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Project: SC Paper Market in North America – AFRY Rejoinder on the Claimant’s Reply

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Report

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Preface

The Government of Canada commissioned Pöyry Management Consulting Oy to support Canada in the arbitration between Resolute Forest Products, the Claimant, and Canada, the Respondent. Pöyry submitted an expert report entitled, “SC Paper Market in North America” for this proceeding on April 16, 2019. The Rejoinder report at hand responds to the Reply reports prepared for the Claimant by Dr. Jerry Hausman and Dr. Seth T. Kaplan, both dated December 6, 2019.

Pöyry Group and Pöyry Management Consulting have recently undergone corporate changes. The merger of the Swedish ÅF AB and the Finnish Pöyry Oyj was completed in February 2019, and in November 2019 the newly formed company ÅF Pöyry AB was rebranded as AFRY. Due to the merger, the consultant supporting Canada on this litigation process is now ÅF-Pöyry, or AFRY, and we allow the interchangeable use of Pöyry and AFRY on our report and commentary.

ÅF Pöyry is one of the largest engineering-consulting companies in the Nordic region, and a global actor with almost 17,000 employees and annual revenues of SEK 21 billion (USD 2,200 million). ÅF Pöyry’s main business areas are infrastructure, industrial & digital solutions, process industries, energy and management consulting.

The authors of this report are former employees of Pöyry Management Consulting and present employees of ÅF Pöyry, and they have no stake, directly or indirectly, in the outcome of this arbitration, and our fees are not contingent on the outcome of this matter in any way.

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Summary

- 1) **The Claimant's "But-for" test is unworkable where there are multiple independent causes.** In our opinion, Dr. Hausman and Dr. Kaplan's but-for world scenario of Port Hawkesbury (PHP) not re-opening provides an incomplete analysis for the purposes of assessing SC paper prices since it takes no other dynamics into account that would, or could, have affected Resolute's operations in the market or the price of SC paper. The Claimant's "but-for" test might be suitable in a static market situation, but in a dynamic market it is not, because it does not address what did occur or what would likely have occurred in the "but-for" world.
- 2) **Unduly static approach.** According to the Claimant, Resolute would have benefited from the continued absence of PHP from the market. This is a partially, if not completely, unlikely "but-for" scenario. PHP is one of two North American suppliers of SC-A+ paper while Resolute produces mostly SC-B/SNC paper, with limited SC-A production (~100,000 mt) out of Kénogami.¹ Thus, Resolute operates in a different market than PHP, and would not have greatly benefited from PHP's absence. First, in the absence of SC-A+ paper supply from PHP, imported volumes from Europe would have been greater. Second, SC-A+ was (and still is) an attractive substitute for Coated Mechanical (CM) paper, Coated #5 in particular, due to its nearly equivalent printing performance and lower price. In the absence of SC-A+ paper supply from PHP, the end users would have either continued to resort to Coated #5, in which case substitution from CM to SC-A+ paper would not have happened, or they would have purchased more European SC-A+/++ paper. Third, in the absence of SC-A+ supply from PHP, some other market participants would have taken advantage of the supply shortage situation – most likely the other leading SC-A paper mills including NewPage Duluth, UPM Madison and Irving St. John, which is the only other mill that makes SC-A+ paper. Resolute Kénogami has always been a smaller SC-A paper producer than any of the above mills, with poorer quality SC-A paper².
- 3) **Ex-ante forecasts based on flawed assumptions.** Dr. Hausman's damage calculations are based on RISI's price and cost forecasts for SC-A paper from October 2011, i.e. prior to PHP's re-entry. While Dr. Hausman believes that the forecast represents the industry's price expectations without PHP in the market, the RISI forecast constitutes a weak basis for estimating "but-for" prices. First, the use of ex-ante (before-the-event) forecasts is untenable because the assumptions underlying the "but-for" price forecast – e.g. economic development, exchange rates and demand growth – were incorrect, resulting in over-estimated price scenarios. Second, the methodology lacks transparency; RISI's price forecast model cannot be evaluated because it is not presented in any detail in either Dr. Hausman's Reply or in RISI's original document.
- 4) **Narrow definition of the relevant market.** Dr. Kaplan defines the relevant market as an isolated North American market for SC paper and finds support for this from the U.S. ITC report and the U.S. Department of Commerce definition. Even though Dr. Kaplan claims that he takes intra- and inter-grade substitutability into account, it is improper to define a North American uncoated mechanical paper and SC-paper market as a separate island. In the real world, as described in the Pöyry 2019 report, "the SC-paper market is not insulated from outside competition. Rather, SC-paper grades compete directly with other types of printing paper". On the high end of the SC-paper spectrum, which is occupied by PHP but not Resolute, SC-A+ grades compete with CM papers (coated #5

¹ Steger-1, Schedule 11, p. 54.

² See ¶13 of this report for details, [REDACTED]

and [REDACTED]

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and #4 in particular). In other words, the relevant market for PHP includes CM papers, supplied by European SC paper as well.

- 5) **Operative improvements matter.** Dr. Kaplan remains affirmative that the present value of a benefits package was the sole cause for PWCC to purchase PHP. We disagree, as we see that the cash generation capability of the single line operation with an optimized product portfolio, a flexible workforce and electricity arrangements provided a strong rationale to take over the operation. PWCC's ability to restructure the operation created vital cost savings, and we repeat that improvements to the operation of one mill do not change the competitor's cost base.
- 6) **Shifting demand for SC-paper ignored.** Analysis of volume and price movements within a strictly defined product area is misleading as it does not take into account the possibility of PHP (or any other high quality SC-paper producer) having an impact on the choice of the end users when buying printing paper. Dr. Kaplan adopts the comparative statics framework to define market equilibrium within an artificial market that circumscribed to SC-paper, improperly ignoring CM paper. Therefore, Dr. Kaplan's analysis rests solely on the shifting supply curve (of SC paper), but it does not accept the fact that the SC-paper demand curve shifted as SC-A+/A++ replaced CM in the North American publication paper market.
- 7) **The demand shift was caused by improved availability of equally good but cheaper substitutes.** In reality, using Dr. Kaplan's theoretical framework, SC-paper demand has shifted upward as PHP introduced a high quality SC-A+/A++ product to the market, and customers who previously would have only considered purchasing CM paper opted for a more economical alternative. Therefore, Dr Kaplan's line of thought remains incomplete, which is fatal in terms of assessing the effects of PHP's re-entry. It is true that PHP's return shifted the supply curve, but at the same time, the demand shifted too, due to improved availability of substitutes for CM. This, in turn fully neutralized the price decline which would have occurred if demand had remained unchanged.
- 8) **Assumptions directly affect the results of (any) forecast.** Both Dr. Hausman and Dr. Kaplan make reference to Pöyry's 2011 and [REDACTED] reports to the Nova Scotia Government (GNS), and consider the Pöyry analysis and forecasts to be consistent with their own views of the "but-for" world. Both make particular reference to Pöyry's [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. In hindsight, the substitution from CM in 2013 was simply not predictable, [REDACTED]. Besides this unforeseeable substitution and resulting demand shift, one should note that price predictions made on the basis of an elongating supply curve only tend to be indicative at best, because the demand schedule is typically seen as perfectly inelastic, cost structures and exchange rates refer to one time point only, landed costs are estimated to one geographic target market only, and assumptions regarding average industry operating rates are applied to all suppliers in an evenhanded fashion. The above is to say that any projections made prior to the alleged misconduct are based on incomplete information about the future operating environment, and should therefore not be used for reference in this arbitration.

