived.

Consistency: Throughout time periods, the index should originate from the same raw data sources. Its computation should adhere to the same data processing protocol and

"an index should claim to be providing a tidy, elegant, concise, accurate and meaningful description of a 'messy' and complex real world" should rely on the same straightforward and verifiably correct algorithm.

Tidiness: A good index is a neat, unambiguous, stylized rendition of invariably large and essentially complex data sets. Building a good index also seeks to filter out noise while keeping the signal. Therefore, an index would be of limited value if it were to be as intricate, complex, and noise-ridden as the data from which it derives.

TACT is indeed a befitting acronym for the four defining characteristics of a statistical index worth its salt, as index building does require a level of skill and judiciousness akin to tactfulness.

Data presentation

To most readers, a statistical report that includes as many metrics as there are in the Retail Activity Indicators normally demands a considerable level of attention. In the present report, the narrative in the parts that describe the evolution of indicators are unavoidably bound to a formulaic prose. Nonetheless, efforts were put forth to present the subject matter in a winsome 'package'. Pertinent adages, anecdotal examples, illustrations, and a straightforward narrative that explains statistical lingo whenever it is used, combine to make reading accessible and, hopefully, alluring.

Purpose and aspirations

The overriding purpose of the report, however, remains that of supporting retail industry stakeholders in their quest to formulate informed, data-driven business decisions, advocacy strategies, and public policies. The exercise would have attained its objective if it succeeded in reducing uncertainty at the levels of business enterprises, representative business associations, and policy-making.

The Retail Activity Indicators project remains an endeavor whose success is staked to the achievement of three interrelated goals:
One, the indicators have to be widely accepted as precise signposts that mark out the trend in private consumption expenditure.
Two, the project has to succeed in rallying broad institutional backing with a view to expanding geographical and sectoral coverage.
Three, the project has to strive to accumulate quantitative knowledge about the retail industry and about consumption expenditure and its determinants with a view to improving economic governance.

Albert Nasr
QuantAnalysts

I. INTRODUCTION

Of the countless insightful quips about statistics – and more generally, quantitative analysis – several stand out for their wit but only a few etch a spot in one's memory, and only a couple may make it to this text.

An internationally renowned business professor[1] pertinently remarked that "what [statistics] reveal is suggestive, but what they conceal is vital." And, a prominent mathematician[2] observed, "it's easy to lie with statistics, but it's hard to tell the truth without them."

The statements are similarly structured, starting with an assertion that is then followed by a qualifying 'but'. However, one statement appears to be the inverse of the other, as one qualifies a positive premise about the art ('reveal, but conceal') while the other qualifies a negative premise ('lie, but tell the truth'). Nonetheless, the dichotomous characteristic of the quantitative science is deftly captured in both statements.

In the present reference report as in the flagship report that preceded it, added effort – and space – were dedicated to dissipating any and all misleading impressions that the hefty load of retail sales indicators may have generated in the minds of casual readers. The intent of that emphasis is precisely to neutralize the confusing aspects of statistics, leaving the metrics with only their truthful and revelatory qualities.

Thus, the same cautionary notes served in the flagship report remain pertinent to the metrics and comparisons contained in the present reference report. To a considerable extent, these cautionary notes uncover the ways the metrics may be used to 'conceal' or 'reveal'; to 'lie' or 'tell the truth'.

A number of these cautionary notes, and then some, are worth recapitulating.

First, the period-to-period comparisons are just that; they involve comparisons of data subsets and the outcome of these comparisons should in no way be viewed as expressing change over the whole data set. Thus, a comparison of the retail sales indicators of one time period with those of a preceding period would show indicators in positive space if weak sales metrics in the near period were compared with even weaker performance in the preceding period. That would, in most instances observed, be a *relative* improvement. The reverse applies when a weak sales performance in the near period is compared with a better performance in the preceding period, in which case indicators would point south and there would be a relative deterioration of performance.

Second, when they occur, cases of *absolute* improvements would be reflected in a number of metrics and analyses that are reproduced elaborately in the core text of the report. However, throughout the 36 data-point time series there was no trend-changing improvement in most of the retail sales categories examined in the report.

Third, in instances where steep and short-lived spikes or dips unduly affect the trend, the seasonal adjustment of data could lead to the reversal of the trend's slope. Consistently, the report underlines and analyses these occurrences.

Fourth, although the report's section headers refer to calendar quarter-year and half-year periods, trend analysis is based on the calendar month as the time period unit. As shown in the report, there are many instances where quarter-to-quarter comparisons do not capture the short-term trend inflection points. The reason for this seeming inconsistency is simple: calendar quarters may well denote seasons and weather, but they do not necessarily coincide with the tempo of the country's retail sales.

Fifth, the December effect was at play again in 2015. In most categories and sub-categories of retail, the month of December

[1] Aaron Levenstein, Baruch College professor emeritus of business.
[2] Andrejs Dunkels, Swedish mathematician

saw sales indicators increase by a factor of two or even three compared with their average in the remaining eleven months of the year.

The report is structured around four chapters. The first chapter is on the methodology adopted throughout this reference report. This chapter also gives details about changes introduced to the exercise's general approach. Additionally, sections in this chapter referred to some fallacies that are anathema to the precepts and rationale of the present statistical endeavor.

The second chapter examines the economic setup within which retail sales evolved. The analysis in that chapter seeks to depict the macro environment from the perspective of economic variables that have a direct bearing on consumption expenditure.

Retail sales indicators for the third and fourth quarters of 2015 are reproduced in the third chapter of the report. The chapter also provides ample conceptual and numerical proof of the necessity to base data analysis on the calendar month rather than the calendar quarter.

The technical analysis of the time series for all the categories of retail goods and services, along with the analysis of seasonally adjusted indicators for the period 2013-2015, are the subject matter of the fourth chapter.

I. METHODOLOGY

1. Aim and approach

The overarching aim of the present reference report is to provide retail industry stakeholders with accurate, representative and actionable sets of retail sales performance indicators.

To attain this objective, a comprehensive plan was drawn that was based on prevailing statistical precepts and that was set to apply advanced quantitative methods in index building and data processing.

2. Data sources

In an environment where business-level data are notoriously wanting, micro data acquisition ranks as the first concern, the most serious hurdle, and the most demanding part in this quantitative undertaking.

In its second iteration, the Retail Activity Indicators project sought to acquire data from three separate sources namely, a survey of retail enterprises, payment systems data, and data

a. The retail enterprise survey

The survey sought to secure responses from retail enterprises that are active in the following eight categories of consumer goods and services. These categories also constitute the sectoral coverage of the retail indicators project as a whole. The medical services sector, while included in the project's coverage, was excluded from the questionnaire due to the specificity of medical service providers as a 'businesses' and also due to the specificity of the medical outlays category within the household budget.

Clothing: men, women, children wear; apparel; fabrics; footwear; accessories.

> "The overarching aim of the present reference report is to provide retail industry stakeholders with accurate, representative and actionable sets of retail sales performance indicators"

Food and beverages: supermarkets; confectionery; bakeries; food stores; alcoholic beverages.
Cosmetics: perfumes; cosmetics; health care products; personal care products.
Household goods: household durables; sanitary; glass; paint; wallpaper; hardware; furniture; floor covering; drapery; upholstery; appliances; audio-visual equipment; antiques; crystal and glassware.
Luxury goods: watches; jewelry; gifts, silverware; crafts; art dealers galleries; florists; cigars; gifts; consumer electronics.
Sports and hobbies: games and toys; sporting goods and outfits; hobbies; music instruments.
Hospitality services: catering; restaurants; pubs; nightclubs; hotels; resorts.
Tourism services: travel agencies and services; movies; theaters; dance halls; studios; tourist attractions; clubs.

The questionnaire is designed to achieve two objectives namely, (a) securing a precise assessment of the performance of retail businesses in the second half of 2015, and (b) detecting the extent to which retail executives are confident about their activity's performance in the coming six months.

In the part intended to assess retail business performance, the survey's questionnaire sought to obtain estimates of change pertaining to sales; production costs; the wage bill; the labor force; reliance on bank credit; working capital; interest payments; retail prices; customer base; and the balance sheet total.

Business respondents were then expected to assess the impact of the following factors on performance: market demand; human resources; capital; operating costs; rents; other fixed costs; access to financing; financing cost; production capacity; state of the economy; and security conditions.

In the business confidence section of the questionnaire, retail business executives were asked to reveal their expectations over the coming six months regarding the same 21 variables identified in the first section of the questionnaire as reflecting performance and affecting that performance.

Based on responses in the latter section of the questionnaire, the Retail Business Confidence Index (RBCI) was computed.

b. Payment systems data

The data sets on credit/debit card payments are assigned the largest comparative weight within the statistical procedure followed to compute the retail activity indicators. This is certainly justified by the fact that these data sets represent an extensive share of retail transactions recorded throughout the country. The broad geographical and sectoral coverage afforded by these sets confers to them a degree of representation that is hardly attainable through any approach based on traditional sampling.

c. Data sets from shopping malls

These sets contribute substantially to the building of retail activity indicators to the extent that malls partnering in the indicator-building project also account for a significant portion of the country's retail transactions.

Data sets recording transactions carried out through credit/debit cards and those from large shopping malls are both in the form of directional data. Hence, their integration in one statistical procedure does not give rise to double counting, but adds robustness to the resulting indicators.

The data processing protocol

In the second edition of the Retail Activity Indicators, the data processing protocol remained fundamentally unchanged. This meant that the integrity of the foundational time series was preserved.

To sum up, the nine-step statistical processing protocol followed in the second edition of the Retail Activity Indicators involved:

- retaining the year 2012 as the base year,
- weeding out categories that are either not relevant to retail, or the data for which were either incomplete or in the nature of outliers,
- adjusting data for payment card market penetration,
- applying a set of weights to adjust data for size difference between data suppliers,
- applying a set of weights to adjust data for relative size of retail categories in the recorded transactions,
- re-calculating the seasonality indexes in order to obtain seasonally adjusted indicators for the 36-month data sets. This step in the processing protocol is rendered necessary by the integration of retail sales data for the 2013-2015 period.
- re-calculating trend equations, also necessitated by the integration of data into 36-month sets,
- regressing the time series for each category and sub-category of retail against economic variables in order to detect correlations,
- cross-verifying data.

A cautionary note, implied in the processing protocol, is called for in this context: Data integration into 36-month time series obviously alters four types of metrics from their levels reported in the first edition of the Retail Activity Indicators. These metrics, also included in the present edition's data analysis, are: the seasonally adjusted series, average monthly growth rates, trend parameters, and correlation results. Undoubtedly, the longer time series have rendered the four metrics statistically more robust and reliable.

3. A modification in data presentation

In the first edition of the Retail Activity Indicators report, two separate final composite indicators were presented, one for the six main categories of goods covered by the exercise, and another for the three main categories of services. The rationale for presenting two final indices was that such presentation would add an extra bit to the quantitative knowledge of the retail industry's state of play during the period covered by the indicators.

However, mindful of the preference that economists have for a neater, all-inclusive, single final indicator of retail activity, the present report presented just one indicator that synthesizes all categories of consumer goods and services.

This modification is obviously one of form. This is because the basis for the synthesization process, namely the time series for the 51 categories and sub-categories of consumer goods and services, is unaffected by the mode in which the final indicator is presented.

4. An approach constrained by the national data platform

The inferential approach adopted in the present exercise is afforded a broad sectoral coverage and relies on the acquisition of retail sales data pertaining to a large number of retail enterprises.

Given the constraints dictated by the country's data platform, this approach relies on well-established quantitative methods and yields the best available estimates of retail industry metrics in terms of reliability and accuracy.

While such approach need not be defended, neither seriously nor facetiously, it is conceded that the scope for betterment is open.

5. Two misleading lines of reasoning

Two popular but obviously misleading lines of reasoning are examined here for their anecdotal tinge and more particularly for their prevalence.

a. The heuristic reasoning, or shortcuts to erroneous conclusions

It is easy, intuitive and tempting to try to assess variables that are indicative of activity in the retail industry by resorting to the heuristic approach, which involves an over-simplification at both the observation and quantification levels.

The heuristic approach is essentially an attempt to reach a quick and easy 'estimation' of an otherwise complex variable or phenomenon. Such estimation 'process' could be based on some rule-of-thumb, or it could take on a seemingly 'scientific' appearance.

In a heuristic universe, the abacus is as good as SPSS ... if not better

An example of a heuristic approach that claims to reach a swift estimate of retail sales in any period is to base that estimate on the Value Added Tax revenues collected in that period. This simplistic quick fix, however, is riddled with methodological and practical failings. To list these failings would squander valuable space, so suffice it to say without unnecessary elaboration that the main premise on which this erroneous approach is based is that VAT revenues are the exact tenth of retail sales. This premise is plainly false first, because the VAT does not apply to all retail sales, and second, because not all of that tax's revenues derive from retail sales. This double whammy plays havoc with whatever number is worked out as an estimate of retail sales.

