# CFA Institute Research Challenge

Hosted in

Zimbabwe

Solusi University

Figure 1: PHL Metrics

| Rating | SELL |
|---|---|
| Date | 5-Oct-18 |
| Reuters code | PADENGA:ZI |
| Bloomberg code | PHL:ZH |
| Current Price USc | 71.75 |
| Intrinsic Value USc | 26.00 |
| Implied upside | -63.76% |
| Shares in issue 'm | 541.59 |
| Market Cap US$m | 388.59 |
| Free float % | 2.50% |
| 52 week range © | 60c-71c |
| Book Value US$m | 61.90 |
| Price/Book (x) | 6.28 |

Figure 2: PHL Relative to ZSE Ind Index

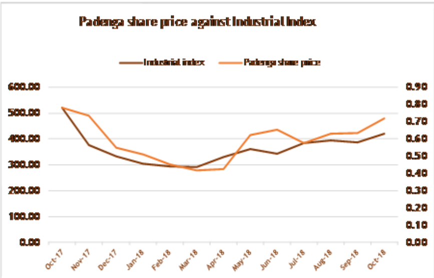


Table 1: PHL Share Price Trends

| | YTD | 1mnth | 3mnth | 12mnth |
|---|---|---|---|---|
| Price change | 30.3% | 13.8% | 13.4% | -2.3% |

Figure 3: PHL Key Forecasts


Table 2: Valuation Outputs

| Valuation Date | 05 October, 2018 | |
|---|---|---|
| Methodology | | |
| | Intrinsic Value | Implied Upside/(Downside) |
| DCF -FCFF | 26USc | 63.80% |
| | Predicted Price | Implied Upside/(Downside) |
| Intrinsic PER | 62.8USc | -11.55% |
| PER Regression Model | PE = 16.36 + 50.15 $g_{EPS}$ + 5.33 Payout - 1.44 Beta | |

Our coverage of **Padenga Holdings Limited (PHL)** yielded a **SELL** recommendation. The recommendation is based on our fair value estimate of **USD0.26** implying a potential downside of **63.8%** on the market price of **USD0.71**. We also priced the business using a **Regression PE Model** which yielded a price of **USD0.63** implying a potential downside of **11.6%** on the current price. Based on our PE Model **PHL's intrinsic PE** is **26.15x** which is **11.6%** lower than its current PE of **29.58x**.

- **Strong demand for high value crocodilian skins - "Classic Skins"** – Zimbabwe produces c.45.9% of the world's classic crocodilian skins. Padenga has c.40% of Zimbabwe's skin supply market and c. 18% of the world's Nile skin market. Demand for Padenga's *Niloticus* and *Alligator* premium skins is relatively inelastic and less susceptible to movements in global disposable incomes.
- **Strong market share of classic Niloticus skins makes PHL's revenues immune to global economic shocks -** The proportion of premium grade skins produced by Niloticus croc farmers globally is c.50 000 skins that meet the quality demands of the premium brands. Padenga has, since 2011, consistently supplied at least 40 000 (80%) of 50 000 annually and can remain the predominant supplier of this product worldwide.
- **The devaluation of PHL's functional currency likely to boost competitiveness** - PHL generates c.83.8% of its revenues from premium Nile skin operations which are domiciled in Zimbabwe but sales its skin and meat produce into the global market. The current FX challenges in Zim have resulted in a devaluation of PHL's cost base hence. This devaluation will in the short to medium term make PHL's skin cost of production lower relative to its competitors.
- **High GP and Operating margins to drive value -** PHL has consistently achieved GP and Operating margins that are above the industry average making a case for the business ability to create value for investors in to long term.
- **Low D/E ratio makes PHL relatively less risky as an investment option** – PHL has one of the lowest D/E ratios in the industry making the business' degree of financial leverage relatively lower and hence lower business risk.

Table 3: PHL Key Forecasts for Valuation

| Key Forecasts | FY17A | FY18E | FY19E | FY20E | FY21E | FY22E |
|---|---|---|---|---|---|---|
| Revenue ' USm | 30.3 | 32.4 | 34.8 | 37.2 | 39.9 | 42.7 |
| EBIT Margin % | 53.3% | 53.3% | 53.3% | 53.3% | 53.3% | 53.3% |
| EBIT 'USm | 16.14 | 17.29 | 18.53 | 19.85 | 21.27 | 22.79 |
| Tax Rate | 21.5% | 21.9% | 22.3% | 22.8% | 23.2% | 23.6% |
| NOPAT | 11.99 | 13.51 | 14.39 | 15.33 | 16.34 | 17.40 |
| Reinvestment | - | 0.54 | 0.58 | 0.62 | 0.66 | 0.71 |
| FCFF | - | 12.97 | 13.81 | 14.72 | 15.68 | 16.70 |

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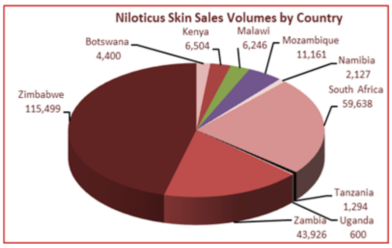
## INVESTMENT SUMMARY

Figure 4: Niloticus Skin Sales in Africa




### THE INVESTMENT THESIS

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### THE INVESTMENT CASE

*… Strong demand for high value crocodilian skins - "Classic Skins"…*

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*… Strong market share of classic Niloticus skins makes PHL's revenues immune to global economic shocks…*

**Strong market share of classic Niloticus skins makes PHL's revenues immune to global economic shocks** - The proportion of premium grade skins produced by Niloticus croc farmers globally is c.50 000 skins that meet the quality demands of the premium brands. Padenga has, since 2011, consistently supplied at least 40 000 (80%) of 50 000 annually and can remain the predominant supplier of this product worldwide.

*… The devaluation of PHL's functional currency likely to boost competitiveness…*

**The devaluation of PHL's functional currency likely to boost competitiveness** - PHL generates c.83.8% of its revenues from premium Nile skin operations which are domiciled in Zimbabwe but sales its skin and meat produce into the global market. The current FX challenges in Zim have resulted in a devaluation of PHL's cost base hence. This devaluation will in the short to medium term make PHL's skin cost of production lower relative to its competitors.

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## ABOUT PADENGA

*… Padenga operates in the aquaculture sector of Zimbabwe's agriculture industry …*

Padenga Holdings Limited (PHL) is a public company listed on the Zimbabwe Stock Exchange as from the 9th of November 2010. Its core business is production and sale of crocodilian skin, alligator skin and crocodile meat. Padenga operates in the aquaculture sector of Zimbabwe's agriculture industry

*… PHL commands a 45% global market share…*

Padenga exports 100% of the of Nile crocodile skins to premium tanners. It commands a 45% global market share. In 2012, Padenga purchased an interest in an alligator-farm specializing in producing watchband size and medium size skins of classic quality for the top-notch luxury fashion brands. It subsequently, exports crocodile meat processed/treated at its export approved abattoir to Europe and Asia.