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1 COMMENTS ON THE CLAIMANT'S "BUT-FOR" WORLD

- 9) Dr. Hausman's analysis is based on the following "But-for" world: "the SC paper market that would have existed but for PHP's reopening and introduction of █████ – 360,000 mt of increased SC paper capacity and production, guaranteed to survive through the Government guarantee of being in perpetuity the low cost producer in North America".³
- 10) Dr. Kaplan employs the "comparative static framework" to compare market equilibria with and without PHP's re-entry adopting the same "But-for" world, in which he "compared the world as it currently is and the world as it would have been "but for" re-entry".⁴
- 11) Dr. Hausman chose price erosion as the means to quantify the difference between Resolute's economic position absent PHP's re-emergence and its actual economic position, but he was not obliged to. Numerous other options were available. For example, Dr. Hausman could have quantified the damages caused by the contracts or market share that Resolute allegedly lost to PHP, or he could have made an assessment of the value of the one mill (Kénogami) that actually competes with PHP. Alternatively, Dr. Hausman could have based his assessment on Resolute's experiences in 2012 when PHP had exited the market.
- 12) In our opinion, Dr. Hausman and Dr. Kaplan's but-for world scenario of Port Hawkesbury (PHP) not re-opening provides in an incomplete analysis for the purposes of assessing prices, since it takes no other dynamics into account that would, or could, have affected Resolute's operations in the market.
- 13) The Claimant's "but-for" test might be suitable in a static market situation. However, in a dynamic market, it is not appropriate since it is based on false assumptions and predictions that have proven to be incorrect in the real world. It is also highly speculative, since it does not address what would likely have occurred in the "but-for" world. For example:
- *Imports from Europe:* In the absence of SC-A supply from PHP, imported volumes from Europe would have been greater. In the real world, SC-A/A+ imports from Europe dropped by 111,000 mt, from 385,000 mt in 2011 to 274,000 mt in 2014.
 - *Substitution:* In the absence of high-quality SC-A paper supply from PHP, major substitution of CM paper by SC grades would have been possible only through increased SC-A paper imports. In the real world, demand for SC-A paper rose by 225,000 mt in 2012-2013 whilst demand for CM paper declined by 232,000 mt.⁵
 - *Actions of other North American paper firms:* In the absence of SC-A supply from PHP, some of the other market participants would have taken advantage of the supply shortage situation. The main SC-A producers in North America at that time were NewPage Duluth (capacity 240,000 mt/a), UPM Madison (220,000 mt/a) and Irving St. John (210,000 mt/a) followed by Resolute Kénogami (140,000 mt/a, of

³ Reply Expert Witness Statement of Jerry Hausman, Ph.D, 6 December 2019 ("Hausman-3"), p. 1.

⁴ Reply Expert Witness Statement of Seth T. Kaplan, Ph.D, 6 December 2019 ("Kaplan-2"), ¶ 5.

⁵ Economists use the term demand to refer to the amount of goods/services consumers are willing to buy at a given price. In fact, they refer to the whole demand curve, or demand schedule as a function between price and quantity. In typical business language, demand is equated to the market demand that is being consumed over a period of time, e.g. month, quarter or year, and often term "demand" is equated with "consumption". RISI and Dr. Hausman have also used both meanings of the term "demand" interchangeably. See for example, **R-491**, RISI North America Graphic Paper Forecast, November 2013 ("We estimate that coated paper demand will drop another 3.7% in 2013 [...] driven down by a sharp loss of demand in the magazine end-use where SC has displaced LWC in certain magazines."); Hausman-2, ¶ 8 ("there is seasonal demand for SCP") and Hausman-3, ¶ 27 ("new entry into the SC paper market is very unlikely to occur given the declining demand of the industry.")

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which ~100,000 mt/a is what Resolute describes [REDACTED] quality)⁶. In 2013, Resolute profiled as an SC-B/SNC producer (640,000 mt/a).

- 14) Dr. Hausman's calculation of damages using both the actual and "but-for" scenarios is based on false assumptions and in the absence of the consideration of other market factors, cannot reliably quantify the likely consequences of PHP not re-entering the market.

2 COMMENTS ON DR. HAUSMAN'S REPLY

2.1 The damages model is based on ex-ante forecasts

- 15) A forecasting (or backcasting) econometric model, also referred to as a regression model, is one of the commonly used methods for estimating damages of non-competitive actions, such as monopolies or price-fixing.⁷ The forecasting approach involves performing a regression analysis pre- and post-breach to establish the statistical relationship between multiple variables in the form of an equation. The equation, based on data from the benchmark period (here: before the end of 2012), is used to predict but-for values for the dependent variable during the impact period (here: after 2013), but essentially, resting on actual values of the independent variables. The differences between the predicted (competitive) and actual (non-competitive) values are the calculated effects of non-competitive action over the impact period, in other words, the total damage estimate.
- 16) Dr. Hausman decided not to use an econometric model given its necessary complexity.⁸ In his opinion, the complexity of the current situation is due to the declining economic situation of most publications resulting from the increasing importance of online content, and because an econometric model requires an explanation of publication paper demand and supply both in North America and Europe.⁹ We believe that despite these difficulties, market modelling based on factual data would have been possible. Instead, Dr. Hausman used a RISI price and cost forecast for SC-A (35 lb) paper from October 2011, which he believes to represent the industry's price expectations without PHP in the market.¹⁰
- 17) However, the RISI price forecast, upon which Dr. Hausman relies to determine 2012-2016 prices, lacks the reliability of a proper forecasting model due to the following reasons:
- The RISI Forecast is ex-ante (before the event), and based on anticipated future development of market drivers at the time of making the forecast, which we now know, did not materialize; a much more reliable approach to assess the price of paper absent PHP's re-entry would have been to present forecasts ex-post (after the fact), i.e. based on actual market drivers that we know to be true.

⁶ [REDACTED]

⁷ An alternative method to the forecasting approach is the indicator (dummy) variable method where an indicator variable is used to distinguish the impact period from the control (benchmark) period. One of the prerequisites of using the indicator variable method is the explicit definition of the impact period (defined starting and end point) which is not the case in the arbitration at issue.

⁸ Hausman-3, ¶ 14.

⁹ Hausman-3, ¶ 14.

¹⁰ R-470, [REDACTED]

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- The RISI forecast is not fully transparent because RISI’s model is not available for review; it does not undertake simulations using “true” market assumptions for the forecast period 2012-2016; and whether it is partly based on a subjective (judgmental) forecasting method is not known, which in turn would completely invalidate any simulations with actual data.
- 18) Figure 2-1 shows in a simplified way the main prerequisites for a “good” or “justifiable” forecast. First, the forecasting model or methodology ought to be adequate; it correctly captures predictable structure of the market, it explains the past well, and it passes the diagnostics tests designed to test the model’s quality. Second, the assumptions pertaining to future values of the independent variables ought to be correct.
- 19) The forecasting model that Dr. Hausman has applied does not fulfil either of the preconditions. The model or the methodology cannot be evaluated because it is not presented in any detail in either Dr. Hausman’s Reply or in RISI’s original document. And the assumptions made as to some of the independent variables were incorrect as highlighted in Table 2-1.