In the quantitative field, the heuristic approach, at its best, involves dressing up a pseudo-scientific method as an acceptable statistical procedure. At its worse, it becomes preposterous. It is mostly resorted to when a crude solution to a complex problem is preferred to the hard work required to reach a scientific solution to that problem. The approach is also barren, in the sense that by its very nature it does not create additional quantitative knowledge about the variable or phenomenon it purports to estimate.

b. The base rate neglect fallacy

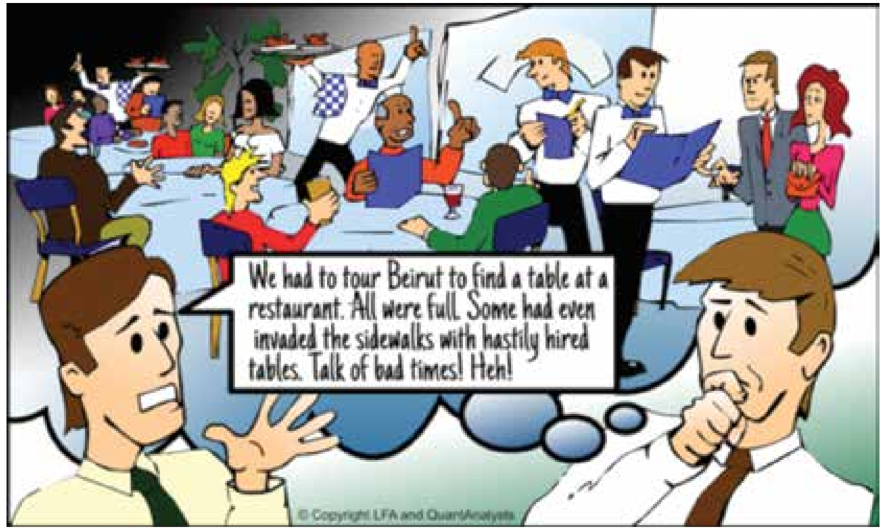
In its most succinct definition, this fallacy occurs when casual observations are perceived as being the expressions of a broader phenomenon or a trend. The human mind forms such a swift perception in disregard to the more extensive and representative data – the base rate - pertaining to that phenomenon or trend, whence the fallacy derives its name.

In its quest for an explanation of what is casually observed, the mind 'anecdotalizes' the processing of ostensible observations in order to reach a quick conclusion. Fallaciously to be sure, the anecdotal occurrence thus becomes the empirical basis for an inference.

The fallacy is compounded when the observer not only disregards solid data - the base rate - but also goes a step further in doubting the veracity of that base rate.

The base rate neglect fallacy

On a whim, Mr. Dyneout and the missus show up at their favorite restaurant without having reserved a table. The maitre d' courteously shows them to a table. Once seated, Mr. Dyneout opines about the state of the restaurant business in town: "Bad times, eh! Just a week ago you couldn't get a table in this joint without a reservation."



The missus acquiesced.
But not the neighbor, to whom Mr. Dyneout later relayed the episode. "We had to tour Beirut to find a table at a restaurant. All were full. Some had even invaded the sidewalks with hastily hired tables. Talk of bad times! Heh!", said the neighbor.

II. THE ECONOMIC BACKDROP

In countries where economic activity is extensively researched, the key indicators that are identified as having the strongest impact on GDP relate to retail. In the U.S. for example, the main indicators of overall economic performance are, in that order of importance: retail sales; consumer installment credit; personal income and spending; and employment. It is plain that all four metrics that top the long list of determinants of aggregate economic activity are in large part determinants of the consumption expenditure.

This should come as no surprise given the fact that in most modern economies consumption expenditure accounts for the weightiest portion of GDP. In turn, and by the circular flow of income, overall economic performance impacts consumption expenditure through a set of variables.

"The key indicators that are identified as having the strongest impact on GDP relate to retail"

The Lebanese economy is no exception to that reality, and the factors and variables that conjointly explain the retail industry's weak results are in turn aggravated by the depressed economy.

An economy on the brink of recession

Over the past three years, the Lebanese economy's growth performance remained ominously close to stagnation levels, with the year 2015 registering practically no real economic growth.

A number of economic factors, acting in synergy, have generated an intense negative impact on consumer and investor confidence. This impact was aggravated by policy and institutional failures, and by turmoil in the region.

While technically the economy is growing at positive rates – albeit at near-zero levels – and hence could not be technically deemed to be in a recession, such snail-paced real rates of growth generate much less jobs than demanded and much less prosperity than desired.

"The factors and variables that conjointly explain the retail industry's weak results are in turn aggravated by the depressed economy"

The anomalous demographic change that saw the country's resident population skyrocket by more than 30 percent over the past three years has failed to pull GDP rates of growth higher than their current near-zero levels.

Even more worrisome is the fact that prime indicators of economic performance do not yet point to aggregate activity nearing an escape velocity.

1. The level of household after-tax income

There was practically no improvement in the metric over the three-year time frame of the present report. Whatever positive impact may have accrued to household incomes from the fall in the prices of oil derivatives was more than negated by the combined impact of an increase in unemployment and rises – albeit moderate – in prices of some, mainly non-tradable consumer services.

Furthermore, household spending is doubly undermined by the comparatively high and rising Gini index and by the stagnant-to-falling incomes of households in the low and medium income-level quartiles, that is, households with a comparatively higher marginal propensity

"Household spending is doubly undermined by the comparatively high and rising Gini index and by the stagnant-to-falling incomes of households" to consume.

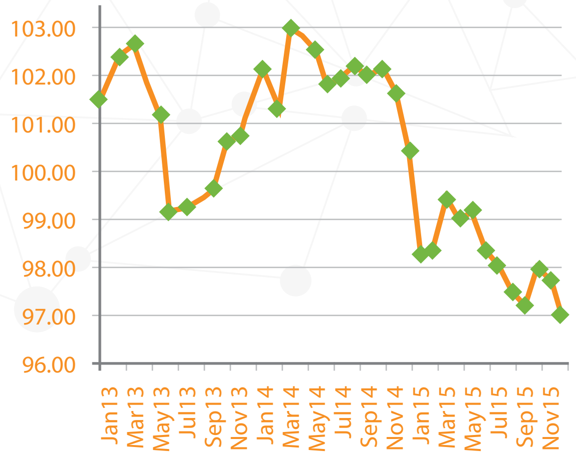
2. Consumer prices

Expectedly, weak demand and sluggish growth have kept price movements under check. According to the Central Administration of Statistics (CAS), the consumer price index (CPI) was down 3.4 percent in 2015. That index had decreased by 0.71 percent in 2014, whereas it had risen by 1.12 percent in 2013. Over the three-year period 2013 to 2015 the index for consumer prices fell by a combined three percent.

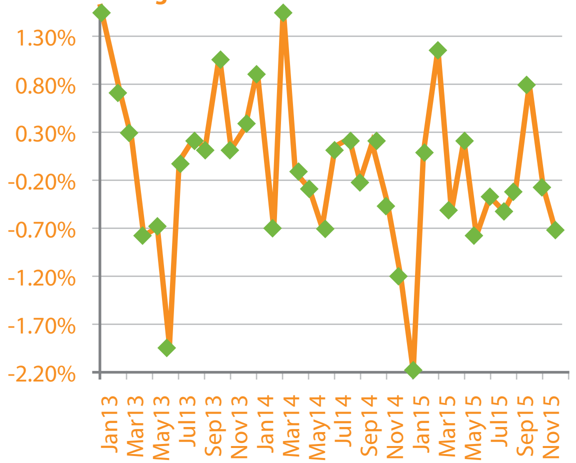
Lower consumer prices tend to exert two opposite pressures on consumption expenditure, a direct upward pressure and an indirect downward pressure. The direct impact is evident and straightforward: lower prices raise the purchasing power of household

"weak demand and sluggish growth have kept price movements under check"

The Consumer Price Index 2013-2015



Change in the Consumer Price Index 2013-2015



disposable incomes and hence underpin demand for consumer goods and services. The indirect impact is exerted through higher real rates of interest, which in turn raise the opportunity cost of consumption spending and act as an inducement to saving.

In the absence of field and quantitative research on the interplay between these two opposite forces shaping consumer behavior, the jury is out on conditions under which one or the other of the two forces prevails.

From a macro perspective, crude oil prices were driven down by nearly 70 percent in two waves of sharp decline in the second half of 2014 and in the second half of 2015. As a result, the country's oil import bill was slashed by nearly a third in 2014 and 2015, that is the equivalent of $1.67 billion.

Model-generated estimates indicate that these savings may have put approximately $600 million in additional purchasing power at the disposal of households. To this direct impact should be added the indirect effect of lower energy prices on sections of the structure of consumer prices. However, this notional positive impact on household budgets has failed to translate into higher consumption as other obviously weightier factors have blunted that effect. Not least of these factors are rampant unemployment and the flagging consumer confidence.

3. Unemployment

From a retail industry perspective, a high rate of unemployment has a considerable downweighing impact on consumption expenditure. After all, unemployment is tantamount to lack of income as well as the foremost causer of depressed expectations.

"From a retail industry perspective, a high rate of unemployment has a considerable downweighing impact on consumption expenditure"

And the picture is dismal indeed on that count Officially, the rate of unemployment in Lebanon is estimated at 25 percent. However, that official metric in fact underestimates joblessness, especially among the young. This is because that rate – irrespective of the qualified statistical effort involved in estimating it – is misleading due to the 'safety' vent of emigration.

But even the toned-down official unemployment rate, if it were to be hypothetically accepted, implies that some four hundred thousand – or a quarter of the labor force – are incomeless, and hence reduced to spending minimally and on strictly necessary, non-discretionary categories of consumption.

"Some four hundred thousand – or a quarter of the labor force – are incomeless, and hence reduced to spending minimally and on strictly necessary, non-discretionary categories of consumption"

4. Consumer credit

The impact of consumer credit on consumption spending is more intricate than initially meets the eye. The plain relationship is that consumer credit fuels consumption spending. Indeed, enterprises operating in the consumer durables sector of retail are all too well aware of the strong correlation between their sales and the availability of consumer credit of one form or the other.

However, the limit of household indebtedness is firmly staked to the level of household income and wealth, and as such it could eventually lead to a situation where households become over-indebted, as is the current situation in Lebanon. As a matter of fact, according to official estimates, household debt repayment obligations constitute at present no less than 50 percent of household disposable income.

"The limit of household indebtedness is firmly staked to the level of household income and wealth"

Based on this estimate, the constraining impact of excessive household indebtedness on household spending becomes patently clear. The explanatory equation in this regard sets household spending as a function of net household wealth, and states that net household wealth is diminished by the extent of household indebtedness.

Barring a sturdy economic recovery that would see a marked increase in incomes, the household/consumer heavy debt burden is not set to be alleviated over the medium term. Hence, and at least on that count, the implications of household over-indebtedness on the performance of the retail industry become guessable and foreseeable.

"Household debt repayment obligations constitute at present no less than 50 percent of household disposable income"

5. Interest rates

In mid December 2015, and following seven full years of near zero interest rate policy, the US Federal Reserve Bank raised key interest rates by 0.25 percent to a range of 0.25 percent to 0.50 percent. While it is not a foregone conclusion that the Fed's move signals the start of an sustained upturn in interest rates, the uptick – maintainable or not – will predictably apply upward pressure on local rates of interest, and this will in turn have far-reaching implications on retail activity.

From the retail enterprise standpoint, higher rates of interest raise the cost of borrowing and thus put additional pressure on profitability. The extent to which retail enterprises may pass on higher financing costs to consumers is expected to be limited given the fact that there are - as yet - no signs pointing to an end to the activity's three-year-long recession.

From the consumer perspective, the expected impact of higher rates of interest on demand for goods and services is mixed.

On the negative impact side, restraining pressures on consumption should be expected to emerge from two sources:
(a) an uptick in interest rates will raise the cost of all types of household credit and thus increase the burden of servicing outstanding household debt. The budgets of over-indebted households will be particularly strained, and the larger the number of those households – estimated at about half of the total – the more heavily consumption expenditure will be weighed down.
(b) higher rates of interest will also have a dampening impact on consumption to the extent that they raise the opportunity cost of spending.

On the positive impact side, higher rates of interest served on interest-earning assets constitute incremental income to holders of these assets.

The net effect of higher rates of interest on consumer prices and consumption, while notionally negative, should nonetheless be the subject matter of an elaborate impact analysis.

6. Consumer confidence

While incomes, prices, and credit – be they policy-determined or market-determined – exercise an objective influence on consumption spending, consumer confidence is subjective, and exerts as strong an influence on consumption.
Consumer confidence is shaped essentially by perceptions of income continuity and stability and by expectations of future levels of income. It is hence reasonable to anticipate that, in a period of sluggish economic performance, consumer expectations regarding the stability and level of income would be somber indeed. Again, the prevalence of such expectations has all too predictable implications on retail activity.

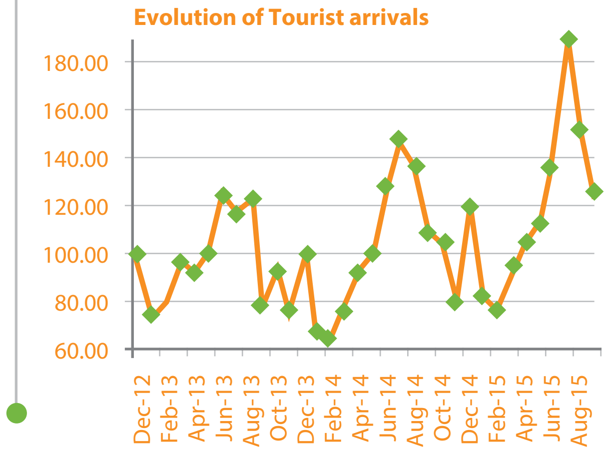
> "Consumer confidence is shaped essentially by perceptions of income continuity and stability and by expectations of future levels of income"

Also acting to undermine consumer confidence are expectations of a heavier tax burden. Over the past three years, such expectations were fuelled by the twin failures to rein in the state budget deficit and deflect the exponential growth of the public debt. As a result, expectations of tax hikes have been an on-going source of negative pressure on the retail industry in Lebanon. Rash propositions to introduce sharp consumption tax hikes act as strong depressants on consumer expectations.

