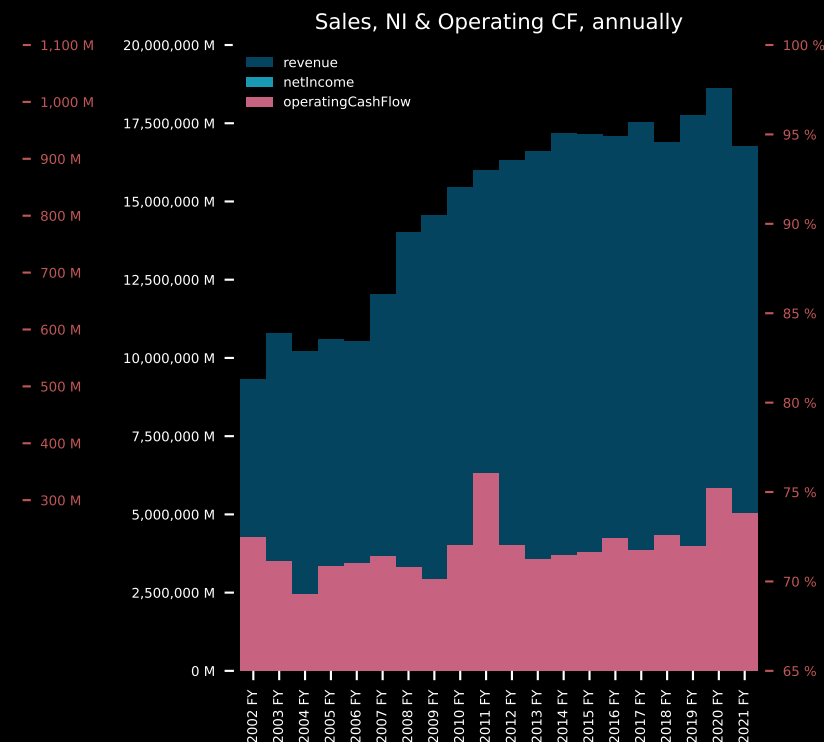
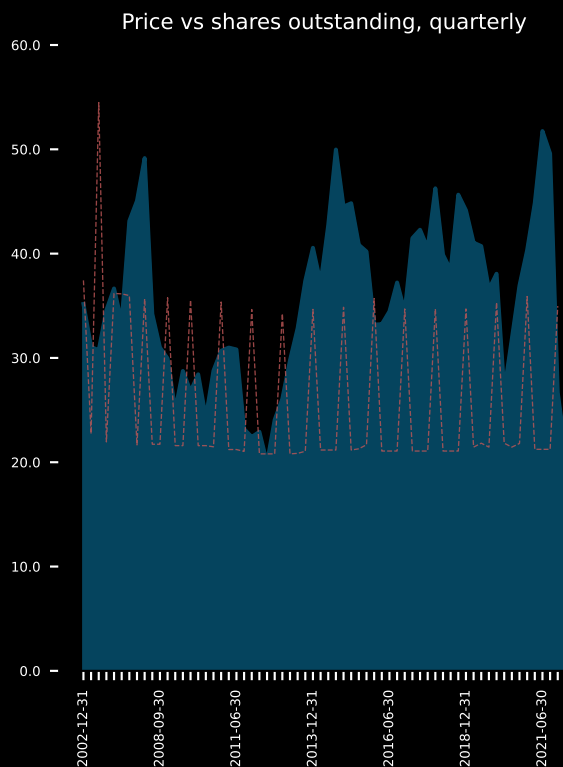
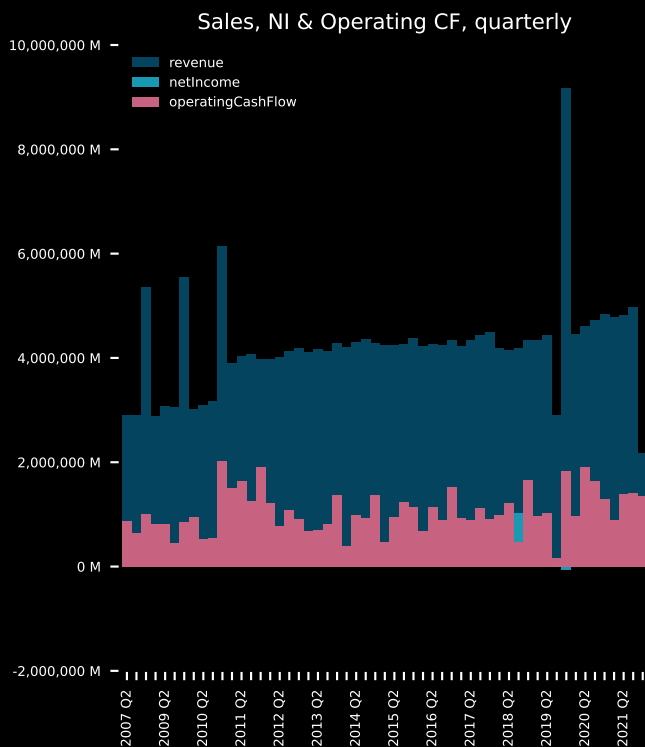
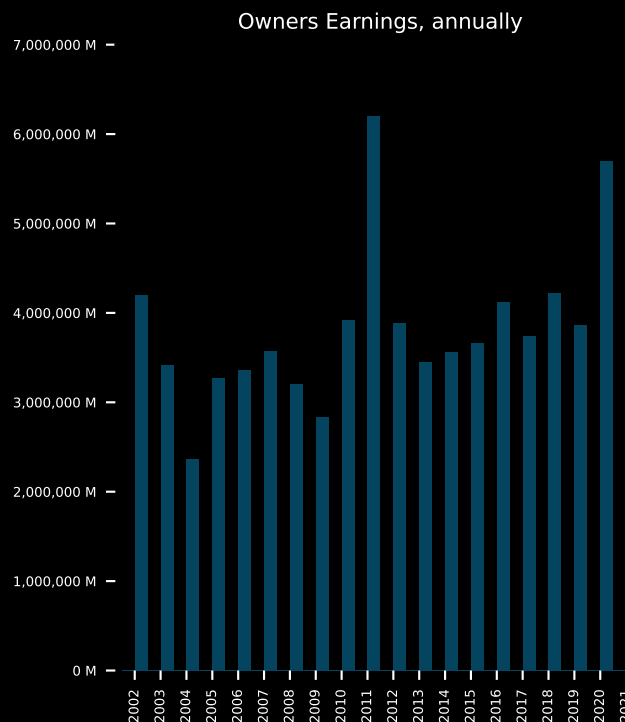
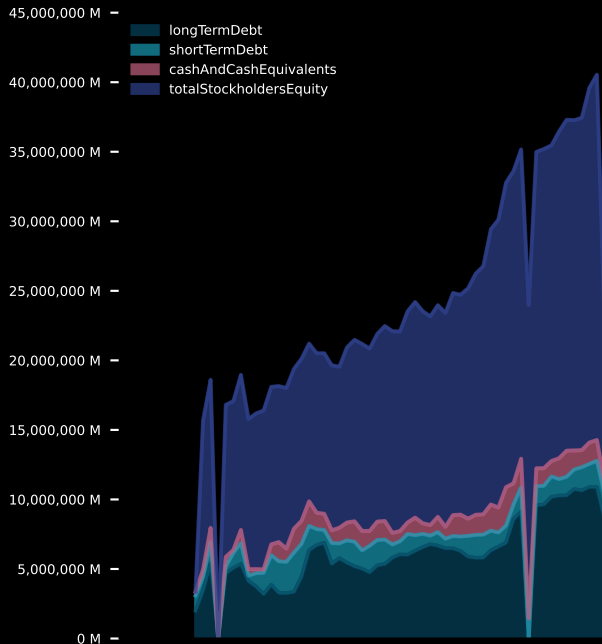


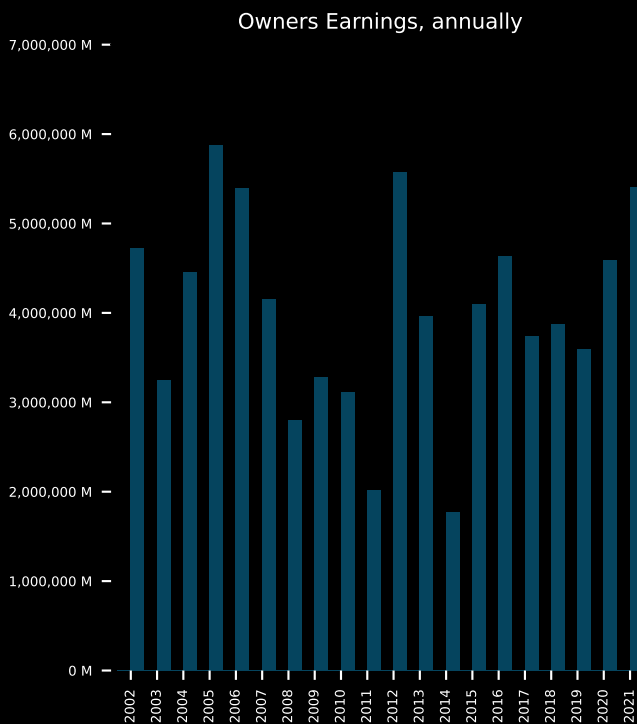
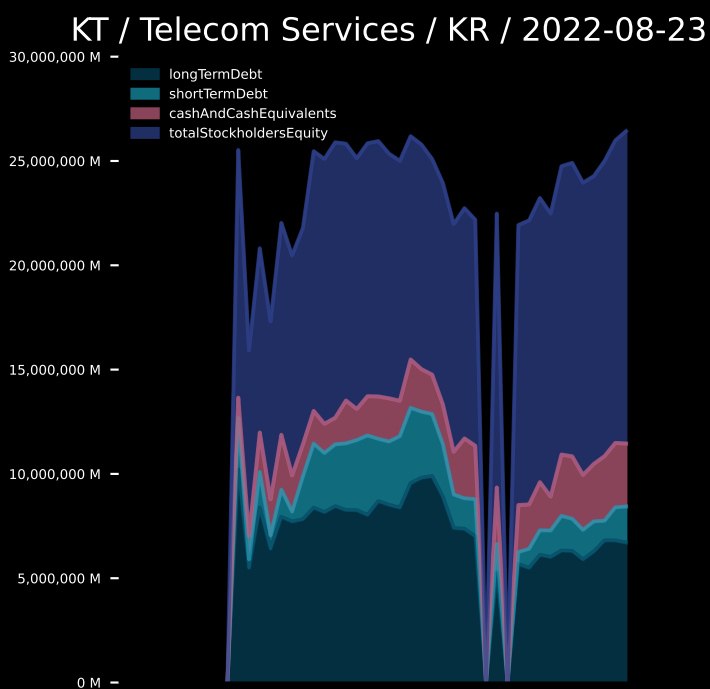
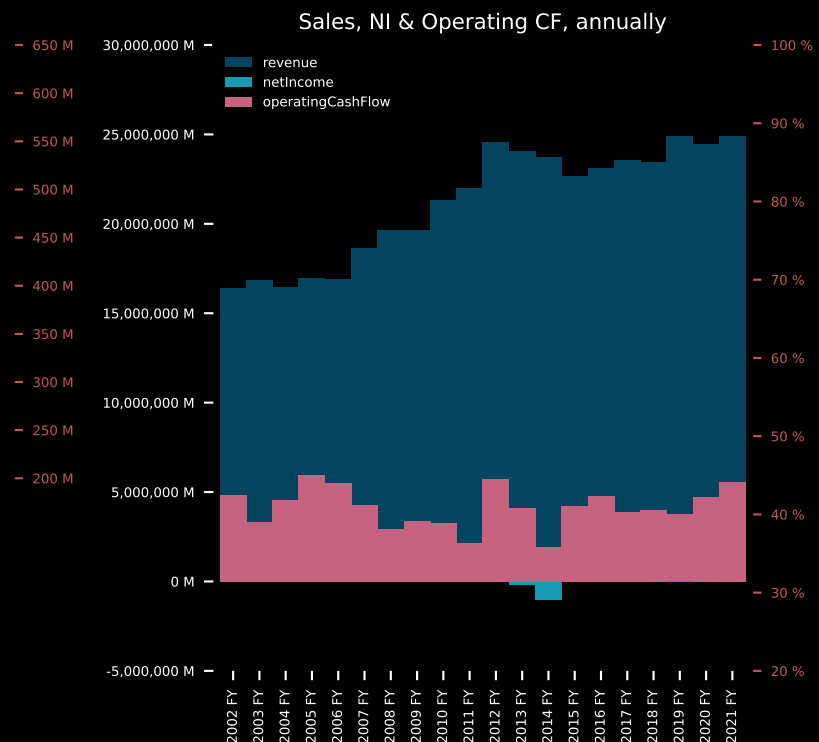
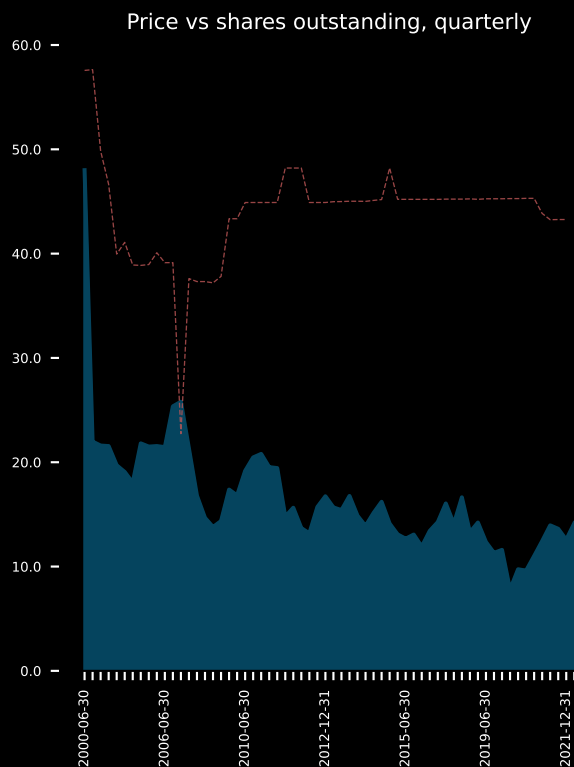
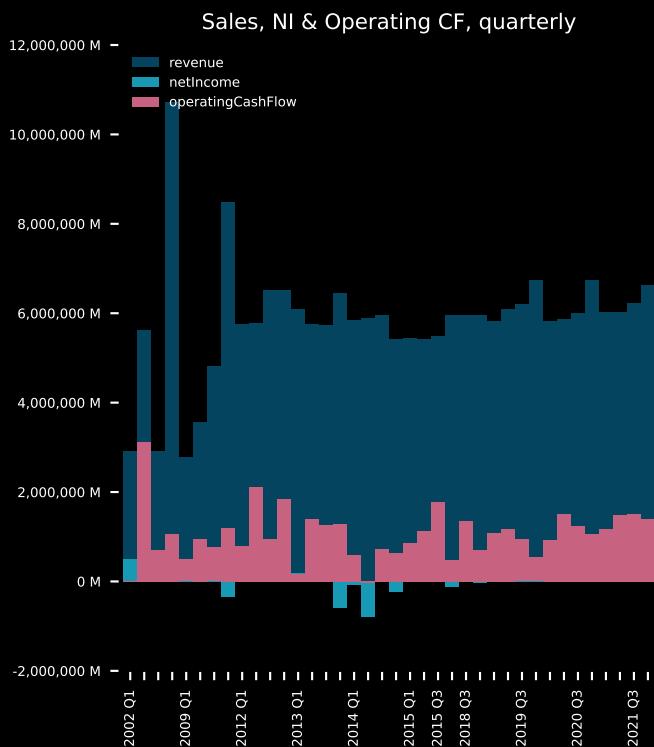
*Perusahaan Perseroan (Persero) PT Telekomunikasi Indonesia Tbk provides telecommunications, informatics, and network services worldwide. The company's Mobile segment offers mobile voice, SMS, and mobile broadband services; and digital services, including financial services, video on demand, music, gaming, IoT, big data analytics, and digital advertising services. Its Consumer segment provides fixed voice and broadband services; and IPTV and related consumer digital services. The company's Enterprise segment offers ICT and digital platform that covers enterprise-grade connectivity services, including satellite, IT services, data center and cloud, and business process outsourcing services, as well as CPE trading and managed, cyber security, financial, big data, digital advertising, e-health, managed ATM, and professional services. Its Wholesale and International Business segment provides wholesale voice, managed, A2P SMS, IP transit and connectivity, data center and cloud, security, and value added and digital services; mobile network operator, mobile virtual network operator, and call center services; and tower and infrastructure services.*



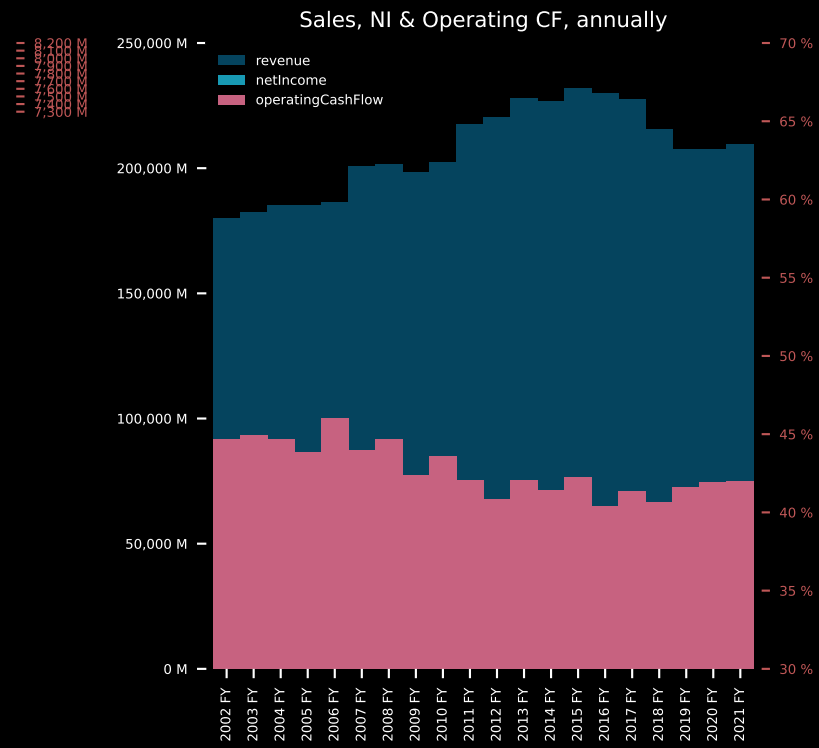
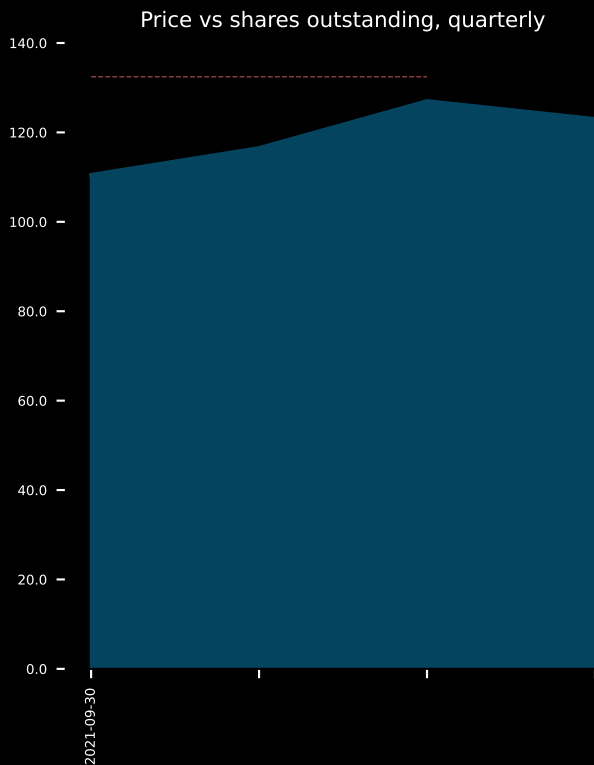
## SKM / Telecom Services / KR / 2022-08-23



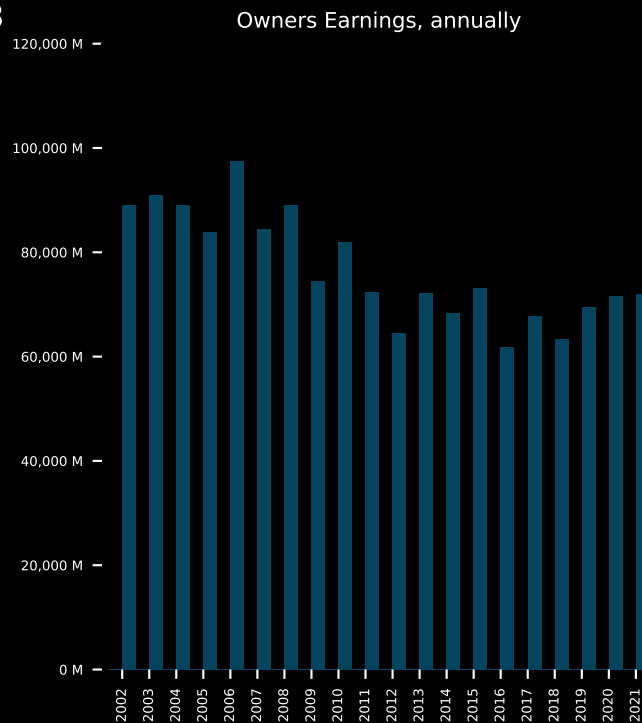
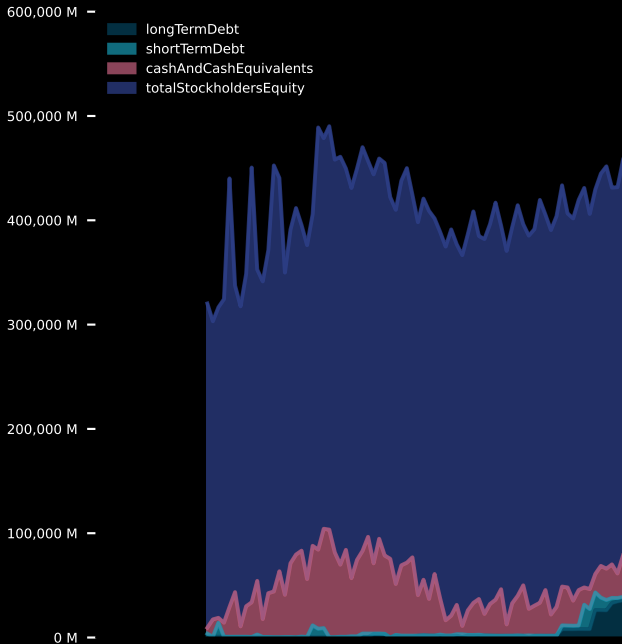
*SK Telecom Co., Ltd. provides wireless telecommunication services in South Korea. The company operates through three segments: Cellular Services, Fixed-Line Telecommunications Services, and Other Businesses. The Cellular Services segment offers wireless voice and data transmission, Internet of Things solutions, platform, cloud, smart factory solutions, subscription, and metaverse platform-based services, as well as sells wireless devices. The Fixed-Line Telecommunications Services segment provides fixed-line telephone services; broadband Internet services; media platform services, such as Internet protocol TV and cable TV; and business communications services. The Other Businesses segment offers television shopping services under the T-commerce brand, as well as portal services. In addition, it provides call center management, base station maintenance, information gathering and consulting, system software development and supply, quantum information and communications, data base and internet website, and digital contents sourcing services; manufactures and sells e-book; sells contents and mastering quality sound "audiophile" contents; and provides content creation services.*



KT Corporation provides integrated telecommunications and platform services in Korea and internationally. The company offers fixed-line telephone services, including local, domestic long-distance, international long-distance, and voice over Internet protocol telephone services, as well as interconnection services; broadband Internet access service and other Internet-related services; and data communication services, such as fixed-line and leased line services, as well as broadband Internet connection services. It also provides media and content services, including IPTV, satellite TV, digital music, e-commerce, online advertising consulting, and digital comics and novels services; and credit card processing and other financial services. In addition, the company offers information technology and network services, and satellite services; sells handsets and miscellaneous telecommunications equipment; develops and sells residential units and commercial real estate; and rents real estate properties. Further, it maintains public telephones; offers security, B2C and B2B, investment fund, software development and data processing, value added services, and information services.

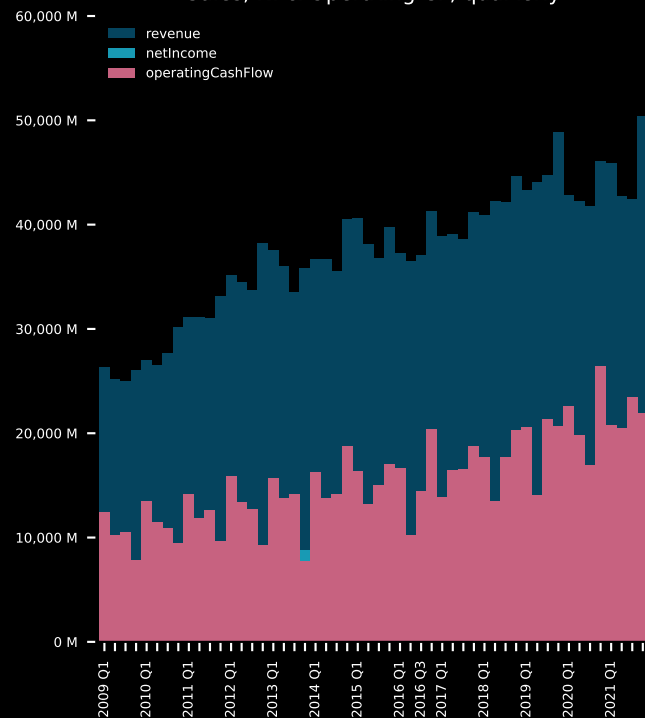


## 2412.TW / Telecom Services / US / 2022-08-23

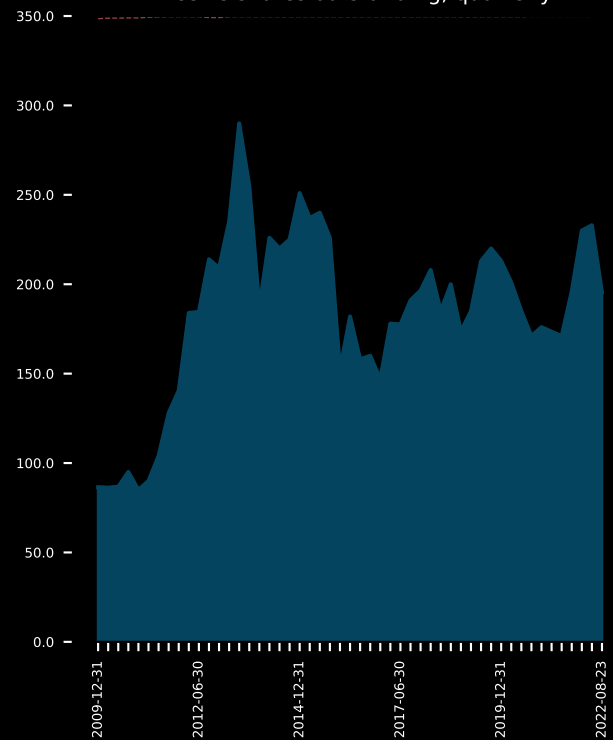


*Chunghwa Telecom Co., Ltd., together with its subsidiaries, provides telecommunication services in Taiwan and internationally. It operates through Domestic Fixed Communications Business, Mobile Communications Business, Internet Business, International Fixed Communications Business, and Others segments. The company offers local and domestic long-distance telephone, broadband access, and related services; information and communication technology and VAS services; and interconnection with its fixed-line network to other mobile and fixed-line operators. It also provides mobile; HiNet Internet, data communication, and cloud; Internet data center; and international long-distance telephone and data services. In addition, the company distributes and sells mobile handsets, data cards, electronic materials, and computing and business machinery equipment and software; designs, develops, manufactures, sells, and services semiconductor testing components, printed circuit boards, and electronic components and finished products, and automatic license plate recognition software and hardware products. Further, it offers real estate development and*