Figure 2-1: A two-Dimensional View of a Successful Econometric Forecast

Assumptions	CORRECT	<ul style="list-style-type: none"> • Correct or nearly correct underlying assumptions cannot compensate for the model’s lack of explanation 	<ul style="list-style-type: none"> • Valid model with correctly projected independent variables • Likely successful forecast for structurally unchanged market
	INCORRECT	<ul style="list-style-type: none"> • Invalid model with incorrectly projected independent variables 	<ul style="list-style-type: none"> • Model is successful in making projections but incorrect underlying assumptions yield useless forecasts
		INADEQUATE	ADEQUATE
		Model/methodology	

- 20) Some of the assumptions made by RISI did not prove to be accurate, notably those that it reported itself, including assumptions with respect to economic growth, exchange rates and uncoated mechanical paper (UM)¹¹ demand. RISI’s price forecast was prepared in 2011 relying on a number of assumptions that were considered good preliminary projections at the time of making the forecasts but that we know today to be false:

¹¹ UM (uncoated mechanical paper) includes High Gloss grades (SC-A, SC-B and SNC), standard grades (super bright, high bright and bulky book papers) and lightweight grades.

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- RISI's GDP growth assumption for the first three years after the PHP restart (2013-2015) was 3.10%/a while the actual growth turned out to be 2.37%/a. RISI's optimism in terms of economic growth has likely resulted in an over-optimistic price forecast.
- RISI's forecast shows a fairly stable CAD/USD ratio, while in reality CAD has weakened considerably, especially between 2014-2016. Weaker CAD (and correspondingly stronger USD) suggests that that US purchasers enjoyed strengthened buying power of Canadian-made SC paper over the relevant period.
- RISI's UM paper demand projection drastically over-estimated demand during 2013-2016 (approximately 31% higher); this suggests that RISI's price forecast over-estimated prices compared to an analysis that would have been conducted using actual demand development.

- 21) The following Table 2-1 shows how RISI foresaw the development of the main price drivers vis-à-vis their actual development over the period 2011-2016.

Table 2-1: Selected Assumptions Underlying [REDACTED]

Item	2011	2012	2013	2014	2015	2016
US GDP Growth Rate (%/a)						
RISI	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Actual	1,6	2,2	1,7	2,5	2,9	1,6
USD/CAD Exchange rate						
RISI	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Actual	1,01	1,00	0,97	0,91	0,78	0,76
UM demand (mt)						
RISI	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Actual	4,630	3,893	4,024	3,839	3,378	3,166

- 22) Dr. Hausman explains that he does not use the RISI forecast to predict the actual level of prices – instead, he uses them to predict the yearly changes in prices.¹² This does not change the fact that such projections, which form the basis of his quantification in the “but-for” world are based on: (1) an unacceptable ex-ante approach, (2) partly unknown assumptions and a non-transparent model/methodology, and (3) certain assumptions that are known to be false.
- 23) In summary, the 2011 RISI price forecast constitutes a weak basis for estimating “but-for” prices. RISI has almost certainly over-estimated prices, but due to the lack of transparency, it is not possible to say with reasonable accuracy how much higher RISI's price projection is compared to a more appropriate ex-post forecast.

2.2 Damage estimates are based on -1.5 price elasticity

- 24) As part of his explanation to back up his damages amount, Dr. Hausman now asserts that price elasticity for SC paper demand in North America is -1.5.¹³ Dr. Hausman alleged in his previous report that demand elasticity was -2.1.¹⁴ Dr. Hausman revises his

¹² Hausman-3, ¶ 14.

¹³ Hausman-3, ¶¶ 31-33.

¹⁴ Expert Witness Report of Jerry Hausman, 28 December 2018 (“Hausman-2”), ¶ 25.

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demand elasticity estimate to -1.5 since it is “in the middle of the range discussed in the ITC report and what I found in my first report.”¹⁵ He apparently undertakes no analysis to arrive at either of these figures, and therefore we cannot evaluate the validity of these elasticities.

- 25) In theory, any one of a group of related products will tend to have an elastic demand, even though the demand for the group as a whole may be inelastic. A commodity with close substitutes tends to have an elastic demand, and one with no close substitutes, an inelastic demand. The good availability of close substitutes for SC paper (such as coated #5) supports a view of elastic demand.
- 26) AFRY empirical analysis shows that the demand for SC paper in North America is price elastic. Demand elasticities are derived from a 2SLS (two-stage least squares) partial adjustment model which allows price elasticities to be expressed in both its short-run and long-run forms. Demand tends to be more elastic in the long run¹⁶ rather than in the short run, because when prices change, paper buyers often need more time to adjust and change their buying habits. Existing contracts, stocks, adjustments in the printing press and buying habits contribute to this (Table 2-2).

Table 2-2: Short- and Long-run Elasticities of SC-paper Demand in North America

Model	Short run	Long run
2SLS, seasonal dummies assigned to 4 th quarter	-0,45	-2,42
2SLS, no dummy variables	-0,39	-2,18

- 27) Based on the above, long-run demand elasticities are in the range of -2 to -3, although the value is dependent on the time period chosen. No cross-elasticities were estimated here because the close correlation between SC-paper and CM paper prices troubles the statistical analysis and yields unreliable elasticity estimates (this is commonly known as the multicollinearity problem). However, if the model allowed the use of substitute prices - whereby also cross-elasticities could be estimated - the likely result would have been even greater price elasticity of demand than the said -2 to -3.

¹⁵ Hausman-3, ¶ 31; In its final determination (**C-237**, United States International Trade Commission, “Supercalendered Paper from Canada – Investigation No. 701-TA-530 (Final)” (Dec. 2015) (“ITC Report”), p II-25), the ITC disagreed with demand elasticity assessment made in the ITC staff report, which stated that “US Demand Elasticity measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of SC paper. This estimate depends on factors like the existence, availability, and commercial viability of substitute products, as well as the component share of the SC paper in the production of any downstream products. Based on the available information, the aggregate demand for SC paper is likely to be elastic; a range of -2 to -4 is suggested.” The ITC disagreed with the assessment of -2 to -4, and agreed with Dr. Kaplan who was the Petitioner’s witness in that case, finding as follows: “Petitioner’s economist believes that this demand elasticity is too high. As there are multiple grades of SC paper, there is substitution among these grades when small differences in prices occur. Incidents such as *** show that purchasers could switch entire orders from one grade to another or into and out of subject product based on price differences. For grades on the high and low ends of the spectrum, therefore, or among the grades within the scope, the elasticity is likely to be higher, and in the range suggested. However, the elasticity of demand with respect to price changes in mid-range SC paper is likely to be lower. Thus, the overall elasticity of demand may be lower than originally suggested and closer to unitary.”