## BUSINESS DESCRIPTION

PHL is one of the six (6) export approved crocodile operations in Zimbabwe. PHL operates three farms namely Kariba Crocodile Farm (KCF), Nyanyana Crocodile Farm (NCF) and Ume Crocodile Farm (UCF) on land leased (20-year terms) from the Zimbabwe Parks & Wildlife Authority (ZPWA). PHL has an 82.9% stake in the Tallow Creek Ranch in Texas, USA. The PHL Group is organized into business units segmented on a biological asset basis, namely crocodiles and alligators. Crocodile operations are domiciled in Zimbabwe and account for 83.8% of the group's revenue while the United States of America focuses on alligator farming. The group now produces 60,000 alligator skins 500% up from the 12,000-skin output in 2012 when PHL took over the business. The croc operation produces an average of 45,000 premium Nile crocodile skins each year.

Figure 5: Nyanyana & Kariba Farms

Source: PHL

Tallow Creek Ranch – the alligator business - specializes watchband size and medium size classic quality skin production for top-notch luxury fashion brands. PHL exports crocodile meat processed at its export approved abattoir to Europe and Asia. Current production in alligator skins stands at 60,000 skins each year and 45,000 premium Nile crocodile skins.

Figure 6: UME Farm

Source: PHL

PHL's key partners include international suppliers of feed and ZESA who supply power, ZINWA who regulate water resources and Zimbabwe Parks & Wildlife Authority (ZPWA) from who they lease croc farms. PHL's industry is regulated by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and Zimbabwe Parks and Wildlife Management Authority (PWLMA). The Company structure includes a Technical Department that operates as a standalone cost centre and is responsible for all aspects of maintenance and new project initiatives.

Figure 7: Sample Crocodile Skin Handbags

Source: Solusi Research

### NILE CROCODILE

Zimbabwe's sub-Saharan African Nile crocodile (*Crocodylus Niloticus*), is the world's second largest crocodile, and is listed in Appendix 11 of the International trade in endangered species). An average adult Nile crocodile weighs about 410kg with a length of about 4 to 5 meters. The reptiles are bred for 3 years under an average temperature of 31.1 degrees Celsius and minimum noise and unprecedented human contact. Since the shortage of croc feed in 2006, Padenga now runs a meat-free diet to meet its daily feed requirement portion of 30 tonnes 80% of which is imported from South Africa. Protein is mixed with maize-meal and other nutrients to give the best meat-free diet for the reptile.

### CROCODILE SKINS

The bottom side of the crocodile is exported, and its yield varies with the quality of skin, and skin size, preservation, shape and fleshing proficiency of skin in order of priority. Skin quality is determined by the scars, holes, blemishes and colour of the skin. Scratches and bite-marks on croc skins reduce quality by 25% to 30%.

### CROCODILE MEAT

Incidental to skin trade, at least 100t of crocodile meat are exported to Europe and seasonally to Asia aided by PHL's standalone export-approved abattoir in Zimbabwe in this regard making a total 4% contribution to total revenue.

Figure 8: Sample Alligator Watchbands

Source: PHL

## ALLIGATOR

The American Alligator *(Alligator mississippiensis)* is a large crocodilian species endemic to the south-eastern United States. The 350000 alligator skins produced globally p.a for trade, 9% are from Padenga, and almost equal large skin size proportion. The (TCR) 3000 skin-harvest in 2012 increased to an average 20000 skins p.a.

## ALLIGATOR SKINS

Padenga' shareholding in Tallow Creek Ranch (TCR) stands at 82.9% (2017). Production has increased from approximately 3,000 alligators per year in 2012 to 60,000 2017 watchband sized alligator skins per annum. In line with the strategy to produce predominantly medium sized skins, only those watchband sized skins which were not suitable for grow-out to medium skins were harvested in 2017. Volumes were therefore predictably down 46% against prior period (11,190 skins vs. 20,835 skins). Consequently, the operation recorded turnover of $1,760,932, a 53% decline against prior year ($3,745,074 – FY16). The unit recorded an operating loss of $868,385 and a loss before tax of $978,838 compared to an operating loss of $614,841 and a loss before tax of $1,675,835 in the prior year.

## ALIGATOR EGG BREEDING

Eggs are a critical ingredient in alligator farming. PHL experienced an 11% decrease in the number of eggs produced by mature domestic female breeders delivered to its incubator in 2017 relative to 2016. The business experienced a 48% cumulative increase in egg numbers produced by mature domestic females since 2012. These figures represent success in the company's commitment to eventually reducing its dependency on wild egg collection. The current business model for the alligator business requires PHL to buy eggs for wild egg collectors. This exposes the business to egg shortage risks which is now being addressed through in-house egg production.

## MANAGEMENT & GOVERNANCE

### BOARD COMPOSITION & PROCESSES

Padenga's Board of Directors (BoD) is relatively independent. The BoD is comprised of 4 non-executive directors in compliance with the minimum 60% non-executive board representation. The BoD is made up of experienced credible professionals who are competent in their respective fields, and with credible track records.

The BoD sits every quarter-year and each member, holds at least a Masters degree, and has over 10 years of relevant experience. One weakness in the BoD is the multiple board positions in businesses that are related which has the prospects of compromising their independence. Some of the members sit on boards of the likes of Innscor and Colcom which have a common major shareholder. T.N. Thembinkosi also sits on 35 boards which is contrary to the maximum permitted 6 and J.C.P Caraguel is a new director who sit on possible competitors' boards which is a risk to alignment of interests with shareholders. The board has an average attendance of 75%. M.J Fowler has in the past been alleged to have been involved in criminal activities includes money laundering (The Panama Papers Scandal). Members retire on rotation and being eligible offer themselves for re-election.

Table 4: PHL BoD

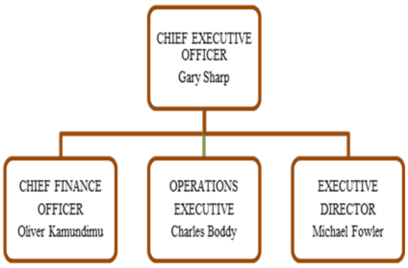
| Director's Name | Position Held |
|---|---|
| Alexander Kenneth Calder | Non-Executive Chairman |
| Gary John Sharp | Chief Executive Officer |
| Oliver Tendai Kamundimu | Chief Financial Officer |
| Micheal John Fowler | Executive Director |
| Annie Mutsa Mazvita Madzara | Non Executive Director |
| Thembinkosi Nkosana Sibanda | Non Executive Director |
| J.C.P Caraguel | Non Executive Director |

Source: PHL

### EXECUTIVE MANAGEMENT

PHL is currently being led CEO Gary John Sharp (60) whose education and experience in wildlife management under Innscor is invaluable to the business. Gary has a 0.21% direct shareholding in the business. Oliver Tendai Kamundimu (49), the CFO has been a chartered accountant for 26 years, 16 of which he served at Innscor. He joined Padenga upon its unbundling from the Innscor group. Oliver holds 0.02% shareholding in PHL directly. Micheal John Fowler (53) has been with the business since 1994, and is PHL's Executive Director since listing; John is a significant shareholder with 20.77% the issued share capital. Executive management's shareholding in PHL has the potential of aligning their interests with the rest of the shareholders. The downside is that there is a potential conflict of interest where management may not act in the best interests of the other shareholders. PHL has a clear succession plan which minuses business continuity risk.

