

## Risk Factors Comparison 2024-02-29 to 2023-02-23 Form: 10-K

Legend: **New Text** ~~Removed Text~~ Unchanged Text **Moved Text Section**

In addition to the risks and uncertainties we discuss elsewhere in this Form 10-K (particularly in “ Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations ”) or in our other filings with the Securities and Exchange Commission (SEC), the following are important factors that could cause our actual results to differ materially from those we project in any forward- looking statement. Risks Related to our Operations, Business and Industry

**General Economic Conditions** ~~— A continued~~ deterioration in general economic conditions may harm our business, results of operations, cash flows, and financial position. General global and domestic economic conditions directly affect the levels of demand and production of consumer goods, levels of employment, the availability and cost of credit, and ultimately, the demand for our products and the profitability of our business. The U. S. economy has experienced persistent inflation, and we have experienced, and continue to experience, cost inflation across our business. Inflation has resulted in, and may continue to result in, higher production and transportation costs, which we may not be able to recover through higher prices charged to our customers or otherwise. Interest rates have increased, which may result in lower consumer demand and higher borrowing costs, and may cause general economic conditions to deteriorate. **Beginning in mid- During the first half of 2022-2023**, we ~~have~~ experienced a deterioration in operating conditions involving our Packaging business as a result of general economic conditions and **our lower demand with** customers **adjusting their lowering— ordering patterns to reduce** their inventories. ~~This has resulted in lower demand for our containerboard and corrugated products and lower production~~, which ~~is continuing into 2023 and has~~ negatively affected our profitability. **However, demand rebounded in the second half of 2023. The economic outlook for 2024 remains uncertain**. If global economic conditions ~~continue to~~ deteriorate, economies could experience a recession, which may result in higher unemployment rates, lower disposable income, lower Company earnings and investment, and lower consumer spending. These factors may result in ~~continued~~ lower demand for our products and negatively affect our business, results of operations and cash flows. In addition, changes in trade policy, including renegotiating or potentially terminating existing bilateral or multilateral agreements as well as the imposition of tariffs, could impact global markets and demand for our and our customers’ products and the costs associated with certain of our capital investments. Further changes in tax laws or tax rates may have a material impact on our future cash taxes, effective tax rate or deferred tax assets and liabilities. These conditions are beyond our control and may have a material impact on our business, results of operations, liquidity, and financial position.

**Industry Cyclicalities** ~~—~~ Changes in the prices of our products could materially affect our financial condition, results of operations, and liquidity. Macroeconomic conditions and fluctuations in industry capacity can create changes in prices, sales volumes, and margins for most of our products, particularly commodity grades of packaging and paper products. Prices for all of our products are driven by many factors, including demand for our products, industry capacity and decisions made by other producers with respect to capacity and production, and other competitive conditions in our industry. These factors are affected by general global and domestic economic conditions, customer purchasing decisions, and operating conditions involving our business and industry. We have little influence over the timing and extent of price changes of our products, which may be unpredictable and volatile. In addition, as many of our customer contracts include price adjustment provisions based upon published surveyed prices for containerboard or certain grades of UFS papers reported by trade publications, our selling prices are influenced by price levels determined and published by trade publications. Published containerboard prices have decreased beginning in the fourth quarter of 2022 **and throughout 2023**, which ~~will result~~ **resulted** in lower prices for our containerboard and corrugated products and lower profitability. Changes in how these surveyed price levels are determined or maintained may affect our sales prices. If supply exceeds demand, operating conditions involving our business and industry ~~continue to~~ deteriorate, or other factors result in lower prices for our products, our earnings, and operating cash flows would be harmed.