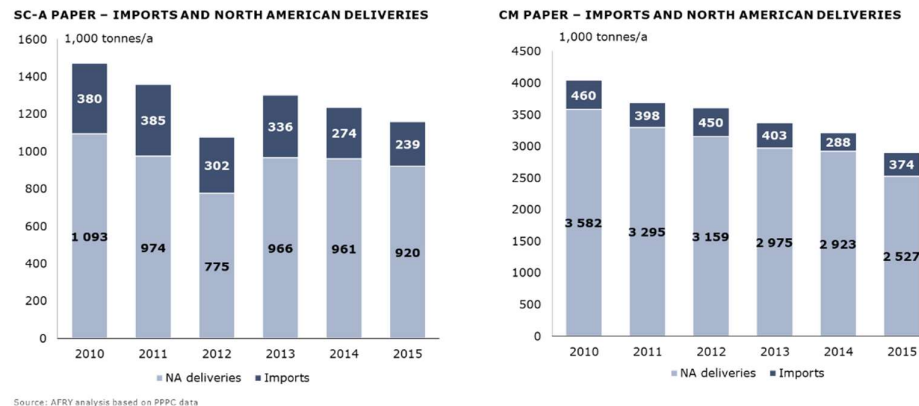
¹⁶ Long run does not refer to any specific time period; it merely refers to a period that is long enough to allow the market to adjust to changes

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2.3 Imported SC-paper from Europe shows highly elastic demand

- 28) According to the ITC,¹⁷ the elasticity of substitution between U.S. produced SC paper and imported SC paper is likely to be in the range of +4 to +7. This reflects how easily purchasers switch from U.S. products to imports (and vice versa) when prices change.
- 29) The same must be true for imports from Europe vs North American produce. PHP successfully competed with imported SC-paper (of which 92-95% was SC-A grade) the volumes of which declined from 336,000 mt in 2013 to 239,000 mt in 2015. Imports of CM paper declined from 403,000 mt to 374,000 mt during the same period (Figure 2-2). It is obvious that PHP's SC-A/A+ deliveries leveling at approximately 200,000 mt/a during the first years from the restart (AFRY estimate) replaced a part of SC-A/A+ and CM imports, which showed a decline of 140,000 mt over the period 2012-2015.

Figure 2-2: Reduced SC-A imports and CM overall paved the way to PHP re-entry in 2013-2014¹⁸



2.4 On demand trend break and CM substitution

- 30) Dr. Hausman stressed in his criticism of the Pöyry report that "a sizeable SC demand surge in 2013 would have to have increased SC prices, rather than yield flat SC prices, which Pöyry claims is the real world outcome" and further that "if I use the price elasticity of -1.5, which is in the range of the estimates used by the ITC and which I estimate in

¹⁷ C-237, ITC Report, p. II-25.

¹⁸PPPC coated & uncoated mechanical paper flash reports. **R-492**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2010, **R-493**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2011, **R-494**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2012, **R-495**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2013, **R-496**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2014, **R-497**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2015 and **R-501**, PPPC, North American Coated Mechanical Paper Statistics – Flash Report for December 2010, **R-501**, PPPC, North American coated Mechanical Paper Statistics – Flash Report for December 2011, **R-502**, PPPC, North American Coated Mechanical Paper Statistics – Flash Report for December 2012, **R-503**, PPPC, North American Coated Mechanical Paper Statistics – Flash Report for December 2013, **R-504**, PPPC, North American Coated Mechanical Paper Statistics – Flash Report for December 2014 and **R-505**, PPPC, North American Coated Mechanical Paper Statistics – Flash Report for December 2015.

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- my first report, a 10% increase in demand would lead to a 6.7% increase in price if capacity had remained constant, assuming that PHP did not re-open in 2012".¹⁹
- 31) Dr. Hausman also asserts that "if Pöyry is correct and most of the absence of significant price effect was created by a shift in demand from coated mechanical to SC-paper, in the but-for world the increase in demand would have led to higher prices than occurred if PHP did not reopen".²⁰
- 32) The fundamental difference between Dr. Hausman's and AFRY's "but-for" scenarios is that while Dr. Hausman focuses solely on North American SC-paper and not on CM, AFRY considers the relevant market be much larger, covering in PHP's case both coated #5 and SC-A/A+ product segments. PHP's re-entry made it possible to substitute CM with North American SC-A/A+ paper, and meant also that purchasers would not seek to replace CM paper with imported SC-A/A+ paper from Europe. Dr. Hausman's scenario does not take such dynamics into account because it assumes that in the but-for world, substitution occurs only within North America, and only between SC paper grades.
- 33) According to AFRY estimates, PHP supplied at least ██████████ of high quality SC-A/A+ paper to the market in 2013-2015, and hereby made it possible to displace domestic and imported CM from the market (North American CM deliveries declined by 632,000 mt in 2012-2015 while CM imports declined by 76,000 mt during the same period). With the help of CM substitution by high-quality SC paper, imports of SC-A/A+ grades recovered in 2013 by 34,000 mt, but started to decline in the following two years (-97,000 mt in 2014-2015), while North American deliveries of SC-A/A+ remained steady at 920,000-960,000 mt/a.²¹
- 34) Demand for SC-A/A+ surged in 2013 (+224,000 mt, +20,8%) while demand for SC-B and SNC+ grades showed only moderate gains (+12,000 mt, +2,0%)²². One could conclude that this was mainly because PHP was producing SC-A/A+, which is a substitute for CM while lower quality SC-B and SNC+ are not.²³ According to PPI Pulp and Paper Week, 39% of PHP's capacity is allocated to SC-A++, 30% to SC-A+, 20% to SC-A and 11% to SC-B²⁴. Improved availability of SC-A/A+ due to re-opening of PHP on one hand, and publishers' cost saving pressures that led to grade changes from CM to SC-A/A+ (e.g. Time Magazine) on the other, resulted in a clear trend shift in SC-A/A+ demand in an otherwise declining publication paper market (Figure 1-4).
- 35) At the same time, demand for coated mechanical paper declined by 232,000 mt or -6.4% in 2013, which indicates that SC-A+ -grades took market share from coated

¹⁹ Hausman-3, ¶ 12, footnote 28

²⁰ Hausman-3, ¶ 13.

²¹ PPPC, North American Uncoated Mechanical Paper Statistics- Flash Report for December 2013 – 2016, **R-495**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2013, **R-496**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2014, **R-497**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2015 and **R-498**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2016,

²² **R-495**, PPPC – North American Uncoated Mechanical Paper Statistics – Flash Report for December 2013,

²³ As described in the first report (Expert Report of Pöyry, "SC Paper Market in North America", 16 April 2019 ("AFRY/Pöyry-1 Report"), section 2), supercalendered papers are divided into three categories: SC-C which has little or no fillers, SC-B which has low filler levels (10-15% clay) and highly filled SC-A (25-30% filler). Improved SC-A+ (up to 35% mineral content) is close in performance to LWC paper (Coated #5), and it has vastly broadened uncoated groundwood's ability to compete in high end markets formerly dominated by coated groundwood (and other high quality papers). Clay and other pigments enhance appearance by adding brightness, opacity and bulk, and the use of use of high-pigment level groundwood papers has grown because of advertiser demand for better paper quality, notably due to the stricter quality requirements of four-color printing.

²⁴ **R-506**, **RISI**, PPI Pulp and Paper Week, Sep. 30, 2016, Vol. 38 No. 38, 6.