Figure 9: PHL Management Structure




Source: PHL

### SHAREHOLDING

The major shareholder in PHL is ZMD investments which is the vehicle representing one of the executive directors. The top 10 shareholders in PHL are institutional investors. Among the top 10 is the biggest state-owned pension manager, NSSA which owns 4.2%. Padenga is a closely held business with limited free floating shares.

Table 5: PHL Top Shareholders

| Shareholder | % Owned |
|---|---|
| CEO | 0.2% |
| CFO | 0.0% |
| ZMD INVESTMENTS (PVT) LTD | 22.1% |
| H M BARBOUR (PVT) LTD | 19.6% |
| STANBIC NOMINEES (PVT) LTD | 12.2% |
| OLD MUTUAL LIFE ASS CO ZIM LTD | 5.5% |
| SCB NOMINEES 033663900002 | 4.2% |
| SARCOR INVESTMENTS (PVT) LTD | 4.2% |
| PHARAOH LIMITED- NNR | 2.7% |
| NATIONAL SOCIAL SECURITY AUTHORITY (W.C.I.F.) | 2.2% |
| NATIONAL SOCIAL SECURITY AUTHORITY | 2.0% |
| CITY AND GENERAL HOLDINGS P/L | 1.8% |
| OTHER:Non Selected Shares | 23.0% |
| TOTAL | 100.0% |

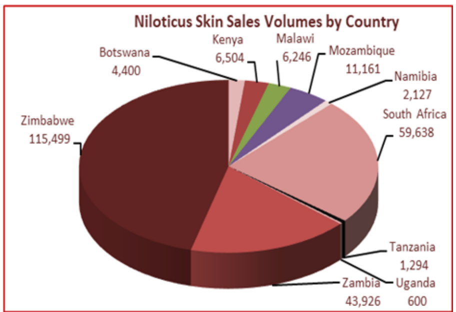
Source: PHL Share Register, Solusi Research

## INDUSTRY STRUCTURE ANALYSIS

Figure 10: Zim Niloticus Skin Sales


Source: CITES, Solusi Research Team

Figure 11: African Niloticus Skin Sales




Source: CITES, Solusi Research Team

*… Zimbabwe is the second largest exporter of reptile products worldwide after the USA…*

*…c. 45% of all Nile crocodile skins are produced in Zimbabwe…*

### GLOBAL CROCODILIAN INDUSTRY ANALYSIS

The crocodilian industry is protected and listed in either Appendix I or Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Most crocodilian products are found in international trade for the leather and fashion industry, for meat, and as live animals for breeding operations, food, the pet industry and zoos. Crocodile farms typically breed and raise crocodilian species, including alligators, to produce several types of goods. Crocodile meat can be exported, while leather can be used to produce several products. The industry currently harvests 1.5 million skins from crocodilian species every year. The skins are legally exported from about 30 different countries[1]. (Crocodile Specialist Group)

In Africa, the crocodile farming sector is growing at c.22% annually. South Africa has seen the greatest gains, with total exports valued at over US$70 million each year. Zambia and Kenya both produce more than US$60 million in crocodilian exports annually. Zimbabwe contributes c.US$30 million in product[2]. (BBC) The Classic Crocodile Skin industry in which Padenga operates revolves around the alligator and Niloticus species. The sector is currently confined to meat and skin as trade products for local and export markets and the porosus (saltwater crocodile) is excluded. With 30 countries globally trading more than 2 million skins yearly the African Niloticus skins make up only 10% while alligator skin trade is 17.5%, 70% of which is for the high end markets[3].(2017 UNEP report) These two skin types rank highest in preference within the crocodilian skin industry with alligator skin topping Niloticus skins. Zimbabwe is the second largest exporter of reptile products worldwide after the USA, highest in Africa's Central and Southern African restricted Niloticus skin with South Africa and Zambia ranked 2nd and 3rd. Approximately 45% of all Nile crocodile skins are produced in Zimbabwe yielding an increasingly substantial 0.91% contribution to the Southern African/country's US$ 11billion GDP and Padenga contributes more than 50% of Zim's skin production. (CCTV report 2015)

### GLOBAL CROCODILE SKIN SECTOR

The European luxury market consumes between 80,000 and 100,000 Nile crocodile skins annually. Analysts are forecasting **a 7-8** percent growth in luxury goods, including crocodile leather goods, consumption over the next three years[4]. (Source: Le Croc farm & Tannery). Based on data for the Northern Territories which include the greater Australia, the growth for skins between 2000 and 2013 is calculated at 10% CAGR. Conversely the sale of crocodile meat has declined by c.12% per annum. Exports of *Crocodylus Niloticus* meat, which originate mainly from South Africa, Zambia and Zimbabwe, increased steadily from less than two tonnes in 1992 to over 550t in 2007 before decreasing to c.120t in 2009. Exports subsequently recovered and were around 250t in both 2011 and 2012. Despite a drop in 2013 to 133 t over 200 t was exported in both 2014 and 2015.

## INDUSTRY PROFITABILITY ANALYSIS - "PORTER'S FIVE FORCES"

### Intra-Industry Rivalry

*… Low rivalry supports industry profitability…*

PHL's operations are exposed to global competition. Nile croc production is restricted to Central and Southern Africa. Zimbabwe is the major producer, followed by South Africa and Zambia. Approximately 45% of all Nile crocodile skins are produced in Zimbabwe, and Padenga makes up around 50% of the country's production. Padenga focuses on premium Nile crocodile skin at a larger scale compared to most of its local and regional rivals hence can fend off competition. Therefore are able to negotiate for lower prices from suppliers. PHL supplies skins and meat to a niche premium market where there is minimal competition. PHL's continued investment and improvement sets it apart from its competitors and the only Zimbabwean operation that is currently active in meat production. *Rivalry is minimal making a case for sustainable profitability for the industry*.

### Bargaining Power of Suppliers

*…low supplier power has a positive effect on industry profitability...*

PHL's suppliers have limited supplier power due to the abundance of suppliers for products and the fact that Padenga purchases all products in large quantities (effectively providing itself with markets of scale) such as feed. PHL has the capacity to rear its own livestock and grow own crops for feed production. Padenga can negotiate better power prices than the normal unit rate and is currently building a solar farm to be in control of its own supplies. Suppliers of crocodile specific goods and services also have limited supplier power because the crocodile market in Zimbabwe has limited participants and so the crocodile farmers to greater extent influence prices of goods and services because they are the few market consumers. *Suppliers have limited power making a case for increased industry profitability*.

