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SUMMARY

Michael Whalen, a seasoned industry and financial professional, offers more than thirty years of global experience in advising, structuring, and raising in excess of \$20 billion for capital-intensive infrastructure projects.

He leads BRG's energy and infrastructure finance practice across a variety of industry sectors, including oil and gas production, refining, and midstream; liquefied natural gas (LNG); petrochemicals; power and renewables; and other energy and infrastructure sectors.

Mr. Whalen has served in several commercial, financial, and public-sector leadership roles, including head of a global bank's regional project finance division, head of international structured finance divisions at two US government agencies (OPIC and Ex-Im Bank), and chief financial officer of a renewable energy company. Additionally, Mr. Whalen has served in lead roles at a major bank, an international oil corporation, and the US Department of Transportation's Build America Bureau. In these positions, he has structured and advised on risk allocation for companies and projects in the global LNG, renewable energy, transportation and core infrastructure, petrochemicals, and industrial process sectors. He was part of OPIC's (now US DFC) investment committee responsible for approving substantial political risk insurance exposures, finance commitments, and fund investments.

As a lead advisor and banker, Mr. Whalen has provided strategic, commercial, and financial counsel to clients such as leading global energy market participants, national energy companies, energy and core infrastructure investors, utilities, state agencies, independent developers, and financial institutions.

As an independent expert, Mr. Whalen has testified in US and international arbitrations before tribunals organized under ICC, ICSID, and JAMS and has provided expert analysis in other forums. He has been accepted as an expert witness in matters before the US District Court of the Southern District of New York and the Court of King's Bench of Alberta.

Mr. Whalen's professional experience spans more than twenty-five countries throughout the Americas, Europe, Eurasia, the Middle East, and Asia.

EDUCATION

MBA, Information Systems Management
B.A., Plan II Honors

University of Texas at Austin
University of Texas at Austin

PREVIOUS POSITIONS

2017-2018 *Senior Advisor*, US Department of Transportation Build America Bureau, Washington, DC
2015-2017 *VP, Head of Project & Structured Finance*, Ex-Im Bank, Washington, DC
2013-2015 *VP, Head of Structured Finance*, Overseas Private Investment Corp, Washington, DC
2008-2013 *Chief Financial Officer*, SolarReserve, Inc., Santa Monica, CA
2002-2008 *MD & Head of Project & Export Finance, Americas*, HSBC Securities (USA), New York, NY
2000-2002 *Principal and Co-Head EMEA Energy and Power*, Banc of America Securities, London, UK
1997-2000 *Principal*, BA Asia Limited, Hong Kong
1996-1997 *Associate Director of Project Finance*, Mobil Asia Pacific Pte. Ltd., Singapore
1994-1996 *Assistant Treasurer*, Mobil Europe Limited, London, UK
1990-1994 *Financial Analyst*, Mobil Corporation, Fairfax VA

PROFESSIONAL EXPERIENCE

Independent Expert

Disputes

- **Arbitration.** Testified in five US and international arbitrations before tribunals organized under ICC, ICSID, and JAMS on commercial and financial issues. Authored ten expert reports in matters before tribunals organized under ICC, ICSID, and IICPR.
- **Litigation.** Accepted as an expert witness for court testimony in matters before the United States District Court of the Southern District of New York and the Court of King's Bench of Alberta on project finance and development issues. Examined in five depositions in matters before Federal district courts, and Texas and California state courts on commercial and financial issues.

Legal Consulting

- **Criminal.** Served as a consulting expert in analyzing financial matters in the trial defense of US Federal criminal charges.

Arbitrator

- **Project neutral.** Retained as a confidential project neutral for financial disputes arising from a California airport infrastructure concession.

Valuation

- **Project valuation.** Performed an independent valuation of an Egyptian chemical project to support financial due diligence of export credit agencies and development finance institutions.
- **Enterprise valuation.** Performed an independent valuation of the acquisition of a portfolio of solar-energy powered trailers in support of financial and tax due diligence.

Infrastructure and Energy Financing and Risk Management

Oil & Gas and Mining

- **North American Critical Minerals Mine.** Led BRG team advising EXIM Bank on due diligence and risk analysis of an application for a loan guarantee exceeding \$1 billion to develop a critical minerals underground mine and related processing facilities.
- **Latin American FPSO.** Led BRG team advising UK Export Finance on its consideration of a chartered floating production, storage, and offloading vessel. Project exceeds \$1 billion.
- **Australian Offshore Oil.** Led HSBC underwriting and bookrunning team on \$350 million project financing for Pyrenees and Van Gogh offshore oil fields. Transaction represented Apache's first Australian project financing.
- **Mongolian Copper Mine.** Directed EXIM Bank transaction team in execution of largest project financing undertaken to date in Mongolia to develop critical national copper resource. Developed strategy to support execution of transaction despite long lapse due to political disputes since initial authorization.
- **Argentine Gold Mine.** Led HSBC advisory team on \$250 million mine project financing for one of first project financings in Argentina following national economic crisis representing export credit agency client. Integrated HSBC mining expertise to support export credit agency's then-limited mining and metals experience.