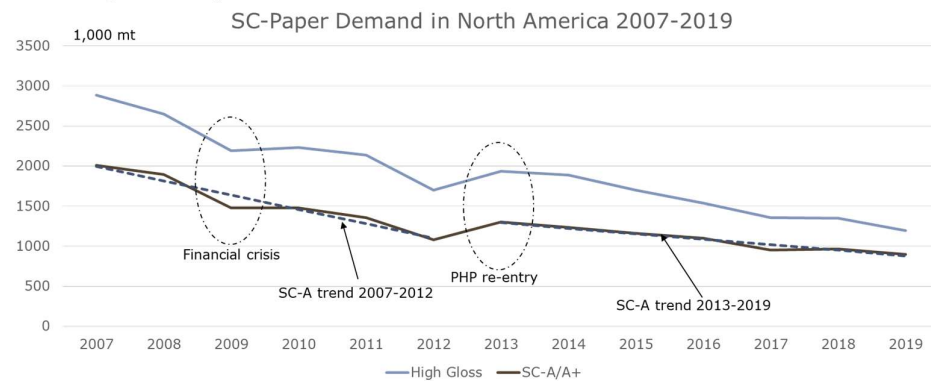
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mechanical paper. This fact was recognized by RISI in June 2013, which provided the following:

- [REDACTED] #25
- [REDACTED] 26
- [REDACTED] 7

36) Figure 2-3 illustrates how PHP's re-entry created new demand for SC-A/A. The new demand came mainly through substitution from CM, as described in the foregoing.

Figure 2-3 – PHP's re-entry bumped up SC-A/A+ demand by creating a competitive alternative for CM²⁸



High Gloss include SC-A/A+, SC-B and SNC+ grades

²⁵ R-236, RISI, North American Graphic Paper Forecast, "Printing and Writing Papers" (June 2013), p. 64.

²⁶ R-236, RISI, North American Graphic Paper Forecast, "Printing and Writing Papers" (June 2013), p. 67.

²⁷ R-236, RISI, North American Graphic Paper Forecast, "Printing and Writing Papers" (June 2013), p. 77.

²⁸ R-492, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics - Flash Report for December 2010, R-493, Pulp and Paper Products Council - North American Uncoated Mechanical

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- 37) In sum, if a new mill entered the market in 2013 that produced mostly SC-B paper instead of SC-A+ paper, the result would have been more comparable to Dr. Hausman's scenario (volume and price damage), and any demand shift from CM to SC-paper would necessarily have benefited offshore (European) SC-A+ producers rather than North American SC-B/SNC+ suppliers.²⁹ SC-B/SNC+ suppliers (demand rose by 2.0% in 2013) likely acquired market share from standard UM including hi-bright (for which demand declined by 2.6% in 2013).³⁰

2.5 Other controversial issues

- 38) Dr. Hausman adjusts his damages assessment in his December 2019 report to address what he calls unexpected developments in 2018 that increased SC paper prices even as demand did not grow or did overall capacity shrink. In his opinion, these price increases will necessarily be temporary.³¹
- 39) Saying this, Dr. Hausman actually reveals the shortcomings of his model by claiming that the price increases were likely short-lived,³² and that he has therefore modified his results by smoothening the 2018 price upcycle by using 2016-2018 averages. Dr. Hausman does not mention that the price situation in 2019 was on average even better than in 2018. SC-A (34-35 lb) prices peaked in Q4/2018-Q1/2019 at USD 935/mt, while the year-average prices in 2018 and 2019 were USD 884/mt and USD 921/mt, respectively.³³ This means that the period of high profits – even with PHP's presence – continued through 2018-2019. It is clear that this undermines Dr. Hausman's actual vs. but-for profits calculations more than temporarily.

3 COMMENTS ON DR. KAPLAN'S REPLY

3.1 Market definition

- 40) Dr. Kaplan defines the relevant market as a North American market for SC paper³⁴ and finds support on this from the U.S. ITC report³⁵ and the U.S. Department of Commerce definition,³⁶ as well as from industry analysts, including the [REDACTED] and RISI

Papers Statistics – Flash Report for December 2011, **R-494**, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics – Flash Report for December 2012, **R-495**, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics – Flash Report for December 2013, **R-496**, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics – Flash Report for December 2014, **R-497**, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics – Flash Report for December 2015, **R-498**, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics – Flash Report for December 2016, **R-499**, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics – Flash Report for December 2017, and **R-500**, Pulp and Paper Products Council - North American Uncoated Mechanical Papers Statistics – Flash Report for December 2018 .

²⁹ Hausman-3, ¶ 11

³⁰ **R-495**, PPPC – North American Uncoated Mechanical Paper Statistics – Flash Report for December 2013.

³¹ Hausman-3, p. 1.

³² Hausman-3, ¶ 30(d).

³³ **R-507**, PPI, SCA CM Prices until 2019.

³⁴ Kaplan-2, ¶ 36.

³⁵ **C-237**, *In re Supercalendered Paper from Canada*, Inv. No. 701-TA-530, Final Determination Commission Opinion (U.S.I.T.C.).

³⁶ Kaplan-2, ¶¶ 37-39.

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forecasts³⁷. Dr. Kaplan claims that he takes intra- and inter-grade substitutability into account.³⁸

- 41) In our view, it is convenient but improper for Dr. Kaplan to define a North American SC-paper market as a separate island. The convenience stems from the fact that available statistics (such as PPPC Flash Reports – North American Uncoated Mechanical Paper Statistics and North American Coated Paper Statistics) separate out various grades on technological grounds (some paper machines/paper mills have soft calenders, supercalenders, coaters etc.) thus facilitating the compilation of data.
- 42) In real life, though, as described in Pöyry 2019 report, “the SC-paper market is not insulated from outside competition. Rather, SC-paper grades compete directly with other types of printing paper. On the low end of the price and quality matrix, where Resolute has the majority of its production, SC-B and SNC paper compete with standard uncoated mechanical (non-SC) printing paper (“UM”) grades and improved newsprint, including roto news and hi-bright grades. On the other end of the SC spectrum, which is occupied by PHP but not Resolute, SC-A+ grades compete with coated mechanical (“CM”) #5 and #4.”³⁹ Further, according to the Pöyry 2019 report “SC-papers are substitutable, but they are not susceptible to substitution between SNC and SC-A, for example or between SC-B and SC-A+. However, they are highly substitutable between SNC/SC-B and standard UM, on the low end of the continuum, and SC-A+ grades and CM, on the upper end.”⁴⁰ RISI agrees with this assessment, stating:
- “The grade structure covers a very broad spectrum. At the very upper end are the high gloss, super bright SC-A+ (supercalendered plus) papers that are virtually indistinguishable from LWC [Light Weight Coated]. These grades were developed in Europe and are now also made in North America. There is also SC-A, SC-B+, SC-B, and SNC.”⁴¹
- 43) The relevant market for PHP – one of two suppliers of SC-A+ grades in North America – includes CM papers. The development of SC-A+ grade in Europe focused exactly on this market segment, which was made possible with a new technology called gap forming that allows finishing at higher machine speeds and removes water from both sides of the sheet at the same time, creating a brighter and more uniform paper with better printability. North American mills eventually also embraced SC-A+ technology sometime in the early 2000’s, and began taking away market share from local and offshore CM paper (coated #5) on one hand, and from European suppliers of SC-A+ paper on the other, who at best enjoyed a half-a-million metric ton market in the USA.
- 44) Analysis of price movements within a strictly defined product area is misleading as it does not consider the possibility of PHP having an impact on other product areas, such as CM (coated #5), or European exporters. We are not gerrymandering categories (as Kaplan puts it⁴²); we are merely recognizing that PHP’s re-entry has had stronger effects outside than inside the North American SC paper industry. Despite his numerous references to SC-paper being a self-contained market, Dr. Kaplan has tunnel vision within the publication paper market. A few simultaneous occurrences of the CM paper market are worth noting in this context, which put these artificial demarcation lines into perspective:

³⁷ Kaplan-2, ¶¶ 44-45, citing to **R-146**, [REDACTED]; **R-236**, RISI – North American Graphic Paper Forecast, “Printing and Writing Papers” (June 2013).