### Bargaining Power Buyers

*… low buyer power supports croc skin industry profitability…*

PHL produces goods aimed at the luxury goods market which includes high end fashion houses. Customers have limited buying power because producers of high-quality skins and crocodile meat such as is produced by PHL are limited. There are a limited number of producers of classic skins which limits consumer's buyer power. PHL's skins are not readily available in the market and demand for the skins outstrips supply consequently suppressing customer purchasing power. *Buyers have limited power making a case for high industry profitability*.

### Threat of Substitutes

*… the threat of substitutes low for crocodile farming products supporting industry profitability…*

There is a limited threat of substitution in the crocodile meat and skins in the market that is serviced by PHL. Consumers in this market are luxury consumers and their wants are very specific. This makes the threat of substitution low as they will want the specific good that satisfies their needs. *Threat of substitutes is low making a case for high industry profitability*.

### Threat of New Entrants

*… high capital intensity and complicated processes make for high entry barriers and low threat of new entrants...*

The crocodile market is a difficult industry to penetrate for new players because of three main factors. The crocodile business is capital-intensive for the purposes of rearing, infrastructure and nutritional needs of the crocodiles. The crocodile business has a high payback period. Secondly crocodile farming is a highly regulated business. Its not easy to gain acceptability in the skin industry. Lastly, Crocodiles need utmost care and security from threats like diseases and strays. These factors make the threat of new entry into the market low.

## VALUATION

### Table 6: PHL Cost of Capital

| | FY18 -FY28E | Terminal Value |
|---|---|---|
| Risk Free Rate (US 10Y Treasury) | 3.05% | 3.05% |
| Zim Equity Risk Premium | 14.01% | 11.42% |
| PHL Levered Beta | 0.74 | 0.82 |
| PHL Cost Of Equity | 13.39% | 12.41% |
| PHL Cost of Debt | 3.95% | 3.95% |
| **WACC** | **12.98%** | **10.83%** |
| Terminal growth rate | | 3.05% |

Source: Solusi Research Team, S&P Cap IQ

### Table 7: PHL Pricing Model

| PHL REGRESSION PE PRICING MODEL | | |
|---|---|---|
| PE = 16.36 + 50.15 gEPS + 5.33 Payout - 1.44 Beta | | |
| Factor | Coefficient | PHL Fundamental |
| Intercept | 16.36 | 1.00 |
| gEPS | 50.15 | 14.67% |
| Payout | 5.33 | 65.42% |
| **Beta** | **- 1.44** | **73.35%** |
| | | |
| Predicted PER for PHL | 26.15 | |
| Current PER for PHL | 29.58 | |

Source: Solusi Research Team, S&P

### PHL'S COST OF CAPITAL

PHL's Cost of Capital was calculated using the capital asset pricing model (CAPM) to estimate the cost of equity of 12.98% in the first phase of the two stage DCF Model (up to 2027) and 10.82% for the terminal value determination (**Table 6**). The weighted average cost of capital (WACC) incorporates the high Zim Equity Risk Premium of 14.01% made up of Zim's Country Risk Premium of 10.38% and a Mature Market (S&P 500) ERP of 4.68%, Cost of debt of 3.95%. We assume that PHL's capital structure will start with a D/E ratio of 3.24% (current) which increases to 20% in the Terminal Value Stage.

### VALUATION & PRICING MODELS

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## PHL VALUATION MODEL – 2 STAGE DCF MODEL

### Table 8: PHL DCF Model

| DCF Model | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Figures in US$'m* | *Recent Year* | *2018* | *2019* | *2020* | *2021* | *2022* | *2023* | *2024* | *2025* | *2026* | *2027* | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 10 |
| *Revenue Growth Rate* | 7.14% | 7.14% | 7.14% | 7.14% | 7.14% | 7.14% | 7.14% | 7.14% | 7.14% | 7.14% | 7.14% | |
| Revenue | 30,276,051 | 32,436,727 | 34,751,602 | 37,231,679 | 39,888,750 | 42,735,444 | 45,785,296 | 49,052,802 | 52,553,497 | 56,304,023 | 60,322,207 | |
| *EBIT Margin* | 53.32% | 53.32% | 53.32% | 53.32% | 53.32% | 53.32% | 51.73% | 50.14% | 48.56% | 46.97% | 45.39% | |
| EBIT | 16,142,147 | 17,294,145 | 18,528,356 | 19,850,648 | 21,267,307 | 22,785,066 | 23,684,868 | 24,597,054 | 25,518,808 | 26,446,851 | 27,377,386 | 28,445,10 |
| Tax Rate | 21.48% | 21.90% | 22.33% | 22.76% | 23.19% | 23.61% | 24.04% | 24.47% | 24.90% | 25.32% | 25.75% | |
| EBIT(1-T) | 11,985,544 | 13,505,940 | 14,390,636 | 15,332,820 | 16,336,191 | 17,404,682 | 17,990,810 | 18,578,601 | 19,165,784 | 19,749,787 | 20,327,709 | 21,120,49 |
| Reinvestment | | 537,481.63 | 575,839.46 | 616,934.73 | 660,962.81 | 708,132.98 | 758,669.49 | 812,812.59 | 870,819.65 | 932,966.43 | 999,548.38 | 5,524,05 |
| FCFF | | 12,968,458.12 | 13,814,796.72 | 14,715,885.23 | 15,675,227.69 | 16,696,549.50 | 17,232,140.03 | 17,765,788.62 | 18,294,964.80 | 18,816,820.71 | 19,328,161.04 | 15,596,43 |
| Terminal Value | | | | | | | | | | | | 181,116,60 |
| PV (CFs) | | 11,454,550.03 | 10,777,645.10 | 10,140,408.74 | 9,540,532.53 | 8,975,841.56 | 8,182,336.83 | 7,450,961.48 | 6,777,181.18 | 6,156,777.43 | 5,585,826.38 | 52,342,584.3 |

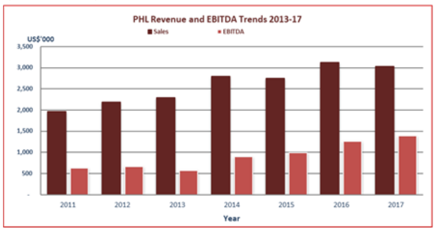
| | |
|---|---|
| *PV(Operating Assets* | *137,384,645.62* |
| less Debt | 12,628,210.68 |
| Add Cash | 11,226,163.00 |
| *PV(Equity)* | *135,982,597.94* |
| Number of Shares in I | 541,593,440.00 |
| ***Value Per Share*** | ***0.26*** |

Table 8: PHL DCF Model: **Assumptions**

- PHL's Revenues will grow at a CAGR 7.14% for the next 10yrs and at 3.05% in Terminal value
- PHL will maintain its operating profit margins for the next 5 yrs and the declines to 45.4% in year 10
- PHL's Return on Invested Capital will decline to 11.7% in year 10
- PHL's WACC will be 11.7% in the second stage of the model
- PHL's D/E Ratio will be 20% in the second stage of the model
- PHL's reinvestment rate in maturity is 26.2%