Natural Gas and LNG

- **Inaugural Financing of US LNG Regasification Terminal.** Led HSBC advisory and joint bookrunning team on \$822 million non-recourse project financing of Sabine Pass LNG for Cheniere Energy as global first fully non-recourse LNG project. Developed integrated financing strategy that incorporated advice on EPC contracting strategy, terminal use agreement structure, equity capital raising activities including secondary offering and holding company capital market raises.

- **US LNG Regasification Terminal Expansion.** Led HSBC advisory team and joint bookrunning team on \$1.5 billion non-recourse project financing to refinance and expand Sabine Pass LNG terminal for Cheniere Energy. Secured efficient placement in loan syndication market while reducing company management burden by reducing bank group despite significant oversubscription.
- **Mozambique Offshore Natural Gas Production and Onshore Liquefaction Project.** Supervised EXIM Bank transaction team underwriting integrated LNG project proposed by multinational consortium led by Anadarko. Assessed underwriting conditions in wake of Mozambique debt crisis and IMF-led restructuring.
- **Chilean LNG Regasification.** Led HSBC team advising GNL Quintero on \$1.1 billion non-recourse project financing at market low pricing. Developed financing strategy that resulted in Southern Hemisphere's first LNG regasification terminal.
- **Mexican Natural Gas Storage, LNG Gasification, and Pipeline Transportation.** Led HSBC team advising Tidelands Oil & Gas on feasibility and financing strategy for development-stage company. Analysis supported client in having project acquired by master limited partnership developer.
- **Indian Power and LNG Project.** Led Mobil advisory team in joint venture negotiations with Indian industrial company for combined LNG regasification and combined cycle power project proposed for Kerala project site.
- **Small-scale LNG Project Portfolio.** Advised client on financial strategy in developing North American small-scale LNG projects.
- **Regional Natural Gas Delivery Network.** Advised client on financial strategy in developing Caribbean and Latin American natural gas transportation and delivery projects.

Power and Renewable Energy

- **Nevada Solar Thermal Power Project.** Led – from inception to financial close – \$1 billion project debt and equity raise for Crescent Dunes solar thermal project in Tonopah, NV for SolarReserve, Inc. Secured \$737 million in long-term debt financing guaranteed by the US Department of Energy and \$360 million in project equity commitments. Developed and executed financing strategy for integrated solar thermal and molten salt storage project featuring pre-commercialization technology. Project investors at close included ACS Cobra and Santander.
- **Indian Nuclear Energy Project.** Head of US government team on behalf of EXIM Bank in first phase of principals' negotiations with Government of India on request \$12 billion financing of US-supplied nuclear power facility. Engagement involved head-of-state visibility, and National Security Council and multiple US agency participation.
- **South African Solar PV Projects.** Supervised for SolarReserve ZAR1.8 billion (\$586 million) project financings of 150MW-DC Letsatsi and Lesedi solar PV projects in Free State and

Northern Cape respectively as part of South Africa's Renewable Energy Independent Power Producer Program. Google joined a projects co-investor.

- **Taiwan Gas-Fired Combined Cycle Power.** Led Mobil advisory team supporting negotiations and financing strategy for Taiwanese IPP partnership with Hsin Tao power development company.
- **Vietnam Gas-Fired Combined Cycle Power.** Led Mobil advisory team supporting financing strategy for Phu My 2.2 independent power project.
- **Emerging Market Gas and Renewables Projects.** Supervised OPIC transaction teams in authorizing and executing more than 1,500 MW of wind, solar photovoltaic, natural gas, hydro power projects in Pakistan, Nigeria, Mexico, and Chile.
- **Latin American Power Projects.** Advised client on financial strategy in developing two thermal power facilities following an acquisition of projects with successful reliability power bids.