³⁸ Kaplan-2, ¶ 36.

³⁹ AFRY/Pöyry-1 Report, ¶ 19.

⁴⁰ AFRY/Pöyry-1 Report, ¶ 32.

⁴¹ **R-512**, RISI Global Pulp and Paper Fact and Price Book, 2006, pp.161-162.

⁴² Kaplan-2, ¶ 45.

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- In general, changes in supply do not have a substantial impact on demand. However, prior to PHP's closure, part of PHP's output appears to have been sold to CM applications. The mill's closure improved the demand for CM in 2012 so that instead of declining by 6 to 9%/a as in 2011 and 2013-2016, the demand for CM declined only by 2% in 2012 when PHP was closed.⁴³
 - PHP's re-entry coincided with a sudden increase in deliveries and demand for SC-A/A+ paper (incremental demand in 2013 +224,000 mt or +20,8%),⁴⁴ a similar but opposite phenomenon as in 2012.
 - North American SC-A/A+ production increased with the re-entry (incremental production in 2013 +208,000 mt or +26,5%); shipments-to-capacity ratio of high-gloss UM declined marginally from 93% in 2012 to 91% in 2013, and maintained that level in 2014.⁴⁵
 - SC-A kept its price level – first dipped from USD 926/mt in 2012/Q4 to USD 882/mt in 2013/Q1 but returned back to USD 915-920/mt in 2013/Q3-Q4.⁴⁶
 - At the same time, demand for CM paper declined, giving way to increased supply of SC-A/A+ paper (demand change in 2013 -232,000 or -6,4%).⁴⁷
 - The price of CM paper started sliding, from USD 989/mt in 2012/Q4 to USD 935/mt in 2013/Q4.⁴⁸
- 45) Instead of altering the market balances in the SC-paper sector, the re-entry of PHP caused a negative shift in CM paper demand in 2013, and possibly beyond, and contributed to the -5.5% downslide in coated #5 prices in 2013.
- 46) An equally important argument is that if PHP did not re-enter, the shift from CM to North American SC-A/A+ would have been limited. This has been discussed in section 2.5 of this report.
- 47) Dr. Kaplan did not report these results in his reply of December 6, 2019, and did not address Pöyry's 2019 opinion that PHP operates in a market in which it competes directly with CM paper, suppliers of SC-A+ (which does not include Resolute) and suppliers of SC-A (including Resolute's Kenogami mill), or that PHP hardly produces SC-B paper and does not produce SNC, which is where the bulk of Resolute's production lies. Yet, Dr.

⁴³ PPPC, North American Coated Paper Statistics – Flash Report(s) for December 2011-2016. **R-501**, PPPC, North American Coated Paper Statistics – Flash Report for December 2011, **R-502**, PPPC Flash Reports, North American Coated Paper Statistics – Flash Report for December 2012, **R-503**, PPPC Flash Reports, North American Coated Paper Statistics – Flash Report for December 2013, **R-504**, PPPC Flash Reports, North American Coated Paper Statistics – Flash Report for December 2014, **R-505**, PPPC Flash Reports, North American Coated Paper Statistics – Flash Report for December 2015 and **R-508**, PPPC Flash Reports, North American Coated Paper Statistics – Flash Report for December 2016.

⁴⁴ **R-494**, PPPC Flash Reports, North American Uncoated Mechanical Paper Statistics, Flash Report for December 2012, PPPC Flash Reports, North American Uncoated Mechanical Paper Statistics, Flash Report for December 2013 and PPPC Flash Reports, North American Uncoated Mechanical Paper Statistics, Flash Report for December 2014.

⁴⁵ **R-494**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2012, **R-495**, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2013 and **R-496**, PPPC, North American Uncoated Mechanical Paper Statistics – Flash Report for December 2014.

⁴⁶ **R-509**, RISI/PPI Pulp & Paper Week, Price Watch 2012, **R-510**, RISI/PPI Pulp & Paper Week, Price Watch 2013 and **R-511**, RISI/PPI Pulp & Paper Week, Price Watch 2014).

⁴⁷ **R-502**, PPPC, North American Coated Paper Statistics, Flash Report for December 2012, **R-503**, PPPC, North American Coated Paper Statistics, Flash Report for December 2013 and **R-504**, PPPC, North American Coated Paper Statistics, Flash Report for December 2014.

⁴⁸ **R-509**, RISI/PPI Pulp & Paper Week, Price Watch 2012, **R-510**, RISI/PPI Pulp & Paper Week, Price Watch 2013 and **R-511**, RISI/PPI Pulp & Paper Week, Price Watch 2014.

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Kaplan maintains that “PHP and Resolute compete for sales” in a “North American market” and he states that his analysis does take higher and lower grades into account.⁴⁹

3.2 Hymn to comparative statics

- 48) Dr. Kaplan emphasizes the great virtues of comparative statics,⁵⁰ which nobody can deny. Comparative static analysis examines the change in final equilibrium that results from some specified change(s) in the parameters of the model. Typically, the original and the new equilibrium (after the change, or shock) are shown, and the resulting changes in quantities and prices can be reported if conditions of stability can be ascertained. Static analysis is timeless analysis, one in which the passage of time does not play an essential role, and in which the new equilibrium, once achieved, remains unchanged period after period.
- 49) The problem is this: Dr. Kaplan adopts the comparative static framework to a predefined market (SC-Paper in North America) and attempts to define market equilibriums before and after PHP’s re-entry by keeping the demand curve unchanged, and allowing the supply to shift from a position that excludes PHP to a position that includes PHP. His analysis rests solely on the shifting supply curve, but it does not accept the fact that also demand curve shifted as SC-A++ replaced CM in the North American publication paper market.
- 50) It is convenient for Dr. Kaplan to define the SC-paper market as a separate island because statistical data (North American deliveries, imports, demand etc.) allow numerical analysis that are focused solely on the SC-paper sector. However, the relevant market is not limited to SC Paper, and covers the entire publication paper sector serving the same end-uses as SC-paper. CM paper, and coated #5 in particular, are other relevant market segments in this case.
- 51) Prompted by the logic of comparative statics, Dr. Kaplan concludes that “but-for” the increased supply of supercalendered paper consequent to the reopening of the Port Hawkesbury mill by PHP, Resolute’s SCP operations would have experienced higher prices, greater shipments and increased profits.⁵¹ Dr. Kaplan attempts to demonstrate that his analysis is valid regardless of whether other events occur.⁵² His reasoning is that as the market price for SCP declines, SCP becomes a more attractive alternative to certain consumers of coated paper, other mechanical papers and other mediums of advertising. And finally, he asserts that the re-opening of PHP caused an increase in supply, leading to a new equilibrium in price which is at a lower level than the but-for price, and a new equilibrium quantity which exceeds the but-for quantity. Further, he writes, demand remains unchanged while the quantity demanded increases and the price falls as the equilibrium shifts down along the existing demand curve.⁵³
- 52) Dr. Kaplan’s basic assumption is that demand remains unchanged, i.e. that all determinants of demand other than price must stay the same. However, a shift in demand is the circumstance when the opposite occurs. The main demand shifters, according to economic theory, are: (1) the income of buyers, (2) consumer trends and tastes, (3) expectations of future price, supply, needs etc., (4) the price of related goods – substitutes and complementary goods, and finally (5) the number of potential buyers.⁵⁴ In this particular case, demand has shifted upward as PHP introduced a high-quality SC-A/A++ product to the market, and customers, who previously would have only considered purchasing CM paper, opted for a more economical alternative. Therefore,

⁴⁹ Kaplan-2, ¶¶ 2-17, 36.