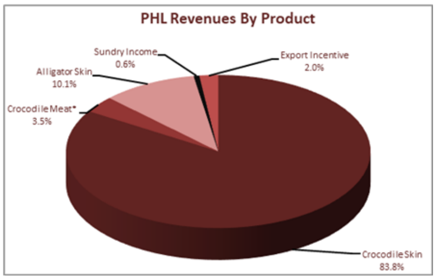
## FINANCIAL PERFORMANCE REVIEW

**Figure 12: PHL Revenue & EBITDA Trends (2013-17)**



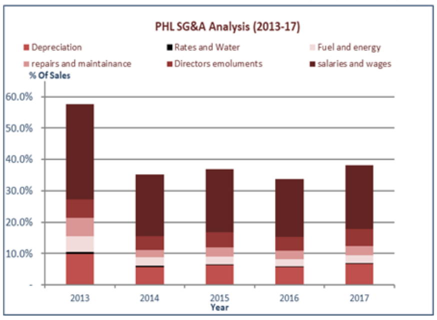

Source: Solusi Research Team, PHL Financials

**Figure 13: PHL Revenues by Product (2013-17)**



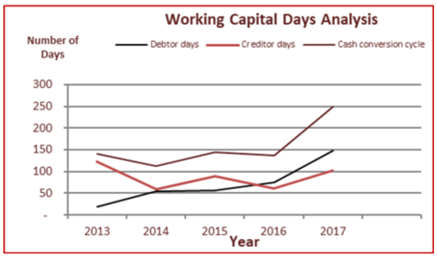

Source: Solusi Research Team, PHL Financials

**Figure 14: PHL SG&A Analysis (2013-17)**




Source: Solusi Research Team, PHL Financials

**Figure 15: PHL Working Capital Analysis**




Source: Solusi Research Team, PHL Financials

### Revenue Analysis

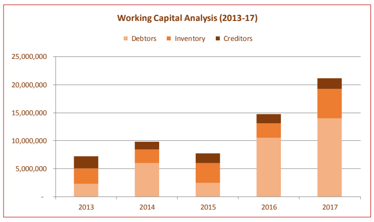
PHL's revenue growth trend reflects a considerable amount of volatility. The company recorded revenues of US$30.3mln in 2017 3.2% down from US$31.3mln in 2016 (**Fig.12**). PHL's revenues grew by an average of 7.14% since 2013 and a compounded annual growth (CAGR) of 5.67%. The 3.2% drop in revenues for 2017 was a result of lower sales volumes despite a rise in quality. In FY17, crocodile skin trade contributed 84.2% towards revenue, meat sales 3.5% and alligator skin sales 5.2% respectively. The crocodile skin sales grew by 3.6% whilst alligator skin sales declined by 53% due to the 2017 spring hurricane in Texas. The average contributions to revenues excluding the hurricane are shown in **Fig 13**. Fair value adjustments on biological assets were 14% of sales and these helped boost operating profits from US$10.5 mln (FY16) to US$16.5 mln in FY17.

PHL operating profits margins have on average exceeded 34% for the 5-year period under review. PHL's high **Gross Profit margins** reflect a superior cost of sales management strategy and efficient procurement. Padenga's target market is the premium segment of the skins markets which has necessitated the higher than industry average margins. Debt free earnings for the period FY11 – FY17 have been on a gradual uptrend averaging 49.6% of sales. These reached an all-time high in FY17 due to cost savings in fuel and energy. Hatchling costs are declining due to prior year capital expenditures. An analysis of PHL's selling general and admin expenses (SG&A) shows that they have been declining since 2013(**Fig.14**). Salaries and Directors' emoluments has claimed the lion's share of PHL's SG&A.

PHL's balance sheet has grown at a CAGR of 15.2% over the last five (5) years largely driven by growth in current assets from US$25.8 mln in FY13 to US$61.2 mln. PHL has a very low gearing ratio and has funded most of its projects from internally generated resources (retained eargings). There's room to further create more value from the business by optimising its capital structure as the business is currently underleverd. The firm's growth in asset base has been funded through equity capital with minimal use of debt capital. Retained earnings grew at a CAGR of 56.9% since 2013 showing the business strong earnings generating capacity.

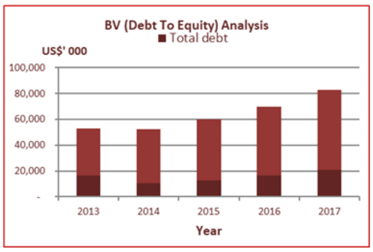
PHL's level of net trade working capital is under tight control with an operating cycle (157 days) in line with its peers' average (Appx. 22). The firm's days receivables were 62 days in 2017 compared to 72 for peers. The firm has an efficient receivables collection and debtors' policy. In terms of day's payables PHL's DOH is 60 days compared to 45 days its peer's (**Fig 15**). PHL has a superior creditor management policy than its peers. PHL's inventory days (110 days) exceed that of its peers (85 days) due customized products implying longer R&D cycle time. Our view is that PHL's operating cycle will decline to c.90 days by the year 2020 due to improved inventory management initiatives. The initiatives include improvements in inventory procurement planning and global sourcing.

Figure 16: PHL Working Capital Trends (2018-22F)




Source: Solusi Research Team

Figure 17: PHL Leverage Trends




Source: Solusi Research Team, PHL Financials

PHL's working capital position has deteriorated over the period under review (Fig.16). More cash has been tied up in inventories and receivables relative to supplier funding leaving the business with a growing negative net working capital position. This may lead to liquidity challenges in the future should it persist, but the risk is relatively low. PHL has a historically shied away from the use of debt capital to funding its operations as shown by its perennially low D/E ratio (Fig.17). We believe that the right mix of debt and equity is a critical ingredient in maximising firm value. The decision by management to make use of the obtaining capital structure could potentially result in value being trapped in the business at the expense of shareholders.

## KEY INVESTMENT RISKS

- **Political Risks**-Equities whether large cap or small caps are affected by the political developments that prevail within an economy, as such we hasten to point that the political developments might have a bearing on the share price performance and the realisation of fair valuation. This risk is considerably great for frontier markets like Zimbabwe.

