aranca

Research Update

The Chemours Company

FIXED INCOME & CREDIT RESEARCH

Confidential | June 17, 2016

Context

Following the 1Q16 earnings release, Citron Research's equity research report published on June 2, 2016, valued Chemours' stock at zero, predicting a 'Bankruptcy Waiting to Happen.' In its thesis, Citron commented extensively on the multiple, and arguably insurmountable, challenges that Chemours has been facing since its inception in 2015, including environmental and personal injury liabilities, a $4bn debt burden, and declining titanium dioxide (TiO2) prices. Citron's report, which has been published from a short seller's point of view, dismisses any case for a business turnaround; however, our opinion differs as we evaluate Chemours purely from the perspective of exploring a long-term investment opportunity in the company's outstanding unsecured US dollar-denominated bonds.

Executive Summary

The dollar-denominated bonds of The Chemours Company (CC / Chemours) due 2023 and 2025 are trading at 82–85c to the dollar due to: i) its deteriorating financial performance after its spin-off from DuPont owing to global oversupply and a low price commodity cycle; ii) uncertainty related to the estimation of PFOA liabilities that it inherited from DuPont; and iii) a recently published report by Citron Research that states CC has zero equity value and that the company will file for bankruptcy within the next 18 months.

We, however, believe that over the next 18 months, Chemours should be able to improve its business fundamentals to sustain environmental and PFOA liabilities payouts. The company's leading market position in its product segments, coupled with the progress demonstrated thus far in restructuring operations (cost reduction, working capital, and product portfolio optimization), is the key basis for our view. Moreover, we note that Chemours reported net debt stands at c. $4b compared with LTM EBITDA of $556m (implying 6.3x in net debt/EBITDA in 1Q16); however, it does not face a refinancing risk, given the annual amortization rate is c. $15m until 2021, while bond bullet payments only arise in 2023. Lastly, considering how the environmental and personal injury liabilities scenario has unfolded in precedent cases, such as that of Tronox, we expect actual payouts to occur over 5–10 years (conservatively, we developed a scenario where payouts are accelerated) in cases where injury is proven and relief is awarded.

We further believe that a scenario wherein Chemours files for bankruptcy protection citing poor financial performance (as practiced by its peers in the past) is unlikely to occur. This is because there would not be sufficient grounds to substantiate the need for creditor protection as EBITDA would have to fall c. 46% from the current LTM level for the company to declare even a technical default. Moreover, we believe that unlike its peers, Chemours was a relatively better capitalized spin-off with the ability to sustain contingent liability payouts through discretionary cash flow generation.

We expect Chemours to improve its FFO/debt to 12.6% by 2018 from 5.8% in 2015 and net debt/adj. EBITDA to 4.4x from 6.3x during the same period. This would be driven by: i) improvement in EBITDA margin of Titanium Technologies and Fluoroproducts due to cost-restructuring initiatives and introduction of higher-margin products (Opteon); ii) efficient working capital management; and iii) asset disposals that would aid repayment of debt or bolstering of cash levels as Chemours' management deems fit. Over 2015–18, Chemours is expected to generate $1.7bn in discretionary cash flow. We, therefore, believe that the current sub-par price of the dollar-denominated bonds should recover as the company records improved financial performance and pays off debt and contingent liability.

Exhibit 1: Summary Financials			**Mkt Cap:**	**1,613**
in USD millions	**2015**	**2016E**	**2017E**	**2018E**
Revenue	5,717	5,503	5,604	5,757
Adj. EBITDA	573	649	737	761
Net Income	(90)	133	136	219
Total Debt	**3,954**	**3,943**	**3,928**	**3,913**
Cash	366	637	543	534
Net Debt	**3,588**	**3,306**	**3,385**	**3,379**
FFO	209	259	332	426
CFO	182	315	316	401
Net Capex	(507)	(0.3)	(375)	(375)
CFO - Capex	**689**	**315**	**691**	**776**
DVD	105	20	20	20
DCF	**584**	**295**	**671**	**756**
Ratios				
EBITDA%	10.0%	11.8%	13.2%	13.2%
Net Debt / EBITDA	6.3x	5.1x	4.6x	4.4x
FFO / Net Debt	5.8%	7.8%	9.8%	12.6%
DCF / Net Debt	16.3%	8.9%	19.8%	22.4%
EV / EBITDA	9.1x	7.6x	6.8x	6.6x
EV / Sales	0.9x	0.9x	0.9x	0.9x

Source: Company Filings, Forecast, Bloomberg

Company Description

The Chemours Company was established in 2015, when it was spun off from DuPont, emerging as the world's largest producer of titanium dioxide (TiO2) and holding market-leading positions in fluoropolymer resins and downstream products and coatings, marketed under its Teflon brand.