⁵⁰ Kaplan-2, ¶¶ 13-14.

⁵¹ Kaplan-2, ¶ 9.

⁵² Kaplan-2, ¶ 16.

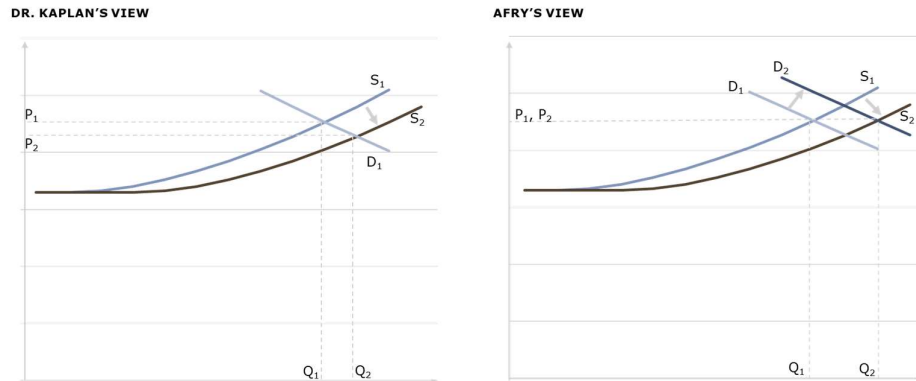
⁵³ Kaplan-2, ¶¶ 18-21.

⁵⁴ Basic economics textbooks, e.g. Lipsey, Introduction to Positive Economics 1989, p. 65-66.

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Dr. Kaplan's line of thought remains incomplete, which is fatal in terms of assessing the effects of PHP's re-entry. The shift in demand has fully neutralized the price decline which would have occurred if demand had remained unchanged (Figure 3-1).

Figure 3-1 Dr. Kaplan does not consider shift in demand caused by CM substitution

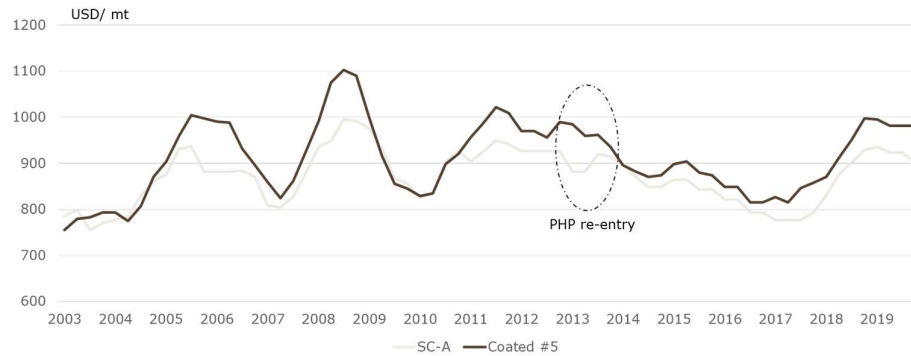


- 53) Dr. Kaplan asserts that his "but-for" conclusion - an increase in SCP supply would lead to higher equilibrium quantities and lower equilibrium prices - remains unrebutted.⁵⁵ We disagree. Higher price of CM paper on one hand, and entry of a more economical product (SC-A+ grades) with comparable performance on the other, create additional demand for the latter, and result in substitution. Substitution from CM to SC-A/A+ partly benefited the European suppliers (see Figure 1-1), but more so, made room for PHP's high-quality SC paper without causing any decline in SC-paper prices. In fact, after a temporary price dip in early 2013, the price of SC-A paper completely recovered to pre-entry levels. Prices of Coated #5 continued to decline in line with the demand so that the price difference between Coated #5 and SC-A diminished from USD 64/mt in 2012/Q4 to zero in 2014/Q1 (see Figure 3-2).

⁵⁵ Kaplan-2, ¶ 7.

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Figure 3-2 SC-A and Coated #5 prices in North America 2003-2019⁵⁶



3.3 PHP's re-entry volume vs. the relevant market

54) Dr. Kaplan asserts that the additional supply volume from PHP has been 360,000 mt, and opines that even [REDACTED] (referring to Mr. Steger's counter-argument) would have been significant in light of the size of the market.⁵⁷ However, according to the U.S. ITC report from 2015,⁵⁸ the sales director of West Linn Paper stated at the hearing⁵⁹ that "...so, again, we do not run flat out as what was said earlier. And by the way, 400,000 tons (360,000 mt), that's our stated capacity. You can look at the briefs and look at the production for the last two years, it's a far cry from 400,000 tons (360,000 mt)".

55) According to AFRY estimates, the deliveries from PHP over the period 2013-2016 averaged 300,000 mt/a. This accounts for about 20% of the high gloss UM (SC-A, SC-B/SNC) deliveries, and about 9% of the total high gloss UM and coated #5 deliveries in North America during the four-year period. Dr. Kaplan's choice of the SC paper market as the relevant market for assessing liability in this matter⁶⁰ is not correct because PHP's competition takes place at the borderline areas of SC-A/A+ and coated #5 grades.⁶¹

3.4 Long-term price trend has been declining

56) Dr. Kaplan shows that SC-A prices began falling in December 2013 and trended downward until January 2017.⁶² His price graph appears to be purpose-oriented as it shows the product price history as from January 2010 through end-2017, illustrating the cyclical upturn in 2010-2011, price plateau in 2012-2013 and decline as from 2014. The graph does not show that SC-paper prices have been declining for a longer period of time and long before PHP was even in the market (Figure 3-3).

57) The prices of SC paper – and other grades of paper as well – have shown a declining trend in real terms over decades. The key drivers behind this development are the

⁵⁶ RISI Pulp and Paper Week (information leaflets from 2003-2020). **R-507** - PPI, SCA CM Prices until 2019.

⁵⁷ Kaplan-2, ¶¶ 4, 15, 22, 61 and 63.

⁵⁸ **C-237**, *In re Supercalendered Paper from Canada*, Inv. No. 701-TA-530, Final Determination Commission Opinion (U.S.I.T.C.), p. 164.

⁵⁹ **C-052**, Excerpts Transcript of Proceedings before U.S. International Trade Commission in *In re Supercalendered Paper from Canada*, Inv. No. 701-TA-530, p. 164.

⁶⁰ Kaplan-2, ¶ 45.

⁶¹ Pöyry 2020 ¶ 45

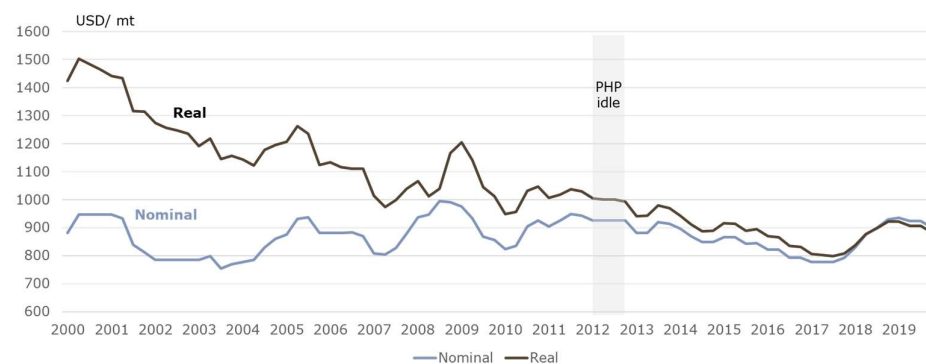
⁶² Kaplan-2, ¶ 52 and Figure 2.