- **Macro-economic Policy Risks** - Policies (Monetary and Fiscal) determine economic growth and uncertainty in economic policies poses significant risks to PHL's business. Systemic decline in the global economy may also have a negative impact on PHL's clients

- **Inputs availability & Price Risks** - The industry in which PHL operates in is subject to exogenous factors with regards the pricing of key inputs including but not limited to feed, utilities and eggs for the alligator business

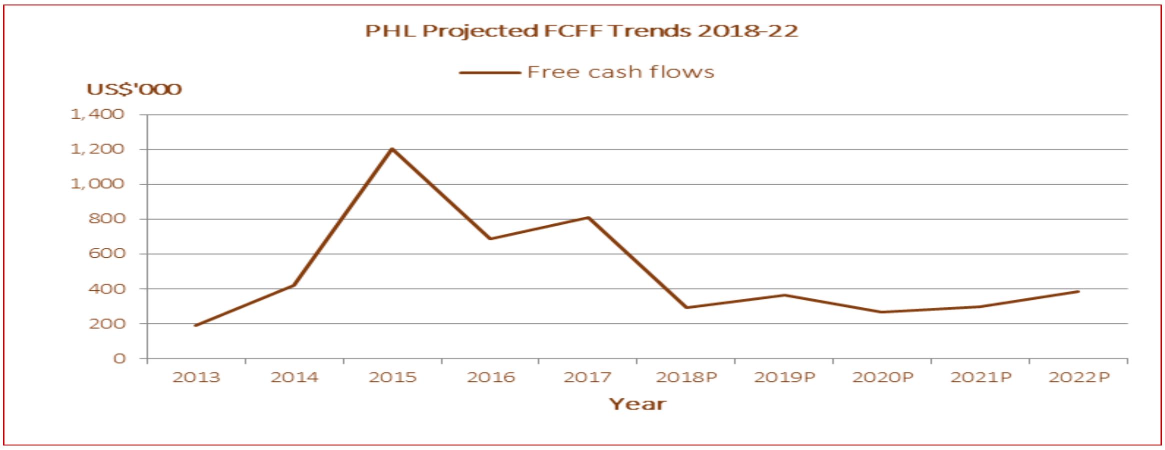
- **Industry regulatory risks** - this has seen growing animal rights activities which have the potential to disrupt PHL's business model. The regulators may end up imposing restrictions that could threaten the viability of the PHL's business

## APPENDICES

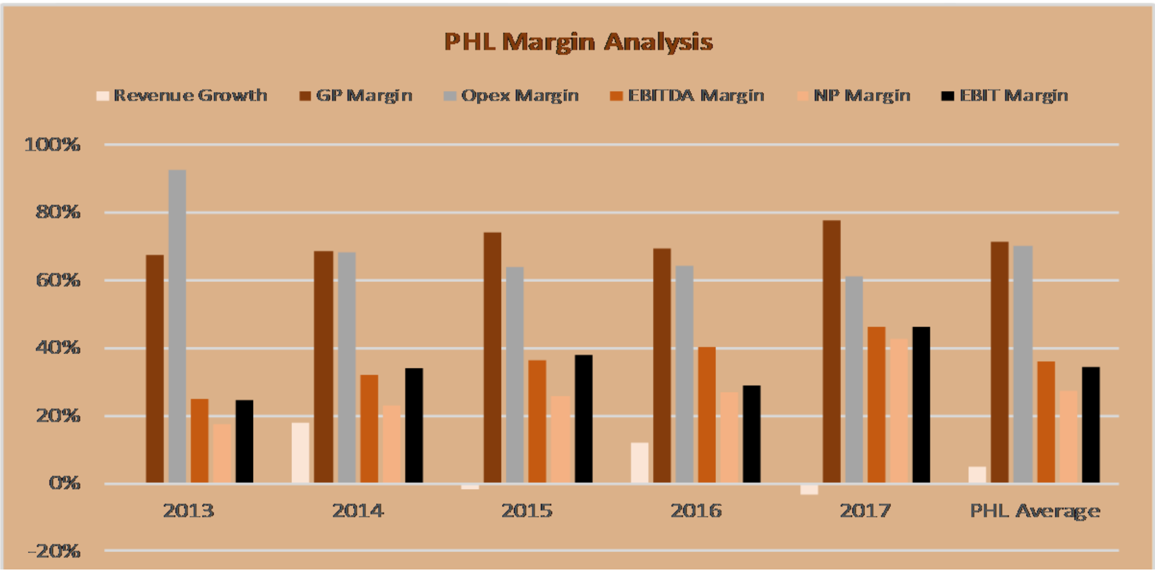
Appendix 1: PHL Margin Analysis

| | Revenue Growth | GP Margin | Opex Margin | EBITDA Margin | NP Margin | EBIT Margin |
|---|---|---|---|---|---|---|
| 2013 | 0% | 67% | 93% | 25% | 18% | 25% |
| 2014 | 18% | 69% | 68% | 32% | 23% | 34% |
| 2015 | -2% | 74% | 64% | 36% | 26% | 38% |
| 2016 | 12% | 70% | 64% | 40% | 27% | 29% |
| 2017 | -3% | 78% | 61% | 46% | 42% | 46% |
| PHL Average | 5% | 71% | 70% | 36% | 27% | 34% |

Appendix 2: PHL FCFF Projections




Appendix 3: PHL Margin Analysis



### Appendix 4: PHL Income Statement Forecasts

| INCOME STATEMENT | 2017A | 2018F | 2019F | 2020F | 2021F | 2022F |
|---|---|---|---|---|---|---|
| Sales | 30.3 | 32.4 | 34.8 | 37.2 | 39.9 | 42.7 |
| Cost of sales | 6.8 | 8.9 | 9.3 | 10.2 | 10.9 | 11.5 |
| Gross profit | 23.5 | 23.5 | 25.5 | 27.0 | 28.9 | 31.2 |
| Total operating expenses | (20.6) | (11.2) | (12.2) | (13.3) | (14.8) | (16.1) |
| EBIT | 13.9 | 12.3 | 13.3 | 13.7 | 14.2 | 15.1 |
| PBT | 16.4 | 13.9 | 15.0 | 15.6 | 16.2 | 17.3 |
| Taxation | (3.5) | (3.6) | (3.9) | (4.1) | (4.2) | (4.5) |
| Net Income | 12.9 | 10.3 | 11.1 | 11.5 | 12.0 | 12.8 |