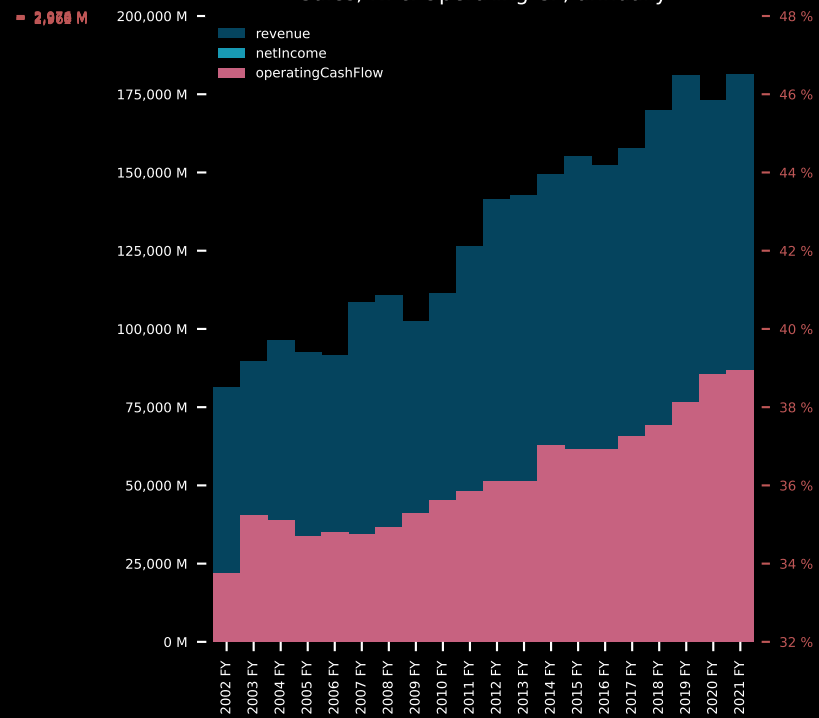
Sales, NI &amp; Operating CF, quarterly



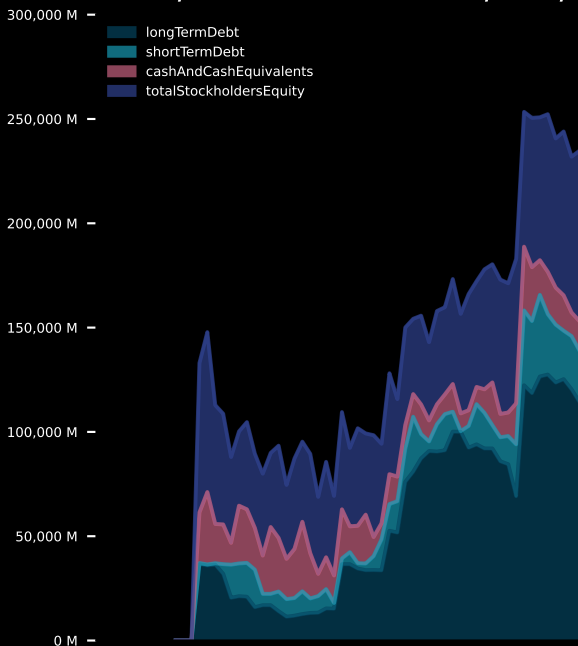
Price vs shares outstanding, quarterly



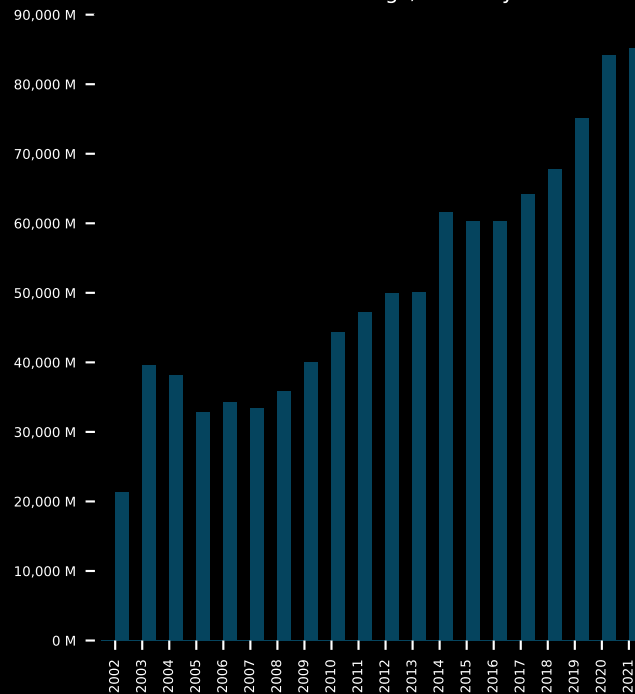
Sales, NI &amp; Operating CF, annually



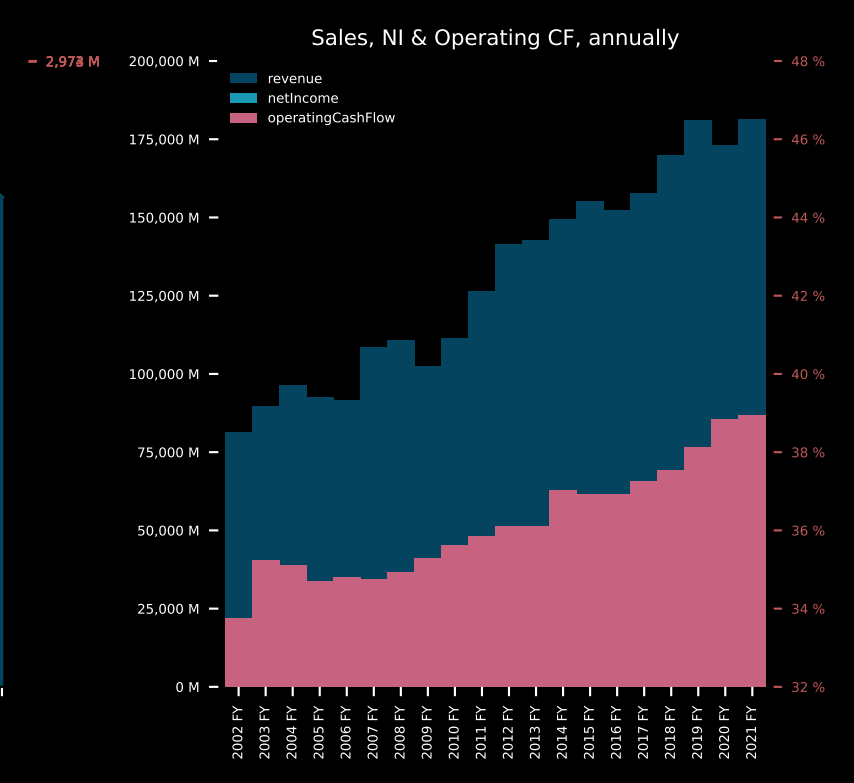
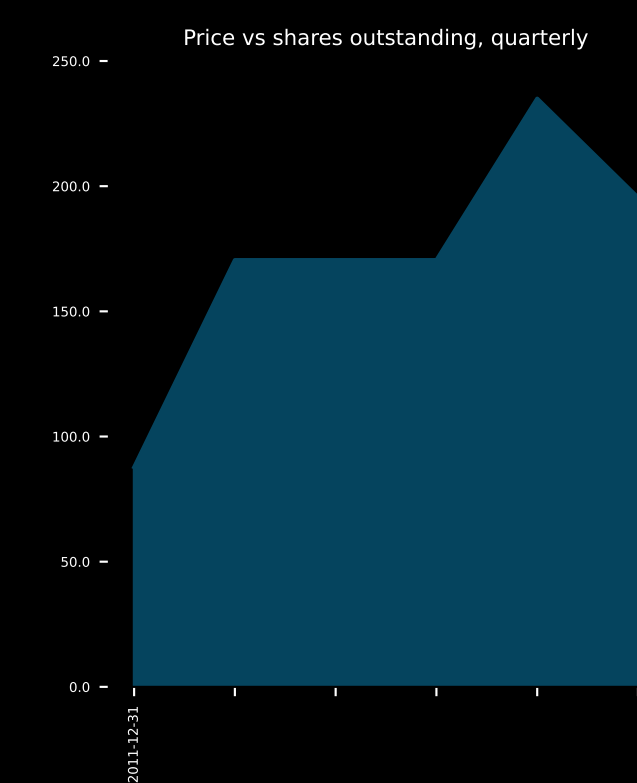
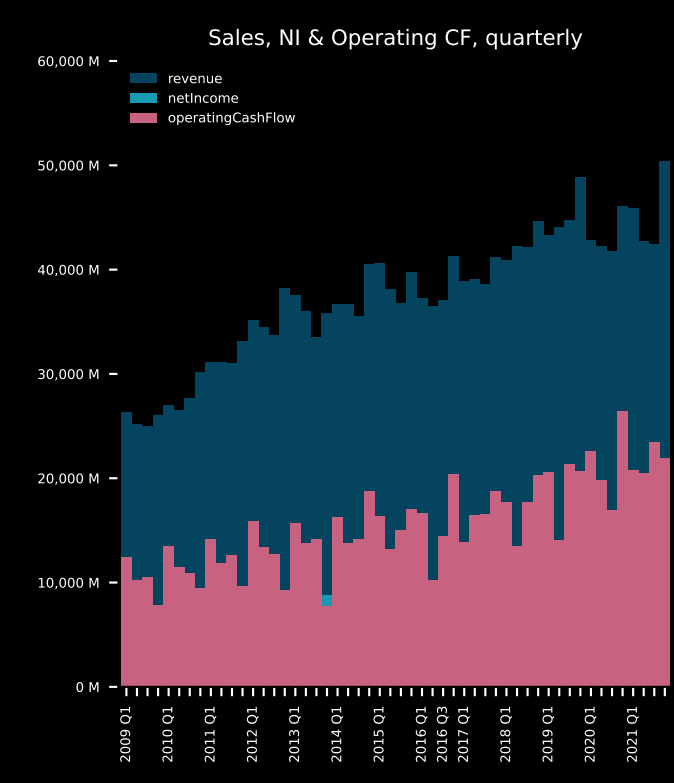
ADVANC.BK / Telecom Services / TH / 2022-08-23



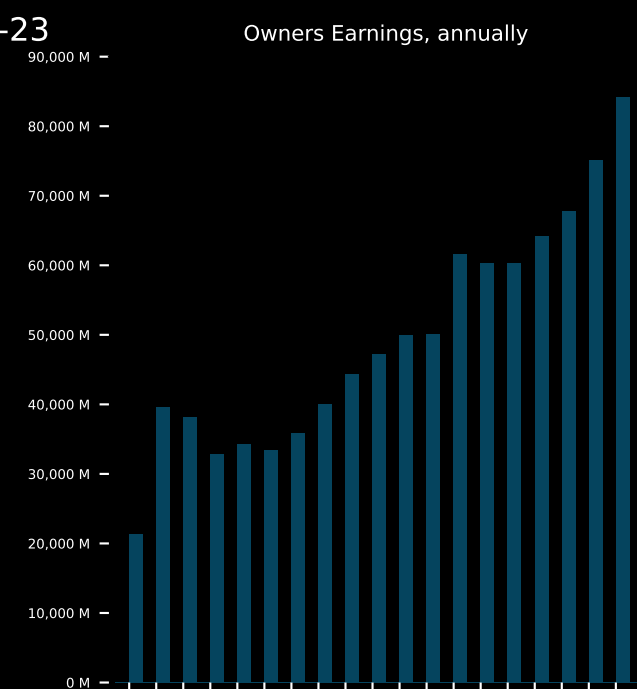
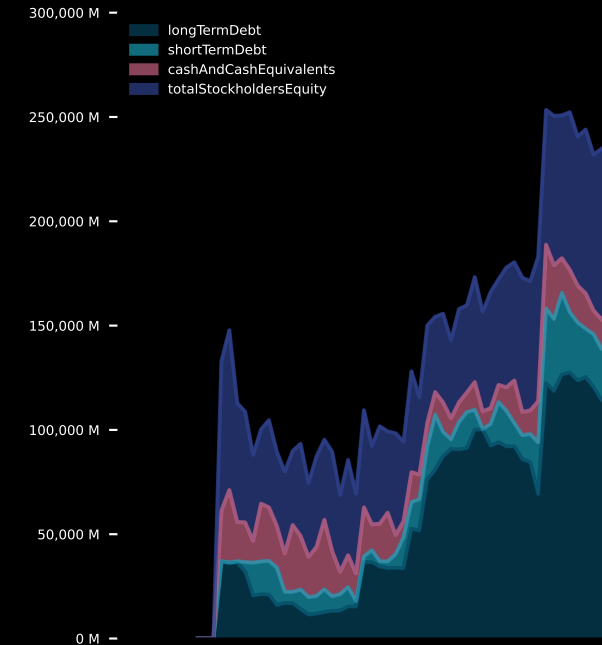
Owners Earnings, annually



Advanced Info Service Public Company Limited, together its subsidiaries, provides mobile network, fixed broadband, and digital services primarily in Thailand. The company operates through three segments: Mobile Phone Services, Mobile Phone and Equipment Sales, and Datanet and Broadband Services. It is involved in the operation of cellular telephone networks in the frequency of 26 GHz, 700 MHz, 900 MHz, 1800 MHz, 2100 MHz, and 2600 MHz frequencies. The company also distributes handsets, as well as cash cards; and electronic money and electronic payment services. In addition, it provides international telephone service, broadcasting network, and television broadcasting services for various channels, as well as insurance brokerage services. Further, the company offers IT system, content aggregator, and billing and collection outsourcing services; call center services; and land and building rental services, as well as related facilities. Additionally, it provides internet data center, and internet and satellite uplink-downlink services for communications; distributes internet equipment; publishes telephone directories and advertising; and provides other services.



ADVANC-R.BK / Telecom Services / TH / 2022-08-23



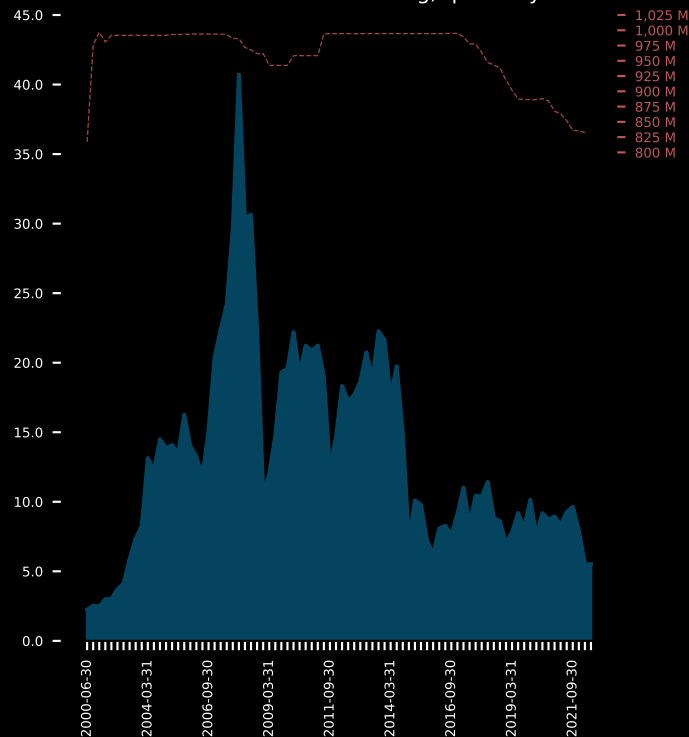
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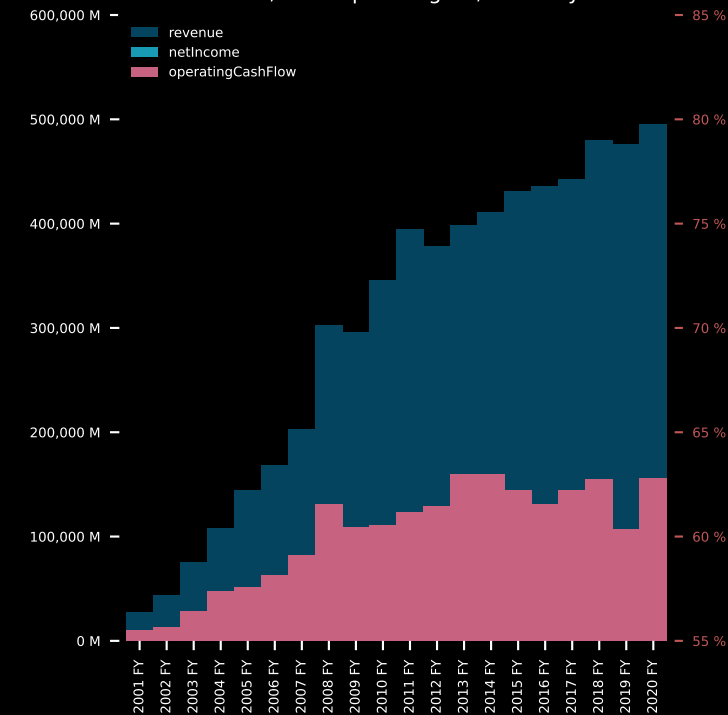
Sales, NI &amp; Operating CF, quarterly



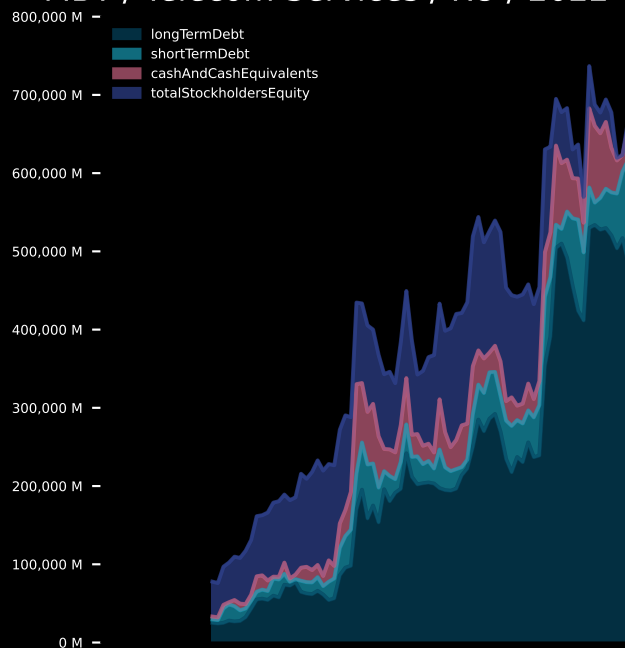
Price vs shares outstanding, quarterly



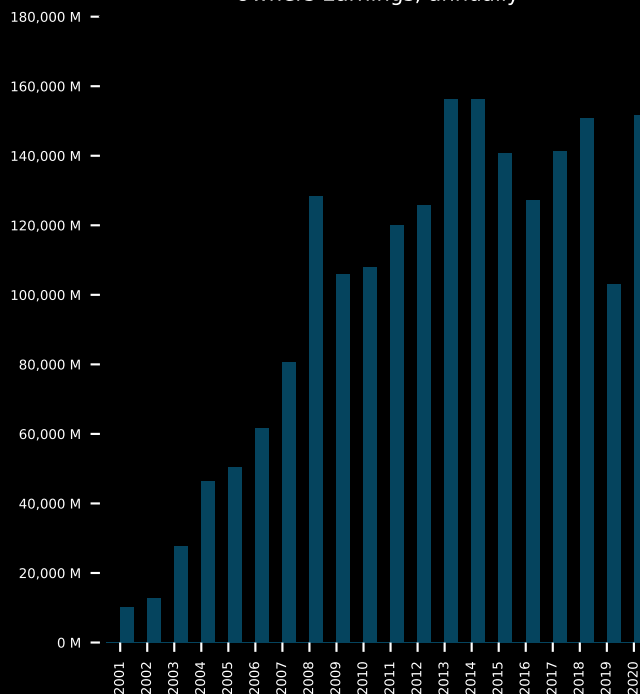
Sales, NI &amp; Operating CF, annually



MBT / Telecom Services / RU / 2022-08-23

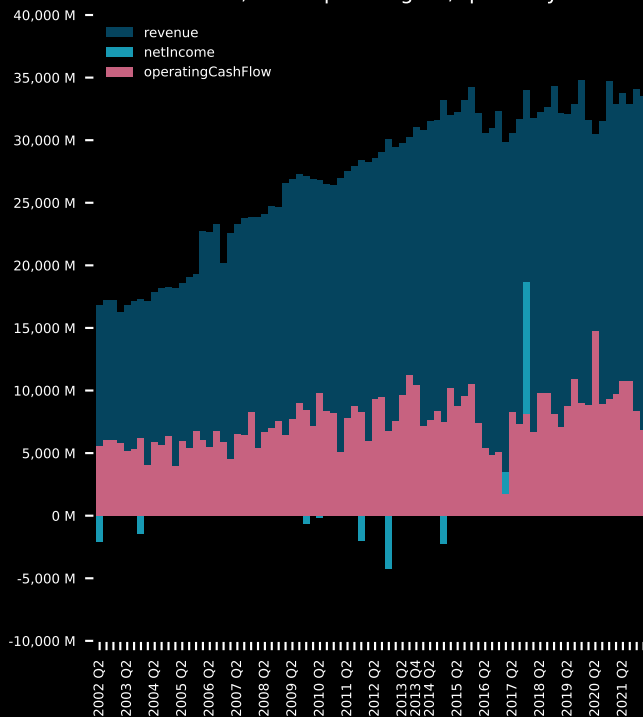


Owners Earnings, annually

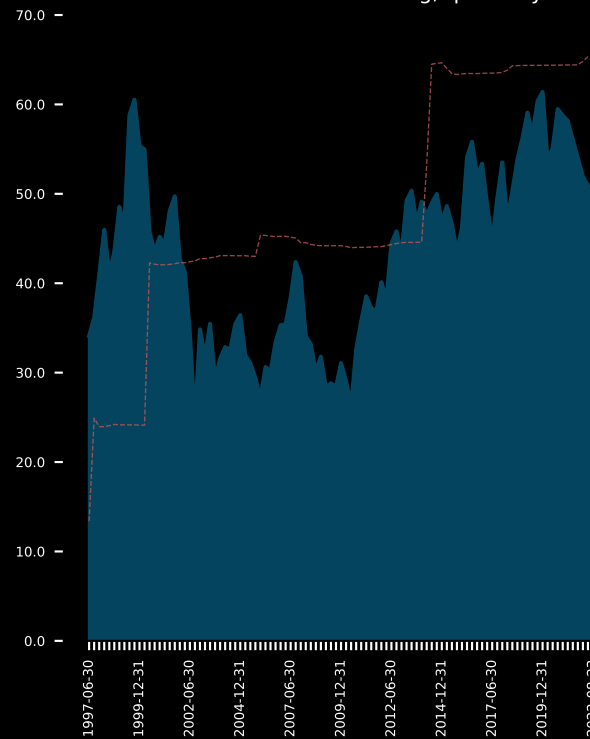


*Mobile TeleSystems Public Joint Stock Company provides telecommunication services primarily in Russia. It offers voice and data transmission, internet access, broadband, pay TV, and various value added services through wireless and fixed lines; financial services; and integration services, as well as sells equipment, accessories, and software. The company also provides cloud computing services, data analysis tools, cybersecurity systems, and intelligent IoT solutions for B2B clients; provides My MTS self care app, mobile music, mobile TV, and video-on demand; and owns eSport clubs and MTS online shop. In addition, it offers banking and e-commerce services. The company was founded in 1993 and is headquartered in Moscow, Russia. Mobile TeleSystems Public Joint Stock Company is a subsidiary of Sistema Public Joint-Stock Financial Corporation.*

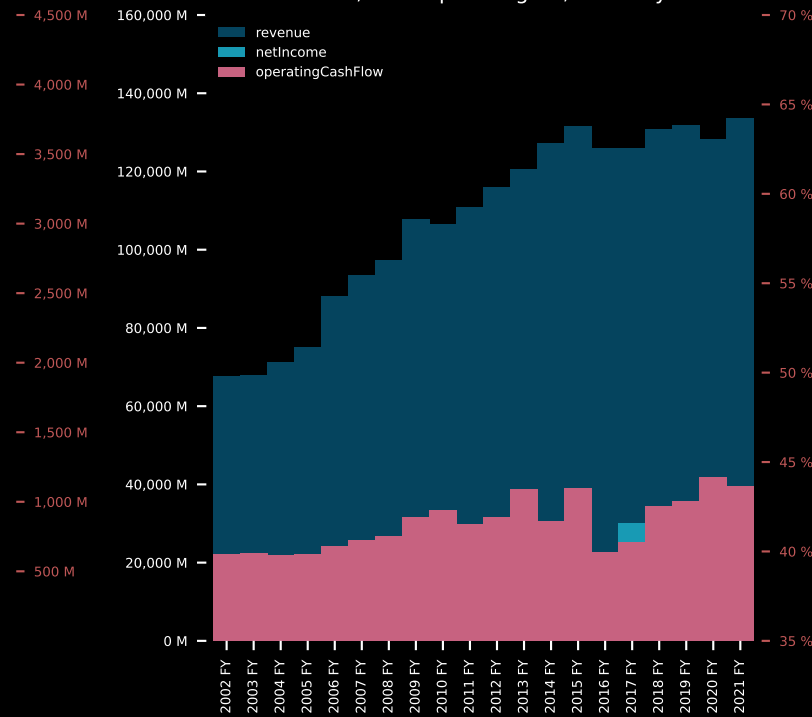
Sales, NI &amp; Operating CF, quarterly



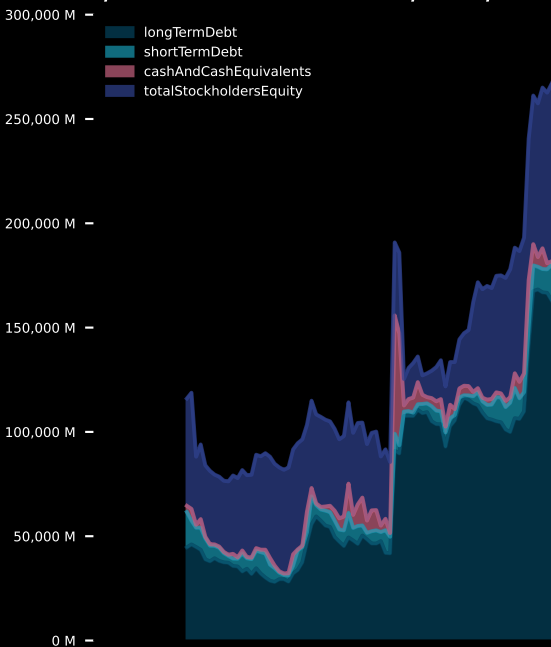
Price vs shares outstanding, quarterly



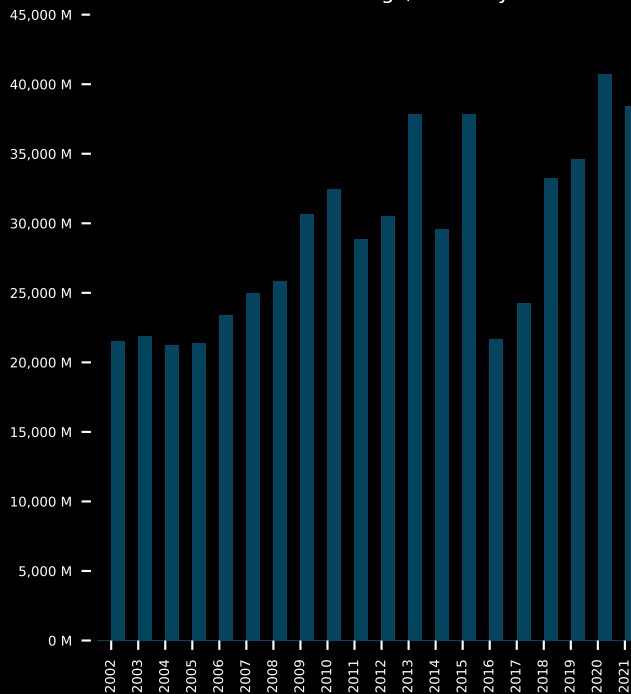
Sales, NI &amp; Operating CF, annually



VZ / Telecom Services / US / 2022-08-23

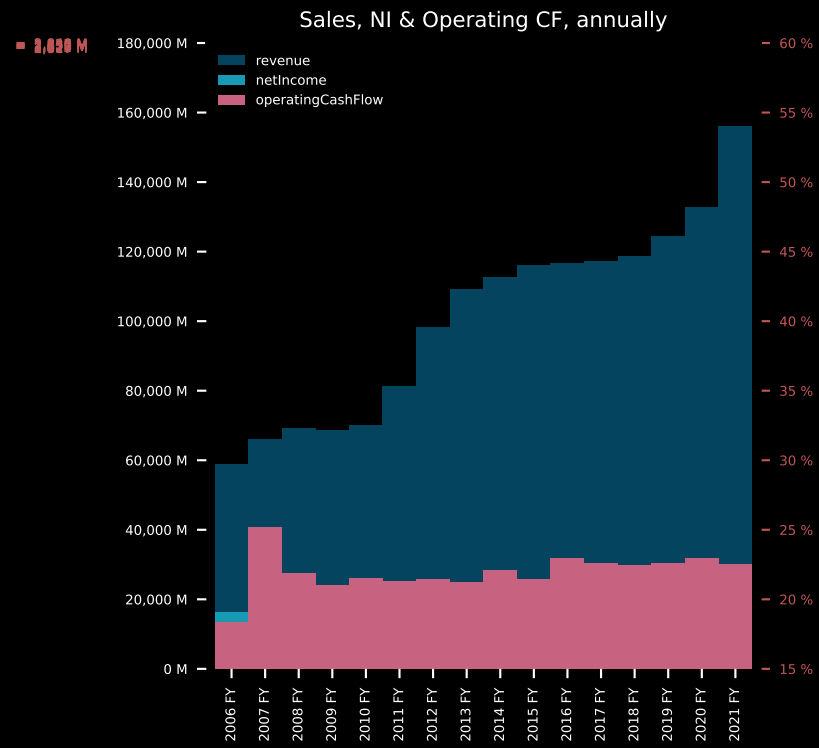
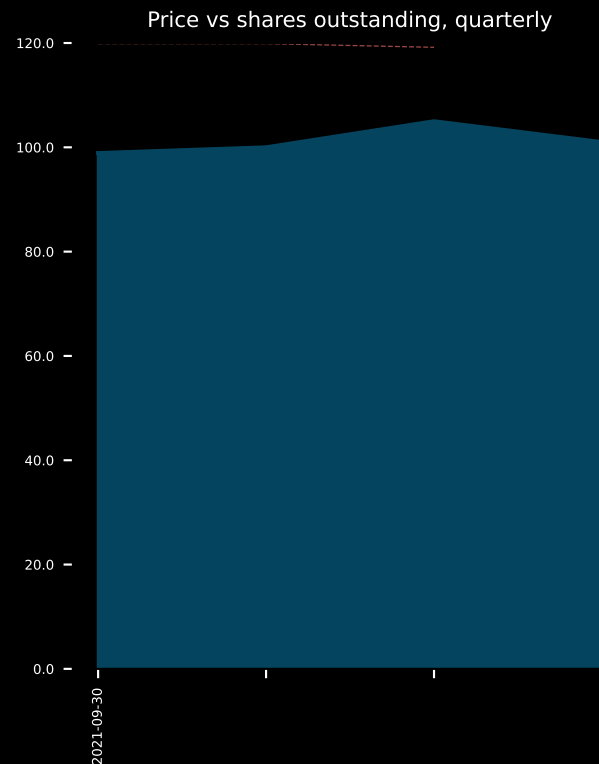
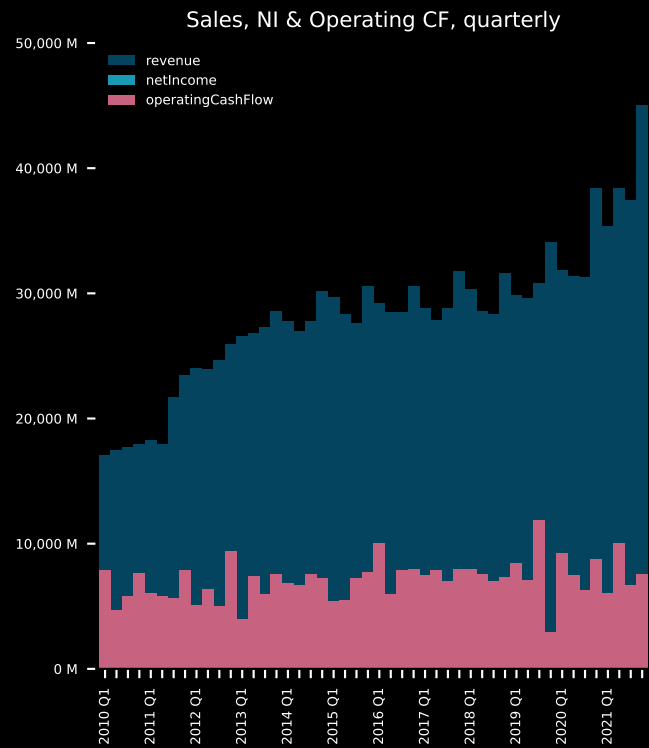