The company operates through three business segments, namely, Titanium Technologies, Fluroproducts, and Chemical Solutions, which accounted for 42%, 39%, and 19%, respectively, of 2015 revenue[1], while 2015 adjusted EBITDA[2] contributions stood at 50%, 46%, and 4%.

In terms of geography, North America accounted for 45% of 2015 revenue, followed by Asia Pacific (24%), EMEA (17%), and Latin America (14%).

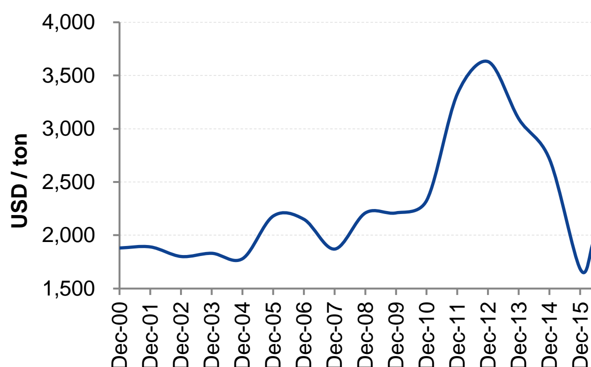
Business Risk Profile – Fair

Our assessment of the business risk as "Fair" recognizes the company's strengths, which includes: i) its competitive advantage due to its scale; ii) its global market leadership positions in TiO_2 and Fluoroproducts; and iii) being the lowest-cost producer of TiO_2 among peers. These positives are offset by: i) inherent volatility in EBITDA due to exposure to the TiO_2 commodity business; ii) persistent oversupply in the global TiO_2 market; iii) resultant challenges in effective price hikes in the business segment; iv) lack of diversity in revenue sources; and v) absence of track record as a standalone company.

Titanium Technologies' EBITDA to increase due to cost restructuring and Altamira capacity expansion

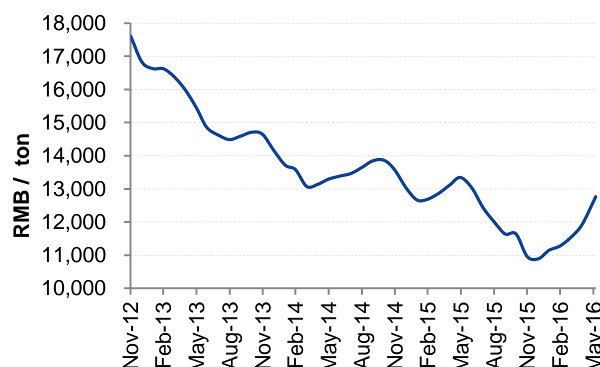
Exhibit 2 below depicts TiO_2 prices rising modestly by c. $300/MT during 2000–14. In 2011, prices rose by as much as $1,000/MT due to Tronox's bankruptcy and production halt that led to a steep decline in supply. However, this led to China providing significant incentives to domestic TiO_2 producers, resulting in capacity build-up. An economic slowdown in China has resulted in TiO_2 oversupply, which exceeded global demand by c.1 million MT at the end of 2015.

Exhibit 2: $/ton price of TiO_2 (Yearly)



Source: Bloomberg

Exhibit 3: RMB/ton price of TiO_2 (Monthly)



Source: Bloomberg

[1] *2015 total revenue was USD 5,717m*

[2] *2015 total EBITDA before corporate and others adjustments was USD 655m*

Chemours, however, has been able to maintain its industry-leading position and is among only two players that sustainably defended EBITDA margins.

Exhibit 4: Chemours TiO_2 Peers – Revenue and EBITDA comparison

In USD millions	2011	2012	2013	2014	2015
Chemours					
Revenue	3,674	3,291	3,019	2,937	2,392
Adj. EBITDA	1622	1454	726	723	326
Adj. EBITDA margin	44.1%	44.2%	24.0%	24.6%	13.6%
Tronox					
Revenue	1,543	1,832	1,922	1,737	1,510
Adj. EBITDA	468	503	442	437	215
Adj. EBITDA margin	30.3%	27.5%	23.0%	25.2%	14.2%
Huntsman					
Revenue	1,642	1,436	1,269	1,549	2,160
Adj. EBITDA	501	352	(261)	(59)	(223)
Adj. EBITDA margin	30.5%	24.5%	NM	NM	NM
Kronos					
Revenue	1,943	1,976	1,732	1,651	1,348
Adj. EBITDA	594	407	(82)	199	41
Adj. EBITDA margin	30.6%	20.6%	-4.8%	12.0%	3.0%

Source: Company filings

China's net export of TiO_2 continues to increase, thereby limiting the scope of realization improvement as effective price hikes get curtailed (refer exhibit below).