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general adequacy of main production inputs (when there is no scarcity, prices tend to be lower in a competitive market), technological development, advances in material saving and production efficiency, and increasing economies of scale, to mention but a few. In economist terms, the flattening and downward shifting supply curve explains the long-term trend decline in real paper prices, which becomes even more pronounced in the case of secular demand decline.

- 58) PHP's temporary exit and re-entry to the North American SC-paper market has not changed the trend in any way, and cannot therefore be considered accountable for the price decline that took place over the period 2014/Q1-2017/Q3. Neither has it had any role in the price recovery that took place in 2017/Q4-2019/Q1.

Figure 3-3 Nominal and Real SC-A Paper Prices in the US 2000-2019⁶³

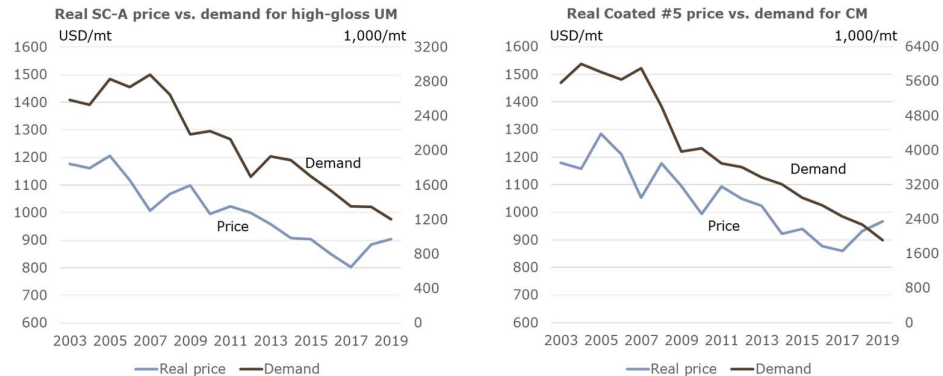


- 59) The demand for SC-paper has been in secular decline for 15 years, but there is no stark contrast between concurrent development of SC-paper prices prior to PHP's exit and after PHP's re-entry. In fact, annual prices declined faster prior to PHP's exit (-2.5%/a in 2005-2011) than after PHP's re-entry (-0.8%/a in 2013-2019). This strongly contradicts the Claimant's hypothesis that PHP's re-entry has resulted in lower price than what it would have been if PHP had remained idle.
- 60) Comparing the before and after demand/price developments, we conclude that prices of SC-paper and CM #5 declined faster prior to PHP's exit than after PHP's re-entry. While prices declined on average by 2.5 and 2.2%/a during the six years prior to PHP's exit, respectively, the demand for high-gloss UM and CM declined by 4.3 and 6.8%/a. After PHP's re-entry prices declined on average by 0.8%/a and 0.7%/a during the six-year period 2013-2019, while demand for high-gloss UM and CM shrank by 7.5%/a and 9.0%/a. It seems that the paper industry has been able to keep prices much better during 2013-2019 than during 2004-2011.
- 61) With a focus on the exit-entry period 2011-2013, one could conclude that the declining demand for SC-paper in 2012 resulted in a very small change in terms of price. Using Dr. Kaplan's language, as supply shifted to the left due to PHP's exit in 2011, also demand shifted to the left as end users resorted to CM due to the absence of SC-A/A+. This can also be seen in CM demand which did not decline in 2012 as much as in the years preceding PHP's exit and in the years following PHP's re-entry – clear evidence of the interplay between coated #5 and SC-A/A+ in the North American publication paper market, and rebuttal of Dr. Kaplan's static supply/demand approach that considers SC paper on its own, divorced from CM paper.

⁶³ PPI new price series. **R-507** - PPI, SCA CM Prices until 2019.

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Figure 3-4 Real price of and demand for mechanical printing papers in North America 2003-2019



3.5 Improvements to PHP's operations

- 62) AFRY wrote⁶⁴ that Dr. Kaplan did not truly consider the benefits associated with PHP's new ownership and their restructuring efforts as we are of the opinion that timing matters in cash flow analysis. In his response, Dr. Kaplan stated that it is irrelevant when and how each component's benefit is accrued; what matters is whether the present value of benefits package was large enough to make PHP takeover worthwhile for the new owner PWCC.⁶⁵
- 63) AFRY disagrees. While we do not fully know the project acceptance criteria of PWCC, it is possible to accept or discard a project from a pre-tax unlevered cash flow point of view.⁶⁶ This analysis has a novel feature baked in, because the cash flows considered can be simplified to:
- $$FCFF = EBITDA - \text{Fixed Investment} - \text{Working Capital Investment, where}$$
- $$EBITDA = \text{Sales} - \text{Direct Costs} - \text{Fixed Costs}$$
- 64) This notation considers sales and the cash cost of production only. We mentioned that operating a single line yields cost savings in personnel, fibre, and chemicals to name a few, while optimised product portfolio brings in higher revenues. It is therefore possible that PWCC decided to take over the PHP operation because it saw its cash generation capabilities absent of any benefits package from the unlevered cash flow point of view.
- 65) Dr. Kaplan's view on the present value of the benefits package lacks credibility as the benefits package includes mechanisms that have a tax feature baked in. Tax is paid from a positive operational profit⁶⁷ and it is not a given that PHP or any other SCP producer can turn profits consistently due to inherent market dynamics. Further, tax assets or liabilities can be deferred and materialise after cash exchanges hands. It is therefore incorrect to argue that a benefits package alone determined PWCC's purchase of PHP

⁶⁴ AFRY/Pöyry-1 ¶ 99.

⁶⁵ Kaplan-2, ¶ 68.

⁶⁶ Pre-tax = operational profit plus Depreciation & Amortisation, unlevered excluding financing costs.

⁶⁷ EBITDA less Depreciation and Amortization.

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operation⁶⁸, and we remain affirmative that PWCC's restructuring efforts have made PHP competitive.

4 [REDACTED] REPORTS REVISITED

66) Both Dr. Hausman and Dr. Kaplan make reference to [REDACTED], and consider the Pöyry analysis and forecasts are consistent with their own views of the "but-for" world. Both Dr. Hausman and Dr. Kaplan make particular reference to [REDACTED].

67) [REDACTED]

68) [REDACTED]

69) [REDACTED]

70) [REDACTED]

⁶⁸ In detail, a benefits package value should always be positive, and discounting a positive number with a positive discount factor results in a positive present value.

⁶⁹ Hausman-3, ¶¶ 10-12; Kaplan-2, ¶¶ 2, 4, 18, 23-27, 33, 44, 52, 67, 71.

⁷⁰ Hausman-3, ¶10(e)(ii); Kaplan-3, ¶ 52, citing to **R-161**, [REDACTED].

⁷¹ **R-161**, [REDACTED].