Owners Earnings, annually

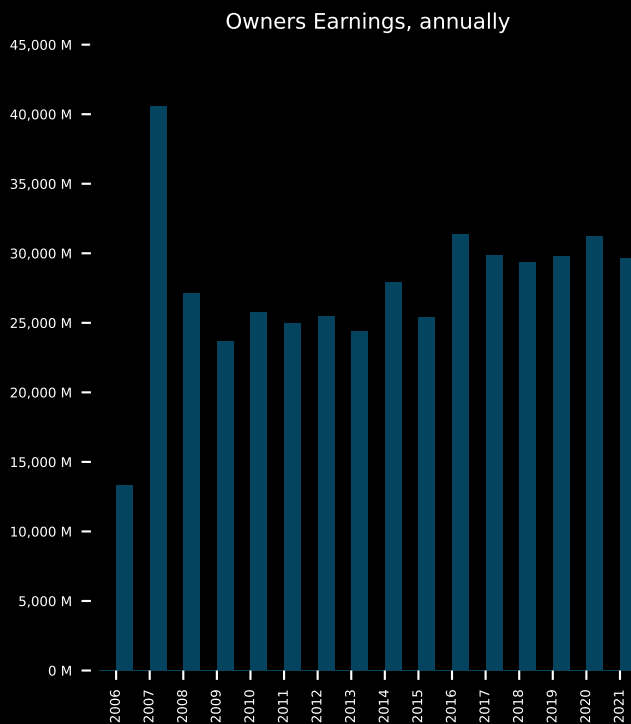


Verizon Communications Inc., through its subsidiaries, offers communications, technology, information, and entertainment products and services to consumers, businesses, and governmental entities worldwide. Its Consumer segment provides postpaid and prepaid service plans; internet access on notebook computers and tablets; wireless equipment, including smartphones and other handsets; and wireless-enabled internet devices, such as tablets, and other wireless-enabled connected devices comprising smart watches. It also provides residential fixed connectivity solutions, such as internet, video, and voice services; and sells network access to mobile virtual network operators. As of December 31, 2021, it had approximately 115 million wireless retail connections, 7 million wireline broadband connections, and 4 million Fios video connections. The company's Business segment provides network connectivity products, including private networking, private cloud connectivity, virtual and software defined networking, and internet access services; and internet protocol-based voice and video services, unified communications and



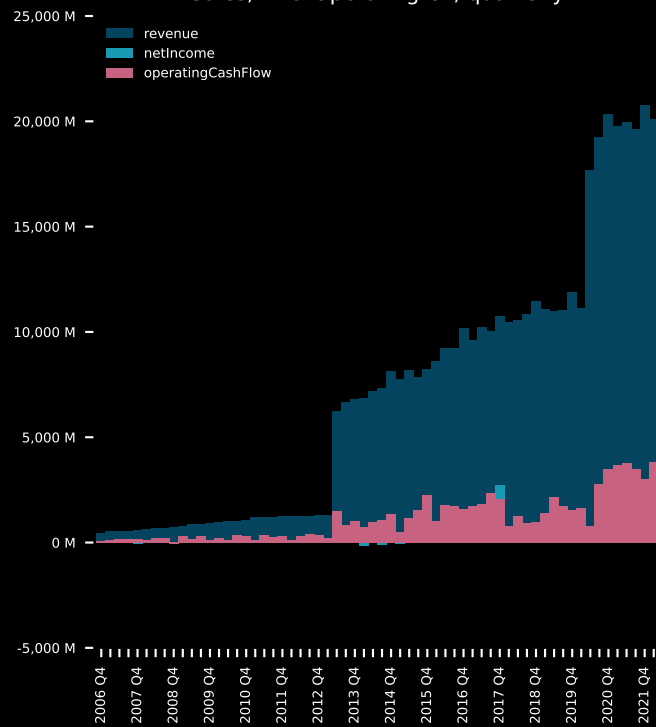


## 3045.TW / Telecom Services / US / 2022-08-23

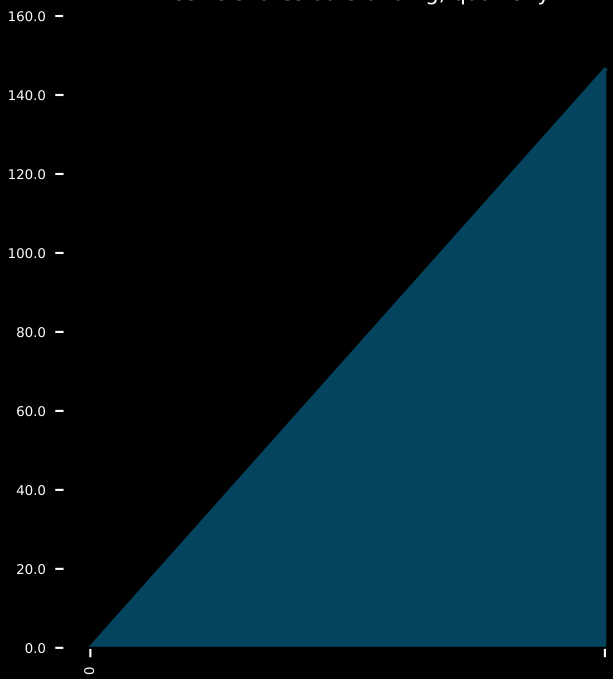


*Taiwan Mobile Co., Ltd. provides wireless communication services in Taiwan and internationally. The company operates through four segments: Telecommunications, Retail, Cable Television, and Others. It offers mobile communication, data mobile, and fixed-line services; and TV shopping, online shopping, and catalog shopping services. The company also provides pay TV and cable broadband services; travel, property insurance, and life insurance agency services; online music services; and value-added services, including video and music streaming, instant messenger, and IoT-related and smart home services. In addition, it is involved in the building and operating of BOT project; call center service and telephone activities; and investment, retail, and mobile application development and design businesses, as well as sale of mobile phones and accessories, games, and e-books. The company offers its products and services under the Taiwan Mobile, TWM Broadband, and TWM Business Solution brands. Taiwan Mobile Co., Ltd. was incorporated in 1997 and is based in Taipei, Taiwan.*

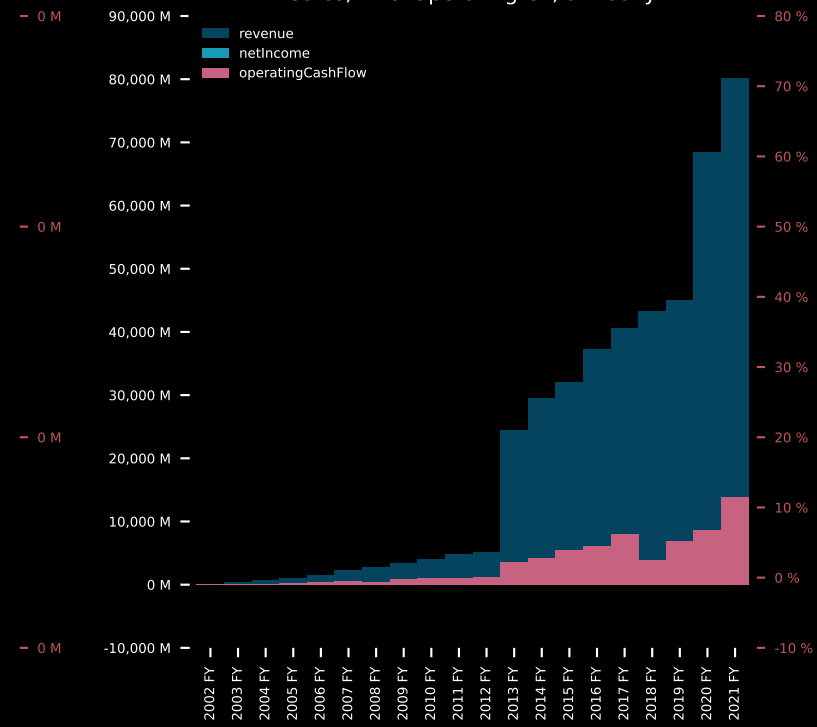
Sales, NI &amp; Operating CF, quarterly



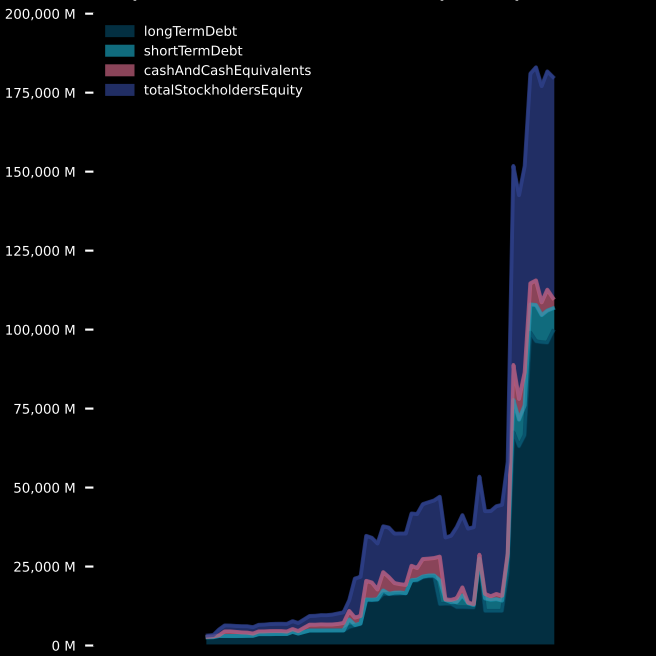
Price vs shares outstanding, quarterly



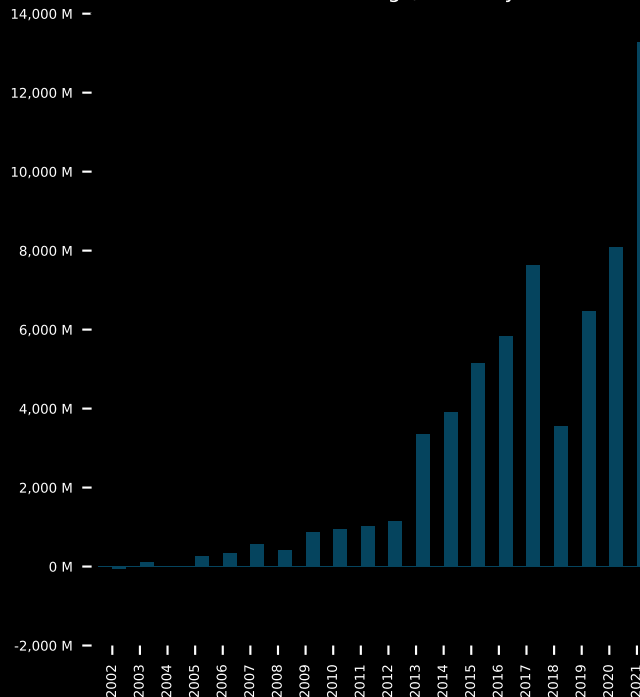
Sales, NI &amp; Operating CF, annually



TMUS / Telecom Services / US / 2022-08-23

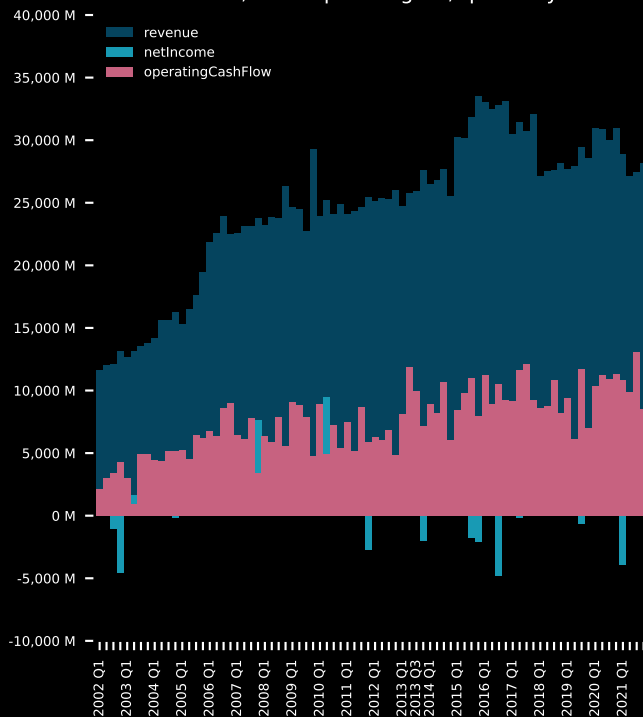


Owners Earnings, annually

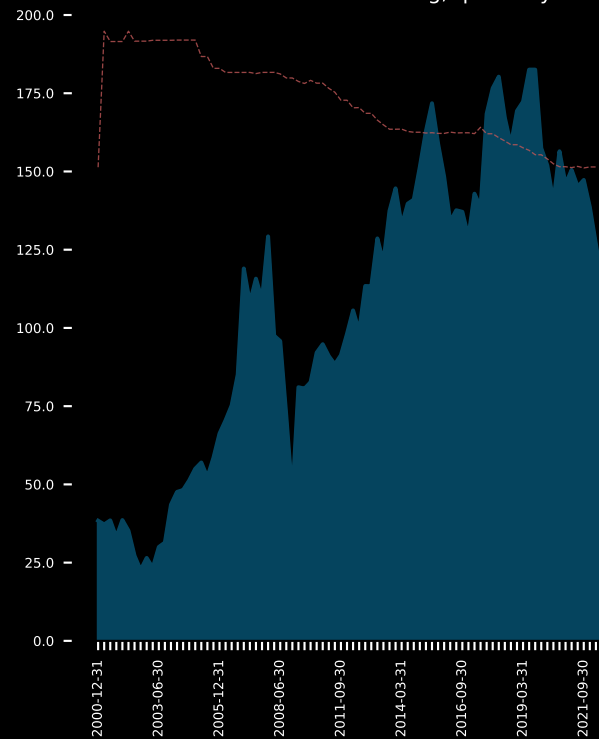


*T-Mobile US, Inc., together with its subsidiaries, provides mobile communications services in the United States, Puerto Rico, and the United States Virgin Islands. The company offers voice, messaging, and data services to 108.7 million customers in the postpaid, prepaid, and wholesale markets. It also provides wireless devices, including smartphones, wearables, and tablets and other mobile communication devices, as well as wireless devices and accessories. In addition, the company offers services, devices, and accessories under the T-Mobile and Metro by T-Mobile brands through its owned and operated retail stores, T-Mobile app and customer care channels, and its websites. It also sells its devices to dealers and other third-party distributors for resale through independent third-party retail outlets and various third-party websites. As of December 31, 2021, it operated approximately 102,000 macro cell and 41,000 small cell/distributed antenna system sites. The company was founded in 1994 and is headquartered in Bellevue, Washington.*

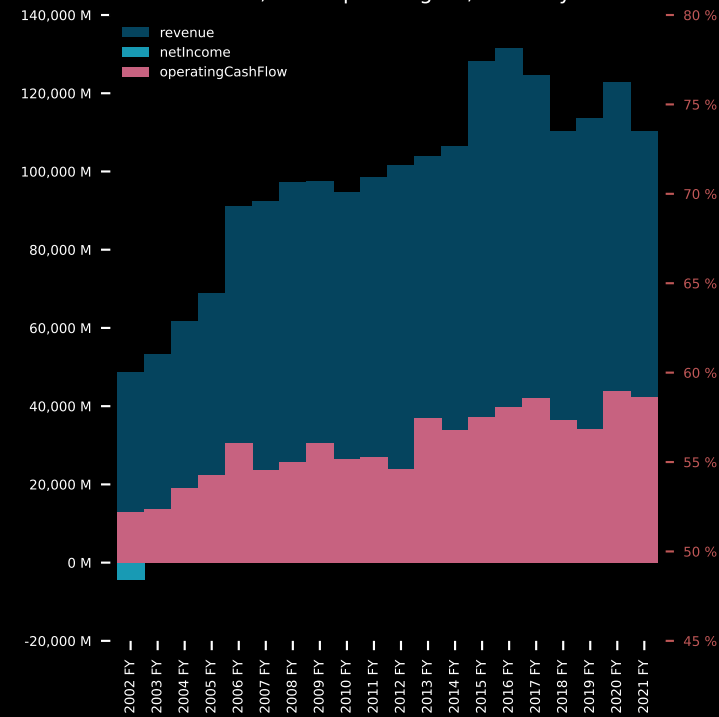
Sales, NI &amp; Operating CF, quarterly



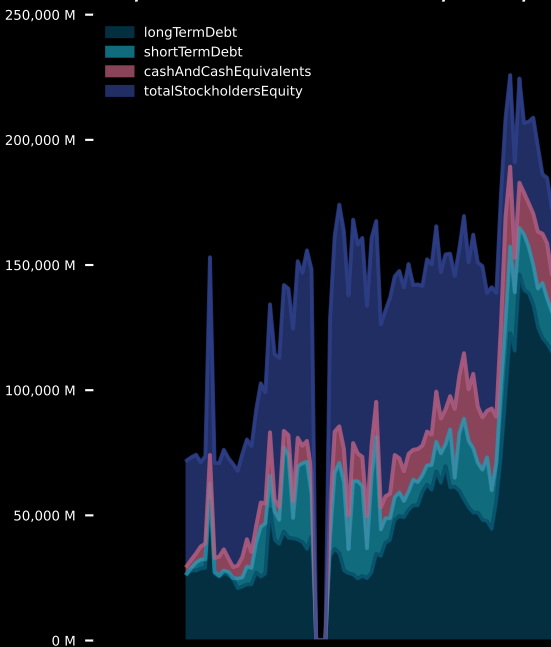
Price vs shares outstanding, quarterly



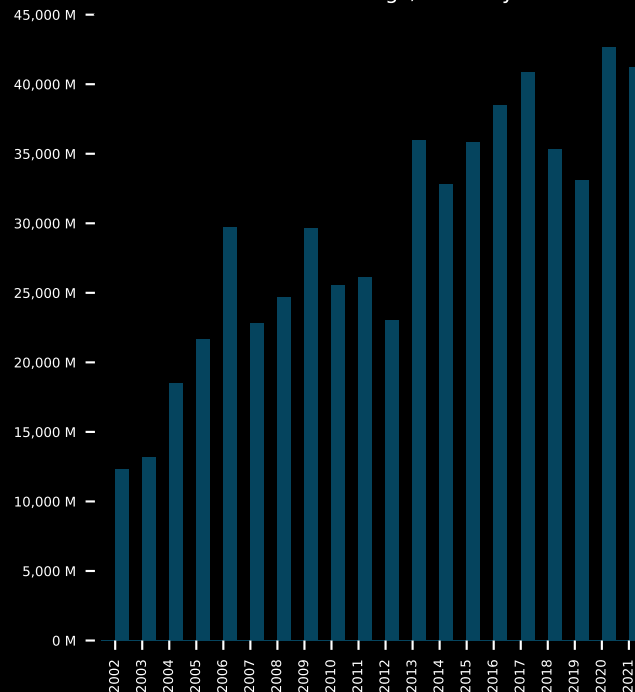
Sales, NI &amp; Operating CF, annually



TEL.OL / Telecom Services / NO / 2022-08-23

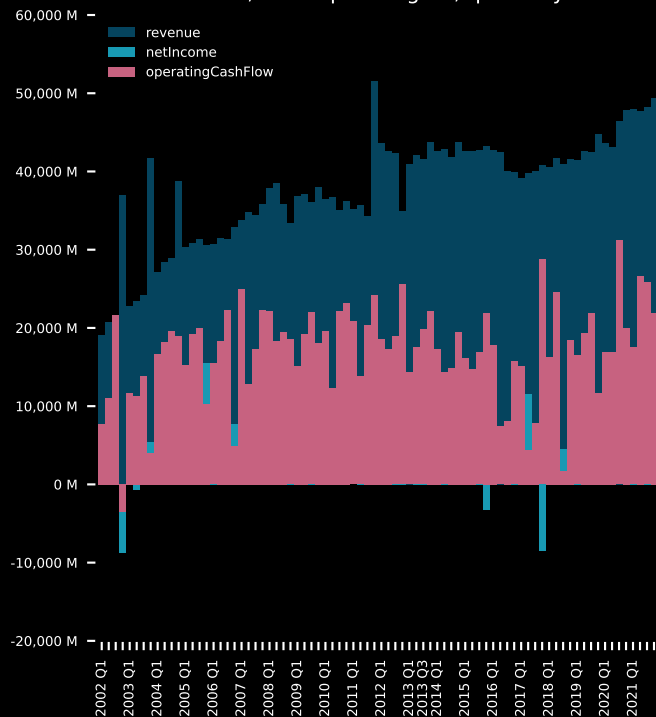


Owners Earnings, annually

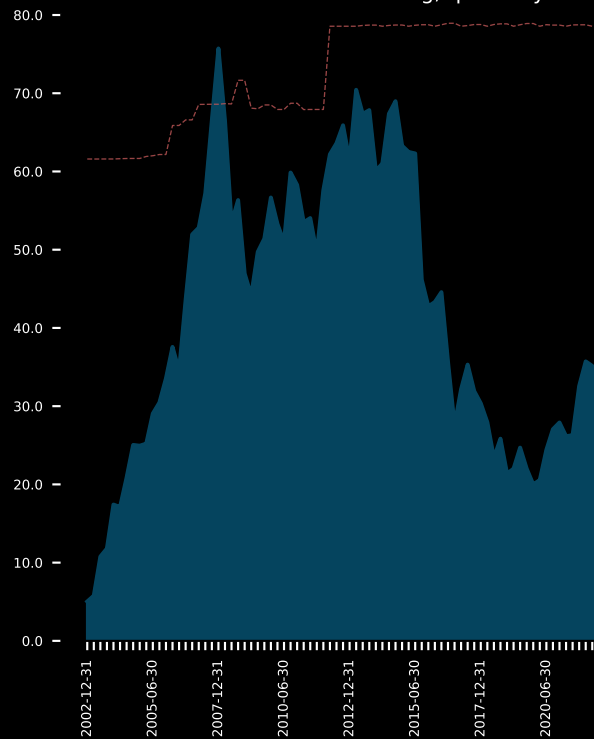


*Telenor ASA, together with its subsidiaries, operates as a telecommunication company worldwide. Its principal products and services include mobile communication, fixed line communication, and broadcasting services. The company's mobile communication services comprise voice, data, Internet, and content services, as well as customer equipment and messaging. Its fixed line services consist of telephony, Internet and TV, and leased lines, as well as data and managed services; and broadcasting and data communication services through satellite, terrestrial radio, and TV transmission. The company also provides machine-to-machine communication, as well as internet based services and financial services. Telenor ASA was founded in 1855 and is headquartered in Fornebu, Norway.*

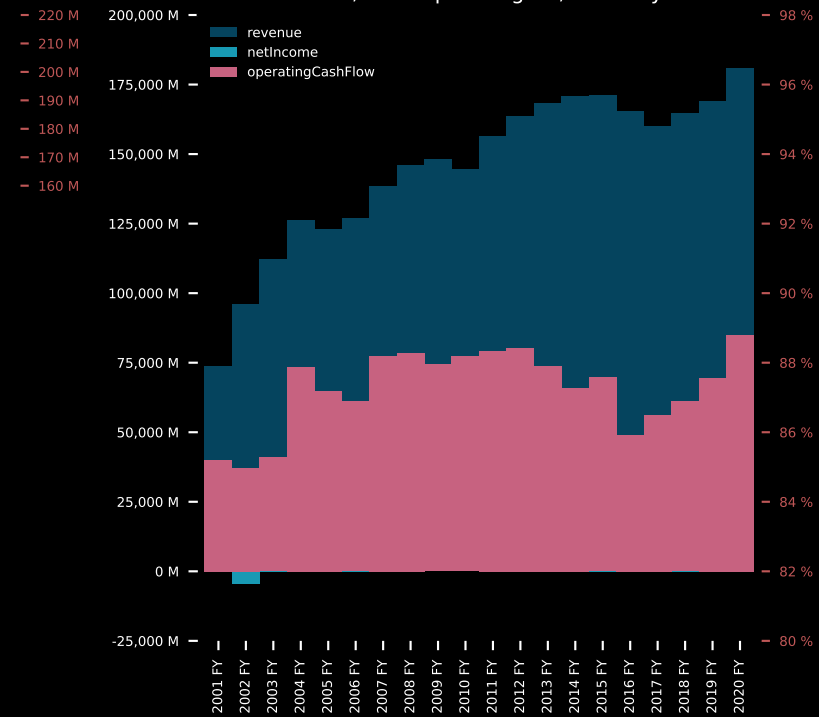
Sales, NI &amp; Operating CF, quarterly



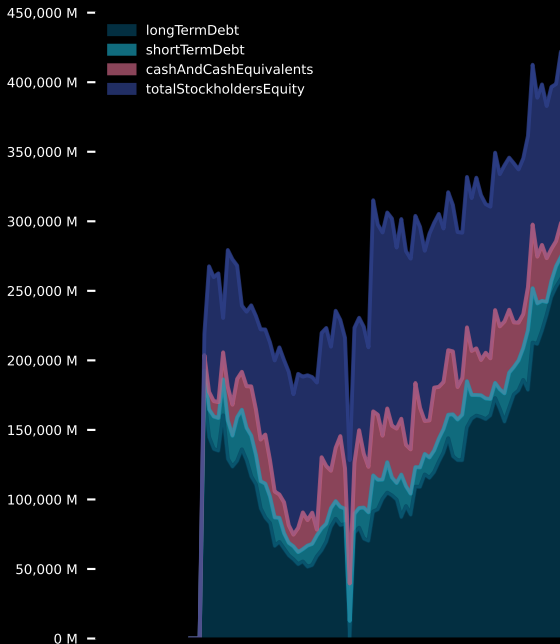
Price vs shares outstanding, quarterly



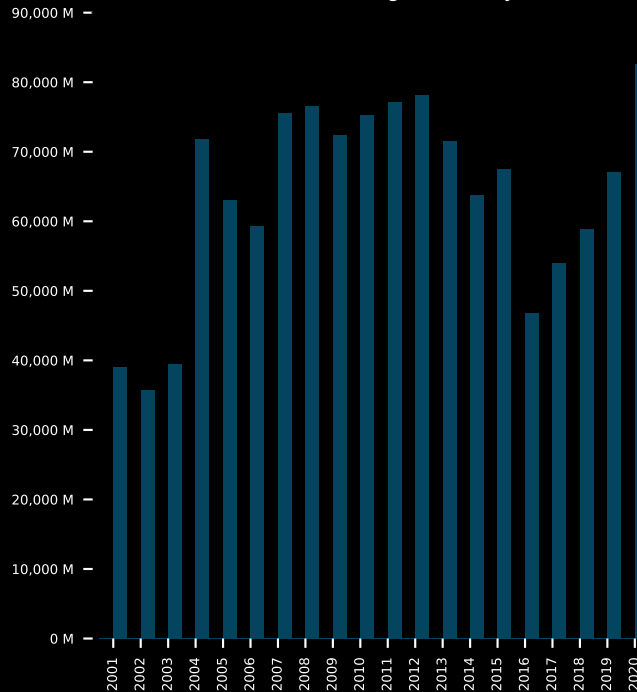
Sales, NI &amp; Operating CF, annually



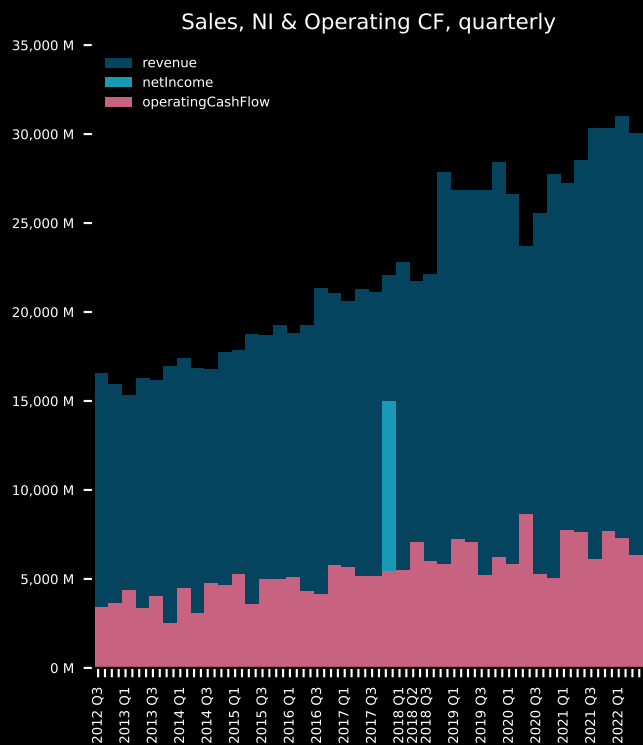
PHI / Telecom Services / PH / 2022-08-23