Exhibit 5: China's TiO_2 Trade Data

Exports						Imports				
Metric Tons	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
January	35	22	44	48	52	10	15	17	14	14
February	33	22	33	43	42	11	11	14	13	13
March	43	36	44	47	61	16	14	14	14	14
April	38	31	53	44		17	17	19	20	
May	42	33	51	47		14	19	16	19	
June	37	33	50	44		15	15	13	18	
July	33	38	53	47		13	17	21	22	
August	25	40	47	38		11	16	21	19	
September	31	39	49	40		14	19	19	21	
October	25	35	43	46		9	14	21	13	
November	22	38	41	40		22	20	23	16	
December	22	38	44	56		13	16	18	14	
Total	385	403	553	539	155	164	193	216	204	41
% change (Y/Y) / (YTD)	-3%	5%	37%	-2%	12%	-32%	18%	12%	-6%	-2%
Net exports	221	210	337	336	115					
Net change	63	-11	127	-1	18					
% change (Y/Y) / (YTD)	40%	-5%	60%	0%	19%					

Source: General Administration of Customs of China.

The capacity expansion at Altamira, its facility in Mexico, is anticipated to result in better cost efficiencies as the plant can process various ores used to produce titanium oxide. This, coupled with the full impact of price hikes that were announced at end-2015 and in early 2016, should help the company improve its adjusted EBITDA margin over 2016–18.

We expect adjusted EBITDA at $359m in 2017 from the near constant of c. $325m in 2016.

Exhibit 6: Titanium Technologies

In USD millions	2011	2012	2013	2014	2015	2016E	2017E	2018E
Revenue	3,674	3,291	3,019	2,937	2,392	2,366	2,407	2,431
Adjusted EBITDA	1,622	1,454	726	723	326	325	359	362
Adjusted EBITDA Margin	44.1%	44.2%	24.0%	24.6%	13.6%	13.7%	14.9%	14.9%

Source: Company Filings, Forecasts

Fluroproduct EBITDA to be driven by Opteon

Opteon, a zero-pollutant, ozone-friendly gas, is expected to be the most important growth driver for Chemours' fluoroproduct business segment as regulatory regimes in advanced economies, such as those in Europe and North America, mandate a switch to the greener gas starting 2017.

Opteon, however, would negatively impact the older refrigerant product lines as it will likely replace the old-generation, ozone-depleting gases. Nonetheless, replacement demand for the product is expected to be strong, primarily driven by automotive HVACs and refrigerants in supermarkets. The Opteon switch is expected to lead to EBITDA margin improvement as well; EBITDA is expected to improve to $369m in 2016 and $408m in 2017 from $300m in 2015.

Exhibit 7: Fluoroproducts Segment

in USD millions	2011	2012	2013	2014	2015	2016E	2017E	2018E
Revenue	2,834	2,559	2,379	2,327	2,230	2,205	2,307	2,409
Adjusted EBITDA	688	539	395	282	300	369	408	426
Adjusted EBITDA Margin	24.3%	21.1%	16.6%	12.1%	13.5%	16.7%	17.7%	17.7%

Source: Company Filings, Forecasts

Chemical business largely to be driven by Cyanides

Through its asset sale program, Chemours has largely disposed of businesses from the Chemical Solutions segment. The contribution from the segment would remain insignificant to overall business. The recent sale of the C&D business is expected to lead to elimination of revenue worth c.$110m, along with estimated EBITDA of c.$22m. With the impact of cost-restructuring initiatives kicking in more prominently, we expect Chemical Solutions' EBITDA to improve to $46m from $33m, driven primarily by business contribution from Cyanides.

Exhibit 8: Chemical Solutions

In USD millions	2011	2012	2013	2014	2015	2016E	2017E	2018E
Revenue	1,464	1,515	1,461	1,168	1,095	933	890	917
Adjusted EBITDA	112	116	101	17	29	45	62	64
Adjusted EBITDA Margin	7.7%	7.7%	6.9%	1.5%	2.6%	4.9%	7.0%	7.0%
Revenue Contribution (%)	18.4%	20.6%	21.3%	18.2%	19.2%	16.9%	15.9%	15.9%
EBITDA Contribution (%)	4.6%	5.5%	8.3%	1.7%	4.4%	6.1%	7.5%	7.5%

Source: Company Filings, Forecasts

Restructuring initiatives to aid EBITDA margin improvement

Chemours' cost-restructuring program is expected to lead to an additional $150–250m being incurred as a one-time expense; however, on completion of the program, the company is expected to record an additional $300–350m annualy in EBITDA from 2017

onward. We consider the company's cumulative savings of $140m over the last three quarters as demonstration of perceptible progress.

