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Argus Toluene / Xylenes Annual 2017

(Insights from Argus Toluene / Xylenes Analytics Service)

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Summary

Global toluene and mixed xylenes markets are expected to benefit from both polyester and gasoline markets moving forward. Toluene as a chemical feedstock for benzene and paraxylene production is expected to grow below global GDP through 2026 as capacity buildup for toluene disproportionation slows down globally. Toluene as a gasoline blendstock is expected to grow in tandem with regional gasoline consumption with sporadic spikes as global octane becomes imbalanced. The market for mixed xylenes is expected to see higher average annual growth rates of 4.5pc throughout the forecast period as capacity buildup tracks growth in PX demand more closely. Demand growth for orthoxylene is expected to average below global GDP.

A new wave of paraxylene projects are expected in Asia-Pacific and the Middle East – in excess of 5mn t/yr scheduled to come onstream during 2017 and 2018, and an additional 17mn t/yr announced for 2019 and 2020. These projects will begin to put pressure on PX margins and force a new wave of capacity rationalization in the region. As usual, some new project startup dates will be delayed and some projects will likely be postponed in reaction to poor PX margins while a new wave of capacity rationalization takes place at older units.

Major findings

- Globally the share of toluene consumption from the chemical sector remained low at a 58pc utilization as the ability to blend toluene-rich reformate into the gasoline pool for octane continued to provide more value. The need for additional chemical toluene to produce benzene, mixed xylenes and paraxylene is expected to determine operating rates in the years ahead raising operating rates to 63pc by the end of the forecast period.
- US mixed xylenes exports to Asia-Pacific were reduced significantly between 2012 and 2016 from 650,000t to 67,000t. Asia-Pacific countries added 14mn t of new mixed xylenes extraction capacity during this period and new capacity announcements total up to 33mn t of additional capacity between 2016 and 2026.
- Countries with the largest amount of new PX capacity from 2017 to 2026 include China (16mn t), Saudi Arabia (3mn t), India (2mn t) and the UAE (1.9mn t). New refinery investments, especially in India and the Middle East, are behind this capacity growth in PX.
- Orthoxylene will continue to fight for its share of mixed xylenes feedstock against PX but will gradually lose its share of global feed from 5.6pc in 2017 to 4.6pc by 2026. As downstream investment in phthalic anhydride (PA) has not been a priority, world demand growth rates will average 1.5pc/yr between 2016 and 2027.

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Steve Weber, Vice President, Petrochemical Consulting

Steve Weber is Vice President of Petrochemical Consulting for Argus. Steve began his career with Fina in 1979 as a Process Engineer and had various other assignments in the 1980s in the Economics and Planning and Marine Transportation Groups for Fina in Dallas. In 1989, he moved to the Port Arthur refinery and later became Operations Manager at the site. Steve was named Plant Manager of the Fina/GE Joint Venture Styrene Plant (Cosmar) in 1995 and Refinery Manager at the Big Spring Texas refinery in 1998. In 2000, he returned to Louisiana to manage both the Styrene JV and the Total Petrochemicals Polystyrene Operation. Steve was named Senior Manager of Aromatics for Total in 2005, relocating to Houston. He joined DeWitt in 2011 after spending two years with Solomon Associates in the refining and petrochemical consulting area. Steve is a graduate of the University of Texas at Austin with a degree in Chemical Engineering and an MBA.

José “Paco” Rangel, Benzene and Derivatives Consultant

José “Paco” Rangel is Argus’ Benzene and Derivatives Consultant, based in Houston. Paco has over 16 years of consulting experience in the energy and petrochemical industry. Areas of expertise include aromatics market and price analysis, single client studies, manufacturing economic analysis, fuels supply chain, NGL pipeline management, IT project management, business process design, implementation of market intelligence systems, and software selection and implementation of energy trading risk management systems. Single client work includes various topics in reforming, alkylation, pyrolysis gasoline, and economic competitiveness in both olefins and aromatics value chains. A native of Mexico, Paco earned an Industrial Engineering degree from Texas A&M University and a master’s degree in business administration from Tulane University.

Andy Nicholson, Vice President, Aromatics, EMEI

Andy Nicholson is Vice President of Aromatics EMEI (Europe, Middle East and India) with Argus. He has 34 years’ experience in the petrochemicals and fibre intermediates’ businesses, having worked in a variety of sales, marketing, trading and purchasing positions for ICI in the UK and Germany and for Rhone-Poulenc and Rhodia in France. During the 1990s, he was extensively involved in restructuring and strategic work in central Europe. He subsequently spent three years with ChemConnect, building a multi-national structure and developing new markets in southern Europe, prior to joining DeWitt & Co Inc. at the beginning of 2004. Andy studied languages at the universities of Cambridge and Freiburg.

Tom Stevenson, Aromatics Consultant

Tom Stevenson is a Consultant to Argus’ Aromatics services in Europe, the Middle East, Africa and south Asia. He has more than 38 years’ experience in the petrochemicals industry. He joined DeWitt in 2003. Tom spent 22 years with Shell Chemicals where he fulfilled a variety of roles in its international polymers and industrial chemicals businesses, including product management, cost analysis, business planning and technical management. He has successfully developed software for the analysis of data in the financial services industry. Tom holds a BSc degree with first class honours and a PhD in Chemistry from Imperial College, London. He is a Chartered Chemist and Member of the Royal Society of Chemistry.

Appendix C: Argus Toluene, Xylenes and Isomers Experts

Bohan Loh, Petrochemical Markets Editor

Bohan Loh is Argus' Petrochemical Markets Editor (PX, Butadiene, C4s) and is responsible for the coverage of the aromatics markets in Asia and the Middle East. Bohan has spent the past eight years covering the xylenes chain and has done several single-client studies for both PX and PTA producers. He is an affiliate member of the Association of Chartered Certified Accountants and is fluent in English and Mandarin.

Jason Faulk, Petrochemicals Analyst

Jason Faulk is a Petrochemical Analyst for Argus Consulting for the Americas, based in Houston. Jason has nine years of experience in the energy and petrochemical industry. Areas of concentration include aromatics fundamental and pricing data management, single client studies, IT project management, energy infrastructure, and software selection and implementation. Single-client work includes various topics in refining, biofuels market analysis, and refined product market analysis. Prior to joining Argus, he worked at IHS Inc., in Houston, where he managed a spatial oil and gas pipeline network database. He holds a Bachelor's in Management Information Systems, graduating with honors from Lamar University.

Melissa Cousin, Petrochemicals Analyst

Melissa Cousin is a Petrochemicals Analyst for Argus Consulting for the Americas, based in Houston. Melissa has 15 years of experience in petrochemicals analysis and consulting. Prior to joining Argus, she worked at Johnson Space Center, in Houston, provided statistical analysis and operational support for International Space Station activities, provided simulation and statistical analysis across many industries at Accenture and provided business process analysis for Information Technology at Waste Management. She holds a BS in Industrial Engineering, with honors from the University of Houston with emphasis in statistical analysis.

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