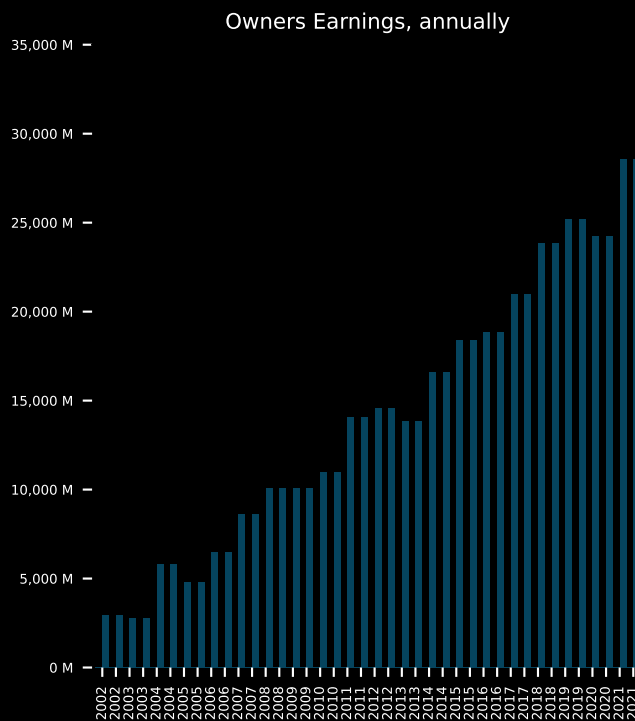
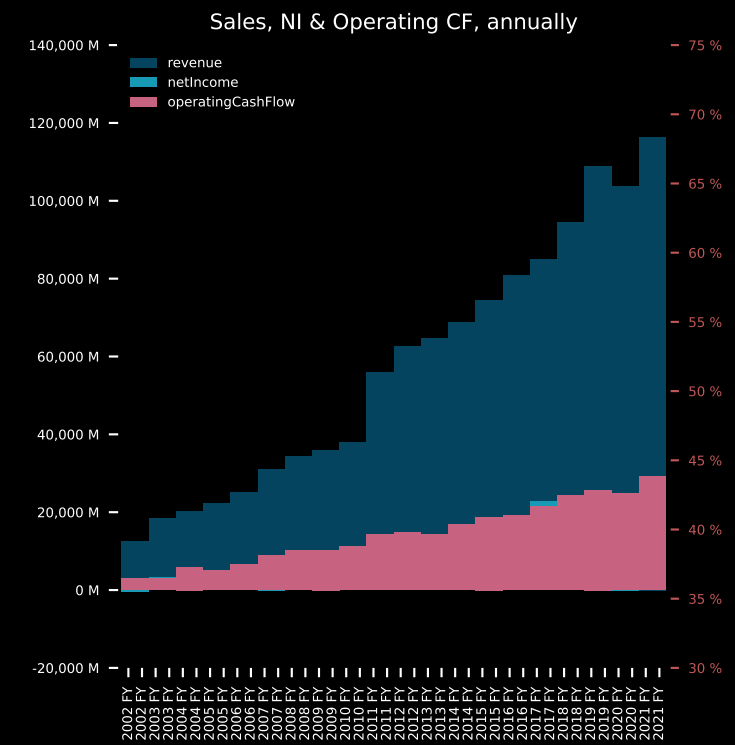
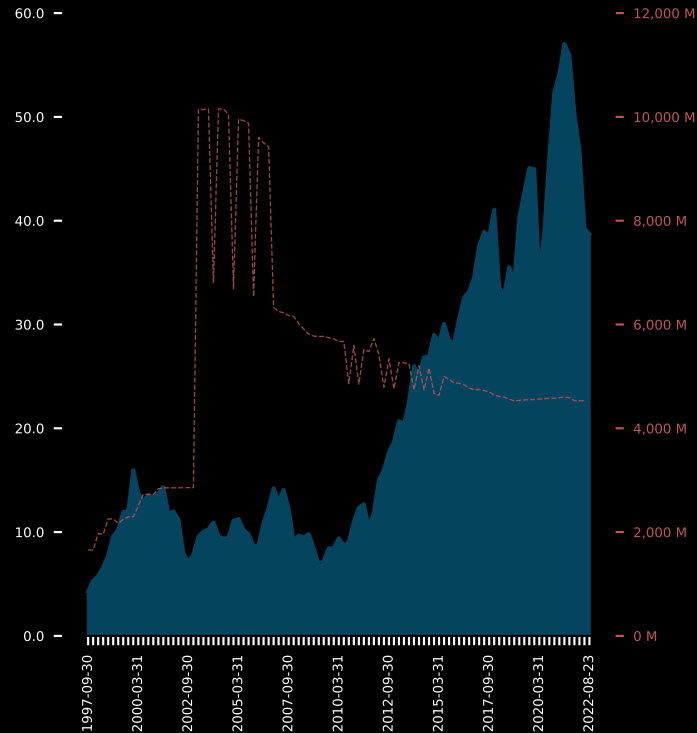
Owners Earnings, annually



*PLDT Inc. provides telecommunications and digital services in the Philippines. It operates through three segments: Wireless, Fixed Line, and Others. The company offers cellular mobile, Internet broadband distribution, operations support, software development, and satellite information and messaging services; and sells Wi-Fi access equipment. It also provides fixed line telecommunications services; business infrastructure and solutions; intelligent data processing and implementation, and data analytics insight generation services; and information and communications infrastructure for Internet-based services, e-commerce, customer relationship management, and information technology (IT) related services. In addition, the company offers managed IT outsourcing, Internet-based purchasing, IT consulting and professional, bills printing and other related value-added, and air transportation services; distributes Filipino channels and content services; and provides full-services customer rewards and loyalty programs. Further, it engages in the sale of mobile handsets, broadband data routers, tablets, and*



## CMCSA / Telecom Services / US / 2022-08-23

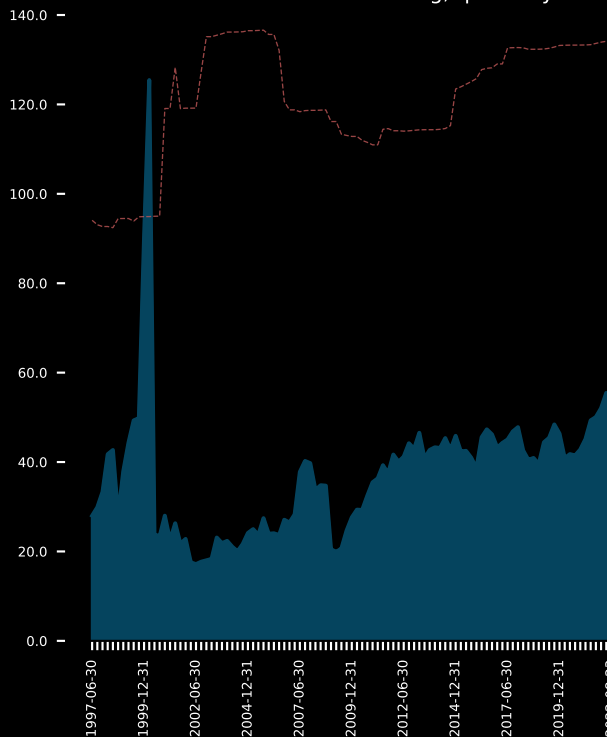


Comcast Corporation operates as a media and technology company worldwide. It operates through Cable Communications, Media, Studios, Theme Parks, and Sky segments. The Cable Communications segment offers broadband, video, voice, wireless, and other services to residential and business customers under the Xfinity brand; and advertising services. The Media segment operates NBCUniversal's television and streaming platforms, including national, regional, and international cable networks, the NBC and Telemundo broadcast, and Peacock networks. The Studios segment operates NBCUniversal's film and television studio production and distribution operations. The Theme Parks segment operates Universal theme parks in Orlando, Florida; Hollywood, California; Osaka, Japan; and Beijing, China. The Sky segment offers direct-to-consumer services, such as video, broadband, voice and wireless phone services, and content business operates entertainment networks, the Sky News broadcast network, and Sky Sports networks. The company also owns the Philadelphia Flyers, as well as the Wells Fargo Center arena in Philadelphia, Pennsylvania, and the Philadelphia Eagles, an NFL team.

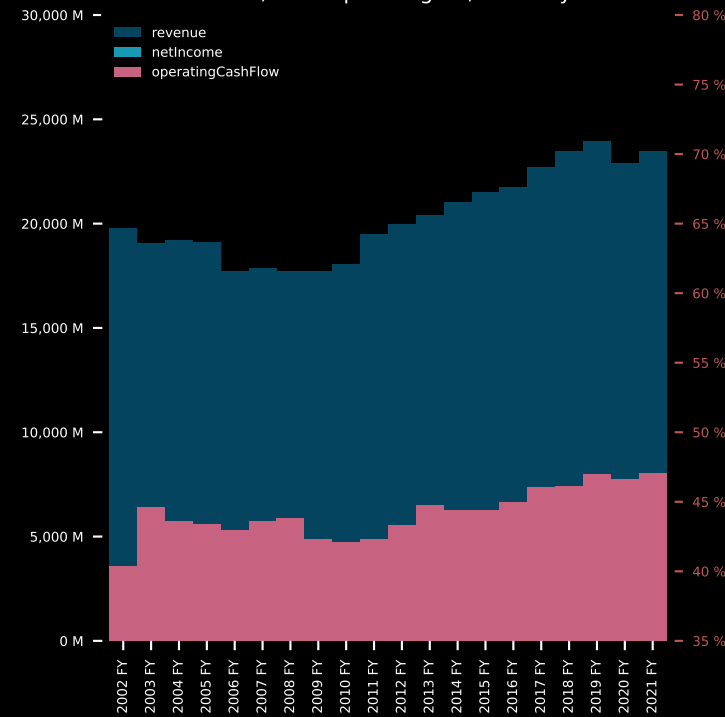
Sales, NI &amp; Operating CF, quarterly



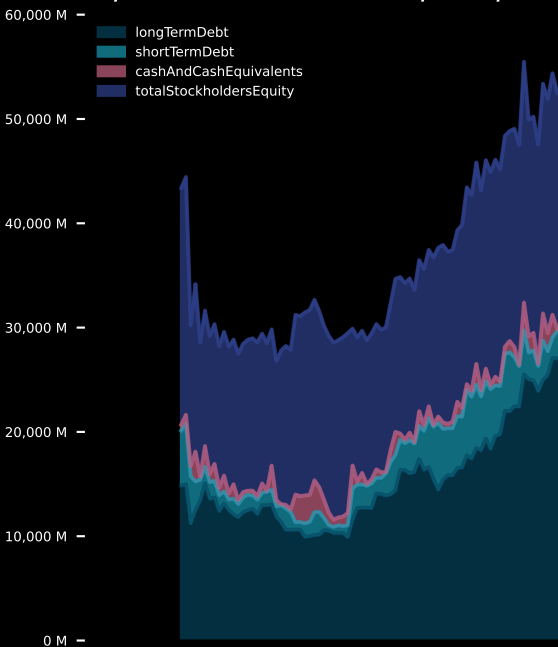
Price vs shares outstanding, quarterly



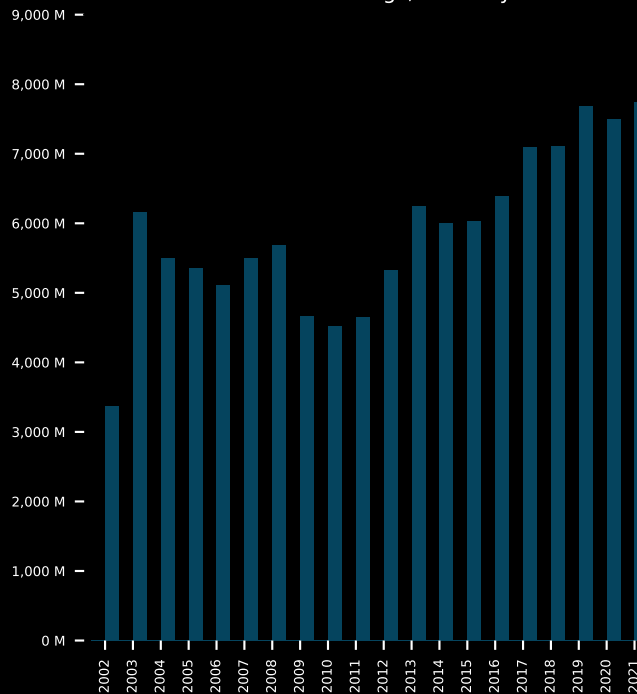
Sales, NI &amp; Operating CF, annually



BCE / Telecom Services / CA / 2022-08-23



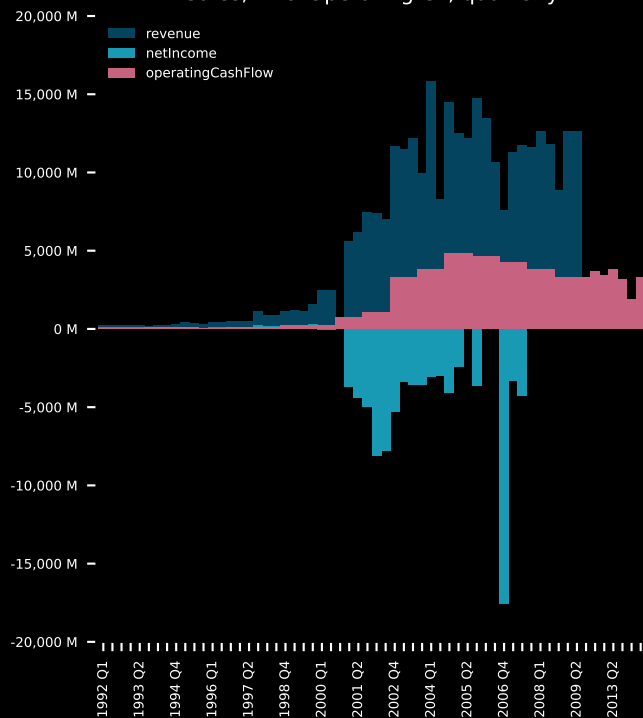
Owners Earnings, annually



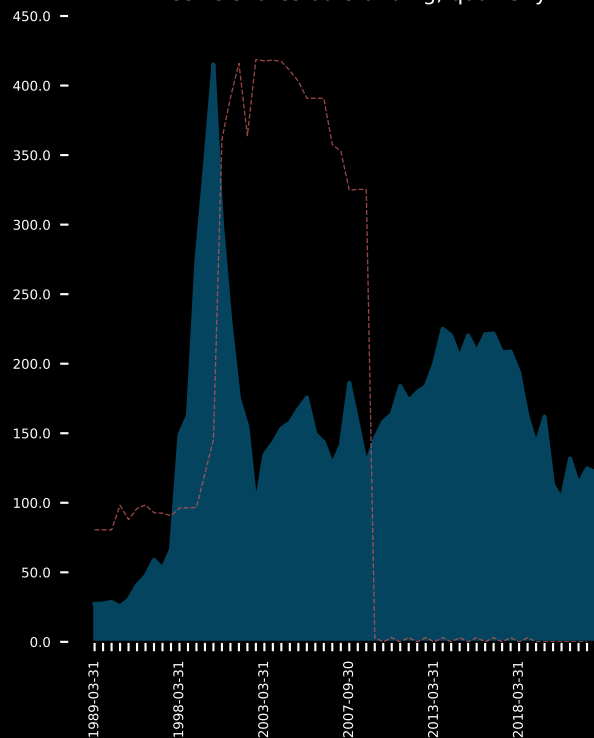
*BCE Inc. operates as a telecommunications and media company in Canada. The company offers wireless, wireline, Internet, and television (TV) services to residential, business, and wholesale customers. It operates through three segments: Bell Wireless, Bell Wireline, and Bell Media. The Bell Wireless segment provides wireless voice and data communication products and services, and consumer electronics products. The Bell Wireline segment offers data, including internet access and Internet protocol television (IPTV), local telephone, long distance, as well as other communication services and products. This segment also buys and sells local telephone, long distance, data, and other services from or to resellers and other carriers. The Bell Media segment provides conventional TV, specialty TV, pay TV, streaming services, digital media services, radio broadcasting services, and out-of-home (OOH) advertising services. It owns and operates 35 conventional TV stations; 27 specialty channels and four Pay TV services; four direct-to-consumer streaming services; 109 licensed radio stations; and websites. The company was formerly known as Bell Canada Enterprises Inc. BCE Inc. was incorporated in 1979 and is headquartered in Ottawa, Ontario.*



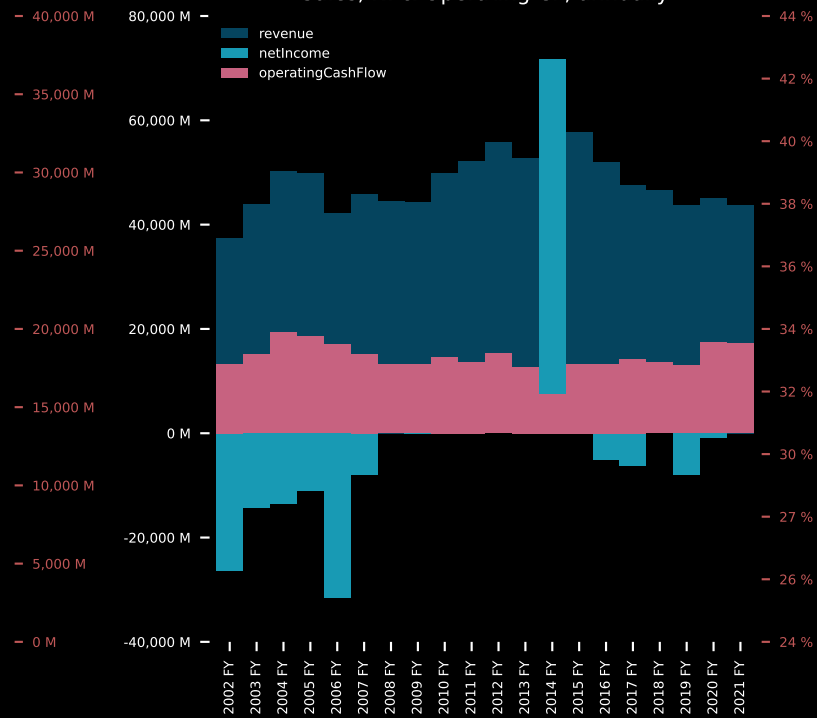
Sales, NI &amp; Operating CF, quarterly



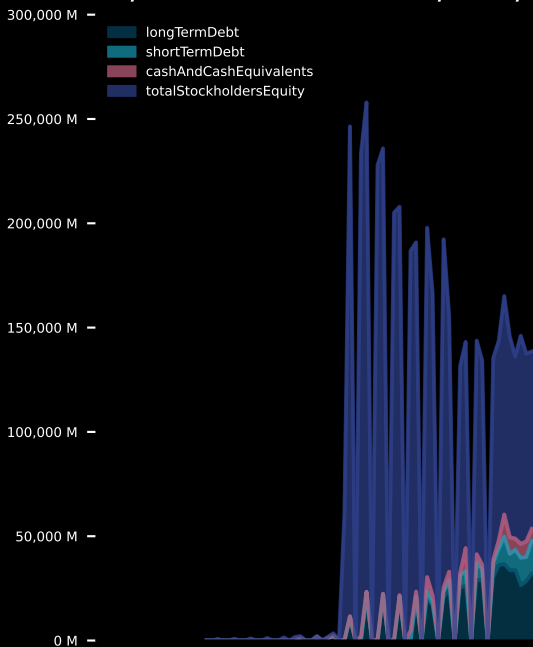
Price vs shares outstanding, quarterly



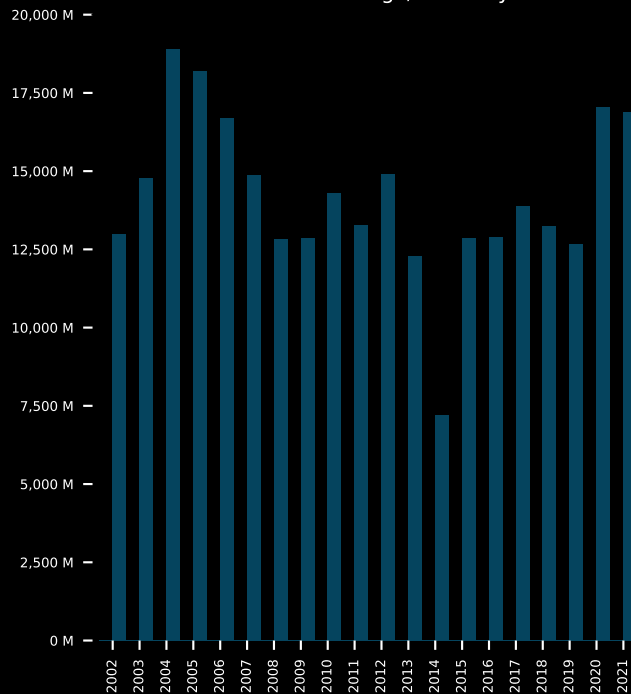
Sales, NI &amp; Operating CF, annually



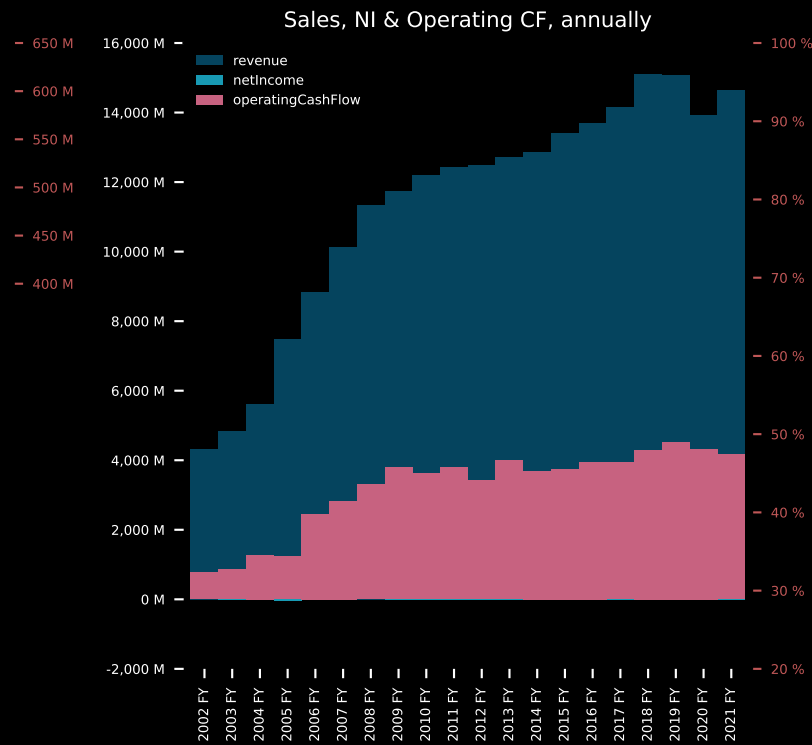
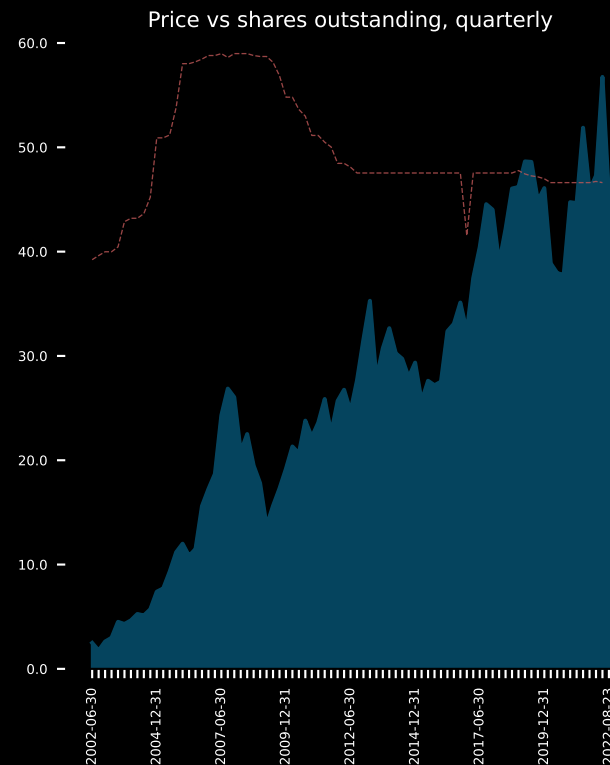
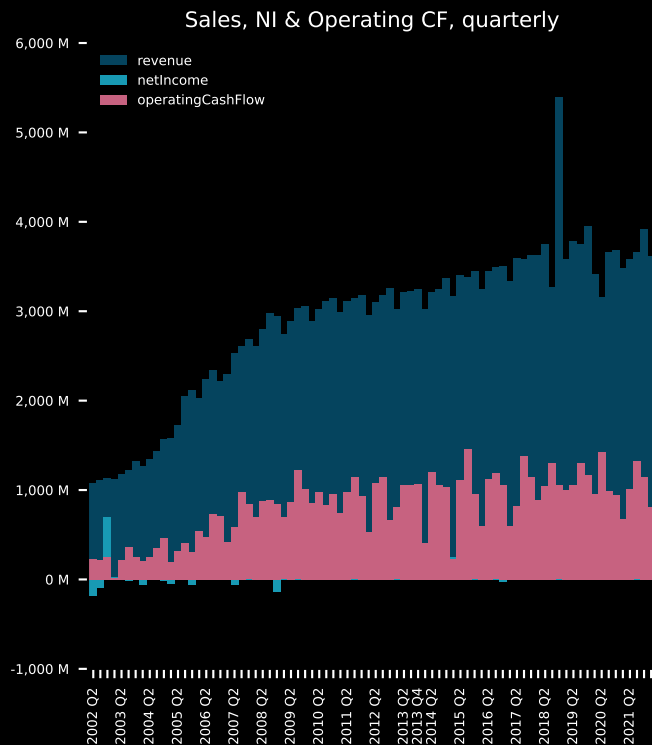
## VOD.L / Telecom Services / GB / 2022-08-23



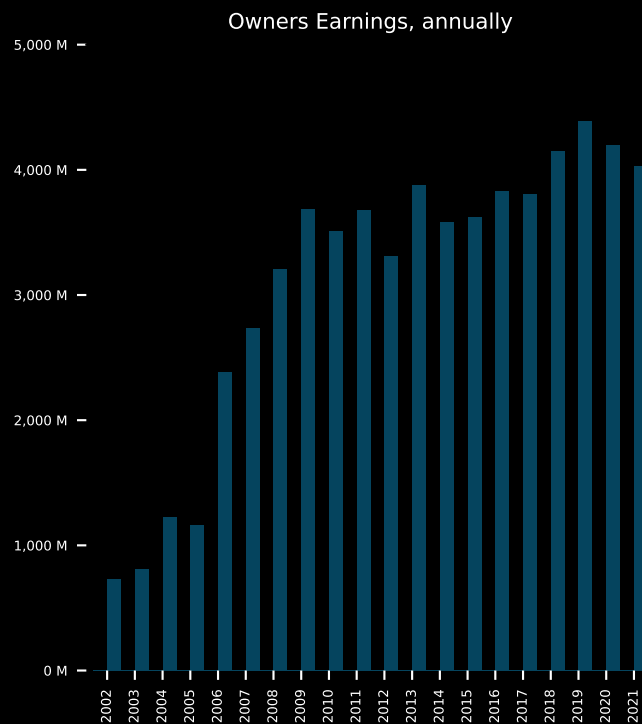
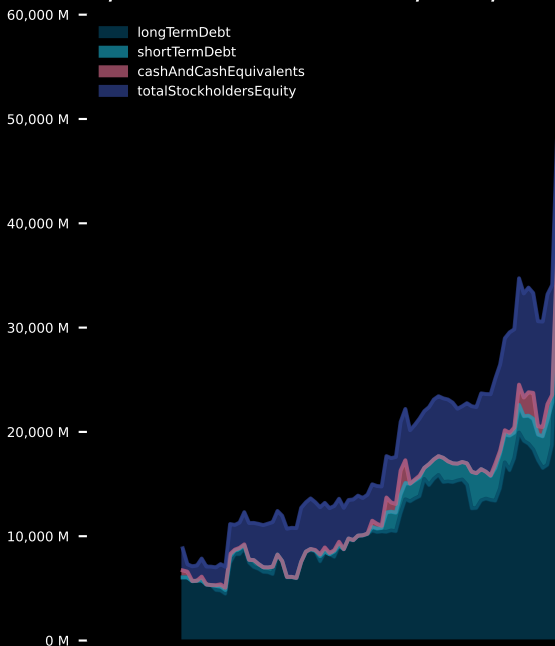
Owners Earnings, annually



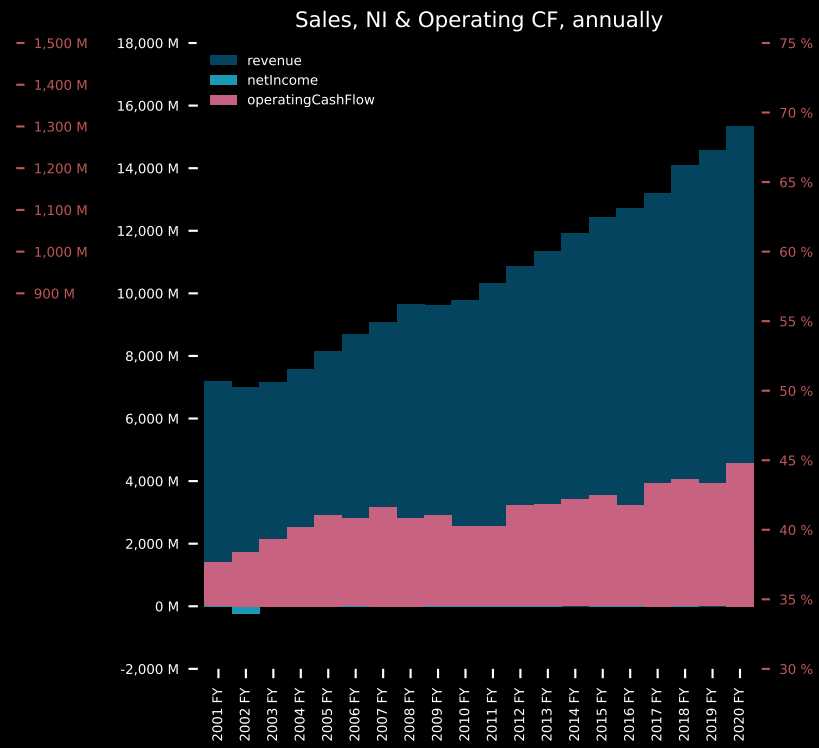
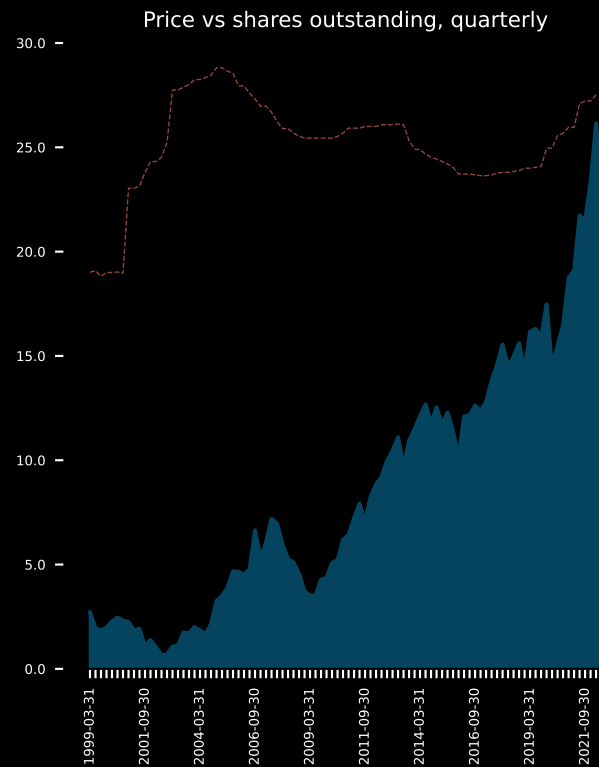
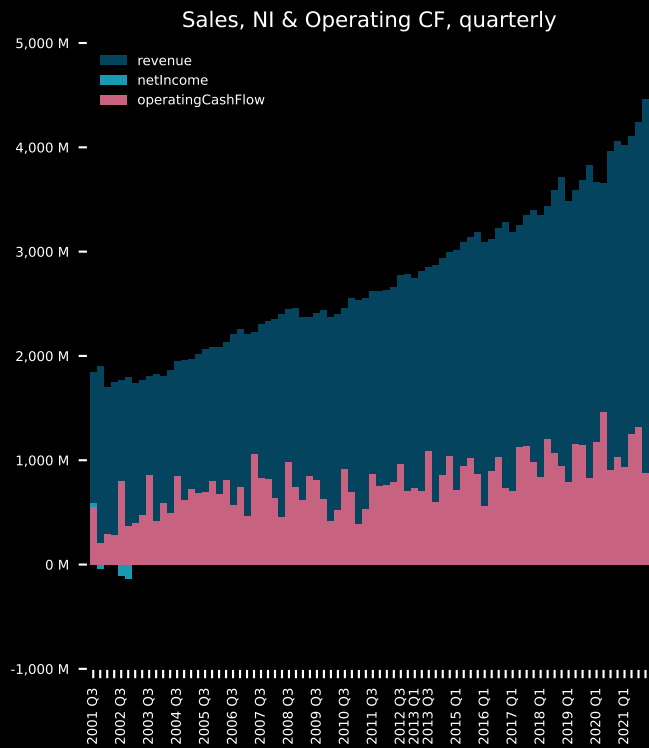
Vodafone Group Public Limited Company engages in telecommunication services in Europe and internationally. The company offers mobile services that enable customers to call, text, and access data; fixed line services, including broadband, television (TV) offerings, and voice; and convergence services under the GigaKombi and Vodafone One names to customers. It also provides value added services, such as Internet of Things (IoT) comprising logistics and fleet management, smart metering, insurance, cloud, and security services; and automotive and health solutions. In addition, the company offers M-Pesa, an African payment platform, which provides money transfer, financial, and business and merchant payment services; and various services to operators through its partner market agreements. Vodafone Group Public Limited Company has a strategic partnership with Open Fiber. As of March 31, 2021, it had approximately 315 million mobile customers, 28 million fixed broadband customers, and 22 million TV customers. The company was incorporated in 1984 and is based in Newbury, the United Kingdom.