7. Tourism

The war in neighboring Syria caused a significant reduction in revenues from tourism as the number of incoming Arab tourists transiting across Syria was reduced to practically nil by 2015.

The number of incoming tourists reached a four-year high in July 2015, a level that was surpassed only by the record high total registered in July 2011. The July



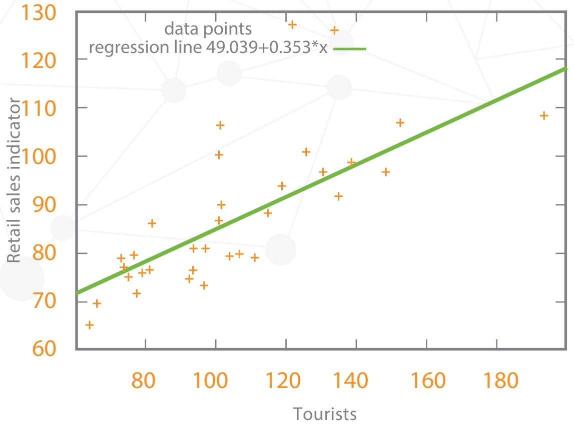
2015 seasonal peak exceeded that of the same period of the preceding year by 29.44 percent. However, tourist arrivals diminished markedly in August and September 2015 as they fell by 34.8 percent.

As one of the determinants of retail sales, tourist-generated consumption spending on the local market is reflected in the significant correlation between the inflow of tourists and the indicator for retail sales performance. The correlation was found to be high between that inflow and two categories of retail services namely, hospitality services and medical services.

Thus, the correlation between tourist inflows and the overall sales performance indicator was relatively high, with a coefficient of determination R-squared of 0.51.

The hospitality services indicator was found to have the highest correlation with tourist inflows, with a coefficient of determination of 0.65.

Retail sales indicator and tourist inflow
R-squared = 0.507

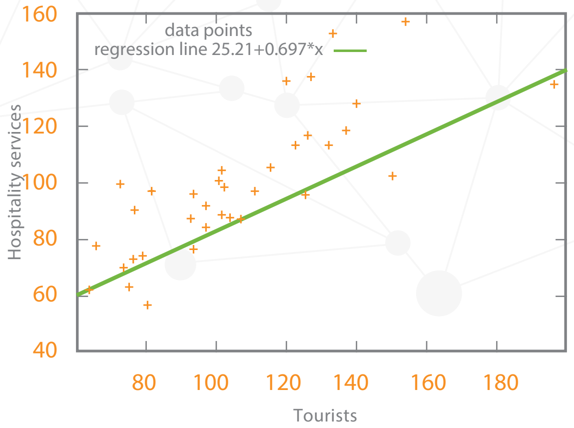


The indicator for medical services was also highly correlated with tourist inflows, with a coefficient of determination of 0.64.

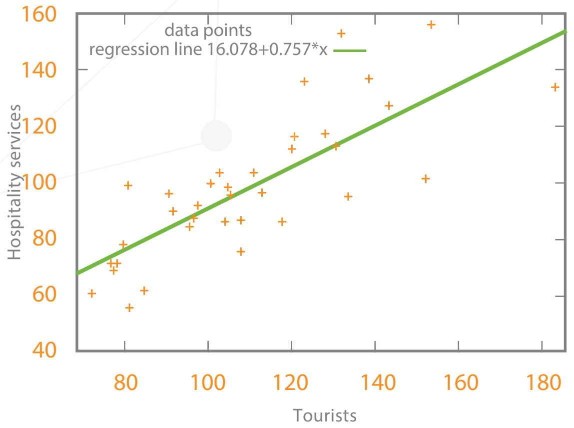
The medical services indicator was even more strongly correlated with two regressors namely, the inflow of Arab tourists and the inflow of European tourists. With a coefficient of determination, R-squared, being significantly high at 0.685, the two largest components of incoming tourists, which account for two thirds of the total, are highly correlated with the indicator for medical services.

> “The correlation between tourist inflows and the overall sales performance indicator was relatively high”

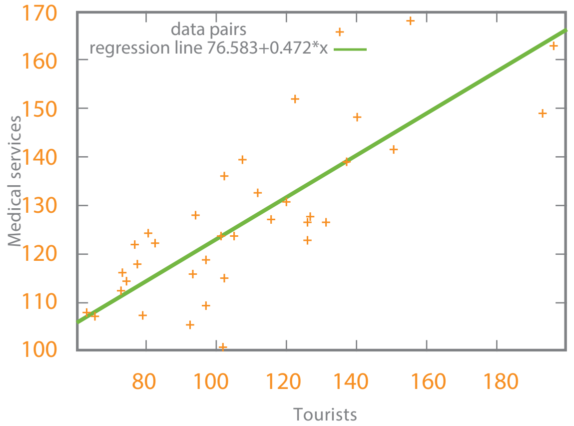
Hospitality services and tourist inflow
R-squared = 0.648



Hospitality services and arrivals at BIA
R-squared = 0.66



Medical services and tourist inflow
R-squared = 0.64



Taking the number of airport arrivals as another but closely related regressor, the indicator for hospitality services was found to be highly correlated to that metric, with an

R-squared of 0.66.

While it is improbable that the relatively high correlations between tourist inflow and retail categories are fortuitous, nevertheless these correlations should not be deemed to imply causation.

8. Imports

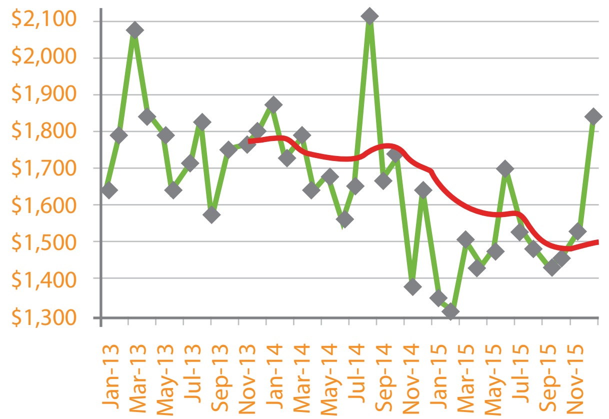
The imports numbers for the three-year period covered by the present report on retail indicators lays to rest eloquently and definitively the conjecture that local consumption 'must have increased' as the country's population grew by no less than a third during that period. The 'consumption-must-have-increased' presumption is a typical methodological error that combines elements of the base rate neglect fallacy and the fallacy brought forth by shallow heuristic reasoning.

As a matter of fact, declining imports as well as the findings of the present report regarding declining consumption expenditure are two sets of metrics that depict an economy going through a period of quasi stagnation, despite the soaring resident population – or, debatably, because of the soaring resident population.
Over the three-year period under review, the value of the country's imports declined by a staggering 15.09 percent. Thus, in 2015, the value of imports totaled less than that recorded in 2010.

Admittedly, most of the decline in the value of imports is attributable to the fall in the prices of fossil fuel derivatives; however, a goodly portion of that decline was due to diminished imports of food products. The value of food imports diminished by a hefty 7.68 percent in 2015 compared to its total the year before. This category of imports, which is not lined up with any comparable fall in world food prices, should have increased significantly had the inference been correct about the causal relation between the relatively sudden growth in the resident population and consumption expenditure. In fact, and for reasons that fall beyond the scope of the present report, quantitative evidence tends to refute – rather than support – this causality.

> "Declining imports as well as the findings of the present report regarding declining consumption expenditure are two sets of metrics that depict an economy going through a period of quasi stagnation"

Imports Value and 12-month Moving Average



Over the 36-month period of the data set, the value of imports remained on an unmistakable downtrend as reflected in the 12-month moving average.

III. THE INDICATORS

The salient trend marking the evolution of retail sales indicators for the second half of 2015 is better captured by a month-to-month analysis of the metrics. The trend's inflection points obviously did not – and certainly do not have to – coincide with the division of a year's time span into calendar quarters. By averaging out these month-to-month fluctuations, quarterly indicators miss out on the seasonal influences affecting retail markets. Still, the quarterly as well as the half-yearly indicators are not without advantages: they offer a stylized, detail-free overview of the long-term trend.

In the second half of 2015, the trend that was quasi-prevalent in sales performance data at category and sub-category levels, saw sales evolution indicators in July 2015 extend an uptrend that had started around mid second quarter of 2015 then fall sharply in the months of August and September. The month of October witnessed mixed performance, whereas November registered an uptick in sales indicators, prefiguring the start of the year's seasonal surge. December lived up to retailers' expectations as the month that saves the year, with sales increasing by a multiple of the average of the year's remaining eleven months.

A. **Evolution of sales indicators on a monthly basis**

A more granular examination of the monthly evolution of retail sales of consumer goods and services depicts a more accurate view of the state of the retail industry in the second half of 2015.

July flurried activity stokes hopes of recovery

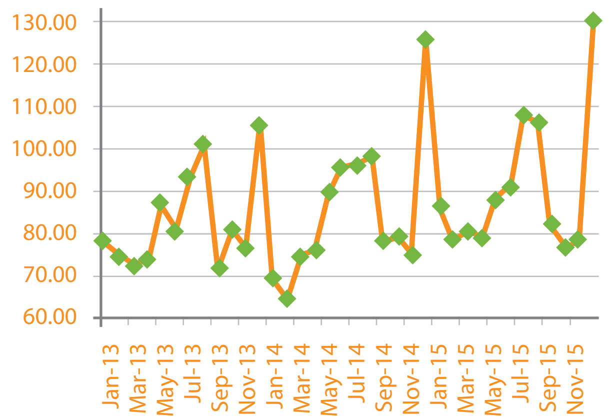
The monthly data show that the retail sales indicator for goods and services for the month of July 2015 had surged by a broad 18.45 percent compared with its level in the previous month.

"The salient trend marking the evolution of retail sales indicators for the second half of 2015 is better captured by a month-to-month analysis of the metrics"

On many counts, the month of July 2015 seemed to have stoked hopes that the period could herald a reversal of the retail industry's 30-month long recession. For one, the sales indicator for that month had reached a six-month high, surpassed only by the December 2014 indicator. Furthermore, the July 2015 indicator even moved past the December 2013 indicator by 1.64 percent and past the base year level by 7.84 percent.

The July 2015 surge was sparked off by the coincidence of the Eid al Fitr festivities – which is traditionally accompanied by a flurry of household spending and by heightened influx of Arab tourists – and by stronger seasonal, start-of-summer demand and a more intense influx of European tourists. As a matter of fact, the number of incoming Arab tourists increased by 41.9 percent in July 2015 and that of incoming European tourists surged by 68.4 percent.

Evolution of the Retail Sales Indicator for all categories of Consumer Goods and Services



"The monthly data show that the retail sales indicator for goods and services for the month of July 2015 had surged by a broad 18.45 percent compared with its level in the previous month"

+
18.45%

Over the 36-month data set, the July 2015 retail sales indicator ranked third in magnitude, preceded only by the December indicators of 2014 and 2015.

However, the seasonally – and festivity – driven surge proved to be short-lived, thwarted as it was by a marked dip in consumer expectations, which were influenced by social unrest and political instability. This pushed the indicator downwards by a timid 1.2 percent in August 2015, then by a whopping 23.22 percent in September, and further down by 6.06 percent in October. Over those three months, the sales indicator had fallen by a combined 28.74 percent and dipped to a ten-month low that is 23.15 percent lower than the base level.

The indicator's downfall ended in November 2015 when it moved up by a modest 1.78 percent.

In a pattern that prevailed over the report's three-year data set, the month of December 'saved the year' as the sales performance indicator for the categories of consumer goods and services covered by the data shot up by 67.09 percent in that month as compared with its level in the previous month.

The December 2015 level for that indicator was 3.64 percent higher compared with the December 2014 level and 23.17 percent higher than the December 2013 level.

The sales performance indicators by category of retail goods and services followed more or less the same pattern of fluctuations.

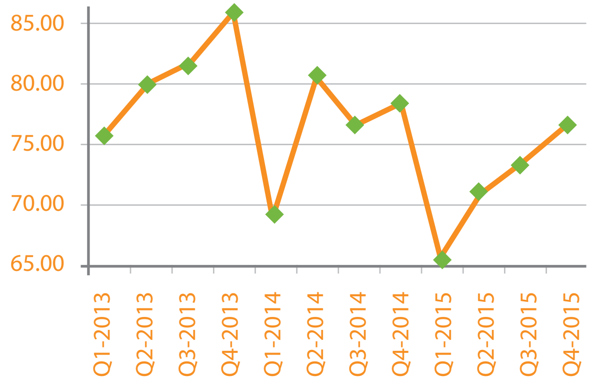
For five out of nine of the report's retail categories, the month of December 2015 recorded the best sales performance in three years.

"the seasonally – and festivity – driven surge proved to be short-lived, thwarted as it was by a marked dip in consumer expectations, which were influenced by social unrest and political instability"

III. A. 1 – Clothing

The indicator for retail sales of clothing exhibited the same trend pattern as the overall indicator for sales performance of consumer goods and services, albeit with different magnitudes of change. Thus, following a 4.96 percent rise in that metric in the month of July 2015, came a moderate 7.78 percent fall in August only to be further followed by a broad 16.34 percent decline in September and yet another decline of 6.6 percent in October. By the end of the three-month decline, the sales indicator for items of clothing had retreated by a combined 27.94 percent. By the end of October 2015, that indicator was an alarming 41.29 percent lower than its base year level.