### Appendix 5: PHL Adjusted Balance Sheet

| Summary balance sheets | | | | | |
|---|---|---|---|---|---|
| As at 31 December | 2013 | 2014 | 2015 | 2016 | 2017 |
| | (Audited) | (Audited) | (Audited) | (Audited) | (Audited) |
| | $ | $ | $ | $ | $ |
| ASSETS | | | | | |
| NON-CURRENT ASSETS | | | | | |
| PPE | 14,807,410 | 14,730,118 | 15,223,986 | 17,315,206 | 18,731,914 |
| INTANGIBLE ASSETS | 51,648 | 63,998 | 51,796 | 36,337 | 35,315 |
| GOODWILL | 969,174 | 969,174 | - | - | - |
| BIOLOGICAL ASSETS | 1,608,595 | 2,206,960 | 3,686,179 | 4,324,536 | 4,789,841 |
| | **17,436,827** | **17,970,250** | **18,961,961** | **21,676,079** | **23,557,070** |
| CURRENT ASSETS | | | | | |
| BIOLOGICAL ASSETS | 22,453,514 | 25,298,882 | 26,149,950 | 26,140,741 | 30,372,092 |
| INVENTORIES | 2,775,288 | 2,416,918 | 3,523,179 | 2,590,785 | 5,277,246 |
| TRADE AND OTHER RECEIVABLES | 2,304,420 | 5,979,525 | 2,482,402 | 10,538,973 | 13,965,801 |
| TAX ASSET | - | - | - | 238,459 | 344,046 |
| CASH AND CASH EQUIVALENTS | 10,268,970 | 2,392,817 | 10,525,248 | 10,265,655 | 11,226,163 |
| | **37,802,192** | **36,088,142** | **42,680,779** | **49,774,613** | **61,185,348** |
| **TOTAL ASSETS** | **55,239,019** | **54,058,392** | **61,642,740** | **71,450,692** | **84,742,418** |
| | | | | | |
| EQUITY & LIABILITIES | | | | | |
| CAPITAL & RESERVES | | | | | |
| SHARE CAPITAL | 54,159 | 54,159 | 54,159 | 54,159 | 54,159 |
| SHARE PREMIUM | 27,004,245 | 27,004,245 | 27,004,245 | 27,004,245 | 27,004,245 |
| RETAINED EARNINGS | 8,610,519 | 13,760,273 | 19,421,793 | 26,143,106 | 34,668,708 |
| CHANGE IN OWNERSHIP RESERVE | - | - | - 165,948 | - 236,946 | - 63,863 |
| EQUITY ATTR TO EQUITY HOLDERS OF | 35,668,923 | 40,818,677 | 46,314,249 | 52,964,564 | 61,663,249 |
| NCI | 821,525 | 1,113,509 | 629,353 | 380,615 | 39,955 |
| **TOTAL SHAREHOLDER'S EQUITY** | **36,490,448** | **41,932,186** | **46,943,602** | **53,345,179** | **61,703,204** |
| **NON-CURRENT LIABILITIES** | | | | | |
| DEFERRED CONSIDERATION | 843,671 | - | - | - | - |
| CUSTOMER DEPOSITS | - | 1,194,615 | 1,130,525 | 1,179,525 | 159,325 |
| INTEREST BEARING BORROWINGS | - | 991,705 | 2,321,833 | 5,004,705 | 8,169,151 |
| DEFFERED TAX LIABILITY | **4,678,214** | **5,309,189** | **6,206,596** | **6,304,012** | **6,929,639** |
| | **5,521,885** | **7,495,509** | **9,658,954** | **12,488,242** | **15,258,115** |
| **CURRENT LIABILITIES** | | | | | |
| DEFFERED CONSIDERATION | - | 831,680 | 1,366,770 | 425,885 | - |
| CUSTOMER DEPOSITS | - | - | - | 256,432 | 2,234,032 |
| INTEREST BEARING BORROWINGS | 10,715,000 | 1,568,135 | 1,334,671 | 3,017,114 | 3,294,732 |
| TRADE & OTHER PAYABLES | 2,151,205 | 1,406,951 | 1,733,070 | 1,598,804 | 1,893,464 |
| PROVISIONS | 324,113 | 265,195 | 312,844 | 319,036 | 358,871 |
| CURRENT TAX PAYABLE | 36,368 | 558,736 | 292,829 | - | - |
| | **13,226,686** | **4,630,697** | **5,040,184** | **5,617,271** | **7,781,099** |
| **TOTAL LIABILITIES** | **18,748,571** | **12,126,206** | **14,699,138** | **18,105,513** | **23,039,214** |
| **TOTAL EQUITY & LIABILITIES** | **55,239,019** | **54,058,392** | **61,642,740** | **71,450,692** | **84,742,418** |
| *SOURCE: Padenga AFS* | | | | | |

## Appendix 6: PHL Historical Statement of Cashflows

| CASHFLOW STATEMENTS | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| CASH GENERATED FROM OPERATING ACTIVITIES | $8,248,905 | $5,408,147 | $13,662,136 | $4,418,998 | $8,833,638 |
| INTEREST RECEIVED | | $126,305 | $307,906 | $1,189,023 | $1,668,820 |
| INTERST PAID | $719,059 | $858,300 | $786,416 | $748,234 | $814,481 |
| TAXATION PAID | $650,723 | $1,116,689 | | $3,072,328 | $2,995,540 |
| NET CASH GENERATED FROM OPERATIONS | $6,879,123 | $3,559,463 | $13,183,626 | $1,787,459 | $6,692,437 |
| | | | | | |
| NET CASH USED IN INVESTING ACTIVITIES | -$3,860,871 | -$2,155,761 | -$2,375,834 | -$4,507,400 | -$4,051,115 |
| PROCEEDS ON DISPOSAL OF PPE | $24,602 | $92,098 | $1,981 | $243,890 | $6,236 |
| PURCHASE OF PPE | $3,558,438 | $1,562,875 | $2,222,834 | $4,139,295 | $3,465,427 |
| EXPENDITURE ON NON-CURRENT BIOL ASSETS | $243,996 | $648,359 | $135,619 | $145,413 | $157,109 |
| PAYMENTS OF DEFERRED CONSIDERATION | | $0 | | $466,582 | $425,885 |
| PURCHASE OF INTANGIBLE ASSETS | $70,030 | $36,625 | $19,362 | $0 | $8,930 |
| NET CASH OUTFLOW ON SUBSIDIARY ACQUISITION | $13,009 | | | | |
| NET CASH USED IN/GENERATED FROM FINANCIN | $5,494,870 | -$9,279,855 | -$442,072 | $2,460,348 | -$1,680,814 |
| PROCEEDS FROM BORROWINGS | $10,150,000 | $5,775,000 | $13,604,865 | $14,135,000 | $11,839,522 |
| ADDITNL INVESTMENT BY NCI | | $0 | | $226,582 | $0 |
| PAYMENT OF PURCHASE OF ADDTNL INTERST IN FOREIGN SUBSIDIARY | | $0 | | $480,000 | $0 |
| REPAYMENTS OF BORROWINGS | $3,435,000 | $14,043,392 | $12,452,935 | $9,194,307 | $9,025,110 |
| DIVIDENDS PAID | $1,220,130 | $1,011,463 | $1,594,002 | $2,226,927 | $4,495,226 |
| | | | | | |
| NET INCREASE/DECREASE IN CASH/EQUIVALENTS | $8,513,122 | $30,679,253 | $44,788,056 | $40,686,579 | $43,735,924 |
| CASH & CASH EQUIVALENTS AT BEG OF YEAR | $1,755,848 | $10,268,970 | $51,211,827 | $10,525,248 | $10,265,655 |
| CASH & CASH EQUIVALENTS AT THE END OF THE | $10,268,970 | $40,948,223 | $95,999,883 | $51,211,827 | $54,001,579 |