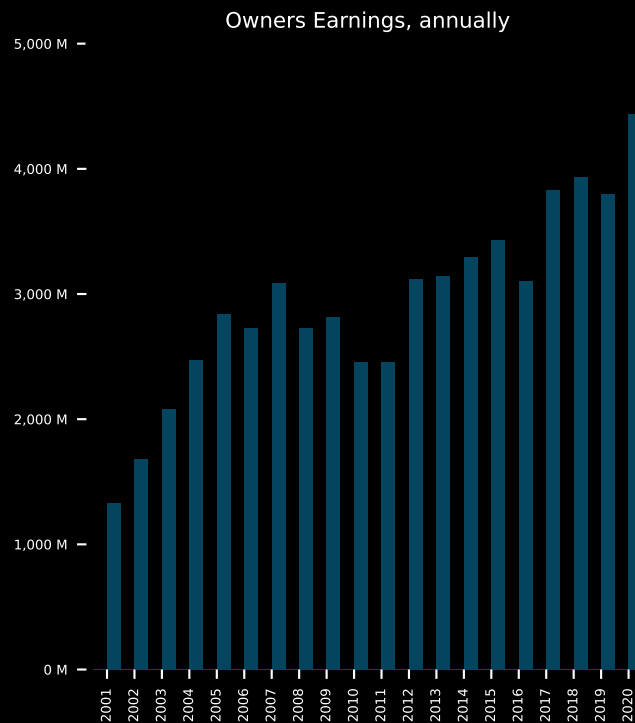
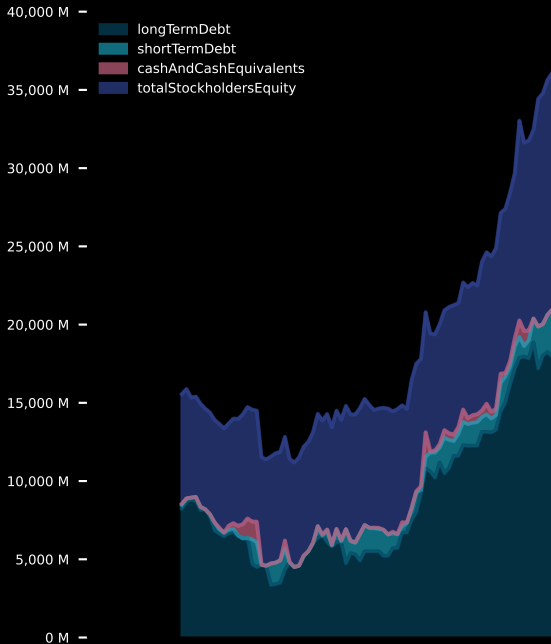
## RCI / Telecom Services / CA / 2022-08-23



*Rogers Communications Inc. operates as a communications and media company in Canada. It operates through three segments: Wireless, Cable, and Media. The company offers mobile Internet access, wireless voice and enhanced voice, device and accessory financing, wireless home phone, device protection, e-mail, global voice and data roaming, bridging landline, machine-to-machine and Internet of Things solutions, and advanced wireless solutions for businesses, as well as device delivery services; and postpaid and prepaid services under the Rogers, Fido, and chatr brands to approximately 11.3 million subscribers. It also provides Internet and WiFi services; smart home monitoring services, such as monitoring, security, automation, energy efficiency, and smart control through a smartphone app. In addition, the company offers local and network TV; on-demand television; cloud-based digital video recorders; voice-activated remote controls, and integrated apps; personal video recorders; linear and time-shifted programming; digital specialty channels; 4K television programming; and televised content on smartphones, tablets, and*



## TU / Telecom Services / CA / 2022-08-23

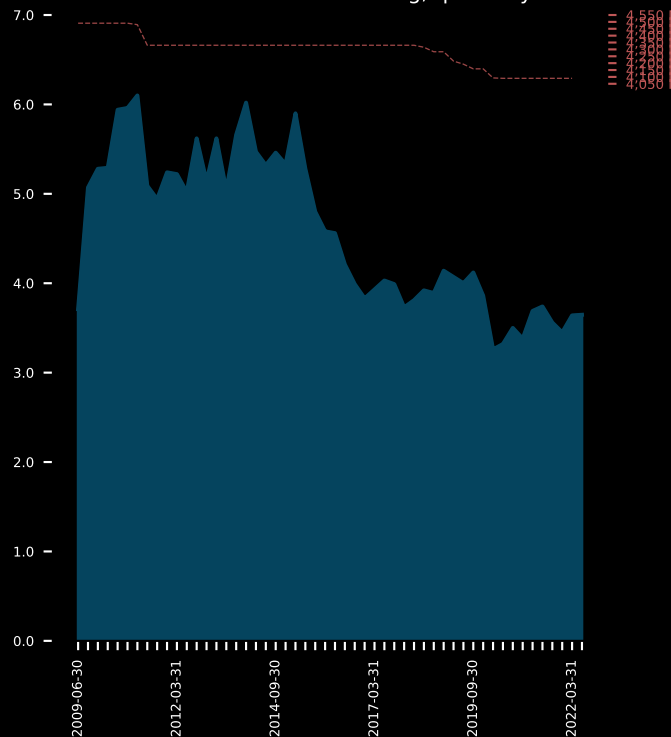


TELUS Corporation, together with its subsidiaries, provides a range of telecommunications and information technology products and services in Canada. It operates through Technology Solutions and Digitally-Led Customer Experiences segments. The Technology Solutions segment offers a range of telecommunications products and services; network revenue; equipment sales from mobile technologies; data services revenues, such as internet protocol; television; hosting, managed information technology, and cloud-based services; customer care and business services; healthcare solutions; and home and business security, agriculture, voice, and other telecommunications services. The Digitally-Led Customer Experiences segment provides digital customer experience and digital-enablement transformation solutions, including artificial intelligence and content management solutions. It has 16.9 million subscriber connections, which include 9.3 million mobile phone subscribers; 2.1 million connected device subscribers; 2.3 million internet subscribers; 1.1 million residential voice subscribers; 1.3 million TV subscribers; and 804,000 security subscribers. The company is headquartered in Calgary, Alberta, Canada.

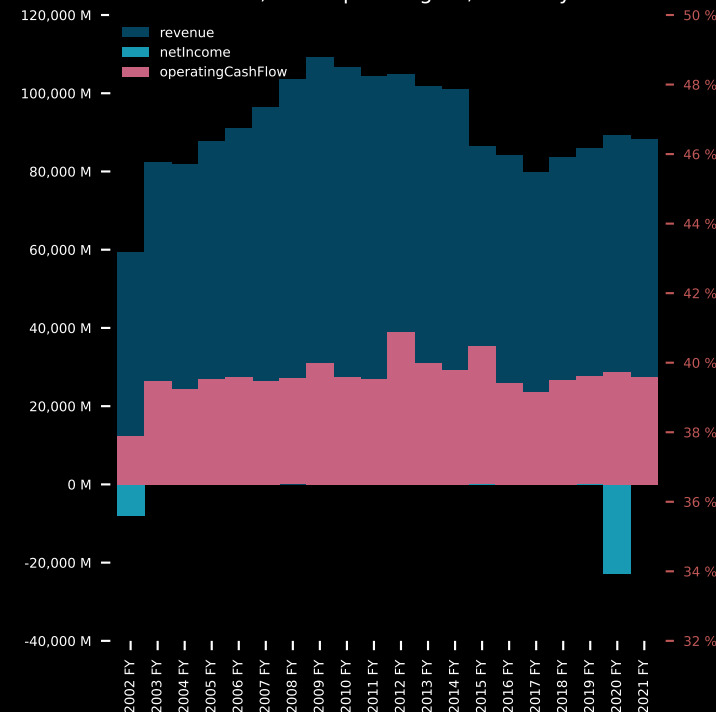
Sales, NI &amp; Operating CF, quarterly



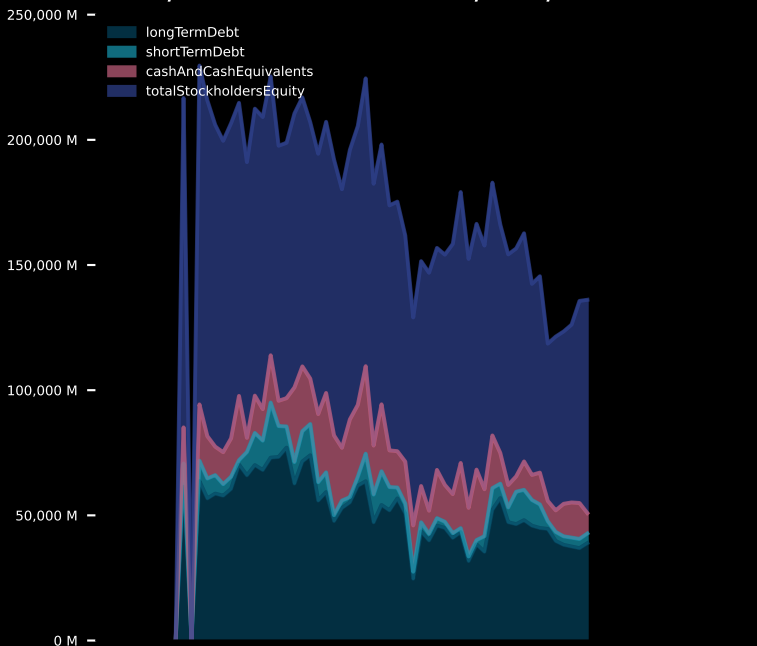
Price vs shares outstanding, quarterly



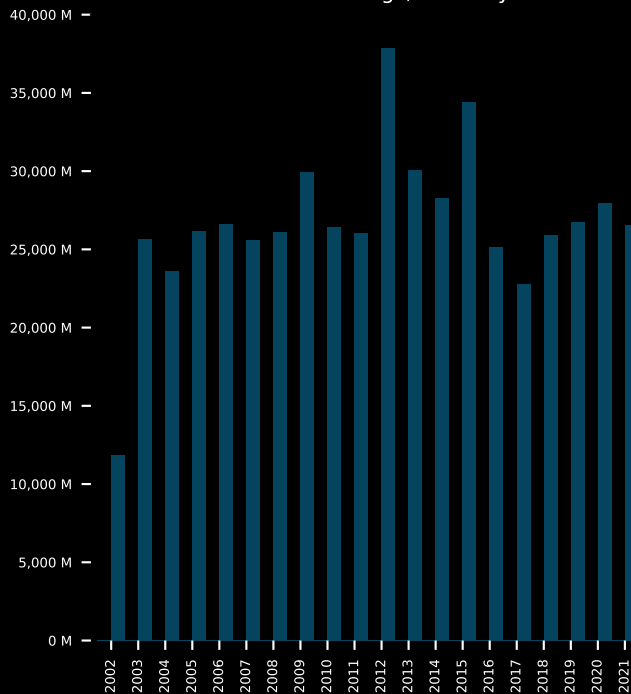
Sales, NI &amp; Operating CF, annually



## TELIA1.HE / Telecom Services / SE / 2022-08-23

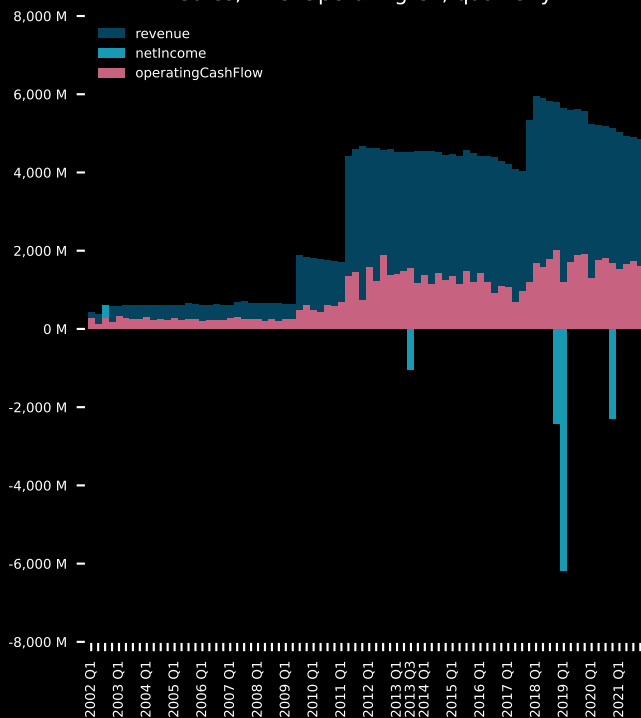


Owners Earnings, annually

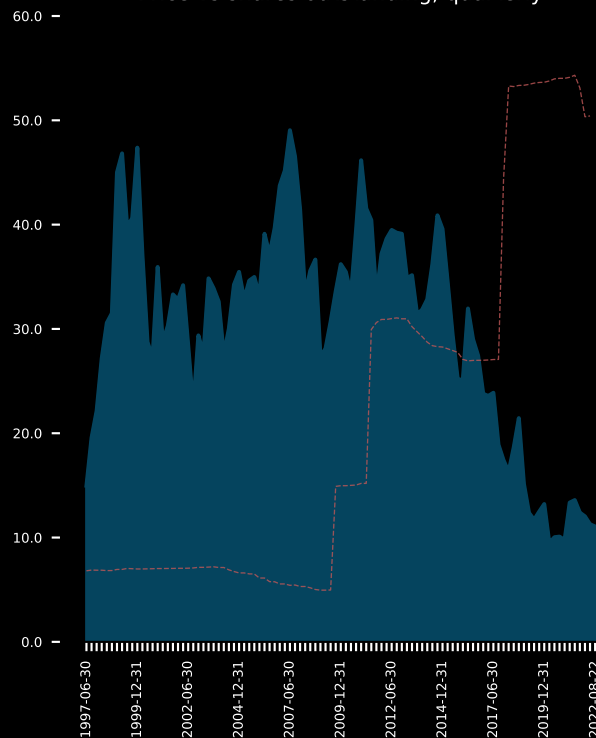


Telia Company AB (publ) provides communication services in Sweden, Finland, Norway, Denmark, Lithuania, Estonia, and Latvia. The company offers mobile, broadband, television, and fixed-line services to businesses, individuals, families, and communities. It provides networking, cloud and security, mobility, enterprise mobile network, contact center, managed mobility services, collaboration solutions, enterprise telephony, Internet of Things (IoT), carrier ethernet, dedicated internet access, wavelengths, IP Transit, dark fiber, colocation, and IoT connectivity solutions, as well as broadcasting and content production services. The company markets its products and services under the Telia, halebop, Fello, TV4, C More, MTV, MyCall, OneCall, Phonero, Call me, Mit tele, Diil, Lmt Okarte, Telia Latvija, Cloudy, Tet, and Ezys brands for logistics, public transport, manufacturing, retail, utilities, building, and public sector industries. It has 18.1 million mobile subscriptions, 1.0 million fixed telephony subscriptions, 2.9 fixed million broadband subscriptions, and 3.4 million TV subscriptions. The company was formerly known as Telia Company AB (publ) until 2021.

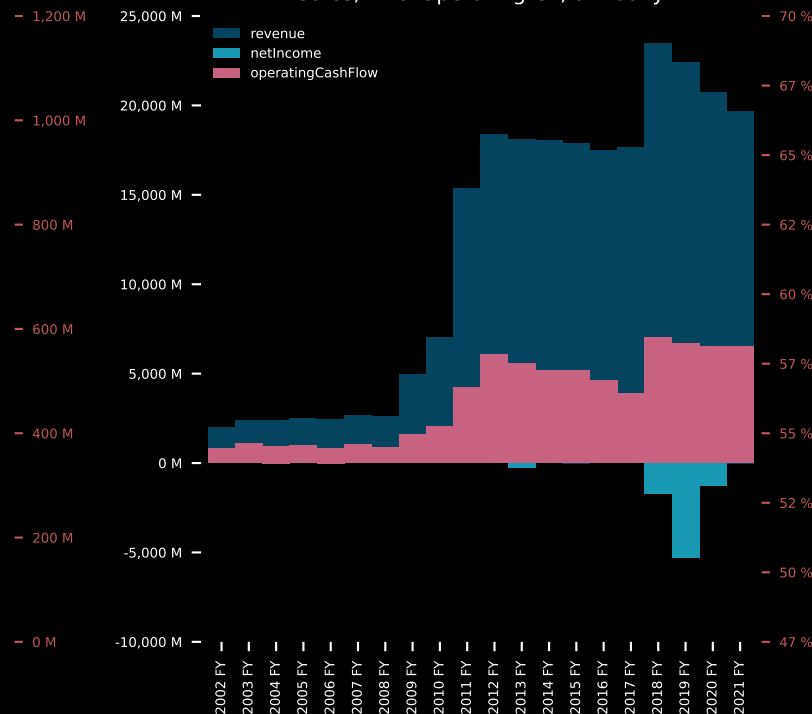
Sales, NI &amp; Operating CF, quarterly



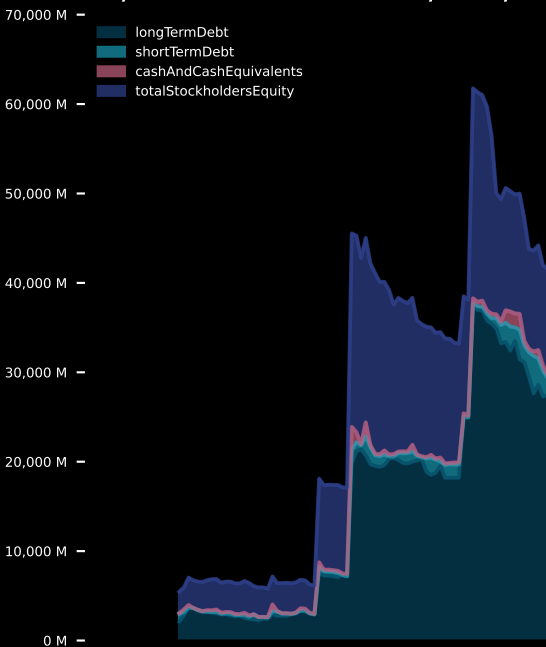
Price vs shares outstanding, quarterly



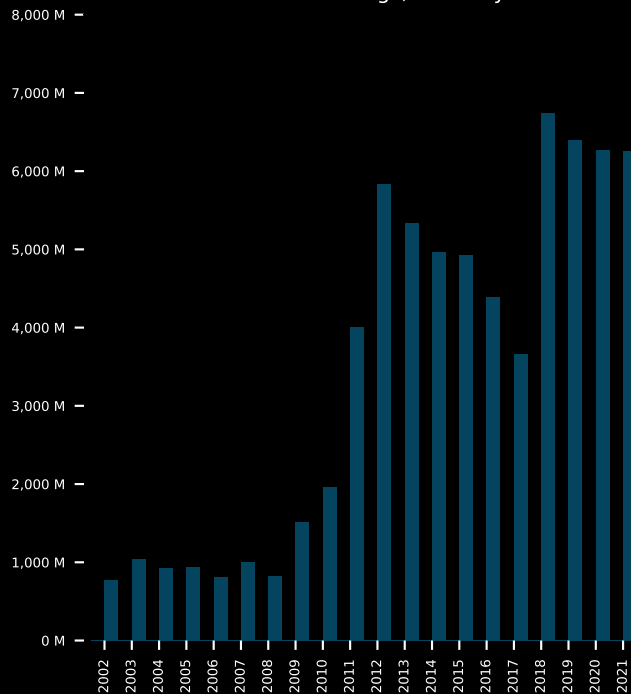
Sales, NI &amp; Operating CF, annually



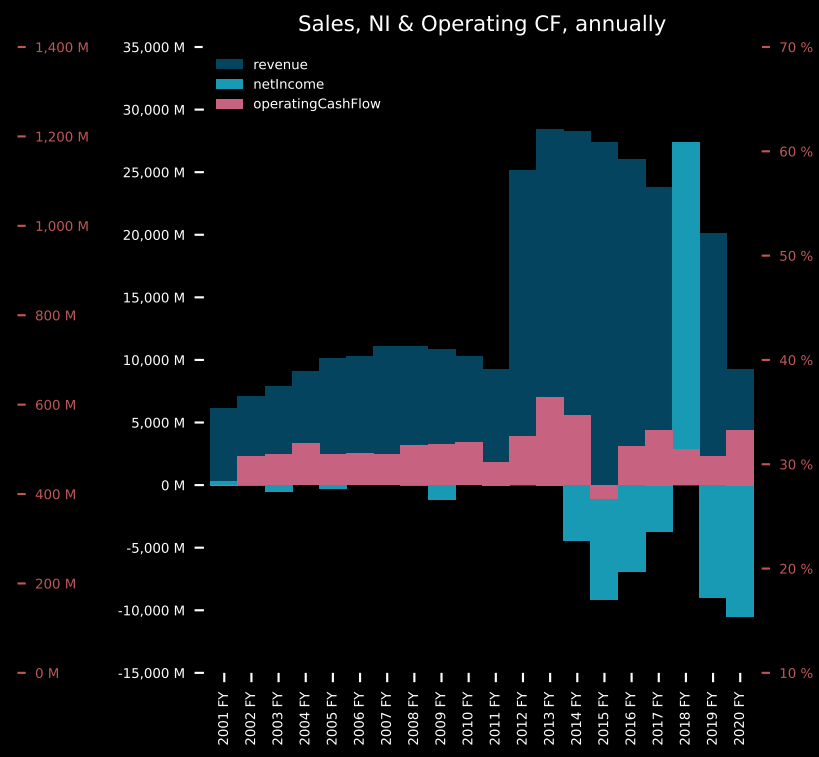
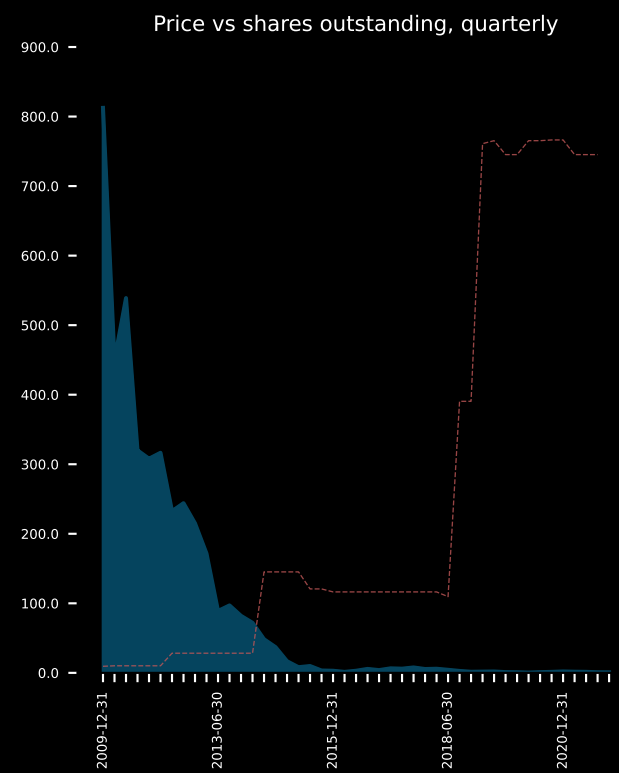
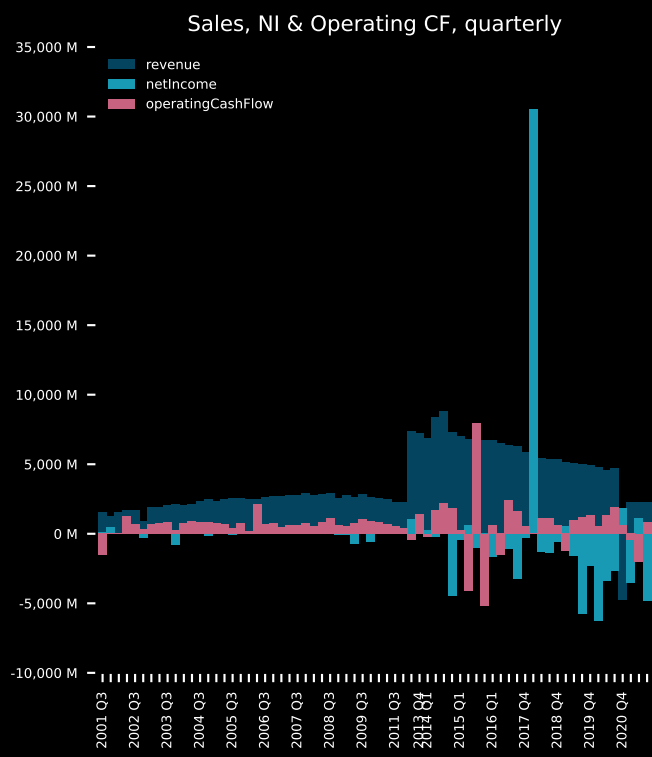
LUMN / Telecom Services / US / 2022-08-22



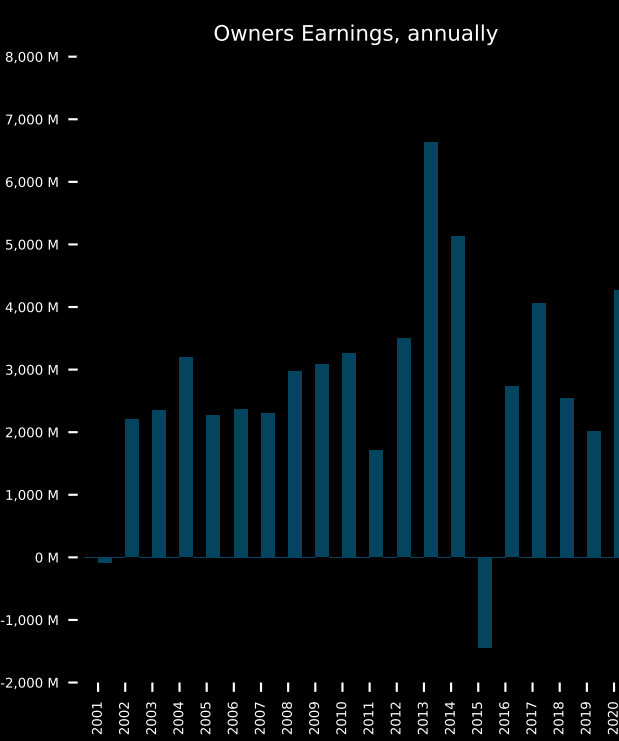
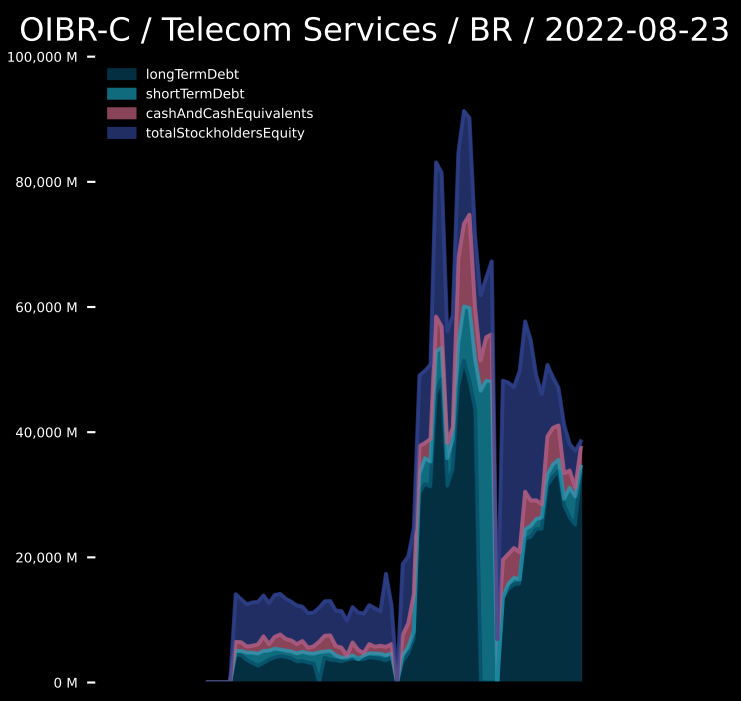
Owners Earnings, annually