Financial Risk Profile – Aggressive

Chemours' spin-off from DuPont in 2015 resulted in the former assuming gross debt of over $4bn. This, combined with deterioration in operating performance, has resulted net leverage metrics worsening to 6.3x in 1Q16 from 5.2x in 1Q15. The assessment does not factor in potential debt liabilities that could accrue as and when PFOA litigants are awarded compensation.

Exhibit 9: Borrowings

In USD millions	2015	2016E	2017E	2018E
ST Borrowings & Current Maturities Of LT Debt	39	34	34	34
Long-Term Debt, Net	3,915	3,909	3,894	3,879
Total Debt	**3,954**	**3,943**	**3,928**	**3,913**
Revolver due May 2022	-	-	-	-
TL (Term B) due May 2022	1,493	1,478	1,463	1,448
6.625%, $1.4 bn, due May 2023	1,350	1,350	1,350	1,350
6.125%, €360m, due May 2023 (€360)	395	403	403	403
7.00%, $750m, due May 2025	750	750	750	750
Other	26	20	20	20
Unamortized Issue discount & debt issuance costs	(60)	(58)	(58)	(58)
Debt Amortization Schedule				
Revolver due May 2022			-	-
TL (Term B) due May 2022			(15)	(15)
6.625%, $1.4 bn, due May 2023			-	-
6.125%, €360m, due May 2023 (€360)			-	-
7.00%, $750m, due May 2025			-	-
Other			-	-
Unamortized Issue discount & debt issuance costs			-	-

Source: Company Filings, Forecasts

Operationally, the company's cost reduction program is expected to stabilize and, subsequently, help reduce its net leverage. As no debt matures before 2022, Chemours has ample time to buffer cash flows to sustain payouts. Furthermore, subsequent to the second amendment to its credit agreement, the company is subject to only the senior secured net debt/EBITDA covenant as against the earlier total net debt/EBITDA covenant, providing considerable headroom. Restricted payment limits dividend payments to $20m annually until 2017, and surplus cash flow sweep, coupled with quarterly amortization, is expected to help prune secured debt levels over the forecast period.

Announced and planned asset disposals to boost cash levels

Chemours' sale of the Clean and Disinfect (C&D) business to Lanxess would generate $230m in 3Q16. These proceeds could help Chemours prune debt or fund annual planned capex of $370m for its Opteon plant, leading to a further strengthening of its cash position by year-end. Furthermore, Chemours has announced plans to dispose its reactive metal business and is evaluating whether to continue its sulfur business. A sale of any of these businesses would help augment cash levels in 2017.

Exhibit 10: Capex, Asset Disposals

In USD millions	2012	2013	2014	2015	2016E	2017E	2018E
Capex	432	438	604	519	370	375	375
Asset Disposal	(3)	(14)	(32)	(12)	(370)	-	-
Net Capex	**429**	**424**	**572**	**507**	**-**	**375**	**375**
Total Asset	5,317	5,621	5,959	6,298	6,375	6,425	6,559
Asset Turnover Ratio	1.4x	1.2x	1.1x	0.9x	0.9x	0.9x	0.9x

Source: Company Filings, Forecasts

Maintenance capex anticipated beyond 2018

We project Chemours will incur $75m in annual capex (mostly for maintenance) beyond 2018 through 2020, following the completion of capacity expansion at the Altmira plant in 2017 and the Opteon capacity expansion. We have been fairly conservative in our growth assumptions for 2019–20. In line with this, we do not expect Chemours to embark on an ambitious capex plan for capacity expansion as the maturity dates of term loan approaches over further two years.

FCF generation by 2018 to be driven solely by operational performance

While FCF generation in 2016 would be driven by cash release from working capital and asset disposal, a cash burn is expected in 2017, before it recovers in 2018. The 2018 FCF generation would largely be driven by the company's operating cash flows, which are expected to more than adequately fund the projected capex.

Exhibit 11: FCF Generation

In USD millions	2012	2013	2014	2015	2016E	2017E	2018E
FFO	1,392	676	615	209	259	332	426
Working Capital	137	(37)	4	(64)	(6)	(16)	(24)
CFO	**1,529**	**639**	**619**	**145**	**253**	**316**	**402**
Net Capex	(429)	(424)	(572)	(507)	(0)	(375)	(375)
FCF	**1,100**	**215**	**47**	**(362)**	**253**	**(59)**	**27**

Source: Company Filings, Forecasts

Liquidity - Strong

As of March 31, 2016, CC's sources of fund exceeded uses of fund by c.3.3x, implying it was strong. The RCF of $750m was undrawn as of March 31, 2016.