**Competition** ~~—~~ The intensity of competition in the industries in which we operate could result in downward pressure on pricing and volume, which could lower earnings and operating cash flows. Our industries are highly competitive, with no single containerboard, corrugated packaging, or UFS paper producer having a dominant position. Certain containerboard grades and UFS paper products cannot generally be differentiated by producer, which tends to intensify price competition. The corrugated packaging industry is also sensitive to changes in economic conditions, as well as other factors including innovation, design, quality, and service. To the extent that one or more competitors are more successful than we are with respect to any key competitive factor, our business could be adversely affected. Our packaging products also compete, to some extent, with various other packaging materials, including products made of paper, plastics, wood, and various types of metal. If we are unable to successfully compete, we may lose market share or may be required to charge lower sales prices for our products, both of which would reduce our earnings and operating cash flows. UFS paper products compete with electronic data transmission and document storage alternatives. Increasing shifts to electronic alternatives have had and will continue to have an adverse effect on usage of these products. As a result of such competition, the industry is experiencing decreasing demand for existing UFS paper products. As the use of these alternatives grows, demand for UFS paper products is likely to further decline. Declines in demand for our paper products may adversely affect our earnings and operating cash flows. Some of our competitors are larger than we are and may have greater financial and other resources, greater manufacturing economies of scale, greater energy self- sufficiency, or lower operating costs, compared to our company. ~~We may be unable to compete effectively with these companies particularly during economic downturns.~~ Some of the factors that may adversely affect our ability to compete in the markets in which we participate include the entry of new competitors into the markets we serve, increased competition from overseas producers, our competitors’ pricing strategies, changes in customer preferences, and the cost- efficiency of our facilities. **Cost of Fiber** ~~—~~ An increase in the cost of