Quarterly Evolution of Retail Sales Indicator for Clothing



Spurred by seasonal demand, this indicator recovered markedly in November as it moved up by 17.43 percent.

Compared with its level at the end of the first half of 2015, that indicator was down by 11.19 percent by the end of November.

+ 18.45%

Again, the month of December proved to be a boon for that category of retail, which saw its sales performance indicator rise past its base level for the first time in two years. In that month, the sales indicator for items of clothing rose by 47.96 percent.

The December 2015 indicator for the clothing category of retail was 4.61 percent higher than the level it had reached in December 2014, but 7.22 percent lower than its December 2013 level.

The clothing category includes the seven sub-categories of men's wear; women's wear; women's accessories; children's wear; shoes; apparel; and fabric and sewing.

+ 4.61%

The December 2015 indicator for the clothing category of retail was 4.61 percent higher than the level it had reached in December 2014, but 7.22 percent lower than its December 2013 level

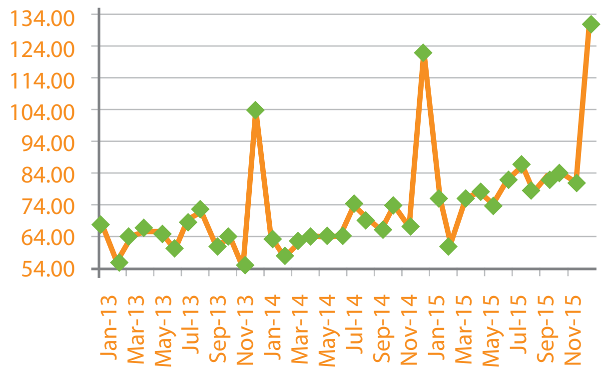
- 7.22%

III. A. 2– **Food and beverages**

In the second half of 2015, the sales indicator for the food and beverages category of retail evolved in a somewhat distinct pattern compared the overall indicator.

The food and beverages sales indicator rose by 5.04 percent in July 2015 then fell by eight percent in August. That indicator rose again in September and October by 3.72 percent and 0.6 percent respectively, and retreated

Evolution of the Retail Sales Indicator for Food and Beverages



by a minimal 0.96 percent in November. By the end of the latter month, the sales performance indicator for food and beverages had fallen by a minimal 0.12 percent compared with its level at the end of the first half of 2015, and was 17.56 percent lower than its base level.

The December effect was also felt in that sector of retail as the sales indicator for food and beverages increased by 59.25 percent in December 2015 and peaked at a 36-month high that was 31.28 percent above its base year level.

That indicator was 6.9 percent higher than its December 2014 level and 27.34 percent higher than its December 2013 level.

The food and beverages category comprises the five sub-categories of supermarkets; confectionery; bakeries; various food stores; and alcoholic beverages.

The indicator for food and beverages was 6.9 percent higher than its December 2014 level and 27.34 percent higher than its December 2013 level

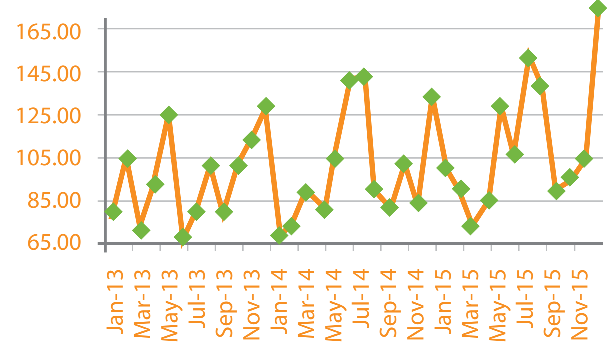
+ 6.9%

III. A. 3- **Cosmetics**

The pattern of the July 2015 surge followed by a sharp fall in subsequent months also marked the evolution of the retail sales indicator for items in the cosmetics category. Thus, a 41.35 percent surge in July was followed by a fall of 9.1 percent in August and a major fall of 34.32 percent in September, that is a combined 40.3 percent fall in the two months.

That indicator recovered moderately in October and November when it moved up by 4.53 percent and 10.19 percent respectively.

Evolution of the Retail Sales Indicator for Cosmetics



By the end of November, the cosmetics sales indicator was 2.8 percent lower than its level at the end of the first half on 2015.

The sales indicator for the cosmetics category of retail was one of two category indicators to have surpassed their base level. Thus, by the end of November, the indicator was 5.36 percent higher than its base level.

Change in the cosmetics sales indicator has a very limited impact on the overall retail activity indicator due to the fact that data providers assign the lowest weight coefficient to the cosmetics retail sales compared to the eight other categories of goods and services for which the overall indicator is computed.

The December 2015 indicator for cosmetics retail category was 31.31 percent higher than the level it had attained in the same month the previous year and 37.42 percent higher than its December 2013 level

+ 31.31%

In December 2015, the sales performance indicator for the cosmetics category of retail reached a 36-month high as it rose by 67 percent compared with its level in the month before.

The December 2015 indicator for this retail category was 31.31 percent higher than the level it had attained in the same month the previous year and 37.42 percent higher than its December 2013 level.

The cosmetics category of retail includes three sub-categories namely; perfumes, cosmetics, and personal care products.

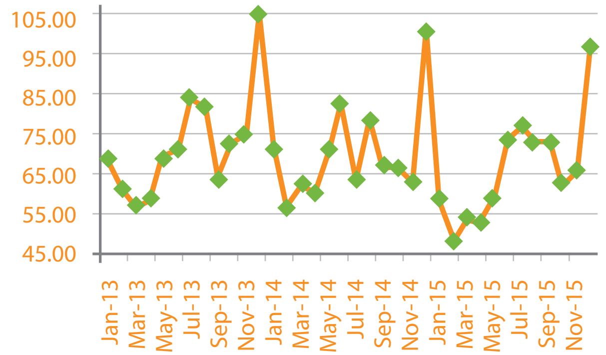
III. A. 4– **Household goods**

The pattern of monthly fluctuations observed in the overall retail sales indicator was mirrored in the evolution of the sales indicator for the household goods retail category.

This category's sales indicator increased by 3.99 percent in July, then fell, though

relatively moderately, in the subsequent three months. Thus, in August, September and October, that indicator fell by 4.46 percent, 0.78 percent and 14.11 percent respectively. The combined fall in those three months lowered the sales indicator for household good by 18.58 percent.
In November 2015, the sales indicator for household goods rose by 5.77 percent, but still stood 10.45 percent lower than the level it had reach by the end of the first half of 2015.

Evolution of the Retail Sales Indicator for Household Goods



The indicator for the month of December 2015 recorded a broad leap upward; it rose by 46.22 percent compared with its previous month's level, but still ended the year 3.5 percent lower than its base level.

For this category of retail, the December 2015 sales performance was comparatively dismal as the indicator for that month was 4.36 percent lower than its level in December 2014 and 7.91 percent lower than its December 2013 level.

Items grouped under the household goods category of retail fall under the following eleven sub-categories: sanitary; glass, paint, and wallpaper; hardware; furniture; floor covering; drapery and upholstery; various home furnishing; household appliances; audio-visual; antiques restoration; and crystal and glassware.

For household goods, the December 2015 sales performance was comparatively dismal as the indicator for that month was 4.36 percent lower than its level in December 2014 and 7.91 percent lower than its December 2013 level

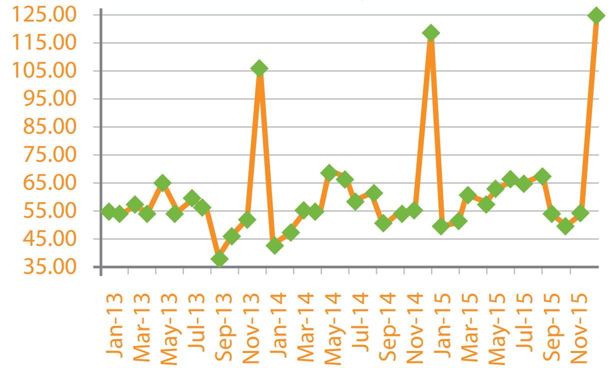
- 4.36%

III. A. 5– **Luxury goods**

Though exhibiting a slightly different pattern of fluctuations, the level of the sales indicator for luxury goods remained in line with the changes observed in eight of the nine retail categories in that it diminished over the first five months of the second half of 2015 combined and rebounded in December.

The indicator fell in July 2015 by 0.51 percent, increased by 1.1 percent in August, and then fell markedly by 18.94 percent and by 6.06 percent respectively in September and October. It moved up again in November by 5.09 percent.

Evolution of the Retail Sales Indicator for Luxury Goods



Over the first five months of the second half-year of 2015, the indicator for sales of luxury goods diminished by a combined 19.51 percent compared with level it had reached at the end of the first half of 2015.

By the end of November, the indicator was a sizeable 46.77 percent lower than its base level.

The month of December 2015 was favorable for sales of luxury items as the indicator for this category of retail sales rose by 132.62 percent. That was the best December indicator for this retail category in three years: it was 3.73 percent higher than its December 2014 level and 17.05 percent higher than its December 2013 level.

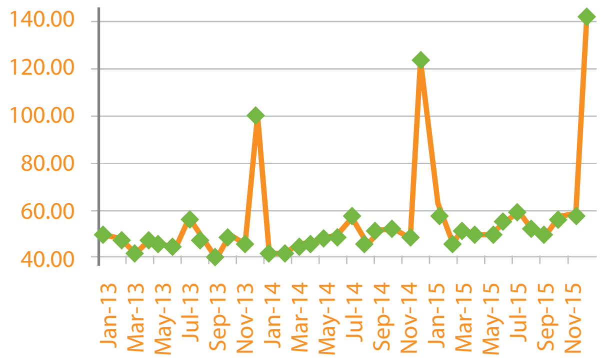
Seven sub-categories are included in the luxury items category of consumer goods; these are: jewelry, watches, and silverware; crafts; art dealers galleries; florists; cigars; gifts; and electronics.

+ 3.73%

III. A. 6– Sports and hobbies

The sales indicator for items of sports and hobbies moved up by 5.53 percent in July 2015, but retreated in the subsequent two months by 11.92 percent and 3.08 percent. The indicator staged a solid recovery in October as it rose by 15.68 percent and extended the rise to November when it was up 1.56 percent. By the end of that month, the sales indicator for sports and hobbies goods was 40.81 percent lower than its base level.

Evolution of the Retail Sales Indicator for Sports and Hobbies Goods



In December 2015, the sales indicator for items of sports and hobbies recorded an increase of 139.5 percent compared with its previous month's level; that was the broadest monthly increase among retail categories examined in the report.

Compared to its level in the previous year's December, the December 2015 indicator was 14.57 percent higher, and it was 40.72 percent higher than its December 2013 level.

The sports and hobbies category represents three sub-categories of consumer goods: sporting goods; games and toys; and music instruments.

Compared to its level in the previous year's December, the December 2015 indicator for sports and hobbies items was 14.57 percent higher, and it was 40.72 percent higher than its December 2013 level

+ 6.9%

III. A. 7- **Hospitality services**

The retail sales indicator for hospitality services had started a sturdy four-month-long May to August seasonal trend that propelled it to a height well above its base year level. In that period, the indicator rose by a combined 80.11 percent and stood at a level 57.28 percent higher than its base level by the end of August.

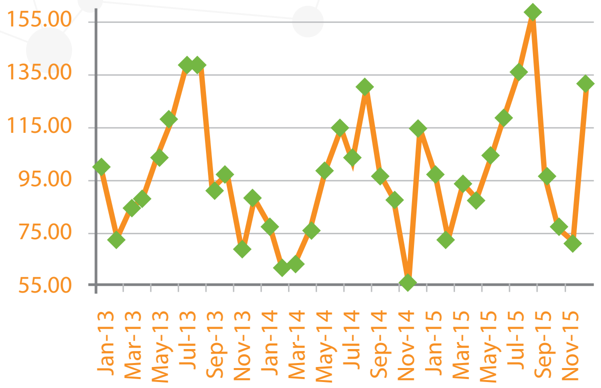
However, in the three months that followed, that indicator staged a broad retreat of 54.46 percent and ended the month of November 39.63 percent lower than its where it stood at the end of the first half of 2015.

In December 2015, sales in this category went through a significant recovery. The sales indicator for this category of retail services increased by 82.79 percent compared with its previous month's level.

That indicator was 16.01 percent higher in December 2015 as compared with the December 2014 level and 48.12 percent higher compared with the December 2013 level.

Hospitality related services include four sub-categories: catering; restaurants; pubs and nightclubs; and hotels and resorts.

Evolution of the Retail Sales Indicator for Hospitality Services



The hospitality services indicator was 16.01 percent higher in December 2015 as compared with the December 2014 level and 48.12 percent higher compared with the December 2013 level

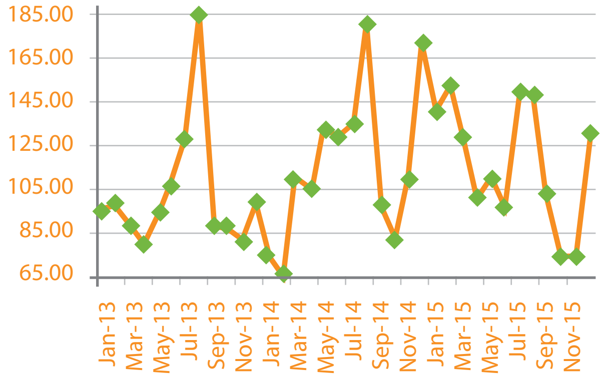
+ 16.01%

III. A. 8- **Tourism**

The sales indicator for tourism services also followed the same directional pattern as the overall indicator, with a major rise of 53.48 percent in July that was followed by a significant fall of 49.82 percent in the subsequent three months combined.