Exhibit 12: Liquidity

Source of Funds	$m	Uses of Funds	$m	Cover
FFO in 2016	259	Capex	370	
Working capital release in 2016	56	Debt repayments	34	
Cash and cash equivalents[3]	435	Dividends	20	
Asset disposals	370	Non-recurring restructuring expenses	150	
Undrawn RCF	750			
Total	1,870		574	3.3x

Source: Company Filings, Forecasts

[3]*As of 31 March 2016*

Contingent Liability Analysis

Although it is inherently difficult and risky to provide a dollar estimate to environmental and PFOA liabilities, we have used available data and precedent cases to arrive at a best faith 'estimate' of $1.2b at the top of the range. Several dollar estimates have been computed, from Wall Street estimates of $500m to $5.6bn ($1.6bn multiplied with 3,500 pending cases) according to social activist organizations. We develop our total contingent liabilities case – broadly classified into: i) environmental liabilities for cleaning up and medical monitoring of sites; and ii) personal injury claims – as follows:

Environmental Liabilities:

In its disclosures, DuPont has stated the cost of cleaning up 171 sites could range from $295m to $945m ($1.73–5.53m per site). Tronox, which bears similarities with Chemours, was found liable for the cleaning up of 2,800 sites, for which the Environmental Protection Agency (EPA) eventually settled at $5.2bn (c.$1.83m per site) with Anadarko (acquirer of Andarko parent Kerr-McGee Chemical) after an initial demand of $25bn ($8.92m per site). About 80% of environmental claims for Tronox were associated with hazardous chemicals and the rest were related to uranium/thorium mining.

For the purpose of our analysis, we conservatively assumed environmental liabilities to be $1.2bn (higher than Chemours' estimate of $843m, of which $243m was provided for as of March 31, 2016) and would be paid out over 10 years.

PFOA Liabilities:

About 3,500 cases of personal injury have been reported thus far, of which 245 (c.7%) cases are related to 'causing of cancer', while the rest are linked to 'other non-cancerous diseases'. Of the cancer-related cases, the courts have agreed to hear 40 cases per year, starting May 2017, whereas non-cancerous cases will remain inactive. In Bartlett vs. DuPont, the court granted $1.6m in total damages (which has been contested by Chemours and the payout has not occurred yet; the case has been ongoing since 2003). In another case, damages awarded were lower than the legal costs.

Litigation of this nature carries inherent challenges in terms of establishing the proof of injury and correlating it to the alleged cause. However, even if we presume a high-risk outcome scenario with a 70% success ratio and $2.5m per claim (more than the $1.6m already awarded), liabilities under this group amounts to $429m. Taking the same approach for the c.3,255 non-cancer-related claims, but a relatively less extreme assumption of a 20% success ratio and $0.5m per claim, the liability estimate amounts to $326m.

Over the next five to seven years, we believe Chemours should be able to generate sufficient discretionary cash flow to absorb the impact of environmental liability payouts. To estimate the available cash for such pay-outs, we developed cash flow forecasts through 2023 using the following key assumptions:

- Zero growth in CFO of $401m during 2019-23e
- Annual maintenance capex of $75m per year
- Dividends limited to $40m per year

To meet it contingent liability payout commitments without jeopardizing its business working capital we expect Chemours may draw on up to $325m of its $750m unutilized

RCF. We have also assumed that Chemours would refinance its RCF and term loan in 2022.

We believe Chemours should be able to generate sufficient free cash flows to cover potential environmental and PFOA liabilities payouts over the next 5–7 years.

Exhibit 13: Estimation of Contingent Liabilities

USD mn, unless specified	
Environmental liabilities	**1,200**
Payment spread over (in years)	10
PFOA liabilities	
Personal injury claim cases (Nos.)	3,500
Number of cancerous cases (Nos.)	245
Damage award (Assumed)	2.5
Damage award in Bartlett Vs DuPont (Not paid yet)	1.6
Damages for negligence	1.1
Damages for emotional distress	0.5
Success ratio for Cancerous cases	70%
Potential PFOA liabilities from Cancerous cases	**428.8**
Number of non-cancerous cases	3,255
Damages for emotional distress	0.5
Success ratio for Non-cancerous cases	20%
Potential PFOA liabilities from Not-cancerous cases	**326**
Total PFOA liabilities	**754**
Payment spread over (in years)	5

Source: Company Filings, Forecasts

Based on the thesis and arguments outlined above as well as considering the risk appetite of a high-yield/distressed-debt investor from a long-term perspective, we believe the company has an opportunity to improve its financial risk profile over the next three years.