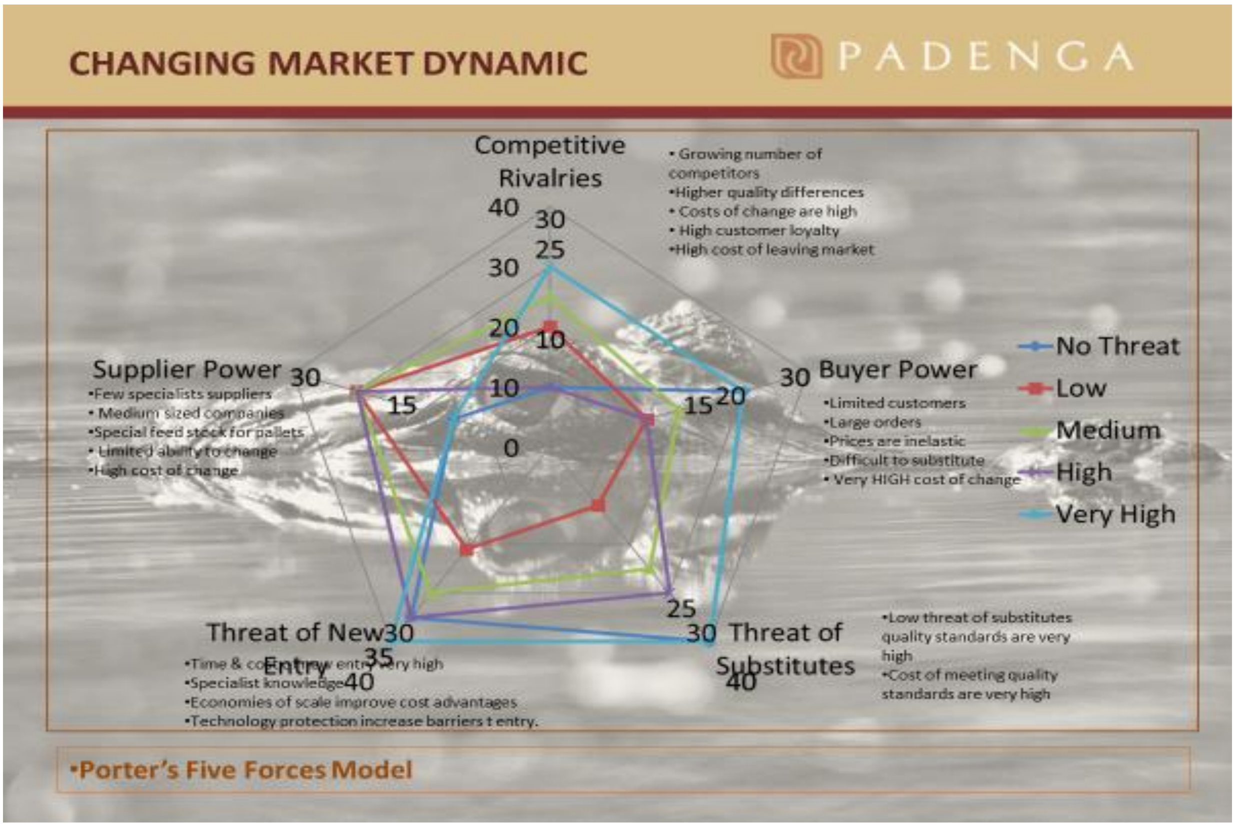
## Appendix 7: PHL Historical Financial Ratios

| Operating & Performance Ratios | | | | | |
|---|---|---|---|---|---|
| Gross Profit Margin | 72.1% | 68.6% | 74.1% | 69.5% | 77.5% |
| Operating Profit Margin | 32.2% | 34.2% | 38.2% | 33.6% | 53.3% |
| Return on turnover | 24.7% | 23.1% | 25.8% | 26.9% | 42.5% |
| Return on Assets | 13.4% | 17.7% | 17.0% | 14.7% | 19.0% |
| Asset Turnover | 0.42 | 0.52 | 0.45 | 0.44 | 0.36 |
| Return on Equity | 15.6% | 15.4% | 15.1% | 15.8% | 20.8% |
| Fixed Asset Turnover | 1.4 | 1.7 | 1.5 | 1.4 | 1.3 |
| **Activity ratios** | | | | | |
| Debor turnover | 19.9 | 6.8 | 6.5 | 4.8 | 2.5 |
| Debtor collection period | 19 | 55 | 57 | 76 | 148 |
| Stock turnover | 4.6 | 7.3 | 4.0 | 7.4 | 2.6 |
| Stock (days) | 79 | 50 | 90 | 50 | 142 |
| Days Creditors Outstanding | (61) | (29) | (44) | (31) | (51) |
| Net trade cycle | 80 | 84 | 101 | 107 | 199 |
| **Short-term liquidity** | | | | | |
| Current ratio | 2.9 | 7.8 | 8.5 | 8.9 | 7.9 |
| Quick ratio | 1.0 | 1.8 | 2.6 | 3.7 | 3.3 |
| Working capital | 25,382,017 | 32,288,374 | 30,422,461 | 37,910,154 | 48,065,721 |
| **Coverage** | | | | | |
| Interest Cover | 90.4 | 207.2 | 227.2 | 7.3 | 7.3 |
| Fixed Charge Cover | (0.7) | (0.5) | (0.5) | (0.5) | (0.2) |
| **Capital str. & LT solvency** | | | | | |
| Total debt to total assets | 30% | 20% | 21% | 23% | 25% |
| Total debt to equity | 45% | 26% | 28% | 31% | 34% |

## Appendix 8: PHL Risk Profile

| | | | | |
|---|---|---|---|---|
| RISK RATING KEY | LOW | MEDIUM | HIGH | EXTREME |
| | 0<br>ACCEPTABLE | 1<br>ALARP (as low as reasonably practicable) | 2<br>GENERALLY UNACCEPTABLE | 3<br>INTOLERABLE |
| | OK TO PROCEED | TAKE MITIGATION EFFORTS | SEEK SUPPORT | PLACE EVENT ON HOLD |
| | | | | |
| | SEVERITY | | | |
| | ACCEPTABLE<br>LITTLE TO NO EFFECT ON EVENT | TOLERABLE<br>EFFECTS ARE FELT, BUT NOT CRITICAL TO OUTCOME | UNDESIRABLE<br>SERIOUS IMPACT TO THE COURSE OF ACTION AND OUTCOME | INTOLERABLE<br>COULD RESULT IN DISASTER |
| LIKELIHOOD: IMPROBABLE<br>RISK IS UNLIKELY TO OCCUR | • Approval Of Land Lessors And Other Regulating Bodies | • Dependency On Monopoly Buyers E.g. Hermes | | |
| LIKELIHOOD: POSSIBLE<br>RISK WILL LIKELY OCCUR | • High Interest Rates<br>• Government Regulations<br>• | • Currency Exchange Risk<br>• Animal Rights Lobbying | • Shortage Of Protein<br>• Disease outbreak | • Hurricanes |
| LIKELIHOOD: PROBABLE<br>RISK WILL OCCUR | • Cost Efficiency Due To Inflation In Zim Economy | | | |

## Appendix 9: PHL Porter's Five Forces Assessment



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