In November, the indicator moved up a 0.2 percent, ending the month some 22.84 percent lower that its level at the end of the first half of 2015, and 24.95 percent lower than its base year level.

Evolution of the Retail Sales Indicator for Tourism Services



The December 2015 sales indicator for tourism services moved up by 72.75 percent from its previous month's level, but was still 24.31 percent lower than its December 2014 level. That indicator was 30.99 percent higher compared with its December 2013 level.

The tourism category of retail includes six sub-categories; these are: travel agencies; travel services; movies and theaters; dance halls and studios; tourist attractions; and clubs.

The December 2015 sales indicator for tourism services moved up by 72.75 percent from its previous month's level, but was still 24.31 percent lower than its December 2014 level

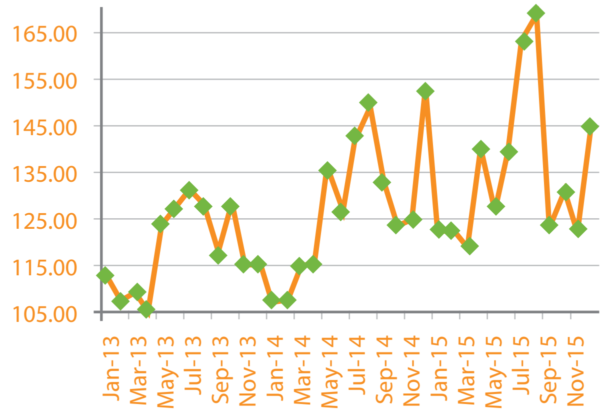
- 24.31%

III. A. 9- **Medical services**

In the months July and August 2015, the sales indicator for medical services rose by a combined 21 percent only to fall back by 26.93 percent in the month of September. In October, the indicator was up 6.35 percent, but then down 6.73 percent in November.

By the end of that month, the medical services sales indicator had fallen by 12.29 percent from its level at the end of the first half of 2015.

Evolution of the Retail Sales Indicator for Medical Services



Compared to its base year level, this indicator was 22.07 higher, which places it as by far the best performing indicator within the categories and data sets covered by the report.

Evidently, this category of retail services is not affected by the typical December flurry in sales. Thus, the indicator for medical services moved up by 18.16 percent in December 2015 as compared with its level in the previous month. The December 2015 level for that indicator was 5.34 percent lower than that of December 2014, but 25.25 percent higher than the December 2013 level.

The medical services category includes five sub-categories. These are the services of: doctors; dentists; optometrists and ophthalmologists; hospitals; and other health and medical facilities.

the indicator for medical services moved up by 18.16 percent in December 2015 as compared with its level in the previous month. The December 2015 level for that indicator was 5.34 percent lower than that of December 2014

- 5.34%

B. Evolution of sales indicators on a quarterly basis

Aggregating monthly retail sales indicators within calendar quarters may convey the appearance of neat, headline-convenient metrics, but this aggregation obscures the critical details on the evolution of sales indicators as captured by the month-to-month fluctuations. By averaging sales performance over three-month periods, the resulting quarterly metrics would obviously (i) fail to reflect surges and dips that occur within a quarter, (ii) leave undetected short-lived trends that may – and often do – extend across calendar quarters, (iii) disable the possibility of detecting correlations in the evolution of indicators across retail categories, and (iv) present results that are not integrable within the trend analysis of data and the analysis of deseasonalized data.

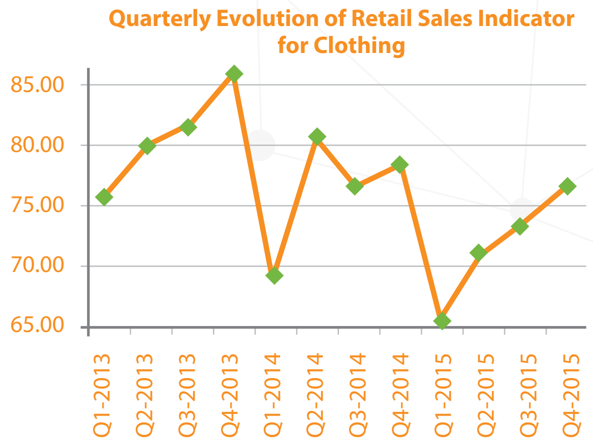
These considerably restricting statistical limitations of quarterly data render ineffectual any exercise that fails to adopt the calendar month as the prime temporal unit for the computation and analysis of retail indicators.

The shortcomings of 'quartering' retail indicators becomes plain when the present report's monthly analysis of data, and the fluctuation nuances it captures so precisely, is compared with the quarterly analysis.

Why then does the report include such a quarterly analysis despite its shortcomings? Such analysis is included precisely to prove its limited value in conveying factual retail-industry trends and, by the same token, counsel analysts and retail executives against the reliance on quarterly data exclusively.

III. B. 1 – **Clothing**

In the fourth quarter of 2015, the retail sales indicator for items of clothing was up 4.64 percent compared with its level in the

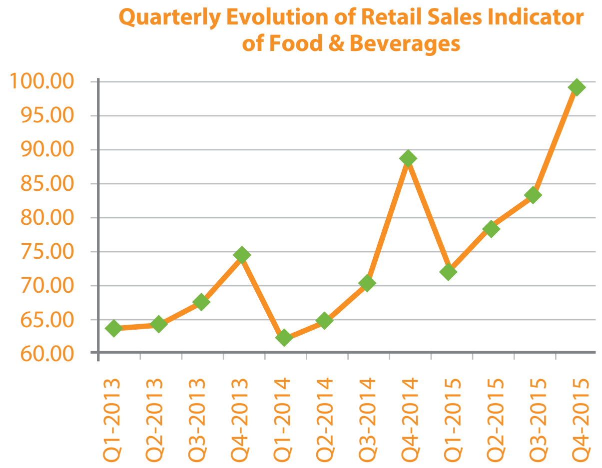


preceding quarter, but was down 2.27 percent in comparison with its level in the same period of the previous year.

That indicator was 3.48 percent higher in the third quarter compared with its level in the preceding quarter, and down 4.39 percent compared with the same quarter of 2014.

III. B. 2 – **Food and beverages**

On a quarter-to-quarter basis, the retail sales indicator for food and beverages rose by 19.16 percent in the fourth quarter of 2015 compared with its level in the preceding quarter and by six percent in Q3-2015 compared with Q2-2015. This percentage gain conveys strong sales evolution whereas the above analysis of the indicator on a monthly basis relates a more nuanced evolution.



When the three-month average of the fourth quarter of 2015 was compared with the corresponding quarter-year average of 2014, the indicator for retail sales of food and beverages recorded a move upward of 12.21 percent. However, such growth is illusory as it derives from a comparison of a middling performance in one period with a worse performance in another period.

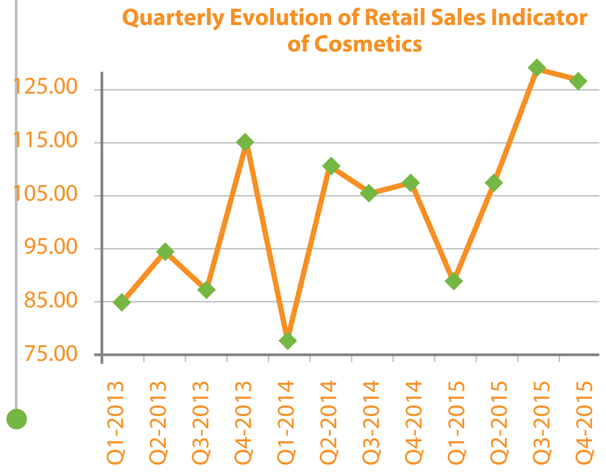
And again, a different picture is drawn by a detailed examination of monthly measures of performance in this retail sector. In the quarter-year under review, the indicator for food and beverages remained 1.02 percent lower than the base year level.

III. B. 3 - **Cosmetics**

The indicator of the evolution of retail sales of cosmetics declined by a minimal 1.83 percent in Q4-2015 compared to Q3-2015, but registered an increase of 17.38 percent compared to the same period of the preceding year.

In Q3-2015, that indicator had risen by 19.08 percent on a quarter-to-quarter basis and by 21.4 percent on a year-to-date basis.

The quarterly evolution in this case totally blurred the wide fluctuations in this indicator in the second half of 2015, fluctuations that were effectively relayed in the monthly evolution of the metric.

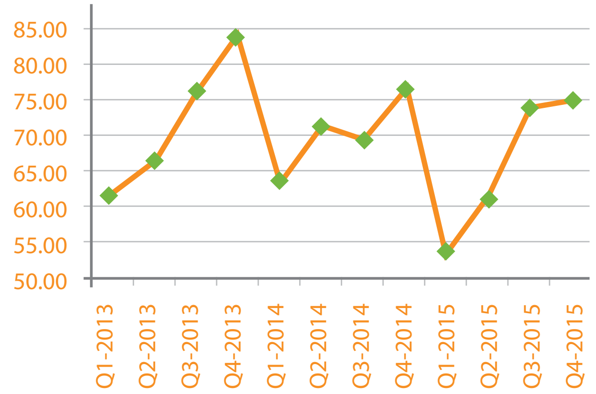


III. B. 4 – **Household goods**

The indicator for the evolution of retail sales of household goods for the fourth quarter of 2015 was 1.08 percent higher that its level in the quarter before, but 2.23 percent lower than its level in the same period of the year before.

In Q3-2015, this indicator rose by a broad 20.08 percent on a quarter-to-quarter basis and by a moderate 6.71 percent on a year-to-date basis.

Quarterly Evolution of Retail Sales Indicator of Household Goods



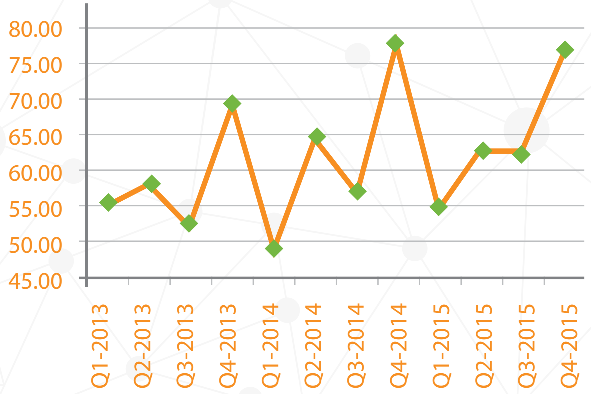
III. B. 5 – **Luxury goods**

The sales performance indicator for luxury goods rose by 22.26 percent in Q4-2015 compared with the previous quarter, by was 1.18 percent lower than its Q4-2014 level.

In Q3-2015, that indicator declined by a minimal 0.58 percent as compared to its level in the quarter before, and increased by 9.46 percent compared to the corresponding period of the year before.

The quarterly comparisons of the evolution of that indicator are particularly misleading in this case as they fail to capture the wide monthly fluctuations that had pushed that indicator in October 2015 to a low level that was 49.35 percent lower than the base level.

Quarterly Evolution of Retail Sales Indicator of Luxury items



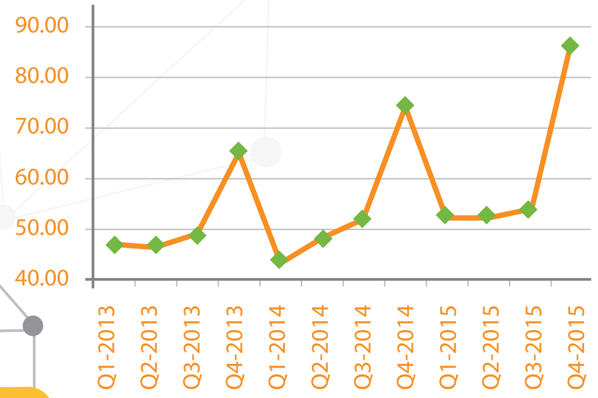
III. B. 6 – **Sports and hobbies**

In Q4-2015, the sales performance indicator for sports and hobbies items rose sharply by 60.63 percent compared with its level in Q3-2105, and by 15.72 percent compared with its level in Q4-2014.

In Q3-2015, the indicator had risen by a moderate 1.92 percent on a quarter-to-quarter basis and by 3.31 percent on a year-to-date basis.

Factually, these quarterly metrics conceal the underlying fluctuations that saw this indicator retreat to a level that was 49.62 percent lower than its base level at the end of September 2015, with the December surge subsequently accounting for the largest stride of the rise in the Q4-2015 indicator.