Recovery analysis

In our going-concern based recovery analysis, we developed the base case considering 2017 forecasts as the base and the worst case based on 2015 (TiO_2 prices to pre-crises level of 2007–08 with lower margins). We assigned a marginal premium to CC's Titanium Technologies unit over peers Tronox and Kronos due to CC's leading position and better profitability metrics. For the Fluoroproducts segment, we used Japan-based Daikin Industries and Mexico-based Mexichem as CC's comparables.

We evaluated recovery under two scenarios: i) PFOA (personal injury) liabilities at the secured level; and ii) PFOA liabilities at the senior unsecured level. In the base case, recovery at the senior unsecured level is estimated to be 100% in both of the above scenarios; in the worst case, recovery is projected at 16% under scenario I and 35% under scenario II.

Exhibit 14: Estimation of Contingent Liabilities

	USD mn
Environmental liabilities	1,200.0
Payment spread over	10
PFOA liabilities	
Personal injury claim cases	3,500
Number of cancerous cases	245
Damage award (Assumed)	2.5
Damage award in Bartlett Vs DuPont (Not paid yet)	1.6
Damages for negligence	1.1
Damages for emotional distress	0.5
Success ratio for Cancerous cases	70%
Potential PFOA liabilities from Cancerous cases	428.8
Number of non-cancerous cases	3,255
Damages for emotional distress	0.5
Success ratio for Non-cancerous cases	20%
Potential PFOA liabilities from Not-cancerous cases	325.5
Total PFOA liabilities	**754.3**
Payment spread over	5

Source: Company Filings, Forecasts

Exhibit 15: Cash Flow Analysis

In USD millions, unless specified	2014	2015	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e
CFO before WC changes	615.0	209.0	259.1	332.5	425.7	-	-	-	-	-
Working capital change	(110.0)	(27.0)	56.0	(16.1)	(24.8)					
CFO	**505.0**	**182.0**	**315.1**	**316.4**	**400.9**	**400.9**	**400.9**	**400.9**	**400.9**	**400.9**
Net Capex	(572.0)	(507.0)	(0.3)	(375.0)	(375.0)	(75.0)	(75.0)	(75.0)	(75.0)	(75.0)
as % of net sales	*8.9%*	*8.9%*	*0.0%*	*6.7%*	*6.5%*					
Free cash flow	**(67.0)**	**(325.0)**	**314.8**	**(58.6)**	**25.9**	**325.9**	**325.9**	**325.9**	**325.9**	**325.9**
Environmental liabilities			(120.0)	(120.0)	(120.0)	(120.0)	(120.0)	(120.0)	(120.0)	(360.0)
PFOA				(150.9)	(150.9)	(150.9)	(150.9)	(150.9)		
Free cash after contingent liabilities payment			**194.8**	**(329.5)**	**(245.0)**	**55.0**	**55.0**	**55.0**	**205.9**	**(34.1)**
Secured debt repayment			(20.3)	(15.0)	(15.0)	(15.0)	(15.0)	(15.0)	(15.0)	(15.0)
Dividends	-	(105.0)	(20.0)	(20.0)	(20.0)	(20.0)	(20.0)	(20.0)	(20.0)	(20.0)
Free cash flow for debt repayment			**154.6**	**(364.5)**	**(280.0)**	**20.0**	**20.0**	**20.0**	**170.9**	**(69.1)**
Cash at BoP			366.0	520.6	156.1	201.1	121.2	141.2	161.3	332.2
RC drawdown			-	-	325.0	(100.0)				
Cash at EoP			520.6	156.1	201.1	121.2	141.2	161.3	332.2	263.1

Source: Company Filings, Forecasts

Exhibit 16: Covenant Testing

In USD millions	2015	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e
RCF	-	-	-	325.0	225.0	225.0	225.0	225.0	225.0
Secured debt	1,489.0	1,469.0	1,449.0	1,429.0	1,409.0	1,389.0	1,369.0	1,349.0	1,329.0
Total secured debt	1,489.0	1,469.0	1,449.0	1,754.0	1,634.0	1,614.0	1,594.0	1,574.0	1,554.0
Net secured debt as per covenant		1,069.0	1,292.9	1,552.9	1,512.8	1,472.8	1,432.7	1,241.8	1,290.9
EBITDA	573.0	649.5	737.3	760.8	760.8	760.8	760.8	760.8	760.8
Interest expense	132.0	223.2	220.9	228.2	225.7	225.7	225.7	225.7	225.7
Net secured debt/EBITDA		1.65x	1.75x	2.04x	1.99x	1.94x	1.88x	1.63x	1.70x
Covenant requirement		3.50x	2.75x	2.25x	2.00x	2.00x	2.00x	2.00x	2.00x
Covenant breach (Y/N)		N	N	N	N	N	N	N	N
Interest coverage ratio		2.91x	3.34x	3.33x	3.37x	3.37x	3.37x	3.37x	3.37x
Covenant requirement		1.75x	2.00x	2.50x	3.00x	3.00x	3.00x	3.00x	3.00x
Covenant breach (Y/N)		N	N	N	N	N	N	N	N
Net debt	3,992.0	3,972.0	3,952.0	4,257.0	4,137.0	4,117.0	4,097.0	4,077.0	4,057.0
Gross debt/EBITDA	7.0x	6.1x	5.4x	5.6x	5.4x	5.4x	5.4x	5.4x	5.3x