Refining, Petrochemicals, and Industrial

- **Egyptian Refinery and Petrochemical Project.** Leading BRG team advising an export credit agency in due diligence of a proposed world-scale refinery and petrochemical project in Egypt.
- **Kazakhstan Refinery Project.** Led BRG team advising an export credit agency in due diligence of a proposed 1 million ton per annum modular refinery in Kazakhstan.
- **Saudi Arabian Petrochemicals Project.** Led HSBC team advising lead export credit agency in financing a \$3 billion petrochemical project, representing the then-largest private sector petrochemical transaction in Saudi Arabia. Supported client in assessing Saudi Arabian financing conditions, as well as integrating margin and market volatility assessment into credit due diligence.
- **Egyptian Ammonia Facility.** Led HSBC team advising lead export credit agency in financing a \$350 million anhydrous ammonia project, Egypt's first such facility. Transaction represented then-largest private investment into Egyptian petrochemical industry and was sponsored by Egyptian private sector developer. Supported client in assessing product margin volatility and market access analysis into credit due diligence.
- **Omani Greenfield Refinery.** Led Bank of America team advising Oman Ministry of Petroleum and Oman Oil Company on executing \$1 billion non-recourse project financing for Oman's refinery and petrochemical project as anchor to new Sohar Industrial Area. Developed financial strategy that was fully integrated with procurement arrangements to optimize financing options available.
- **Egyptian Gas-to-Olefins Project.** Led Bank of America team advising private client on a \$1.2 billion innovative petrochemical project in Egypt. Developed financing strategy that addressed natural gas supply access, ultimately leading to project being redesigned into LNG liquefaction project.

- **Malaysian Newsprint Mill.** Led Bank of America team to restructure and refinance defaulted bridge financing of \$500 million for an innovative recycled newsprint mill being developed by Malaysian Newsprint Industries. First project financing in Malaysia following the 1997 economic crisis in Asia. Clients included Hong Leong and Fletcher Challenge.
- **Indonesian Integrated Olefins and Aromatics Petrochemical Project.** Advised PT. Trans-Pacific Petrochemical Indotama on development of \$2.5 billion petrochemical facility constructed in Tuban, Indonesia. As key member of Bank of America team, supported sponsors such as Koch, Itochu and Nissho Iwai in development of financing, construction, procurement, and offtake strategy to support capital raising efforts.
- **Chinese Refinery.** Advised Hohbond Refinery project company and sponsor AgipPetroli in \$.8 billion greenfield venture on Hainan Island, China. As key member of Bank of America team, supported clients in development of financing, construction, procurement, and offtake strategy to support capital raising efforts.
- **Saudi Arabian Petrochemical Expansion.** As key member of Mobil finance team, advised Yanpet joint venture with SABIC on strategy that resulted in \$3 billion expansion of olefins facility in Yanbu, Saudi Arabia.
- **Saudi Arabian Greenfield MTBE Facility.** As key member of Mobil finance team, advised joint venture with private Saudi developers on securing \$405 million in project financing commitments.
- **Saudi Arabian Greenfield Lubricating Oil Refinery.** As key member of Mobil finance team, advised joint venture with Saudi government refiner on strategy and financial structure for \$380 million greenfield refinery in Yanbu, Saudi Arabia.

Infrastructure

- **Northern Virginia Managed Lanes.** As senior advisor to Build America Bureau, provided structuring guidance to US Department of Transportation's \$1.3 billion direct loan to Transform 66 consortium for public-private partnership concession to build and manage high-occupancy lanes in I-66 corridor under the Transportation Infrastructure Finance and Innovation Act (TIFIA) credit program. One of largest TIFIA loans made for a public-private toll road.
- **Latin American Port.** Led HSBC advisory team supporting an international container terminal operator on financing and expansion strategy for port concession.
- **Mexican Toll Road Privatization.** Supervised HSBC arranging team on \$3.3 billion acquisition for ICA and Goldman Sachs Infrastructure Partners on then largest Latin American infrastructure privatization.
- **Acquisition of North American Container Terminals.** Led HSBC advisory team supporting Ontario Teachers' Pension Plan on its \$1.9 billion acquisition of OOIL container terminals in New York, New Jersey and British Columbia.

- **Acquisition of US Toll Road.** Led HSBC team advising confidential European client on bidding and financing strategy for Indiana Toll Road concession.
- **Ecuadorian Airport.** Led HSBC team advising export credit agency client in \$360 million financing of Mariscal Sucre Airport for Quito, Ecuador. Supported client in assessment of airport utilization analysis in credit assessment.

Finance Executive

- **Project Finance Executive for US Federal Credit Agencies.** Headed structured and project finance divisions at two international US Federal credit agencies – Export-Import Bank of the United States (EXIM Bank) and Overseas Private Investment Corporation (OPIC). Led agency teams to authorize or execute more than \$6 billion in emerging market project finance transactions across solar, wind, mining, oil & gas, commercial satellite, telecommunications and other sectors. Member of OPIC Investment Committee authorizing all transactions above \$25 million. Advised US Department of Transportation in authorizing more than \$2.4 billion of domestic transportation infrastructure transactions, including one of largest public-private partnership toll financed by the Bureau.
- **Global Bank Project Finance Executive.** Established and directed HSBC's entry into Americas project finance market. Recruited and developed 14-banker team covering infrastructure, energy and power sectors throughout the Americas. Directed unit to advise or arrange more than \$12 billion in project financings in LNG, petrochemicals, toll roads, port acquisition and development, and other sectors.
- **Solar Company CFO.** Foundational chief financial officer for SolarReserve, Inc. Developed and implemented successful strategy to raise \$1 billion in project debt and equity inaugural power project using company's pre-commercialized solar thermal technology featuring molten salt storage. Executed multiple private equity funding rounds and EB-5 debt capital.