Quarterly Evolution of Retail Sales Indicator for Sports & Hobbies items

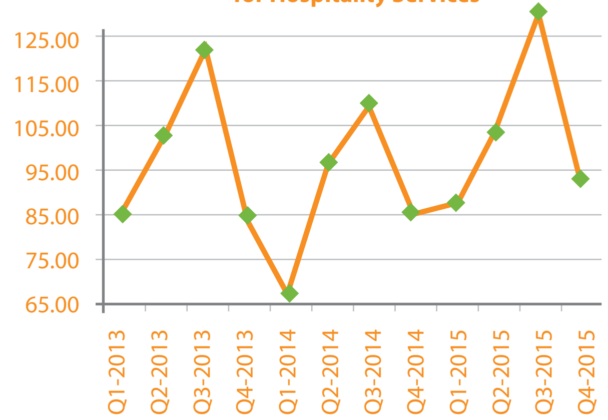


III. B. 7- Hospitality services

The indicator for sales performance of hospitality services was down 28.13 percent in Q4-2015 compared to its level in Q3-2015, and up 8.9 percent compared with its level in the same period of the preceding year.

These rates of change, however, do not reflect the formation of a strong four-month long uptrend and the subsequent sharp fall conveyed in the monthly variations described in the month-to-month evolution.

Quarterly Evolution of Retail Sales Indicator for Hospitality Services

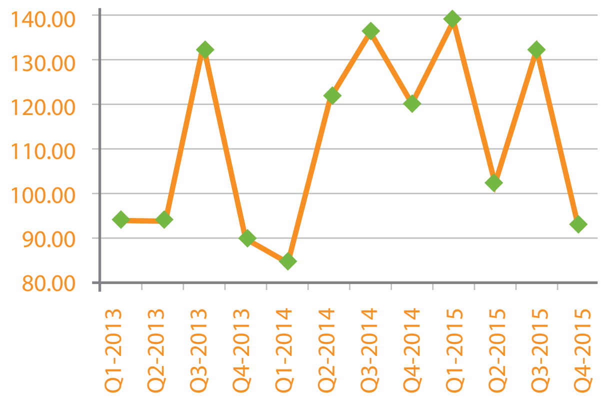


III. B. 8 - Tourism

In the fourth quarter of 2015, the indicator for retail sales of tourism services fell by 30.01 percent compared to the previous quarter and by 23.45 percent compared to the same quarter of the previous year.

The Q3-2015 indicator increased by a broad 29.62 percent compared to its level in the preceding quarter, but fell by 3.12 percent from its level in the same period of the preceding year.

Quarterly Evolution of Retail Sales Indicator of Tourism Services

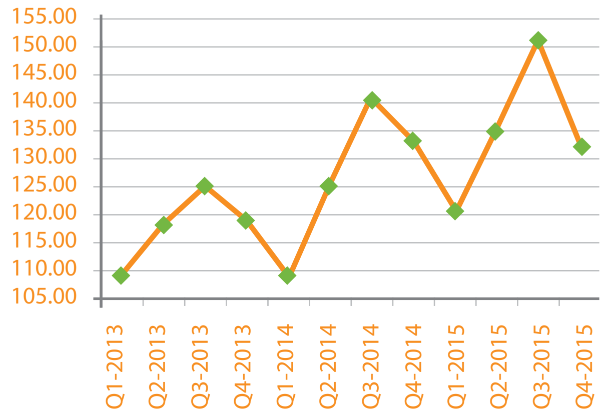


The quarterly data, again, failed to show the fact that in three consecutive months that overlap two calendar quarters, that indicator had retreated by nearly 50 percent to a 36-month low in October 2015 following a surge in the month of July.

III. B. 9 - Medical services

The indicator for retail sales of medical services fell by a significant 12.54 percent in the fourth quarter of 2015 as compared to the preceding quarter and it was a minimal

Quarterly Evolution of Retail Sales Indicator for Medical Services



0.86 percent lower compared to the same period of the previous year.

In Q3-2015, the medical services sales indicator had moved up by 11.95 percent compared to its Q2-2015 level, and had risen up 7.43 percent compared to its Q3-2014 level.

The fact that this indicator had fallen by nearly 27 percent in the last month of Q3-2015 and had risen by more than 18 percent in the last month of Q4-2015 were major analyzable sales performance moves that were plainly 'averaged out' by the quarterly metric comparisons.

III. B. 10- **The overall indicator**

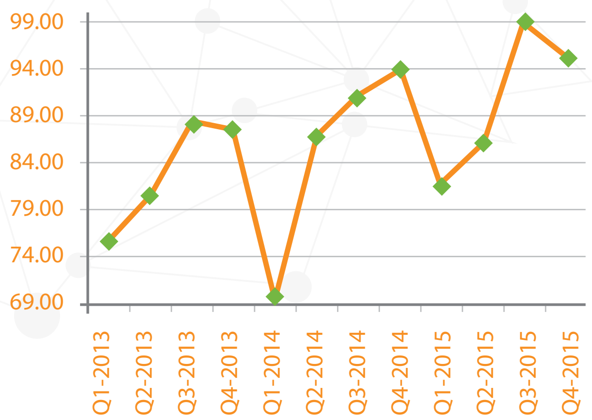
The overall indicator for retail sales of the nine categories of consumer goods and services included in the report moved down by 3.53 percent in the fourth quarter of 2015 compared with its level in the preceding quarter, but was up by 1.74 percent compared with the same period of the previous year.

In Q3-2015, the overall sales performance indicator was up 14.62 percent from the preceding quarter's level and 8.59 percent higher than its level in the period of the previous year.

While it certainly blurs the noteworthy month-to-month fluctuations of category-level sales indicators, the quarterly aggregation of the indicators is not without its advantages.

When taken over the three-year period covered by the report, the twelve quarterly indicators convey expressively the state of recession that the retail industry has gone through in that period.

Quarterly Evolution of Retail Sales Indicator for all nine Categories of Goods and Services



"The overall indicator for retail sales of the nine categories of consumer goods and services included in the report moved down by 3.53 percent in the fourth quarter of 2015 compared with its level in the preceding quarter, but was up by 1.74 percent compared with the same period of the previous year"

Quarter to quarter evolution of retail sales indicators by category

	Q4-2015	Q3-2015	Q2-2015	Q1-2015
Clothing	4.64%	3.48%	7.79%	**-16.26%**
Food & beverages	19.16%	6.00%	8.95%	**-18.46%**
Cosmetics	**-1.83%**	19.08%	21.31%	**-17.22%**
Household goods	1.08%	20.08%	16.17%	**-30.66%**
Luxury items	22.26%	**-0.58%**	13.83%	**-28.58%**
Sports & hobbies	60.63%	1.92%	0.63%	**-29.76%**
Hospitality	**-28.13%**	25.14%	18.44%	2.23%
Tourism	**-30.01%**	29.62%	**-26.54%**	14.87%
Medical services	**-12.64%**	11.95%	11.78%	**-9.31%**
Total	**-3.53%**	**14.62%**	**5.47%**	**-12.76%**

Indeed, all twelve quarterly indicators – including the fourth quarters of the three years, which comprise the December surges – remained below the base year level. The worst quarterly performance was recorded in Q1-2014 when the indicator dipped to 30.54 percent below the base year level, whereas Q3-2015 registered the best performance with the indicator surging to a level that was just 1.27 percent shy of the base year level.

The overall indicator is a composite of the weighted retail sales indicators for six categories of consumer goods comprising 36 sub-categories and three categories of consumer services comprising 15 sub-categories.

"The twelve quarterly indicators convey expressively the state of recession that the retail industry has gone through in that period"

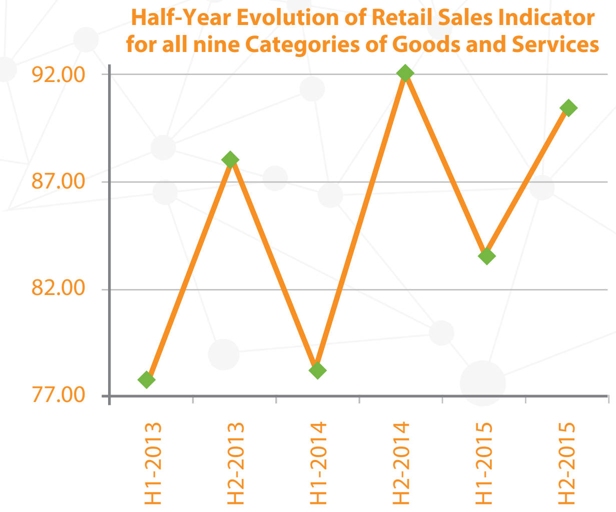
Year-to-date quarterly evolution of retail sales indicators by category				
	Q4-2015	**Q3-2015**	**Q2-2015**	**Q1-2015**
Clothing	**-2.27%**	**-4.39%**	**-12.10%**	**-4.76%**
Food & beverages	12.21%	18.27%	21.38%	16.17%
Cosmetics	17.38%	21.40%	**-2.03%**	14.89%
Household goods	**-2.23%**	6.71%	**-13.29%**	**-16.07%**
Luxury items	**-1.18%**	9.46%	**-2.17%**	11.92%
Sports & hobbies	15.72%	3.31%	8.97%	19.87%
Hospitality	8.90%	18.60%	7.28%	29.60%
Tourism	**-23.45%**	**-3.12%**	**-15.92%**	66.40%
Medical services	**-0.86%**	7.43%	7.37%	10.51%
Total	**1.74%**	**8.59%**	**-1.00%**	**17.58%**

IV. Evolution of sales indicators on a half-yearly basis

The half-yearly retail sales metrics also convey the state of recession in the retail industry.

Over the six half-year periods examined, the sales performance indicator for the nine categories of retail covered by the report remained 7.73 percent below the base level at its best in H2-2014. At its worst, the indicator was 22.04 percent below base year level in H1-2013.

A close look at the half-yearly metrics and at the accompanying chart shows that the half-year indicator is not ratcheting up, despite the illusory appearance that it is. The fact that the H2- 2015 indicator fell 2.2 percent short of the level it had reached in H2-2014, in addition to the overall pattern of half-yearly change,



imply that activity in the retail industry has not yet etched a recovery path.

At category level, the half-year indicators present a clear temporal overview of the trending evolution of sales performance.

> "Over the six half-year periods examined, the sales performance indicator for the nine categories of retail covered by the report remained 7.73 percent below the base level at its best in H2-2014"

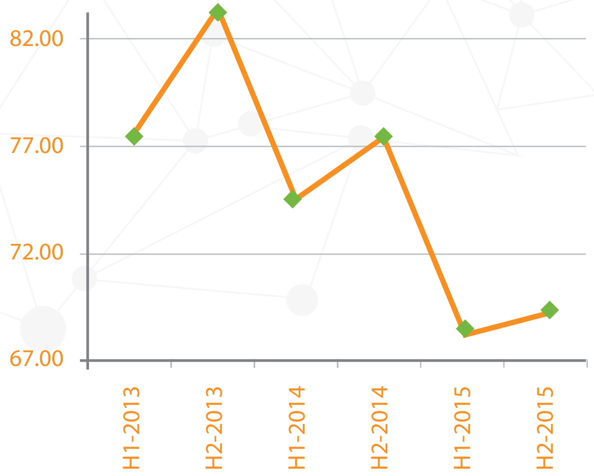
Trending down

The half-year sales indicators for clothing and household goods traced clear downtrend patterns.

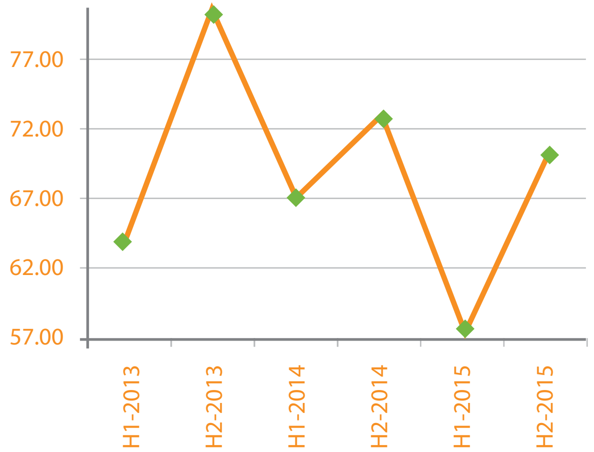
Over the six half-year periods, the indicator for the clothing category of retail exhibited a typical downtrend pattern, with lower lows and lower highs.

Equally weak, though in a less orderly pattern, is the indicator for household goods, which traced gradually lower levels for second-half years and a major dip of the indicator on H1-2015.

Half-Year Evolution of Retail Sales Indicator for Clothing



Half-Year Evolution of Retail Sales Indicator for Household Goods

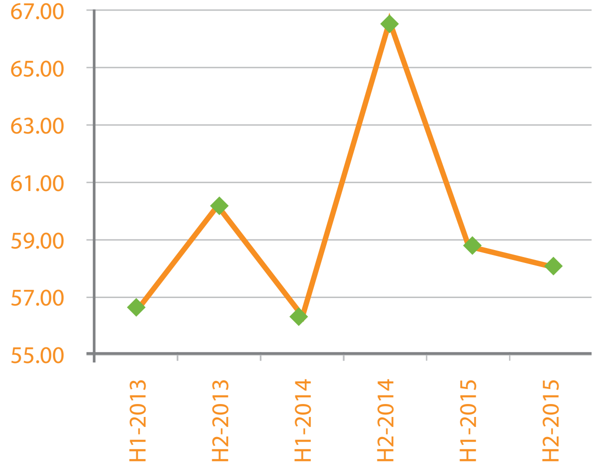


Mixed performance

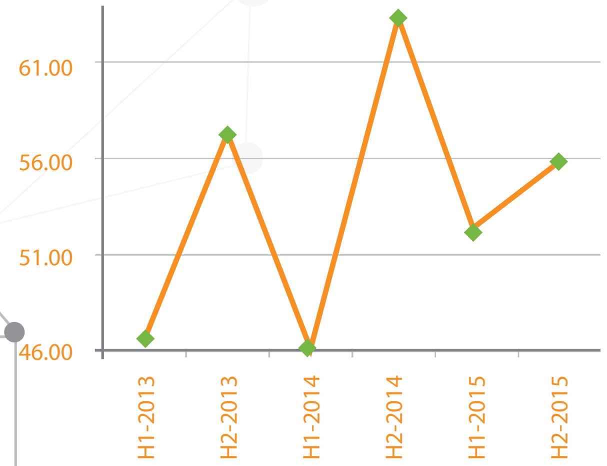
Three categories of retail sales have had a mixed performance over the three-year period 2013 to 2015. These are: the luxury, the sports and hobbies, and the tourism services categories.