Source: Company Filings, Forecasts

Exhibit 17: Recovery Analysis

In USD mm	Base case			Worse case		
	2017e			2015		
	Adj. EBITDA	EV/EBITDA	EV	Adj. EBITDA	EV/EBITDA	EV
Titanium Technologies	362.2	9.0x	3,260.1	326.0	7.5x	2,445.0
Fluoroproducts	426.3	8.5x	3,623.9	300.0	6.5x	1,950.0
Chemical Solutions	64.2	3.0x	192.5	29.0	2.0x	58.0
Corporate and Other	(92.0)	9.0x	(828.0)	(82.0)	7.5x	(615.0)
Total	**760.8**	**8.2x**	**6,248.6**	**573.0**	**6.7x**	**3,838.0**
Secured debt			1,489.0			1,489.0
recovery			*100.0%*			*100.0%*
Environmental liabilities			1,200.0			1,200.0
recovery			*100.0%*			*100.0%*
Case I						
PFOA liabilities			754.3			754.3
recovery			*100.0%*			*100.0%*
Senior unsecured debt			2,503.0			2,503.0
recovery			*100.0%*			*15.8%*
Case II						
PFOA liabilities			754.3			754.3
Senior unsecured liabilities			2,503.0			2,503.0
Total unsecured liabilities			3,257.3			3,257.3
recovery			*100.0%*			*35.3%*

Source: Company Filings, Forecasts

Exhibit 18: Workings

In USD mm	Crncy	Mcap			EBITDA	EV/EBTIDA				Revenues
			2015	2016e	2017e	2016e	2017e	2015	2016e	2017e
Titanium Technologies										
Tronox Ltd	USD	541	272.0	279.5	422.0	12.8x	8.5x	2,112.0	2,120.0	2,272.0
Kronos Worldwide Inc	USD	622		47.5	52.0	19.3x	17.6x	1,349.0	1,327.0	1,372.0
Median						16.0x	13.0x			
Average						16.0x	13.0x			
Flouroproducts										
Daikin Industries Ltd (in bn)	JPY	2,506		292.3	315.0	9.7x	9.0x	2,044.0	2,087.0	2,170.0
Mexichem SAB de CV	MXN	81,165	905.0	914.0	1,041.0	7.7x	6.7x	5,708.0	5,543.0	5,975.0
Median						8.7x	7.9x			
Average						8.7x	7.9x			
Chemours Co	USD	1,560.0	573.0	636.8	759.6	8.0x	6.7x	5,717.0	5,522.0	5,715.0

Source: Company Filings, Forecasts

Conclusion

While Chemours remains exposed to the volatility of profitability in the TiO_2 business, it still remains the most dominant player globally, zealously attempting to defend / better its EBITDA margins. Fluoroproducts would perform due to Opteon and Teflon. Capex intensity ought to soften beyond 2017, thereby the combination of factors aiding free cash flow generation. We expect Chemours to generate discretionary free cash flows of c. $1bn over 2015-18 that will aid improving leverage ratio.

The contingent liability situation isn't that bad either with management's upper guidance at $843m, of which $243m is already provided for. We in fact have assumed a higher liability of $1.2bn and despite the assumption, the financial covenant isn't expected to be breached.

Lastly, going by past trends, awards in litigations are time consuming and span over decades, given the defendant furiously defends its position. Nor there are typical one time payouts. We believe that Chemours was a well-capitalized spinoff with no intent of seeking an intended bankruptcy protection.