Business Practice Initiatives

- **Development of Credit Risk Guidelines for Build America Bureau.** Developed customized credit risk guidelines framework and analytics for US Department of Transportation to analyze and rate public-private partnership and other infrastructure sponsors seeking US government credit assistance. Structured specialized internal rating methodology. Led calibration analysis to assess applicability to current and prior transactions.
- **Development of Commercial Satellite Guidelines for EXIM Bank.** Led team in developing credit risk guidelines framework and analytics for US Export-Import Bank to analyze commercial satellite industry participants seeking US government credit assistance. Integrated inputs from key stakeholders, including agency, applicants, and other sector experts.
- **Development of Integrated Transactions Management/CRM Systems.** Developed integrated transactions management, document management, and client/opportunity management system for EXIM Bank Structured Finance Division. Led team to analyze pipeline and portfolio data to optimize business development efforts around new data visibility.

- **Development of Integrated Credit Screening Process.** Led team of agency executives to develop new credit presentation protocols and credit analytics for Board of Director reviews at the Overseas Private Investment Corporation. Developed new transaction pre-screening protocols to improve credit outcomes.

PRESENTATIONS AND PUBLICATIONS

- Moderator, presenter, and panelist at multiple US and international conferences on such topics as US government role in infrastructure financing, export credit agency financing for commercial satellites, nuclear power project financing options, development finance initiatives, cost of capital for power project developers, and LNG financing strategies. Organizer and host of EXIM Bank's annual structured finance panel, 2016-2017.
- Guest Lecturer at Columbia University, Graduate School of Business; Johns Hopkins University, School of Advanced International Studies; and US Department of State, Foreign Service Institute on project finance topics.
- Panel contributor to weekly TXF Proximo Transmission podcast on global project finance topics such as ESG assessment, US infrastructure, export credit and development finance agencies, 2019.
- Host of BRG's Thinkset podcast (2020 to 2021).
- "Are You Ready for LIBOR's Demise?" Thinkset, August 2019 (and associated Thinkset podcast).
- "Beyond Libor: The rise and fall of a benchmark" TXF Proximo, March 2019.
- "Beyond Libor: SOFR so good?" TXF Proximo, March 2019. "US Infra – Ripe for Disruption" Project Finance International - Global Infrastructure Report, 2018.
- "US Ex-Im: Rethinking an Agency" TXF News, 2018.
- "LNG – Let's Get Small, Steve" with J. Martin Ziegenfuss. Project Finance International - Global Energy Report, 2018.
- "Getting to Dawn in Sub-Saharan Africa" Project Finance International Yearbook, 2014.
- "IGCC – New Hope for Coal" Project Finance International, 2006. Co-author.
- "Financing the New LNG Paradigm" Petroleum Economists' Fundamentals of the Global LNG Industry, 2001.
- "China: The Petrochemical Industry" Bank of America's Guide to Petrochemicals in Asia. Co-author. Publication co-editor. 1998.

AWARDS

- *Project Finance International*, 2015 Asia-Pacific Mining Deal of the Year – Oyu Tolgoi
- *Project Finance International*, 2012 African Renewables Deal of the Year – Lesedi & Letsatsi
- *Latin Finance*, *Infrastructure Journal*, *Project Finance Magazine* and *Project Finance International*, 2007 Deal of the Year awards – FARAC Roads Privatization
- *Project Finance Magazine*, 2006 Overall Americas Deal of the Year; *Project Finance International*, 2006 North American Deal of the Year – OOIL Ports Acquisition
- *Project Finance Magazine*, 2006 North America Refinancing Deal of the Year; *Project Finance International*, 2006 Americas Oil & Gas Deal of the Year – Sabine Pass LNG Expansion
- *Project Finance Magazine*, 2005 Americas Deal of the Year; *Project Finance International*, 2005 Americas Oil & Gas Deal of the Year – Sabine Pass LNG
- *Project Finance Magazine*, 2005 Latin American Transport Deal of the Year; *Airfinance Journal*, 2005 Latin America Airport Finance Deal of the Year – Mariscal Sucre Airport
- *Project Finance Magazine*, 2004 Latin American Mining Deal of the Year; *Project Finance International*, 2004 Americas Mining Deal of the Year – Veladero Gold Mine
- *Project Finance Magazine*, 2003 Middle Eastern Oil & Gas Deal of the Year – Sohar Refinery