The three categories of sales showed a surge in H2-2014 that was followed by a sharp fall in H1-2015 from which they failed to recover in H2-2015.

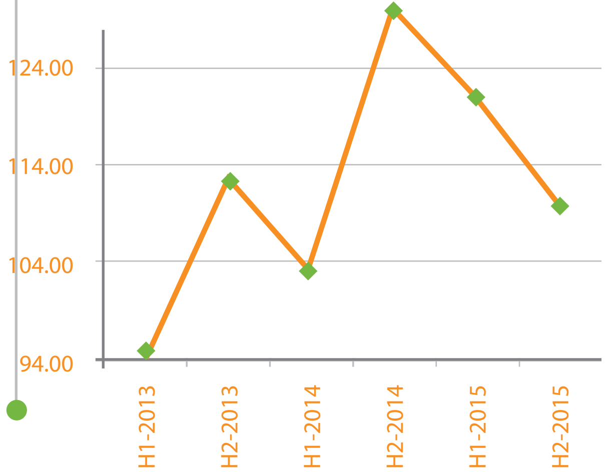
Half-Year Evolution of Retail Sales Indicator for Luxury Items



Half-Year Evolution of Retail Sales Indicator for Sports & Hobbies Items



Half-Year Evolution of Retail Sales Indicator for Tourism Services

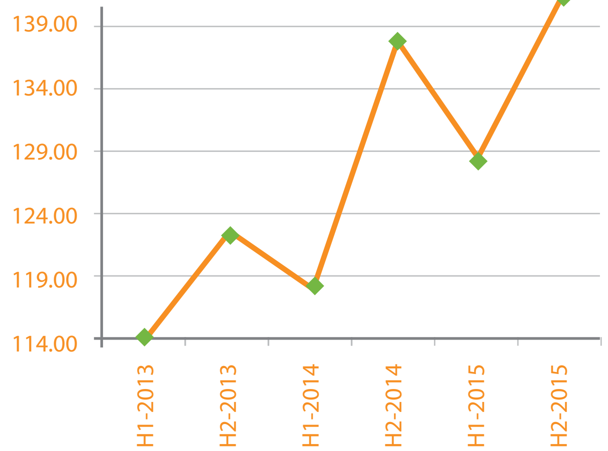


Trending up

The indicators for cosmetics, medical services, food and beverages, and hospitality services have trended up in a more or less typical configuration.

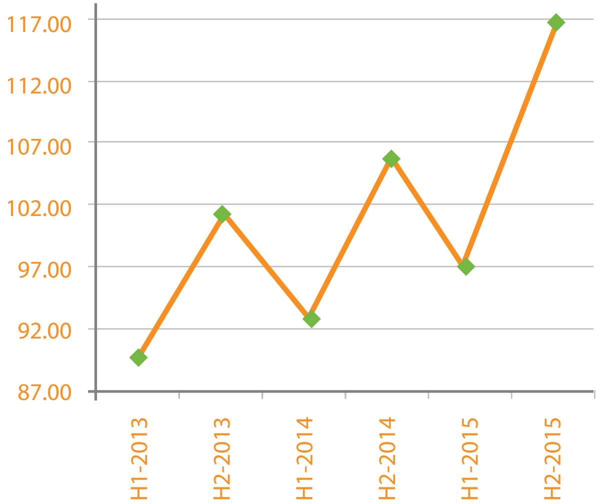
The sales indicator for medical services drew a typical uptrend pattern with higher highs and higher lows over the six half-year periods.

Half-Year Evolution of Retail Sales Indicator for Medical Services



The retail sales indicator for cosmetics also registered a typical uptrend pattern with higher highs – obviously corresponding to second half years – and higher lows. However, the cosmetics category accounts for a minor portion of sales and hence carries a lower weight coefficient within the overall sales performance indicator.

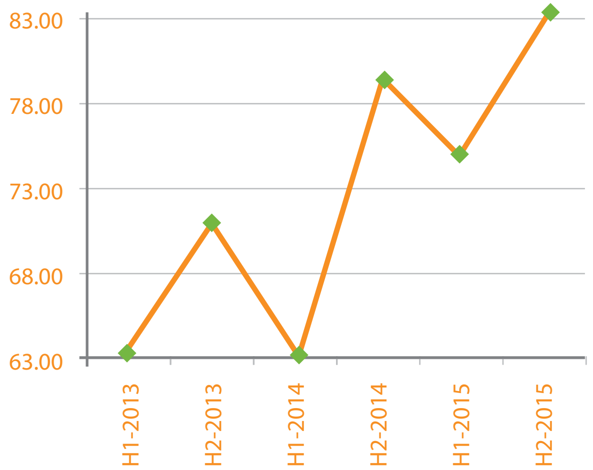
Half-Year Evolution of Retail Sales Indicator for Cosmetics



"The indicators for cosmetics, medical services, food and beverages, and hospitality services have trended up in a more or less typical configuration."

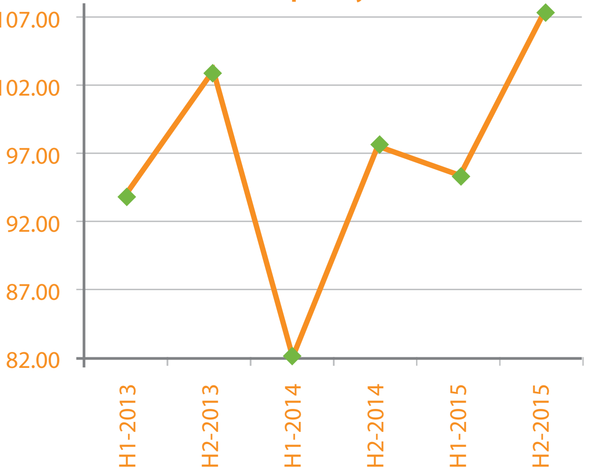
Equally trending up, but in a less typical pattern, is the indicator for food and beverages, which has maintained in the year 2015 the broad gains made in H2-2014. Still, the H2-2015 indicator for that category of sales remained a broad 17.03 percent below its base year level.

Half-Year Evolution of Retail Sales Indicator for Food & Beverages



The hospitality services sales performance index also showed signs of strength as it recovered for the sharp dip in H1-2014. The H2-2015 indicator surpassed the base year level by a modest 7.48 percent.

Half-Year Evolution of Retail Sales Indicator for Hospitality Services



"The hospitality services sales performance index also showed signs of strength as it recovered for the sharp dip in H1-2014."

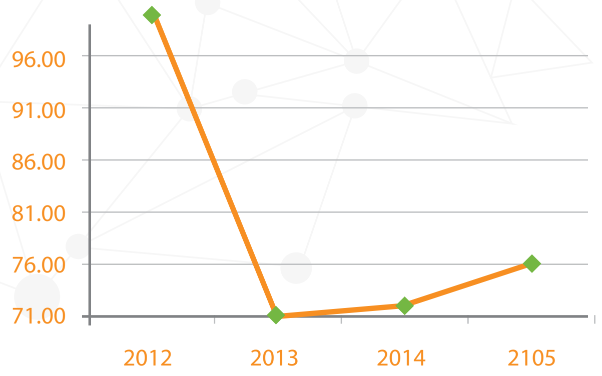
V. **Yearly evolution of sales indicators**

The yearly evolution of retail sales indicators provides a trim synthesis of retail market activity. As in any statistical synthesis, yearly indicators are metrics that average out peaks and troughs, and seasonal surges and dips, and therefore have to be evaluated in conjunction with the gamut of indicators computed according to the three time units described in the preceding sections.

In 2015, the sales performance indicator for the six categories of consumer goods increased by 5.67 percent. That indicator remained 23.63 percent lower than its base year level.

"In 2015, the sales performance indicator for the six categories of consumer goods increased by 5.67 percent"

Yearly Evolution of Retail Sales Indicator for the six Categories of Consumer Goods



The sales performance indicator for the three categories of consumer services moved up by 6.64 percent in 2015. That indictor was 18.6 percent higher than its 2012 base level.

"The sales performance indicator for the three categories of consumer services moved up by 6.64 percent in 2015"

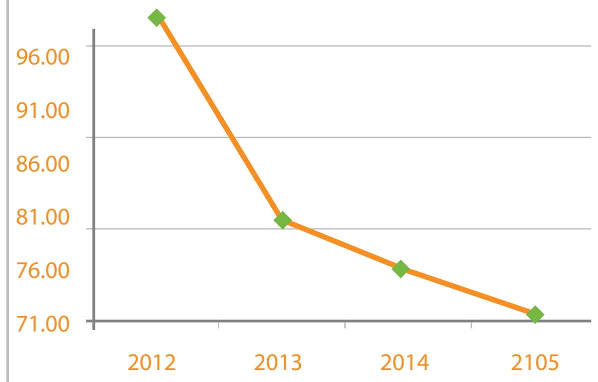
The sales performance indicator for all nine categories of consumer goods and services rose by 6.09 percent. However, that indicator remained 9.55 percent below its base year level.

"The sales performance indicator for all nine categories of consumer goods and services rose by 6.09 percent. However, that indicator remained 9.55 percent below its base year level"

At retail category level

The retail sales indicator for clothing retreated by 5.97 percent in 2015. That indicator remained 28.5 percent below its base year level.

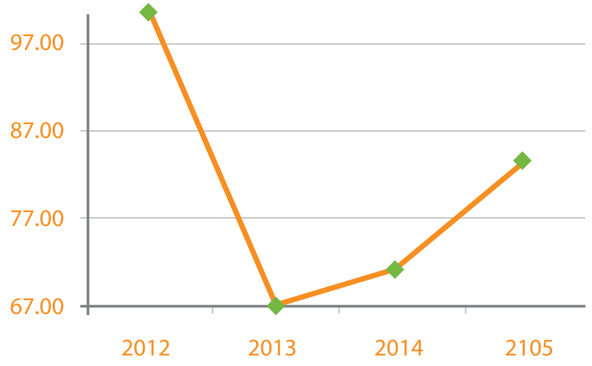
Yearly Evolution of Retail Sales Indicator for Clothing



"The retail sales indicator for clothing retreated by 5.97 percent in 2015"

The sales indicator for food and beverages rose by 16.65 percent in 2015 compared with its level in the previous year, but remained a broad 16.91 lower than its base year level.

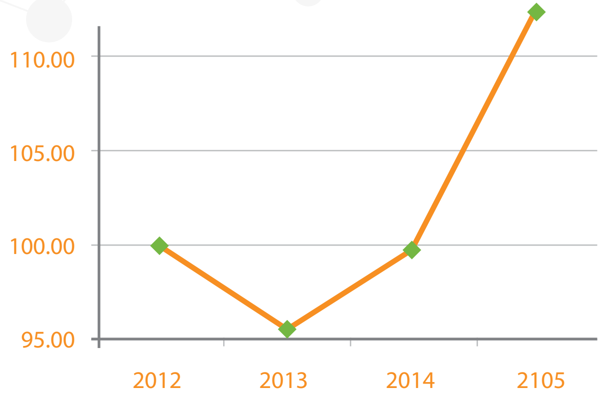
Yearly Evolution of Retail Sales Indicator for F&B



"The sales indicator for food and beverages rose by 16.65 percent in 2015 compared with its level in the previous year, but remained a broad 16.91 lower than its base year level"

In 2015, the sales indicator for cosmetics rose by 12.43 percent in comparison to its 2014 level.

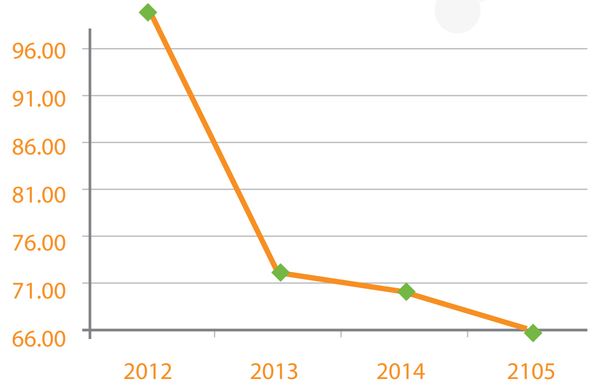
Yearly Evolution of Retail Sales Indicator for Cosmetics



"In 2015, the sales indicator for cosmetics rose by 12.43 percent in comparison to its 2014 level"

Items of household goods saw their retail sales indicator diminish by 5.94 percent in 2015 as compared to that indicator's 2014 level. The indicator for this category of consumer goods remained 33.99 percent lower than its base year level.