Exhibit 19: Income Statement

In USD millions	FY2015A	FY2016E	FY2017E	FY2018E
Revenues	**5,717**	**5,503**	**5,604**	**5,757**
% YoY	(0.1)	(0.0)	0.02	0.03
EBITDA	**573**	**649**	**737**	**761**
EBITDA %	10.0%	11.8%	13.2%	13.2%
D&A	267	257	252	261
Write-downs / Impairments	73	-	-	-
Net Interest Expenses	(132)	(223)	(221)	(220)
Equity In Earnings Of Affiliates	22	21	22	22
Pre-tax Income	**(188)**	**182**	**186**	**301**
Income Taxes	98	-49	(51)	(82)
Minorities	-	-	-	-
Net Income (loss) attri to parent	**(90)**	**133**	**136**	**219**

Source: Company Filings, Forecasts

Exhibit 20: Balance Sheet

In USD millions	FY2015A	FY2016E	FY2017E	FY2018E
Intangible Assets	10	10	10	10
Goodwill	166	165	165	165
Tangible Assets	3,177	3,059	3,182	3,296
Investments	136	144	144	144
Other Assets	508	491	491	491
Defered Tax Assets	-	-	-	-
Total Fixed Assets	**3,997**	**3,869**	**3,992**	**4,106**
Inventories	972	916	920	945
Trade Receivables	859	872	888	912
Cash & Cash Equivalent	366	637	543	534
Other current assets	104	82	82	82
Total Current Assets	**2,301**	**2,507**	**2,433**	**2,473**
TOTAL ASSETS	**6,298**	**6,375**	**6,425**	**6,579**
Group Stockholders' Equity	126	255	371	570
Minority Interests	4	4	4	4
Shareholders' Equity	**130**	**259**	**375**	**574**
Long-Term Financial Debt	3,915	3,909	3,894	3,879
Deferred Income Taxes	234	239	239	239
Other Liabilities	553	542	542	542
Total LT Liabilities	**4,702**	**4,690**	**4,675**	**4,660**
Trade Payables	973	892	896	920
Short - Term Financial Debt	39	34	34	34
Total S -T Liabilities	**1,466**	**1,427**	**1,376**	**1,345**
EQUITY + LIAB.	**6,298**	**6,375**	**6,425**	**6,579**

Source: Company Filings, Forecasts

Exhibit 21: Cash Flow Statement

In USD millions	FY2015A	FY2016E	FY2017E	FY2018E
FFO	**209**	**259**	**332**	**426**
Change in Working Capital & others	-27	56	-16	-25
CFO	**182**	**315**	**316**	**401**
Net Capex	-497	-1	-375	-375
FCF	**-315**	**314**	**-59**	**26**
Share Buyback / Capital Increase	-	-	-	-
Dividends Paid	105	20	20	20
M&A	-	-	-	-
Discretionary Cash Flow	**-210**	**334**	**-39**	**46**

Source: Company Filings, Forecasts

Exhibit 22: Ratios

	FY2015A	FY2016E	FY2017E	FY2018E
Total Debt / EBITDA (x)	6.9x	6.1x	5.3x	5.1x
Net Debt / EBITDA (x)	6.3x	5.1x	4.6x	4.4x
FFO / Debt (%)	5.3%	6.6%	8.5%	10.9%
EBITDA / Interest Exp (x)	4.3x	2.9x	3.3x	3.5x
DCF / Net Debt (%)	NM	10.1%	NM	1.4%
ND / (ND + EQUITY) (%)	36.3%	34.1%	34.5%	33.9%

Source: Company Filings, Forecasts

ARANCA DISCLAIMER

This report is published by Aranca; Inc. Aranca is a customized research and analytics services provider to global clients.

The information contained in this document is confidential and is solely for use of those persons to whom it is addressed and may not be reproduced, further distributed to any other person or published, in whole or in part, for any purpose.

This document is based on data sources that are publicly available and are thought to be reliable. Aranca may not have verified all of this information with third parties. Neither Aranca nor its advisors, directors or employees can guarantee the accuracy, reasonableness or completeness of the information received from any sources consulted for this publication, and neither Aranca nor its advisors, directors or employees accepts any liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection with this document.

Further, this document is not an offer to buy or sell any security, commodity or currency. This document does not provide individually tailored investment advice. It has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The appropriateness of a particular investment or currency will depend on an investor's individual circumstances and objectives. The investments referred to in this document may not be suitable for all investors. This document is not to be relied upon and should not be used in substitution for the exercise of independent judgment.

This document may contain certain statements, estimates, and projections with respect to the anticipated future performance of securities, commodities or currencies suggested. Such statements, estimates, and projections are based on information that we consider reliable and may reflect various assumptions made concerning anticipated economic developments, which have not been independently verified and may or may not prove correct. No representation or warranty is made as to the accuracy of such statements, estimates, and projections or as to its fitness for the purpose intended and it should not be relied upon as such. Opinions expressed are our current opinions as of the date appearing on this material only and may change without notice.

© 2016, Aranca. All rights reserved.

aranca

Business Research & Advisory

Investment Research & Analytics

Fixed Income & Credit Research

Valuation Advisory

IP Research & Technology Advisory

Procurement & Supply Chain Intelligence

This material is exclusive property of Aranca. No part of this presentation may be used, shared, modified and/or disseminated without permission. All rights reserved.