fiber could increase our manufacturing costs and lower our earnings. The market price of wood fiber varies based upon availability, source, and the costs of fuels used in the harvesting and transportation of wood fiber. The cost and availability of wood fiber can also be impacted by weather, general logging conditions, geography, and regulatory activity. The availability and cost of recycled fiber depends heavily on recycling rates and the domestic and global supply and demand for recycled products. We purchase recycled fiber for use at six of our containerboard mills ~~and a small amount at our paper mill~~. In ~~2022~~ **2023**, we purchased approximately ~~765-809~~ **765-809**, 000 tons of recycled fiber at our containerboard mills, net of the recycled fiber generated by our corrugated box plants. The amount of recycled fiber purchased each year varies based upon production and the prices of both recycled fiber and wood fiber. Periods of higher recycled fiber costs and unusual price volatility have occurred in the past, including during ~~2022-2023~~. Prices for recycled fiber may continue to fluctuate significantly in the future, and a significant increase could result in higher costs and lower earnings. A \$ 10 per ton price increase in recycled fiber for our containerboard mills would result in approximately \$ 8 million of additional expense based on ~~2022-2023~~ **2022-2023** consumption. Cost of Purchased Fuels and Chemicals ~~—~~ An increase in the cost of purchased fuels and chemicals could lead to higher manufacturing costs, resulting in reduced earnings. We ~~are~~ **have, at times, experiencing experienced** significant cost inflation and volatility for key inputs such as fuels and chemicals. We have the ability to use various types of purchased fuels in our manufacturing operations, including natural gas, bark, and other purchased fuels. Fuel prices, in particular prices for oil and natural gas, have fluctuated in the past. New and more stringent environmental regulations may discourage, reduce the availability of, or make more expensive, the use of certain fuels, such as natural gas, which represents the majority of our purchased fuels. In addition, costs for key chemicals used in our manufacturing operations also fluctuate. These fluctuations impact our manufacturing costs and result in earnings volatility. If fuel and chemical prices rise, our production costs and transportation costs will increase and cause higher manufacturing costs and reduced earnings if we are unable to recover such increases through higher prices of our products or other means. A \$ 0. 10 per million MMBTU increase in natural gas prices would result in approximately \$ 3 million of additional expense, based on ~~2022-2023~~ **2022-2023** usage. Customer Concentration ~~—~~ We rely on certain large customers. Our packaging and paper segments each have large customers, the loss of which could adversely affect the segment's sales and profitability. In particular, because our businesses operate in highly competitive industry segments, we regularly bid for new business or for renewal of existing business. The loss of business from our larger customers, or the renewal of business on less favorable terms, may adversely impact our financial results. ODP Corporation (" ODP"), formerly Office Depot, Inc., along with its subsidiaries and affiliates, is our largest customer in the Paper segment. Effective January 1, ~~2023-2024~~, we have ~~a new~~ **amended the** agreement with ODP in which we will continue to supply commodity and non- commodity office papers through December 31, ~~2024-2025~~. If the agreement is not renewed by the parties, ODP ~~'s~~ **'s** obligation to purchase paper would phase down over a two- year period beginning January 1, ~~2025-2026~~. In ~~2022-2023~~, sales to ODP represented ~~48-61~~ **48-61** % of our Paper segment sales and ~~4-5~~ **4-5** % of our consolidated sales. If these sales are reduced, including if we are unable to renew the agreement at historical volume levels, we would need to find new customers. We may not be able to fully replace any lost sales, and any new sales may be at lower prices or higher costs. Any significant deterioration in the financial condition of ODP affecting its ability to pay or any other change that makes ODP less willing to purchase our products will harm our Paper business and results of operations. Transportation Costs ~~—~~ Reduced truck and rail availability could lead to higher costs or poorer service, resulting in lower earnings, and harm our ability to distribute our products. We ship our products primarily by truck and rail. We have at times experienced lower availability of third- party trucking services, including truck and driver shortages, and service issues, interruptions, and delays in rail services, which are exacerbated in periods of high demand for such services. ~~These issues became more pronounced in 2021 and persisted at times during 2022~~. While we have generally been able to manage through these issues and have not experienced material disruptions in our ability to serve our customers, these issues have resulted ~~, at times,~~ **, at times,** in significantly higher costs for transportation services. If these factors persist, we could experience even higher transportation costs in the future and difficulties shipping our products in a timely manner. We may not be able to recover higher transportation costs through higher prices or otherwise, which would result in lower earnings. Material Disruption of Operations ~~—~~ A material disruption at one of our manufacturing facilities could prevent us from meeting customer demand, reduce our sales, and / or negatively affect our results of operations and financial condition. Our business depends on continuous operation of our facilities, particularly at our mills. Any of our manufacturing facilities, or any of our machines within such facilities, could cease operations unexpectedly for a significant period of time due to a number of events, including: • Unscheduled maintenance outages. • Prolonged power failures. • Equipment or information system breakdowns or failures. • Explosion of a boiler or other major facilities. • Disruption in the supply of raw materials, such as wood fiber, energy, or chemicals. • A spill or release of pollutants or hazardous substances. • Closure or curtailment related to environmental concerns. • Labor difficulties. • Disruptions in the transportation infrastructure, including roads, bridges, railroad tracks, and tunnels. • Terrorism or threats of terrorism. • The effect of a pandemic or other health event, such as the COVID- 19 pandemic. • Other operational problems. These events could harm our ability to produce our products and serve our customers and may lead to higher costs and reduced earnings. ~~Our business was affected by the COVID- 19 pandemic and measures to control it during the last three years, which included travel bans and restrictions, quarantines, shelter in place orders, and standards affecting employers such as mask mandates, vaccine mandates, and testing protocols. PCA experienced some disruptions as a result of labor shortage issues due to the pandemic between 2020 and mid- 2022. The pandemic also disrupted supply chains and transportation services.~~ Extreme Weather Events ~~—~~ Our facilities are susceptible to extreme weather events, which could disrupt our business. Extreme weather events like hurricanes, tornadoes, floods and winter storms have caused disruptions to our business both directly and indirectly in recent history. Climate change may increase the frequency and intensity of these extreme weather events. Certain weather events may cause damage to our facilities and require us to temporarily halt operations. These types of events may also disrupt our customers' and suppliers' operations. Disruptions to the supply chain may cause the cost of goods to temporarily increase. Damage to our facilities may cause insurance premiums to increase and also require us to incur additional costs to mitigate