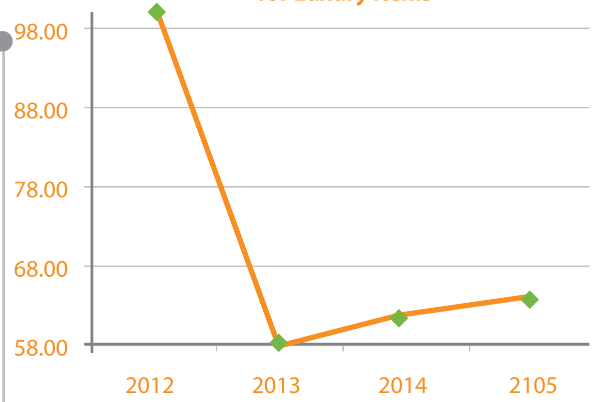
Yearly Evolution of Retail Sales Indicator for Household Goods



"Items of household goods saw their retail sales indicator diminish by 5.94 percent in 2015"

The retail sales indicator for luxury goods increased by 3.62 percent in 2015, but remained a wide 36.18 percent below its base year level.

Yearly Evolution of Retail Sales Indicator for Luxury Items



"The retail sales indicator for luxury goods increased by 3.62 percent in 2015, but remained a wide 36.18 percent below its base year level"

The sales indicator for items of sports and hobbies registered a 12.11 percent increase in 2015, but remained at a broadest 38.64 percent lower than its base year level.

Yearly Evolution of Retail Sales Indicator for Sports & Hobies Goods

“The sales indicator for items of sports and hobbies registered a 12.11 percent increase in 2015, but remained at a broadest 38.64 percent lower than its base year level”

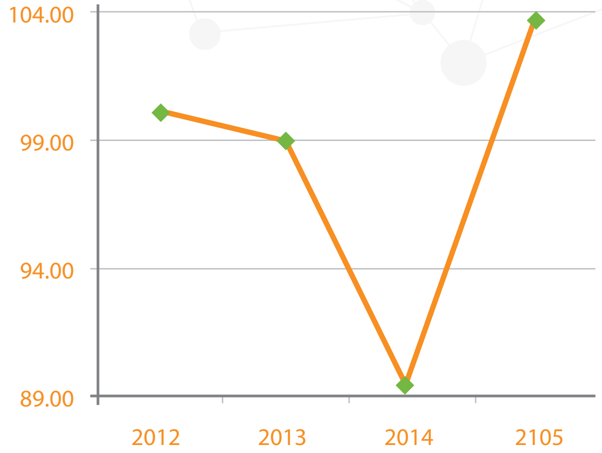
Notably, in 2015, the sales indicators of five out of the six categories of consumer goods remained below their base year levels by margins ranging from a minimum of 16.91 percent to a maximum of 38.64 percent. Only the sales indicator for the cosmetics category of consumer goods surpassed its base year level, but that category accounts for a minimal share of transactions and is hence assigned a commensurate coefficient within the overall indicator.

By comparison, the sales indicators of all three categories of consumer services were higher than their base year level by margins ranging from 3.45 percent to 35.11 percent.

“Notably, in 2015, the sales indicators of five out of the six categories of consumer goods remained below their base year levels by margins ranging from a minimum of 16.91 percent to a maximum of 38.64 percent”

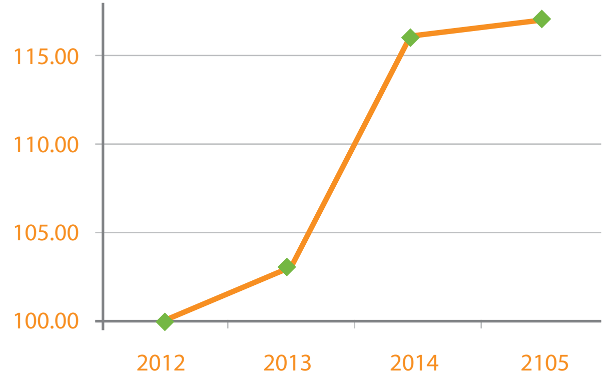
Thus, the indicator for retail sales of hospitality services increased by 15.31 percent in 2015 and reached a level that is 3.45 percent higher than that of the base year.

Yearly Evolution of Retail Sales Indicator for Hospitality Services



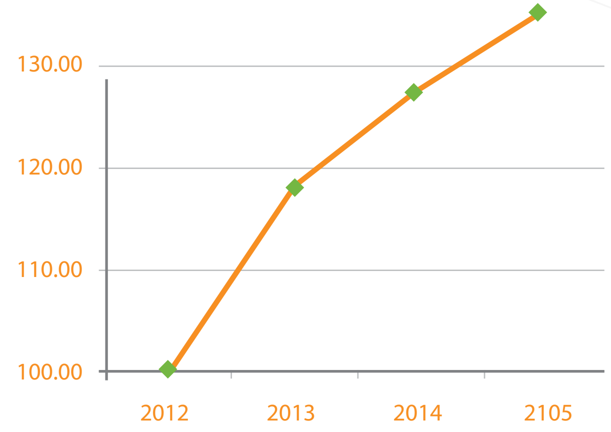
The sales indicator for tourism services increased by a minimal 0.76 percent and stood at 17.24 percent above the base year level.

Yearly Evolution of Retail Sales Indicator for Tourism Services



The sales indicator for medical services increased by 5.91 percent in 2015 and exceeded its base year level by 35.11 percent.

Yearly Evolution of Retail Sales Indicator for Medical Services



IV – THE ANALYSIS

Indicator data for almost all categories of consumer goods and services examined in the report show clear and striking seasonal patterns that are, to be sure, in close lockstep with the tempo of retail market activity.

Thus, the December surges in sales indicators are evident in five categories of consumer goods, namely the clothing, the food and beverages, the household goods, the luxury items, and the items of sports and hobbies categories. Together, these categories carry a substantial weight within the overall retail sales performance indicator. Consequently, the evolution of that indicator over the three-year period exhibits the same seasonality pattern of its five largest components

Seasonal influences shape a different evolution pattern of the sales indicators for hospitality services and tourism services. For these two categories, sales performance peaked in the months of August. The December months have had a comparatively attenuated positive influence on sales performance indicators for these two categories of consumer services in the past two years.

A close examination of the month-to-month data pertaining to the indicator for the medical services category of retail reveals a consistent – though subdued – pattern of better sales performance in the months of July, August and December.

These elementary observations of seasonal swings are well known to – and thoroughly accounted for by – retail enterprises. However, the basic indicator data, and the seasonal 'noise' included therein, can hardly provide more than a cursory overview of the evolution of the sales performance metrics.

Certainly, strategic business planning necessitates among other things, a better recognition of the underlying trend in retail sales. And this can be achieved with the ironing out of seasonal moves.

"the December surges in sales indicators are evident in five categories of consumer goods"

IV. A. **The de-seasonalization of data sets**

When data sets are viewed as time series – the building blocks of advanced statistical analysis – the dampening down of seasonal soars and tumbles is carried out with the intent of achieving three interlocked objectives.

First, de-seasonalization narrows down the band within which data fluctuations occur. This affords retailers a more reliable longer-term view of the non-seasonal highs and lows in sales. If such knowledge were put to correct application, its implications on planning would make the difference between optimal managerial results that generate value, and substandard, hit-and-miss stumbling actions that degrade enterprise performance.

Second, seasonally-adjusted sales metrics offer retail managers a reference set of data – an anchor of sorts – by which they can assess the breadth of fluctuations of their products' sales once the seasonal influence embedded in the data has been dulled. A corollary of this fluctuation-muffling operation is that the broader the seasonal surges the more sizeable the reduction in the confines of oscillations.

Additionally, retailers would be able to compare – 'benchmark' – their sales fluctuations with the broader market's fluctuations.

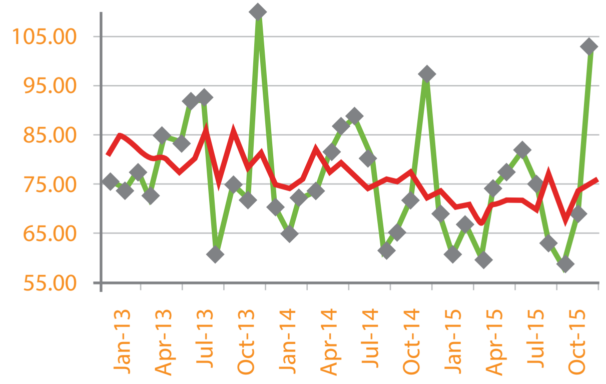
Third, seasonally adjusted time series account for comparatively more accurate trend parameters and forecasts than the unadjusted series.

For the purposes of the present report, the 36-month time series of retail sales indicators for the nine categories of consumer goods and services were seasonally adjusted. The accompanying charts constitute a visual rendition of results, with the red line in each of the ten charts representing the seasonally adjusted retail sales indicators.

IV. A. 1- **Clothing**

The seasonal adjustment of the retail sales indicator for the clothing category of consumer goods reduced the range of fluctuations of this metric by 62.23 percent, a broad reduction that reflects the relative amplitude of the December surges.

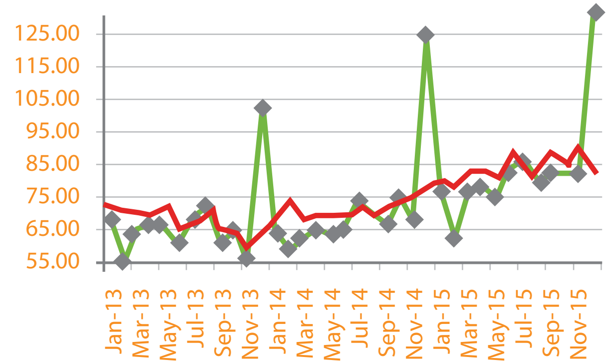
Retail Sales Indicator for Clothing and Seasonally Adjusted Indicator



IV. A. 2 - **Food and beverages**

With equally ample seasonal surges, the de-seasonalization of the sales indicator series for food and beverages resulted in a 60.91 percent reduction in the range of fluctuations of this metric.

Retail Sales Indicator for F&B and Seasonally Adjusted Indicator



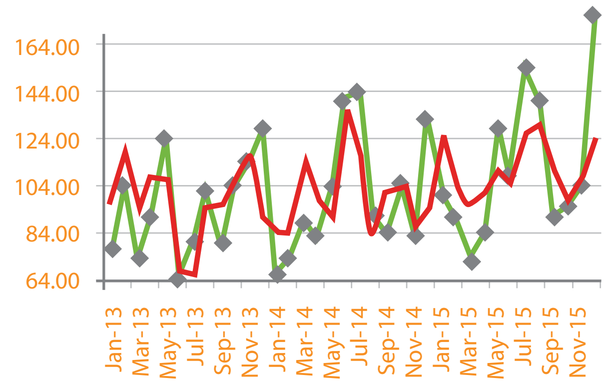
IV. A. 3- **Cosmetics**

With relatively less pronounced seasonal peaks, the seasonally adjusted series for the cosmetics sales indicator fluctuated within a range that was 33 percent narrower than the range of fluctuations of the unadjusted series.

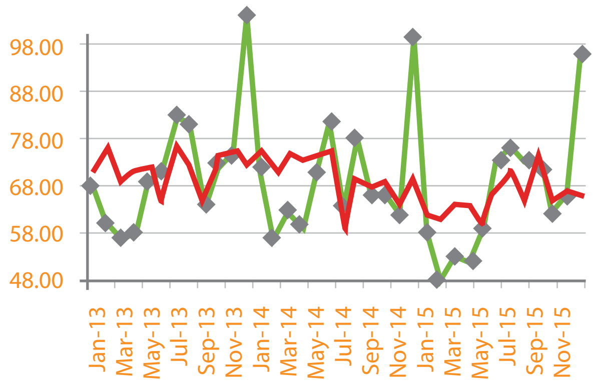
IV. A. 4 - **Household goods**

The seasonal adjustment of the series for the indicator of household goods yielded a range of fluctuations that was 67.67 percent narrower than that of the unadjusted series. The broad reduction reflects the marked seasonal surges.

Retail Sales Indicator for Cosmetics and Seasonally Adjusted Indicator



Retail Sales Indicator for Household Goods and Seasonally Adjusted Indicator



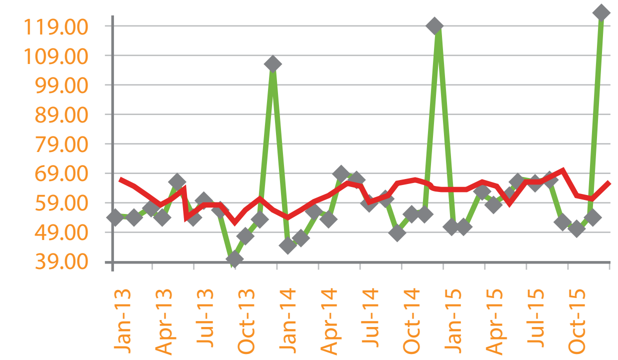
IV. A. 5 - **Luxury items**

Exhibiting the second broadest December surges among the nine categories of goods and services included in the report, the sales indicator series for luxury items saw the range of fluctuations reduced by 77.65 percent, the second broadest reduction.

IV. A. 6- **Sports and hobbies goods**

This category of retail sales exhibited the broadest December surges. Consequently, seasonal adjustment of the sales indicator series for sports and hobbies goods reduced the bounds of oscillations by 81.32 percent, the broadest reduction in comparison with the series of the other eight categories of goods and services.

Retail Sales Indicator for Luxury Items and Seasonally Adjusted Indicator



Retail Sales Indicator for Sports & Hobbies Items and Seasonally Adjusted Indicator