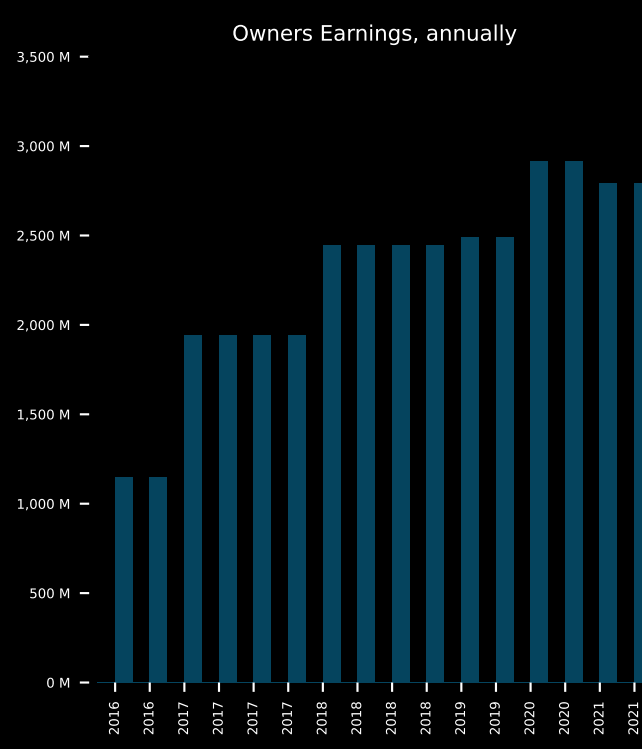
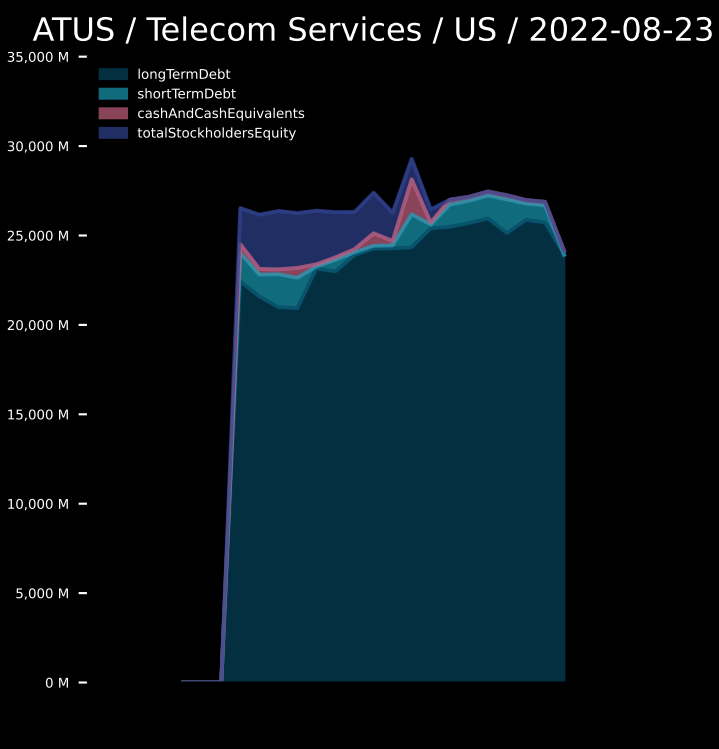
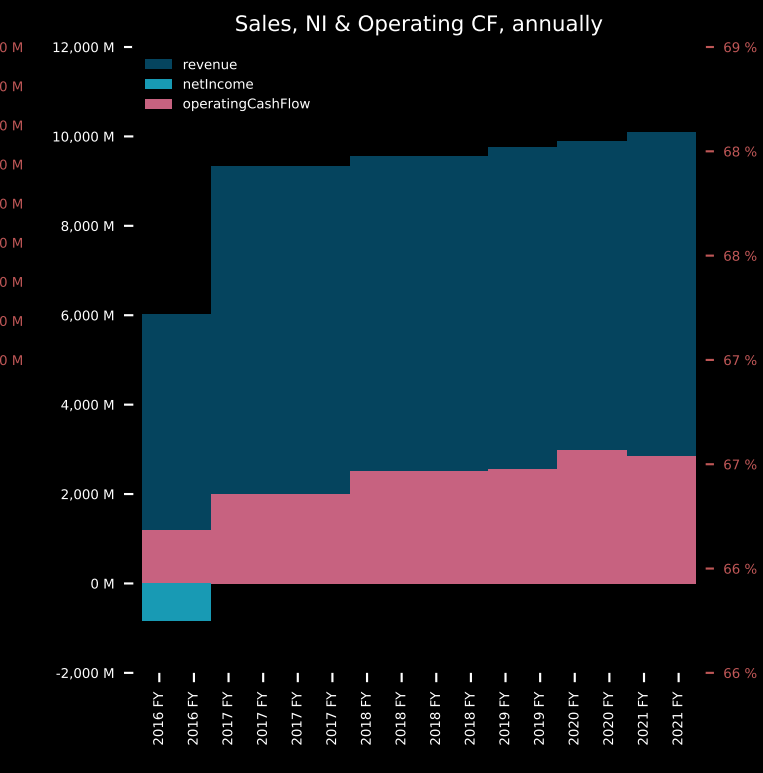
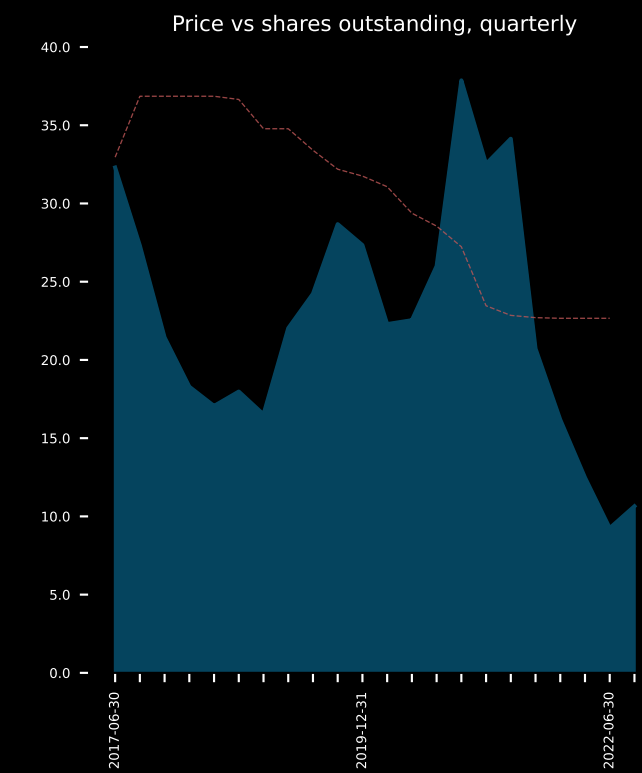
*Lumen Technologies, Inc., a facilities-based technology and communications company, provides various integrated products and services under the Lumen, Quantum Fiber, and CenturyLink brands to business and residential customers in the United States and internationally. The company operates in two segments, Business and Mass Markets. It offers compute and application services, such as cloud services, IT solutions, unified communication and collaboration solutions, colocation and data center services, content delivery services, and managed security services; and IP and data services, including VPN data network, Ethernet, internet protocol (IP), and voice over internet protocol. The company also provides fiber infrastructure services comprising high bandwidth optical wavelength networks; and unlit optical fiber and related professional services. In addition, it offers voice and other services, including private line services, a direct circuit or channel specifically dedicated for connecting two or more organizational sites; a portfolio of traditional time division multiplexing voice services; and synchronous optical network-based*



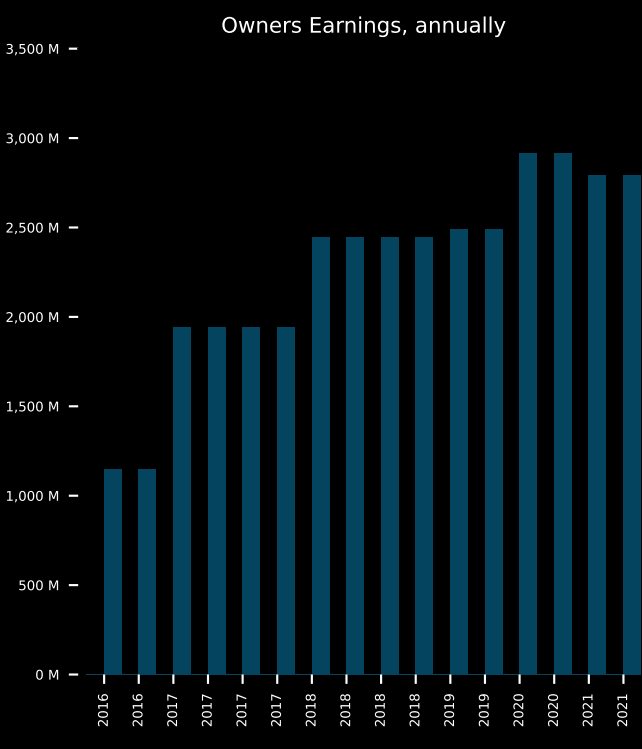
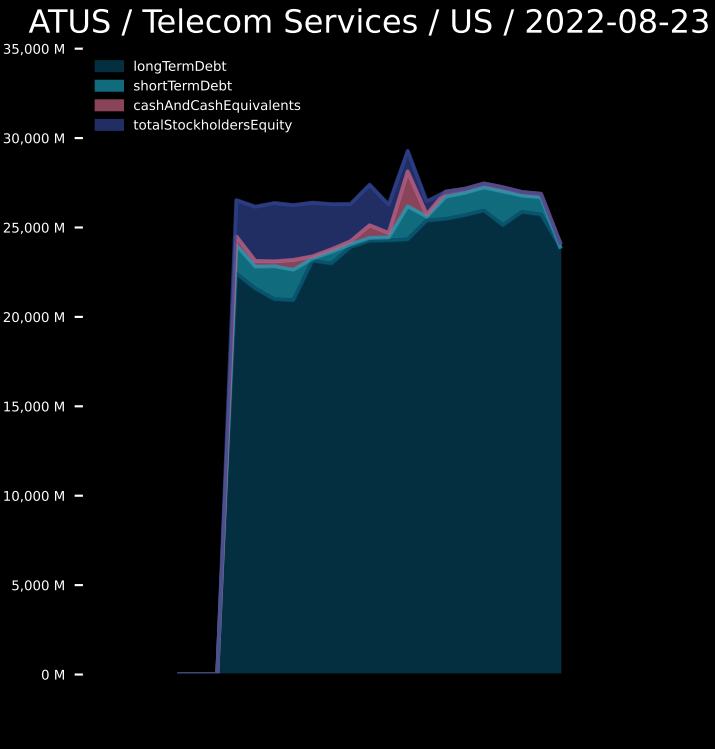
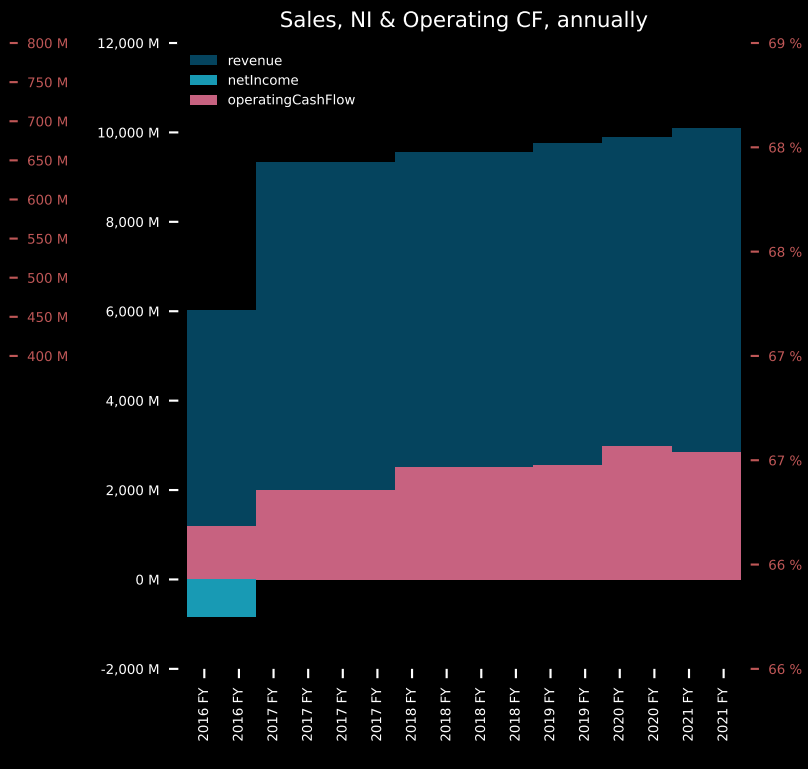
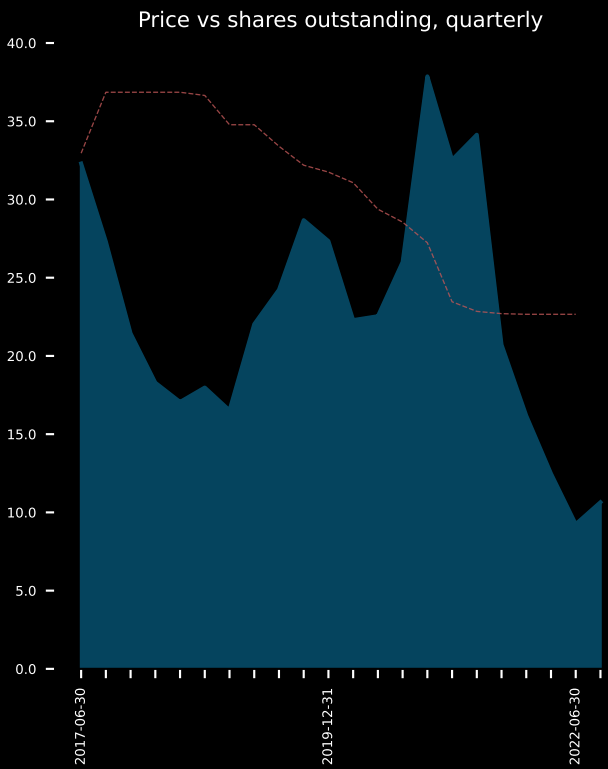
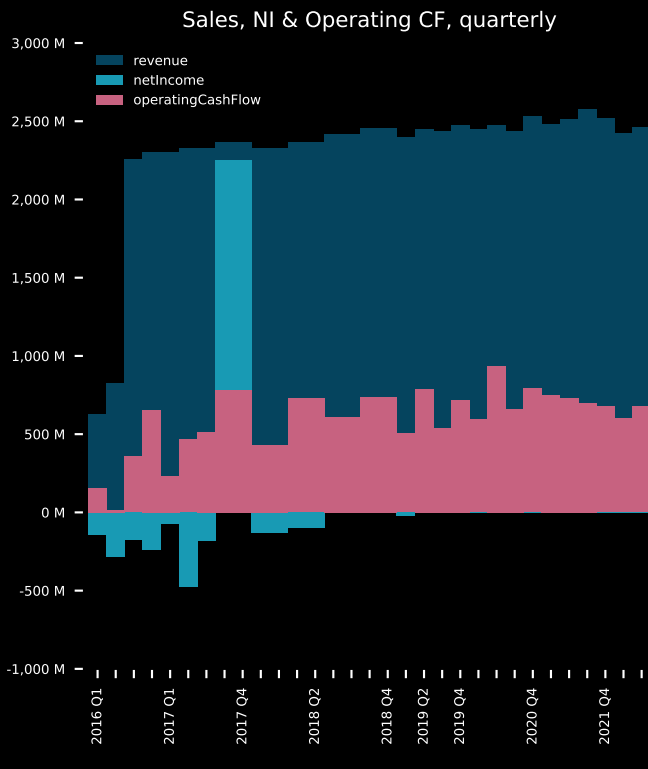
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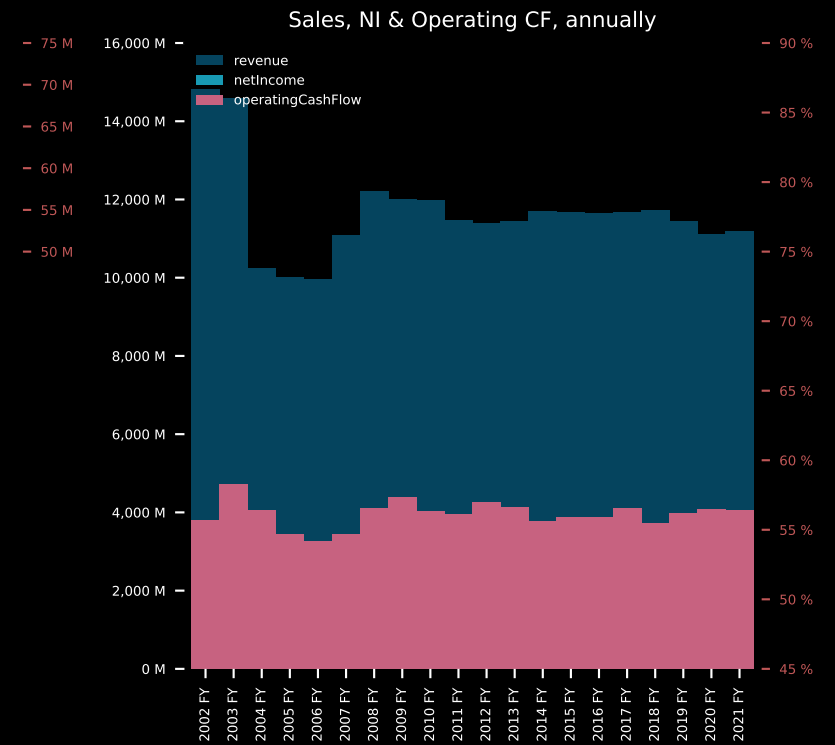
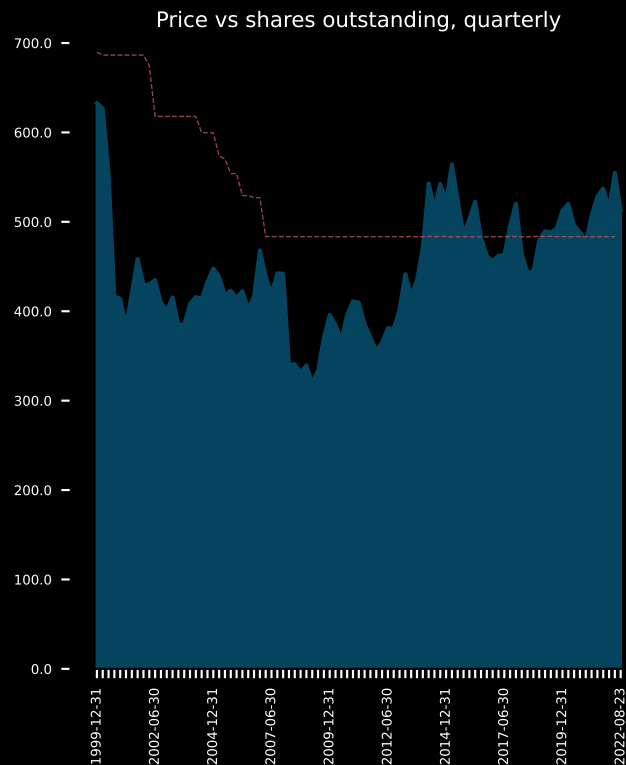
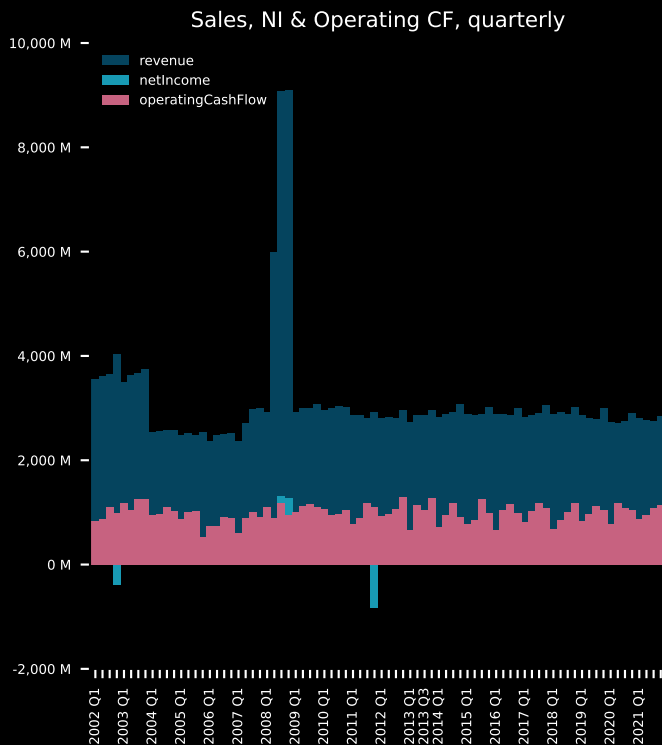




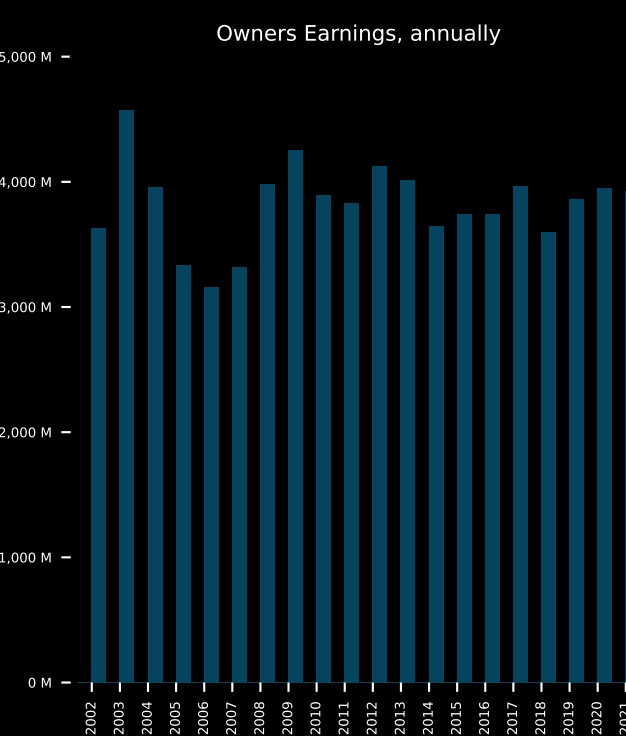
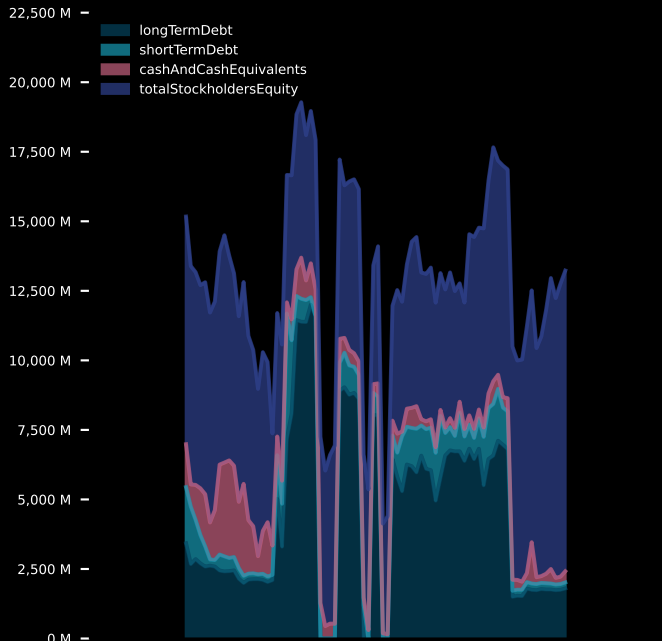
Altice USA, Inc., together with its subsidiaries, provides broadband communications and video services in the United States, Canada, Puerto Rico, and the Virgin Islands. It offers broadband, video, telephony, and mobile services to approximately five million residential and business customers. The company's video services include delivery of broadcast stations and cable networks; over the top services; video-on-demand, high-definition channels, digital video recorder, and pay-per-view services; and platforms for video programming through mobile applications. It also provides voice over Internet protocol telephone services; and mobile services, such as data, talk, and text. In addition, the company offers Ethernet, data transport, IP-based virtual private networks, Internet access, and telephony services; hosted telephony services, managed Wi-Fi, managed desktop and server backup, and collaboration services comprising audio and web conferencing; fiber-to-the-tower services to wireless carriers; data services consisting of wide area networking and dedicated data access, as well as wireless mesh networks; and enterprise class telephone services that include traditional and cloud-based services.