future risks. ESG -- We may not achieve or make satisfactory progress on our goals and targets to reduce emissions and satisfy other ESG metrics. Investors, **customers**, governmental authorities, and other interested parties have **recently an increased focus** on ESG matters, including with respect to climate change, greenhouse gas emissions, and sustainable business practices. This increased awareness with respect to ESG matters, including climate change, is expected to result in more prescriptive reporting requirements with respect to ESG metrics and expectations that companies establish goals and commitments regarding ESG metrics and take actions to achieve those goals and commitments. We have voluntarily established targets and goals with respect to greenhouse gas emissions, which are discussed elsewhere in this report under the caption "Regulatory and Environmental Matters" in "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Form 10-K. Our ability to achieve those targets and goals will depend on certain factors beyond our control, including regulatory actions, emergence of and advances in technology, and availability of required products and services. Our efforts to achieve ESG targets and goals may result in higher costs and capital expenditures with a low return on investment and may distract management efforts from other operational matters. We may not achieve or make satisfactory progress on our ESG goals and targets. If we are unable to meet these goals and targets, our reputation with investors, customers and other stakeholders and businesses may be harmed.

Reliance on Personnel -- We may fail to attract and retain qualified personnel, including key management personnel. Our ability to operate and grow our business depends on our ability to attract and retain employees with the skills necessary to operate and maintain our facilities, produce our products and serve our customers. The increasing demand for qualified personnel may make it more difficult for us to attract and retain qualified employees. Changing demographics and labor work force trends may make it difficult for us to replace retiring employees at our manufacturing and other facilities. U. S. labor market conditions remain tight, and **we have, at times, experienced** labor shortages **and / or were exacerbated by the COVID-19 pandemic. We have experienced** higher than historical employee turnover in certain of our facilities. If we fail to attract and retain qualified personnel, or if we experience labor shortages, we may experience higher costs and other difficulties, and our business may be adversely impacted. In addition, we rely on key executive and management personnel to manage our business efficiently and effectively. As our business has grown in size and geographic scope, we have relied on these individuals to manage increasingly complex operations. The loss of any of our key personnel could adversely affect our business.

Cybersecurity -- Risks related to security breaches of company, customer, employee, and vendor information, as well as the technology that manages our operations and other business processes, could adversely affect our business. We rely on various information technology and process control systems to capture, process, store, and report data, operate our manufacturing and converting facilities, and interact with customers, vendors, and employees. Despite careful security and controls design, implementation, updating, and internal and independent third-party assessments, our information technology and process control systems, and those of our third-party providers, could become subject to cyberattacks or security breaches. Network, system, and data breaches could result in misappropriation of sensitive data or operational disruptions including interruption to systems availability and denial of access to and misuse of applications required by our customers and vendors to conduct business with us. Misuse of internal applications; theft of intellectual property, trade secrets, or other corporate assets; and inappropriate disclosure of confidential information could stem from such incidents. Delayed shipments, slowed production, or other issues resulting from these disruptions could result in lost sales, business delays, and negative publicity and could have a material adverse effect on our operations, financial condition, or operating cash flows. **For further discussion pertaining to cybersecurity strategy and related roles and responsibilities, see "Part I, Item 1C. Cybersecurity" of this Form 10-K.**

Environmental Matters -- PCA may incur significant environmental liabilities with respect to both past and future operations. We are subject to, and must comply with, a variety of federal, state and local environmental laws, particularly those relating to air and water quality, waste disposal and the cleanup of contaminated soil and groundwater. Failure to comply with these regulations could result in fines, which may be significant, or other adverse regulatory action. Because environmental regulations are constantly evolving, we have incurred, and will continue to incur, costs to maintain compliance with those laws. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations- Environmental Matters" for estimates of expenditures we expect to make for environmental compliance in the next few years. New and more stringent environmental regulations may be adopted and may require us to incur additional operating expenses and / or significant additional capital expenditures to modify or replace certain of our boilers and other equipment. **For example, the EPA recently enacted more stringent particulate matter emissions standards, which may make it more difficult to obtain or maintain air permits and more difficult and expensive to comply with the limitations set forth in our permits. We are assessing the impact of these new standards on our business and operations.** In addition, environmental regulations may increase the cost of our raw materials and purchased energy. Although we have established reserves to provide for known environmental liabilities, these reserves may change over time due to the enactment of new environmental laws or regulations or changes in existing laws or regulations, which might require additional significant environmental expenditures.