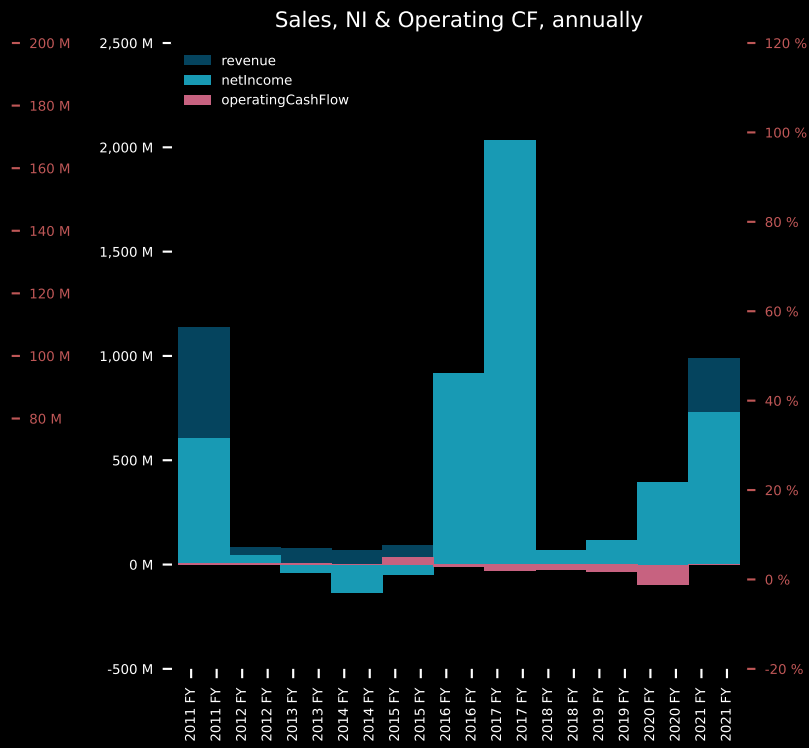
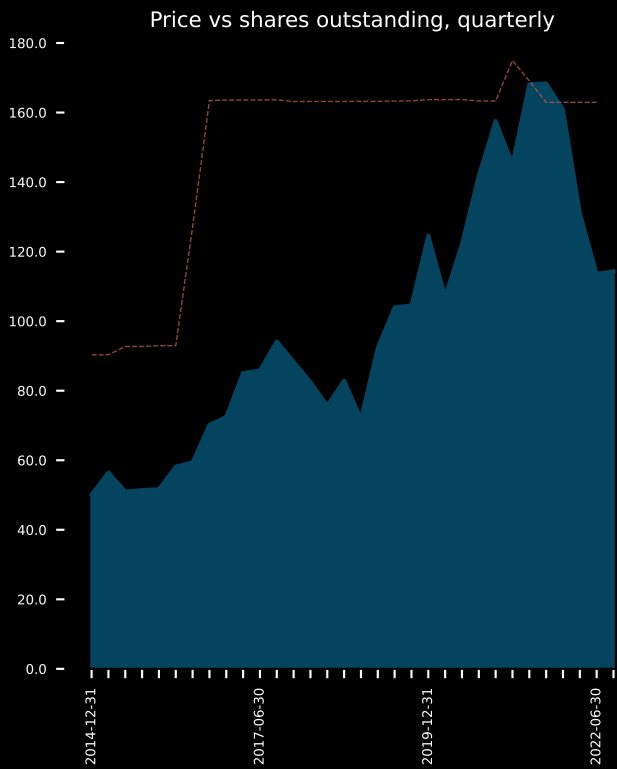
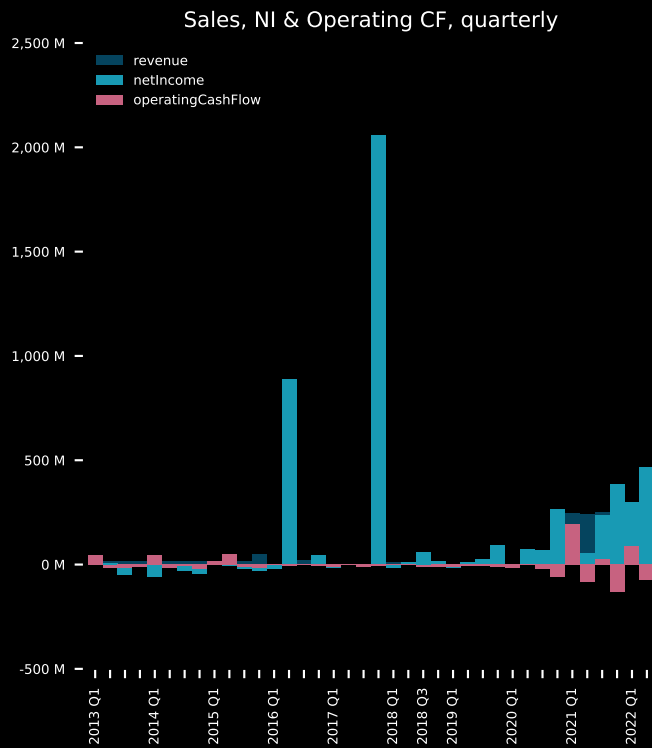
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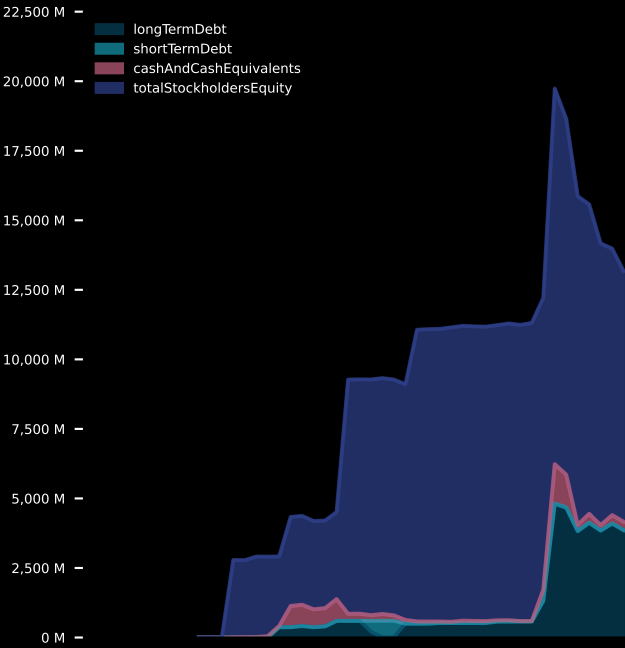
## SCMN.SW / Telecom Services / CH / 2022-08-23



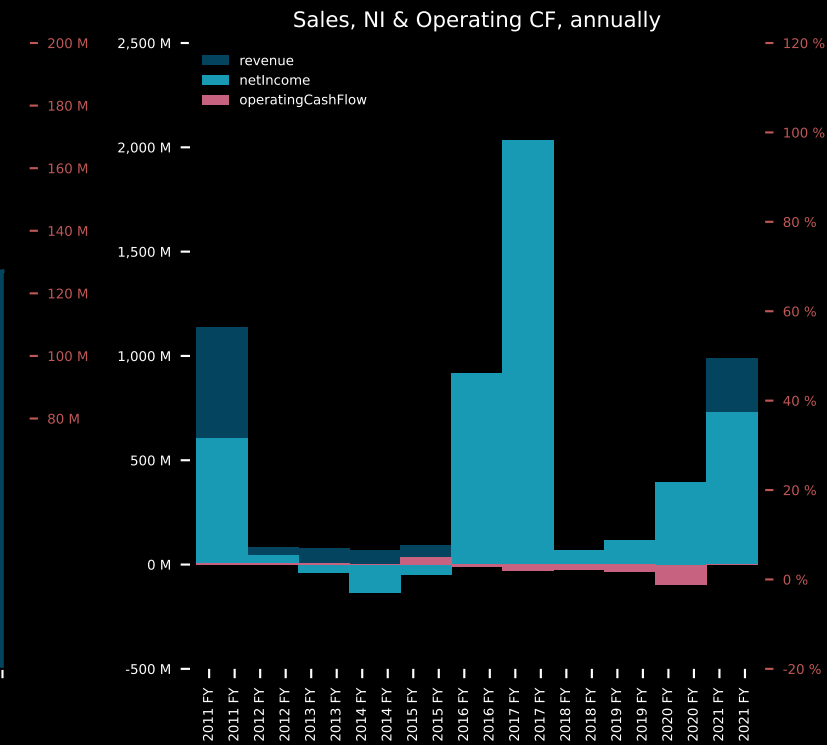
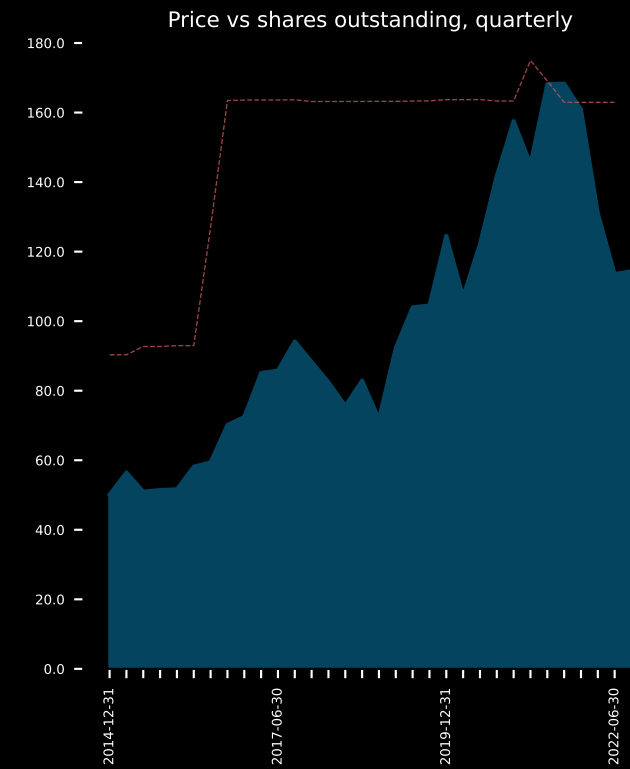
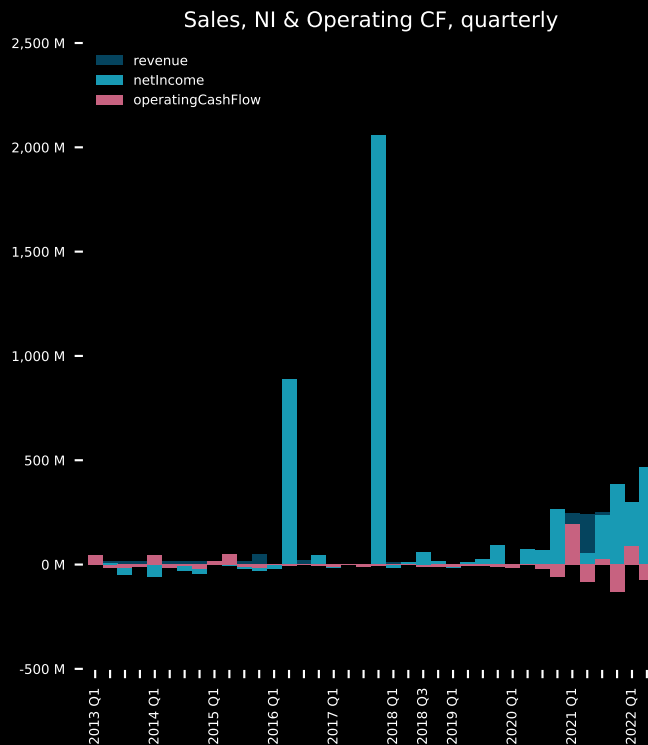
Swisscom AG provides telecommunication services primarily in Switzerland, Italy, and internationally. It operates through three segments: Swisscom Switzerland, Fastweb, and Other Operating. The company offers mobile and fixed-network services, such as telephony, broadband, TV, and mobile offerings, as well as sells terminal equipment; and telecom and communications solutions for large corporations and small and medium-sized enterprises. It also provides cloud, outsourcing, workplace, mobile phone, networking, business process optimization, SAP, and security and authentication solutions, as well as a range of services to the banking industry; Internet of Things solutions; digitization services to the healthcare sector; IT systems for health insurance companies; fixed-line and mobile networks by other telecommunication service providers; and roaming to foreign operators whose customers use its mobile networks, as well as broadband services and regulated products. In addition, the company plans, operates, and maintains network infrastructure and IT systems; provides support functions to finance, human resource, and strategy,



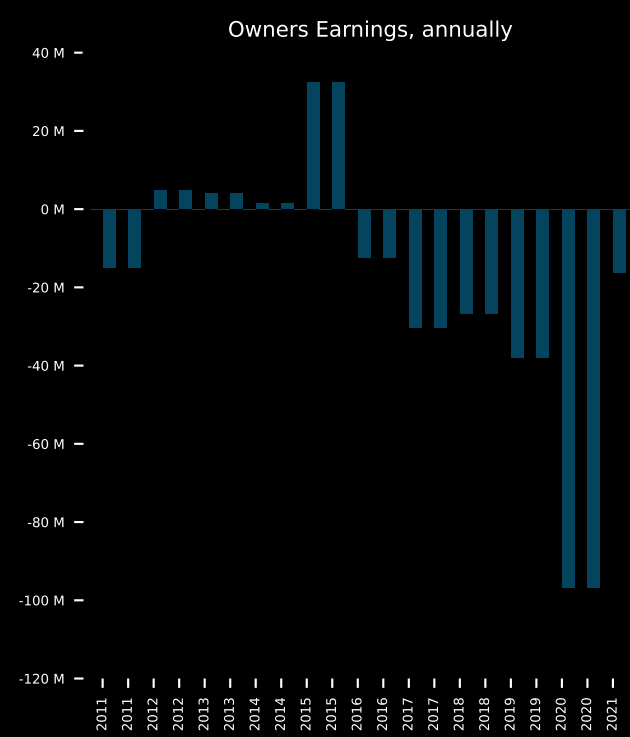
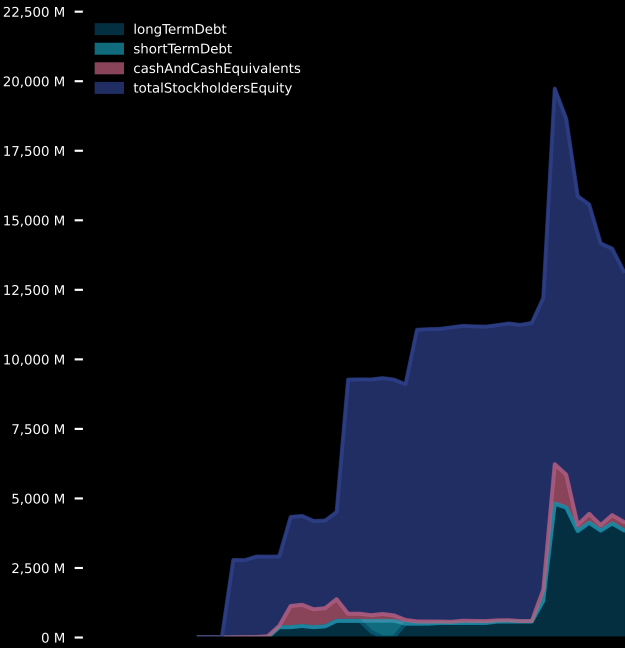
## LBRDA / Telecom Services / US / 2022-08-23



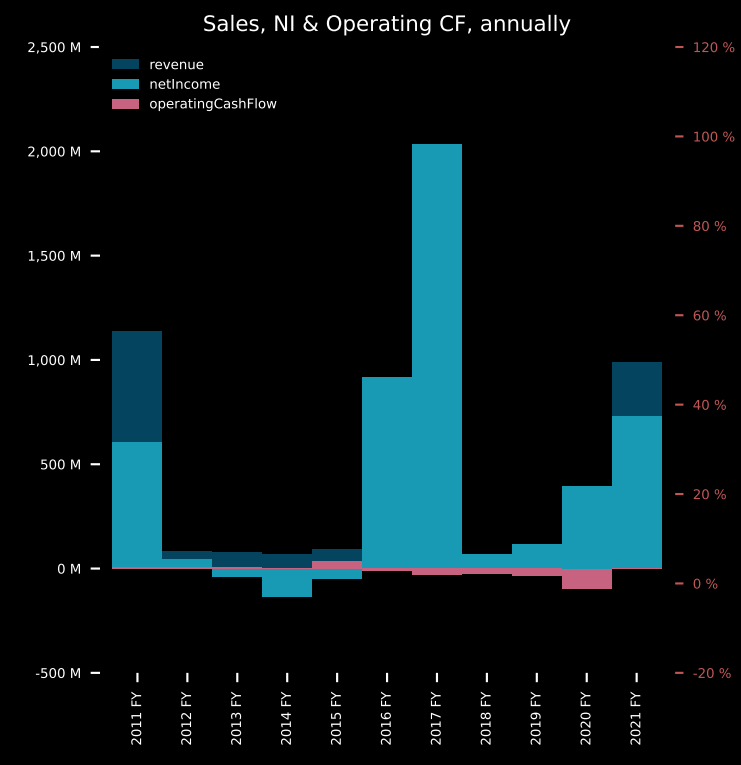
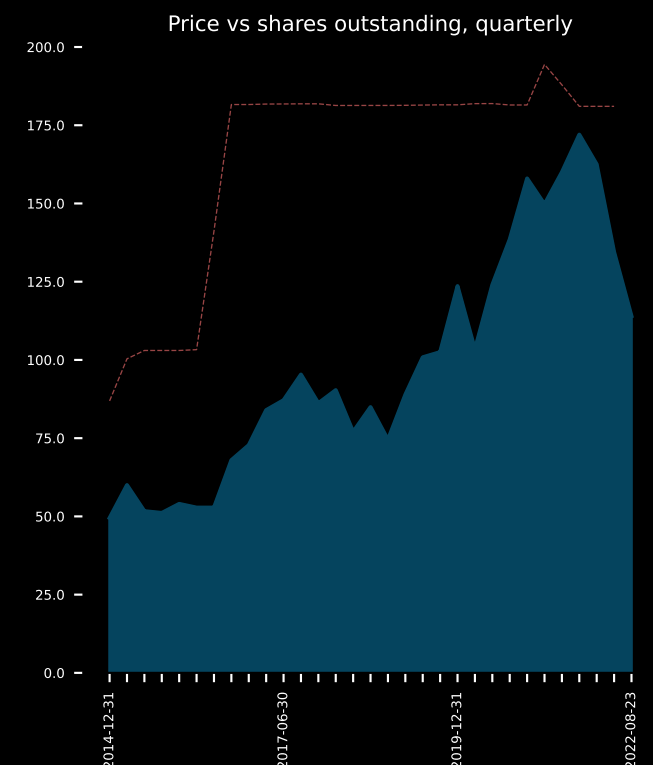
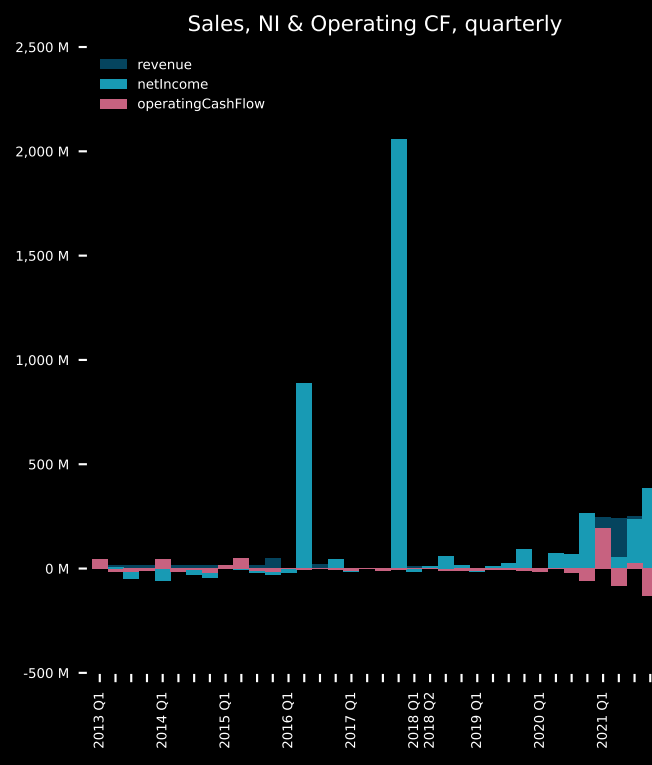
Liberty Broadband Corporation engages in the communications businesses. It operates through GCI Holdings and Charter segments. The GCI Holdings segment provides a range of wireless, data, video, voice, and managed services to residential customers, businesses, governmental entities, and educational and medical institutions primarily in Alaska under the GCI brand. The Charter segment offers subscription-based video services comprising video on demand, high-definition television, and digital video recorder service; local and long-distance calling, voicemail, call waiting, caller ID, call forwarding, and other voice services, as well as international calling services; and Spectrum TV. It also provides internet services, including an in-home Wi-Fi product that provides customers with high-performance wireless routers and managed Wi-Fi services; advanced community Wi-Fi; mobile internet; and a security suite that offers protection against computer viruses and spyware. In addition, this segment offers internet access, data networking, fiber connectivity to cellular towers and office buildings, video entertainment, and business telephone services.



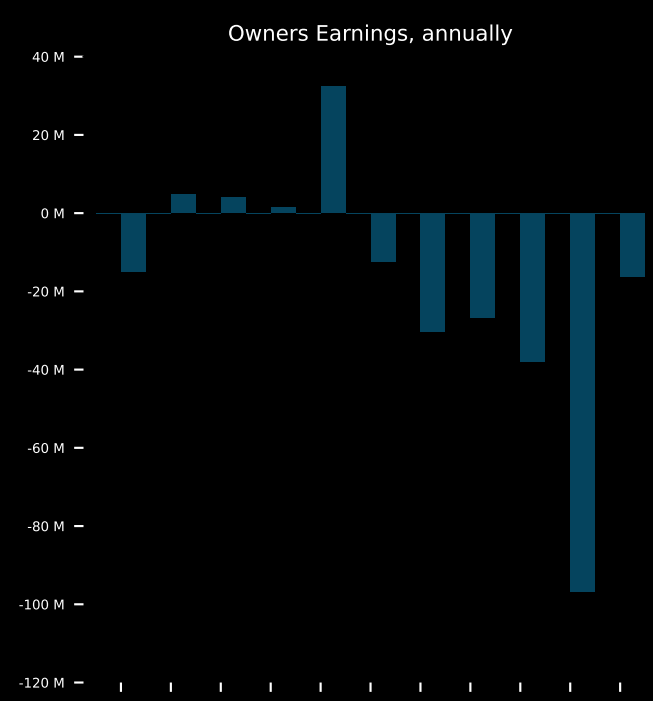
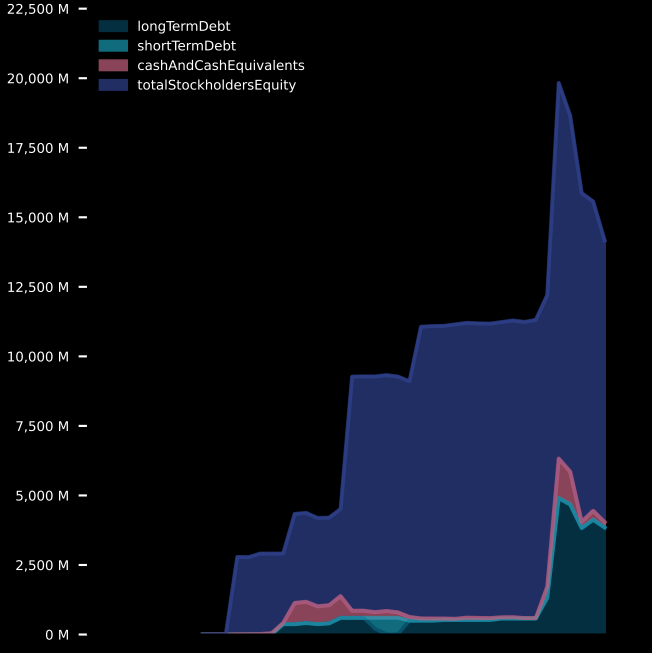
## LBRDA / Telecom Services / US / 2022-08-23



Liberty Broadband Corporation engages in the communications businesses. It operates through GCI Holdings and Charter segments. The GCI Holdings segment provides a range of wireless, data, video, voice, and managed services to residential customers, businesses, governmental entities, and educational and medical institutions primarily in Alaska under the GCI brand. The Charter segment offers subscription-based video services comprising video on demand, high-definition television, and digital video recorder service; local and long-distance calling, voicemail, call waiting, caller ID, call forwarding, and other voice services, as well as international calling services; and Spectrum TV. It also provides internet services, including an in-home Wi-Fi product that provides customers with high-performance wireless routers and managed Wi-Fi services; advanced community Wi-Fi; mobile internet; and a security suite that offers protection against computer viruses and spyware. In addition, this segment offers internet access, data networking, fiber connectivity to cellular towers and office buildings, video entertainment, and business telephone services.

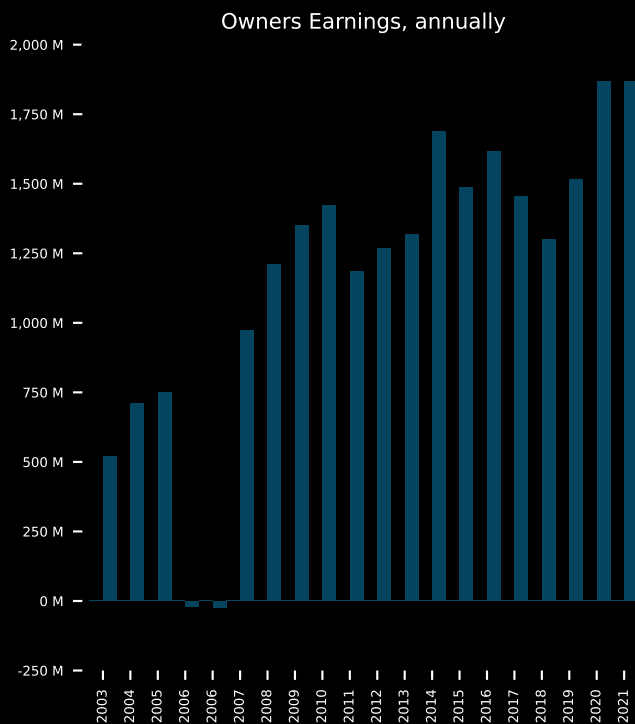
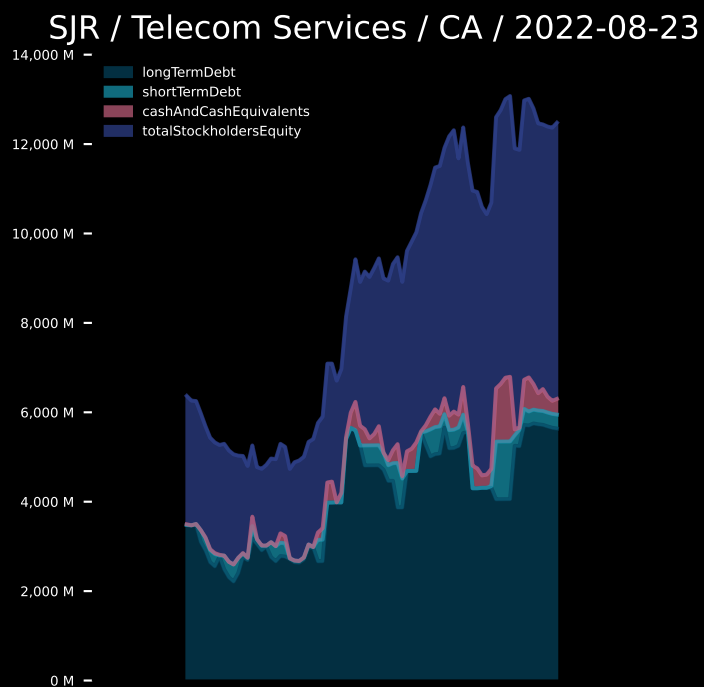
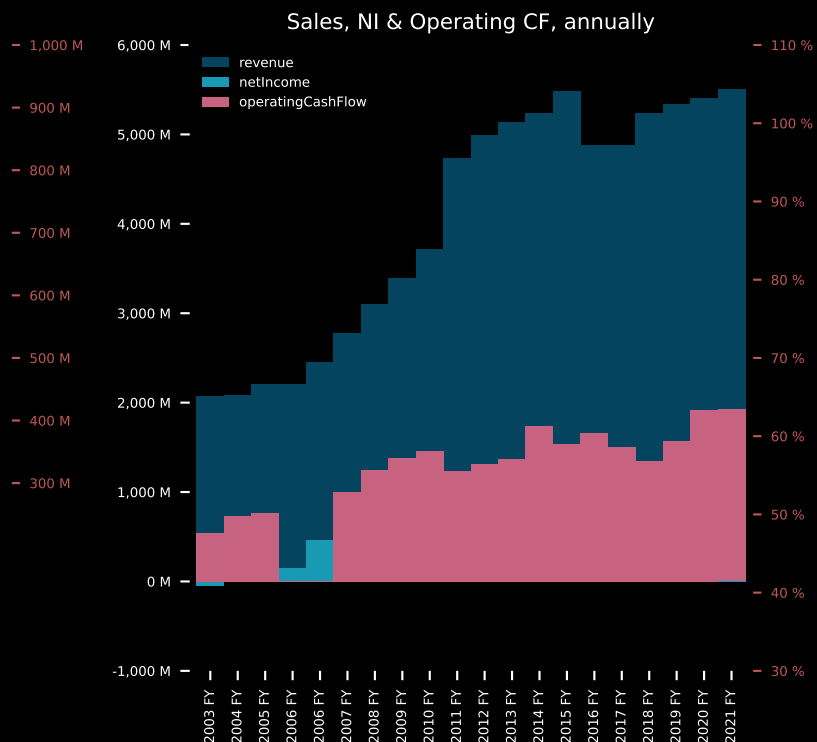
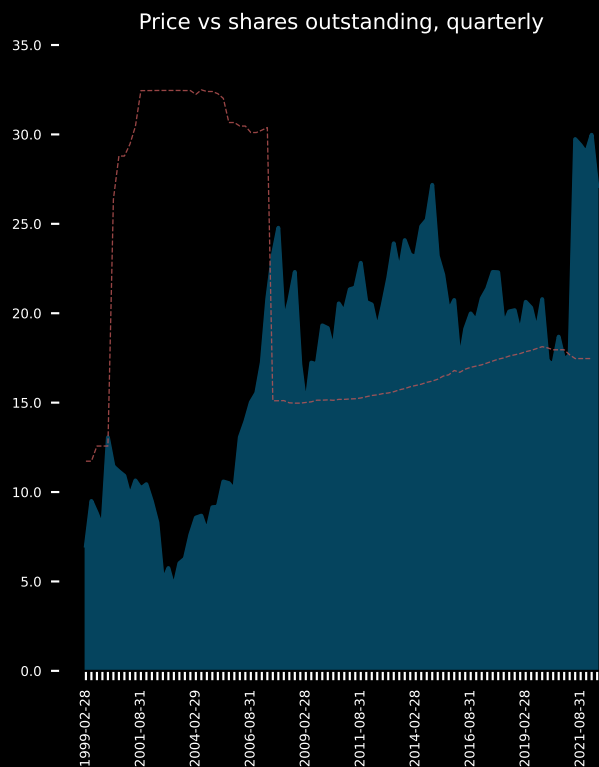
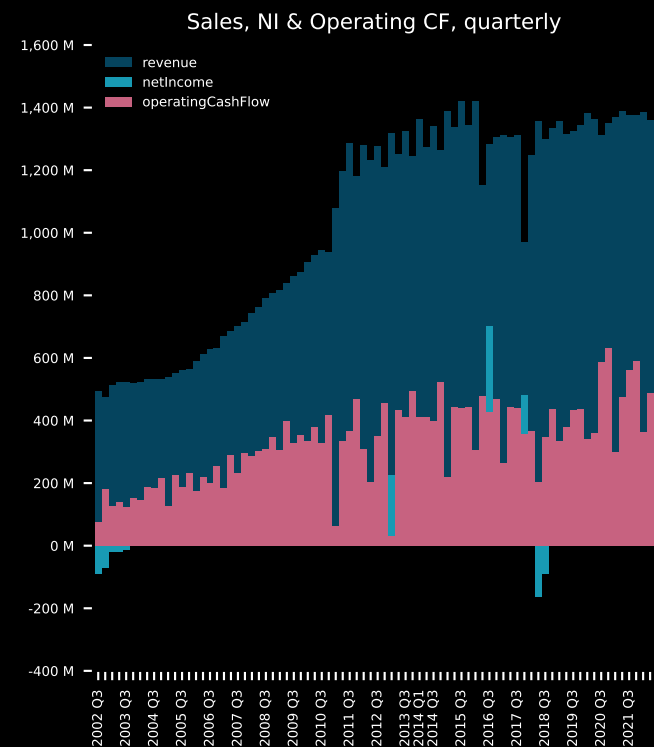