Labor Relations -- If we experience strikes or other work stoppages, our business will be harmed. Our workforce is highly unionized and operates under various collective bargaining agreements. We must negotiate to renew or extend any union contracts that have recently expired or are expiring in the near future. While we believe that we have satisfactory labor relations, we may not be able to successfully negotiate new agreements without work stoppages or labor difficulties in the future or renegotiate them on favorable terms. If we are unable to successfully renegotiate the terms of any of these agreements, or if we experience any extended interruption of operations at any of our facilities as a result of strikes or other work stoppages, our business, results of operations and financial condition may be harmed.

Financial Risks Inflation and Other General Cost Increases -- We may not be able to offset higher costs. We are subject to both contractual, inflationary, and other general cost increases, including with regard to our labor costs and purchases of raw materials and transportation services. General economic conditions have resulted in higher inflation, which has led to higher costs across our business. If we are unable to offset these cost increases by price increases, growth, and / or cost reductions in our operations, these inflationary and

other general cost increases could have a material adverse effect on our operating cash flows, profitability, and liquidity. In ~~2022~~ **2023**, our total company costs including cost of sales (COS) and selling, general, and administrative expenses (SG & A) was \$ ~~6.7~~ **6.7** billion, and excluding non-cash costs (depreciation, depletion and amortization, pension and postretirement expense, and share-based compensation expense) was \$ ~~6.5~~ **6.5** billion. A 1% increase in COS and SG & A costs would increase costs by \$ ~~70~~ **67** million and cash costs by \$ ~~65~~ **61** million. Debt obligations — Our debt service obligations may reduce our operating flexibility. At December 31, ~~2022~~ **2023**, we had \$ ~~2.5~~ **2.5** billion of debt outstanding and a \$ ~~321~~ **323** million undrawn revolving credit facility, after deducting letters of credit. All debt is comprised of fixed-rate senior notes. We and our subsidiaries are not restricted from incurring, and may incur, additional indebtedness in the future. Our current borrowings, plus any future borrowings, may affect our ability to operate our business, including, without limitation:

- Result in significant cash requirements to make interest and maturity payments on our outstanding indebtedness;
- Increase our vulnerability to adverse changes in our business or industry conditions;
- Increase our vulnerability to increases in interest rates;
- Limit our ability to obtain additional financing for working capital, capital expenditures, general corporate, and other purposes;
- Limit our flexibility in planning for, or reacting to, changes in our business and our industry; and
- Limit our flexibility to make acquisitions.

Further, if we cannot service our indebtedness, we may have to take actions to secure additional cash by selling assets, seeking additional equity or reducing investments, which may not be achievable on acceptable terms or at all.

Pension Plans — Our pension plans may require additional funding. We record a liability associated with our pensions equal to the excess of the benefit obligations over the fair value of the assets funding the plans. The actual required amounts and timing of future cash contributions will be sensitive to changes in the applicable discount rates and returns on plan assets and could also be impacted by future changes in the laws and regulations applicable to plan funding. Fluctuations in the market performance of our plan assets will affect our pension plan costs in future periods. Changes in assumptions regarding expected long-term rate of return on plan assets, our discount rate, expected compensation levels, or mortality will also increase or decrease pension costs.

Market Price of our Common Stock- The market price of our common stock may be volatile, which could cause the value of the stock to decline. Securities markets worldwide periodically experience significant price declines and volume fluctuations due to macroeconomic factors and other factors beyond our control. This market volatility, as well as general economic, market, or political conditions, could reduce the market price of our common stock with little regard to our operating performance. In addition, our operating results could be below the expectations of public market analysts and investors, and in response, the market price of our common stock could decrease significantly.