## LBRDB / Telecom Services / US / 2022-08-23

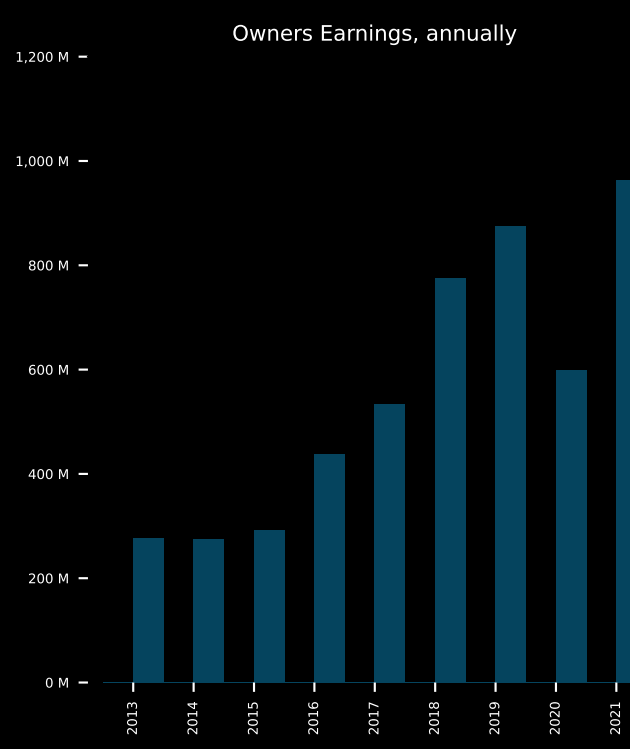
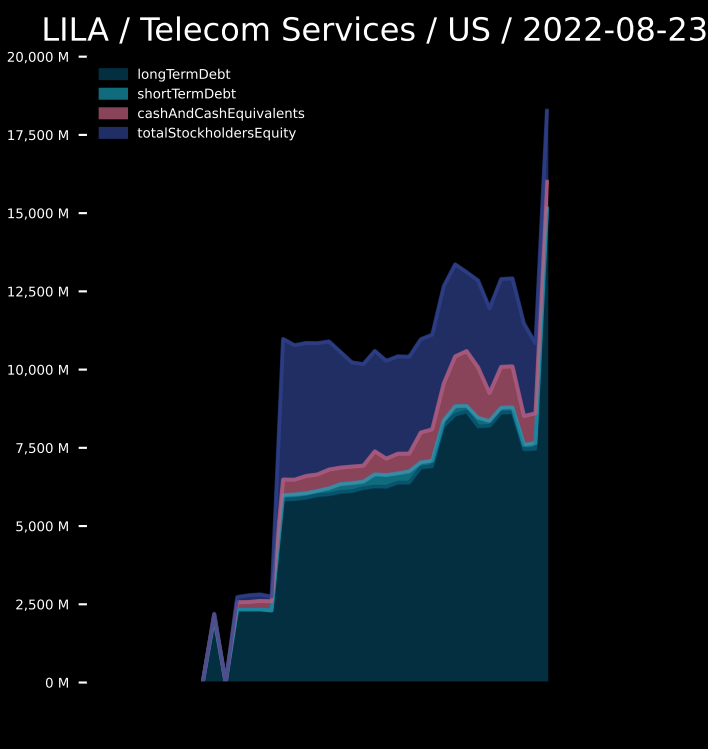
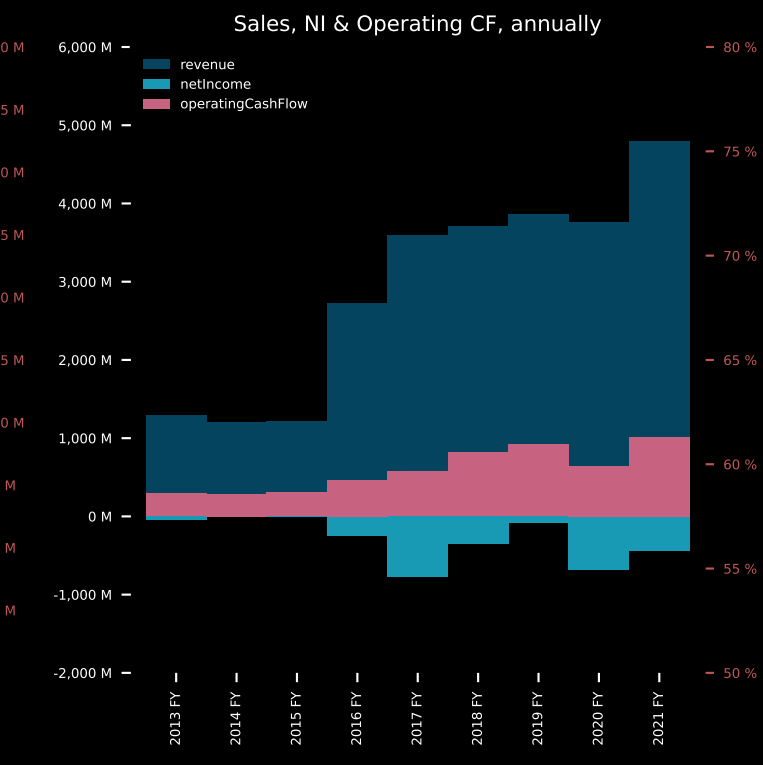
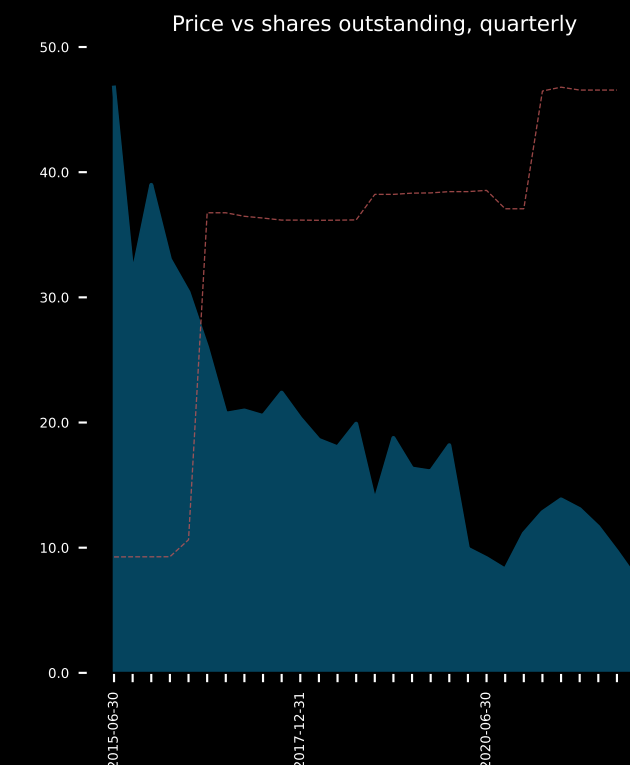
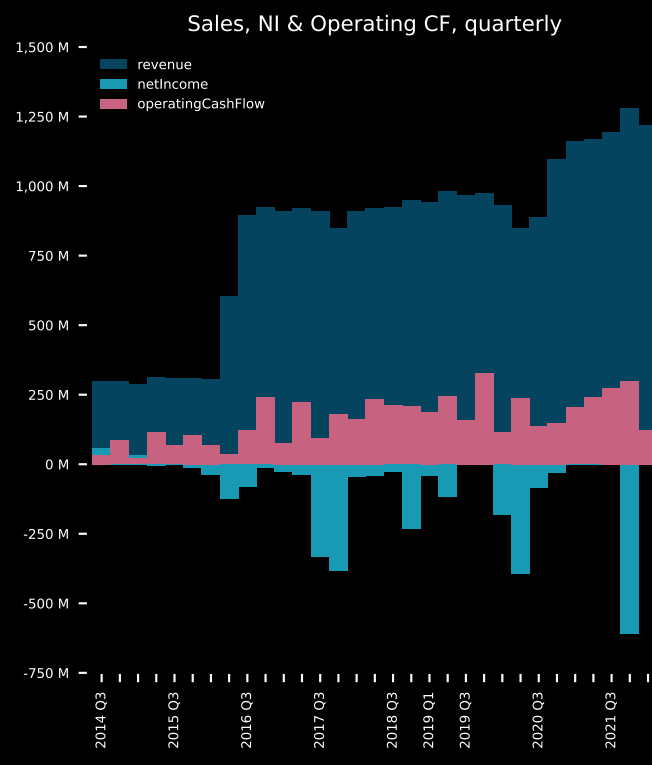


*Liberty Broadband Corporation engages in the communications businesses. It operates through GCI Holdings and Charter segments. The GCI Holdings segment provides a range of wireless, data, video, voice, and managed services to residential customers, businesses, governmental entities, and educational and medical institutions primarily in Alaska under the GCI brand. The Charter segment offers subscription-based video services comprising video on demand, high-definition television, and digital video recorder service; local and long-distance calling, voicemail, call waiting, caller ID, call forwarding, and other voice services, as well as international calling services; and Spectrum TV. It also provides internet services, including an in-home Wi-Fi product that provides customers with high-performance wireless routers and managed Wi-Fi services; advanced community Wi-Fi; mobile internet; and a security suite that offers protection against computer viruses and spyware. In addition, this segment offers internet access, data networking, fiber connectivity to cellular towers and office buildings, video entertainment, and business telephone services.*

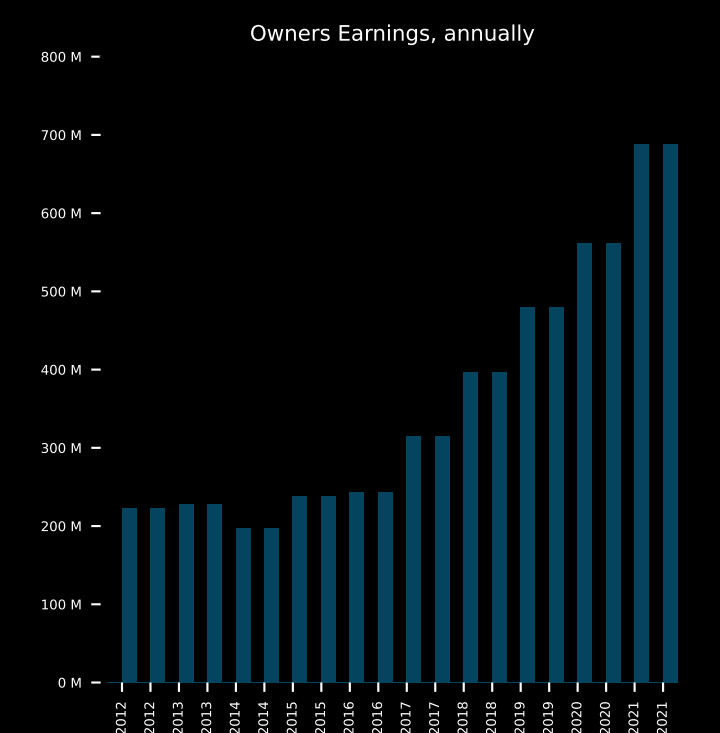
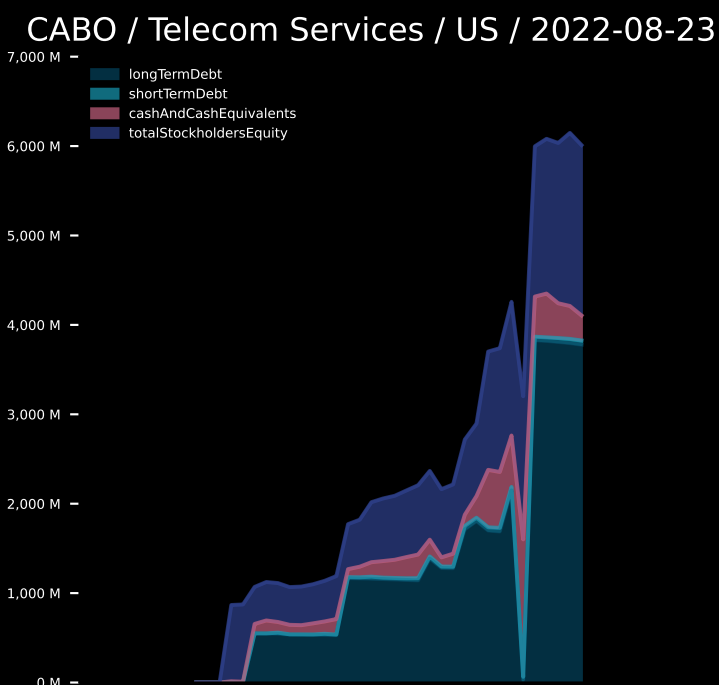
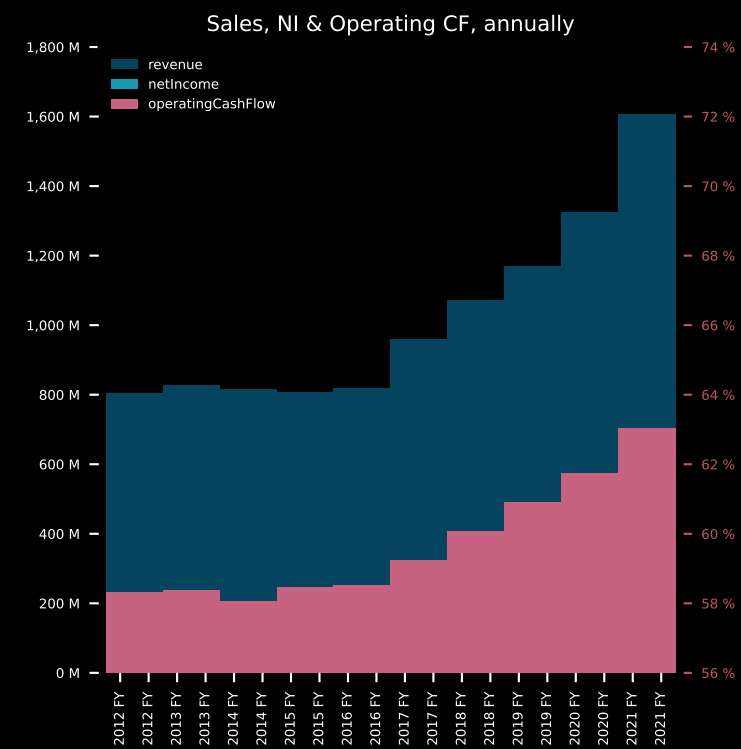
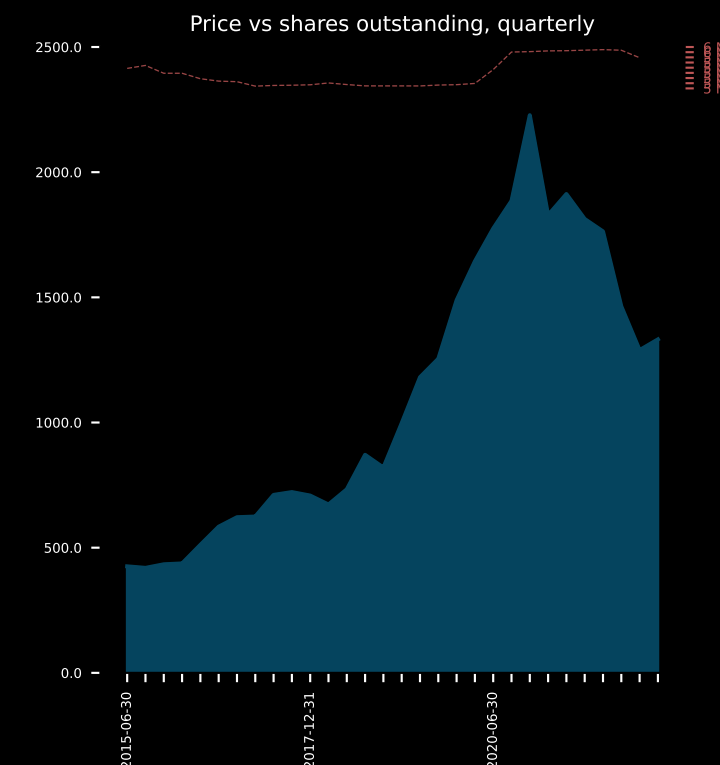
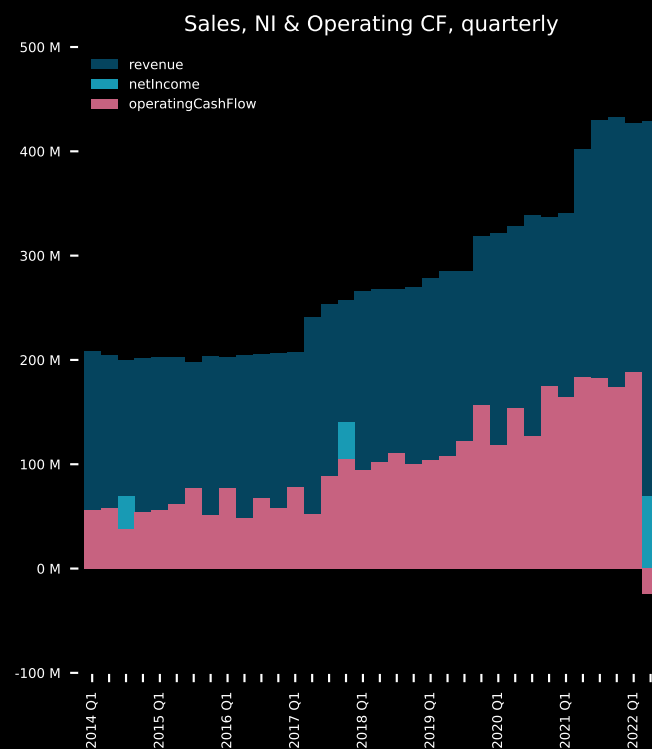




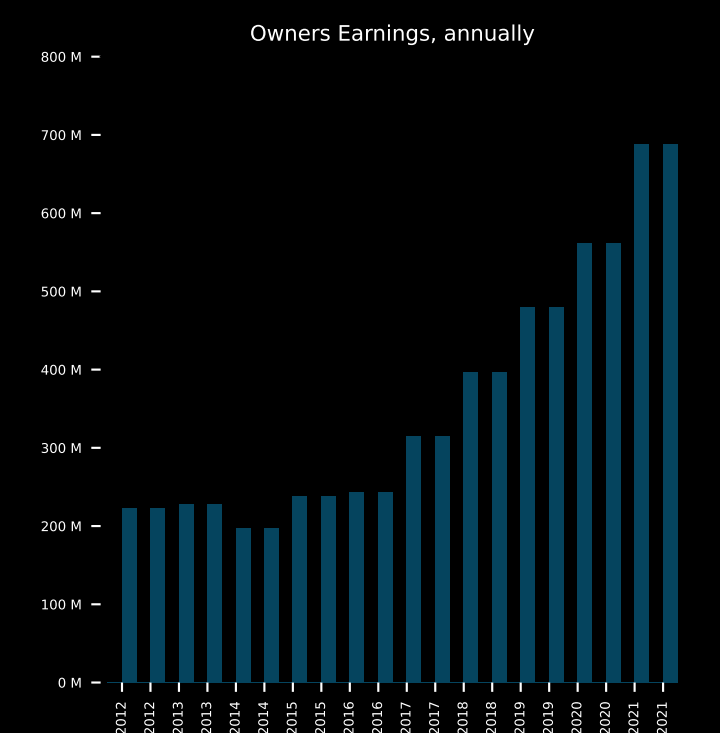
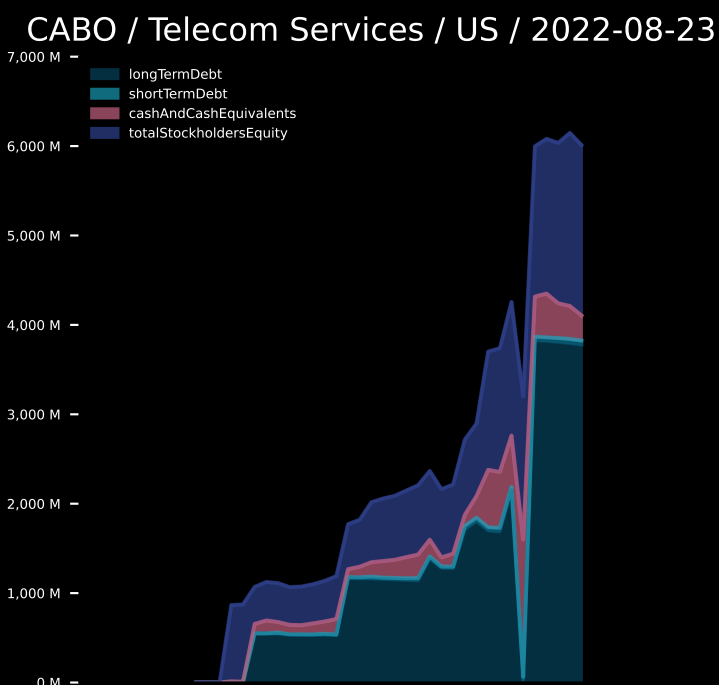
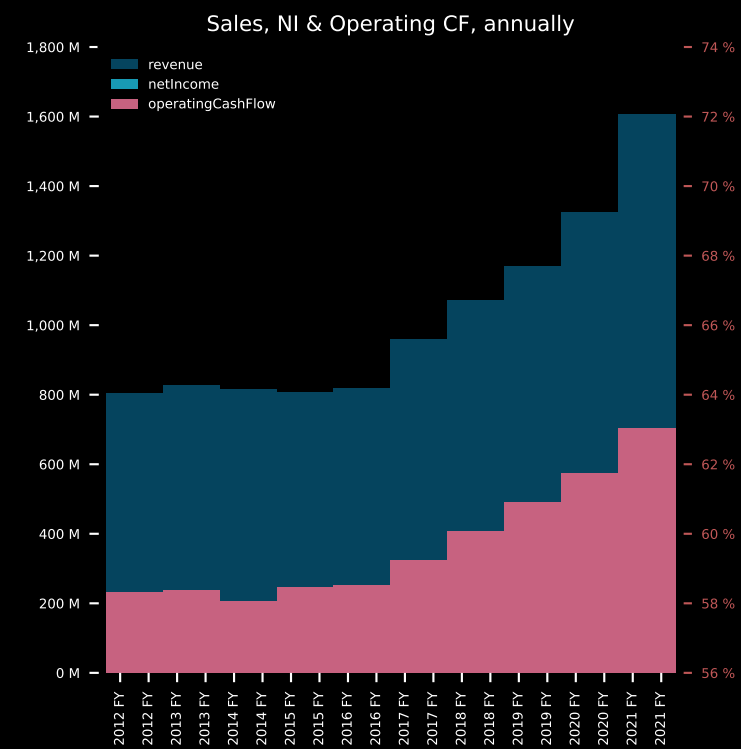
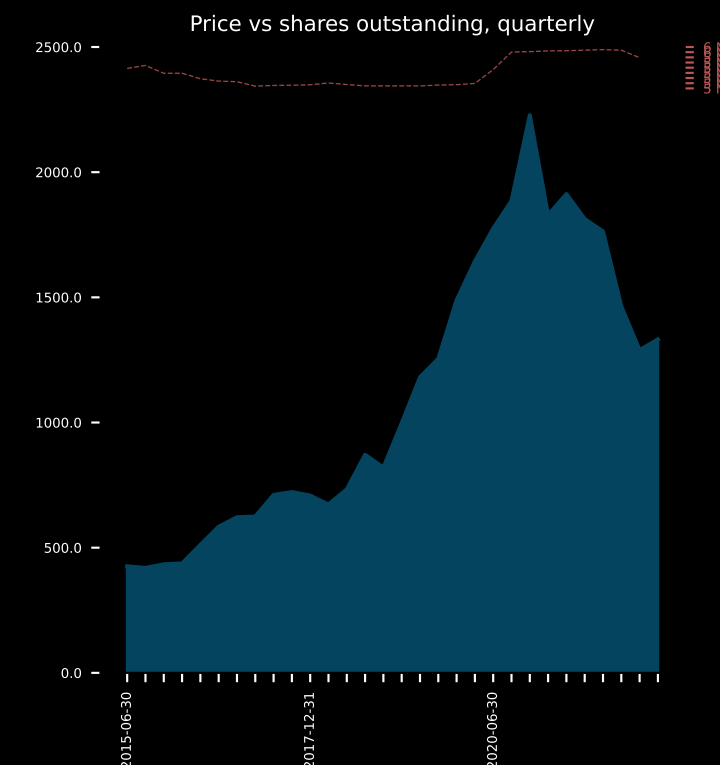
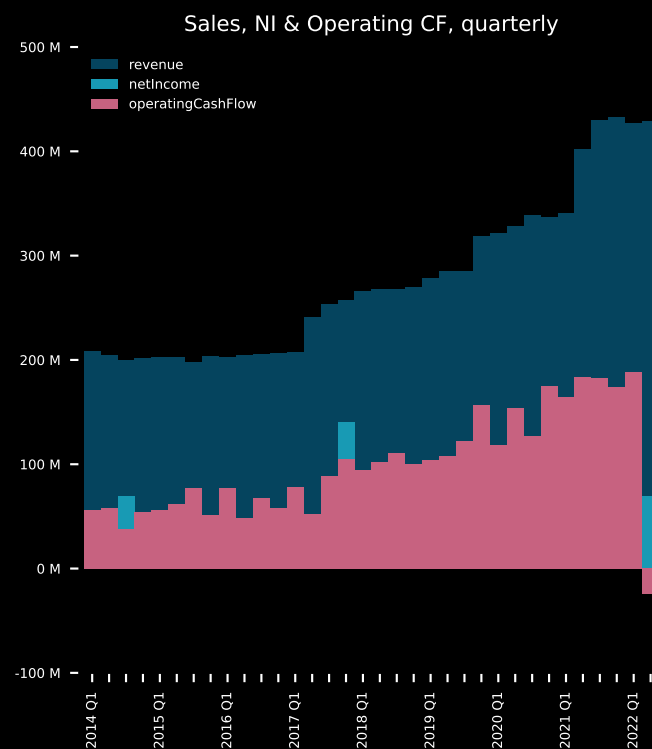
*Shaw Communications Inc. operates as a connectivity company in North America. The company operates through Wireline and Wireless segments. The company's Wireline segment provides cable telecommunications services, including video, Internet, WiFi, phone, satellite video, and data networking through a national fibre-optic backbone network to Canadian consumers, North American businesses, and public-sector entities. Its Wireless segment provides wireless services for voice and data communications serving customers in Ontario, British Columbia, and Alberta through Freedom Mobile; and in British Columbia and Alberta through Shaw Mobile. The company was formerly known as Shaw Cablesystems Ltd. and changed its name to Shaw Communications Inc. in May 1993. Shaw Communications Inc. was incorporated in 1966 and is headquartered in Calgary, Canada.*



*Liberty Latin America Ltd., together with its subsidiaries, provides fixed, mobile, and subsea telecommunications services. The company offers communications and entertainment services, including video, broadband internet, fixed-line telephony, and mobile services to residential and business customers; and business products and services that include enterprise-grade connectivity, data center, hosting, and managed solutions, as well as information technology solutions for small and medium enterprises, international companies, and governmental agencies. It also operates a sub-sea and terrestrial fiber optic cable network that connects approximately 40 markets. The company provides its services in approximately 20 countries in Latin America, the Caribbean, Chile, and Costa Rica under the brands of C&W, VTR, Liberty Puerto Rico, Cabletica, BTC, UTS, Flow, and Móvil. Liberty Latin America Ltd. was incorporated in 2017 and is based in Denver, Colorado.*



Cable One, Inc., together with its subsidiaries, provides data, video, and voice services in the United States. The company offers residential data services, a service to enhance Wi-Fi signal throughout the home. It also provides residential video services, such as local networks; local community programming that includes governmental and public access; and other channels, as well as digital video services, including national and regional cable networks, music channels, and an interactive and electronic programming guide with parental controls. In addition, the company offers premium channels that offer movies, original programming, live sporting events, and concerts and other features; and advanced video services, such as whole-home DVRs and high-definition set-top boxes, as well as TV Everywhere product, which enables its video customers to stream various channels and shows to mobile devices and computers. Further, it provides residential voice services comprising local and long-distance calling, voicemail, call waiting, three-way calling, caller ID, anonymous call rejection, and other features, as well as

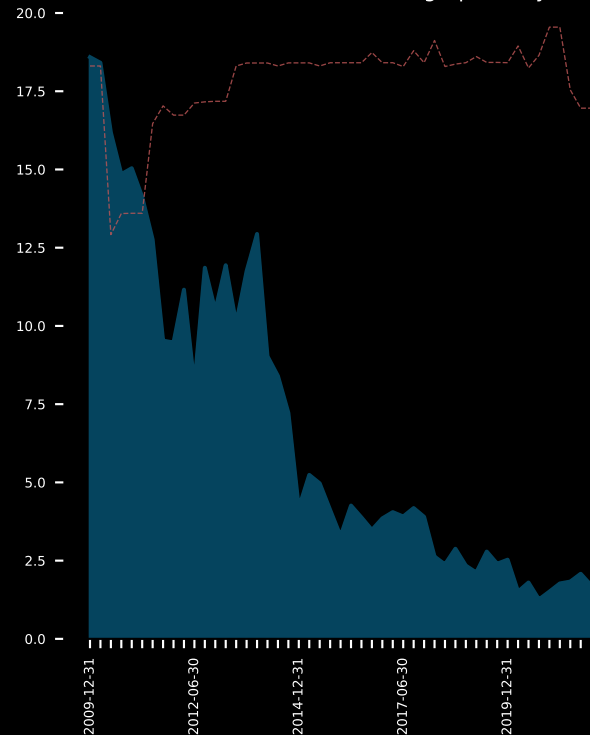


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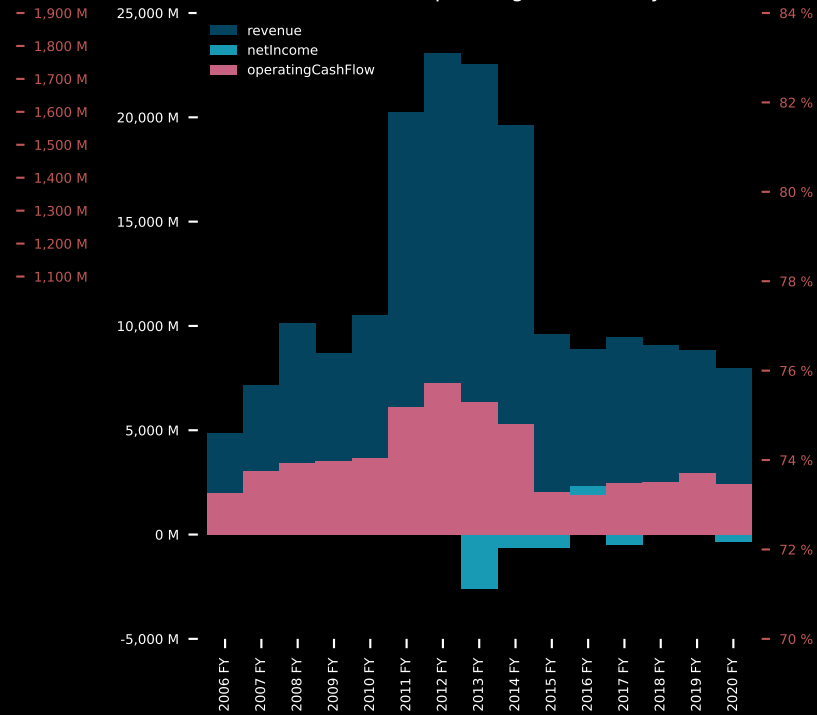
Sales, NI &amp; Operating CF, quarterly



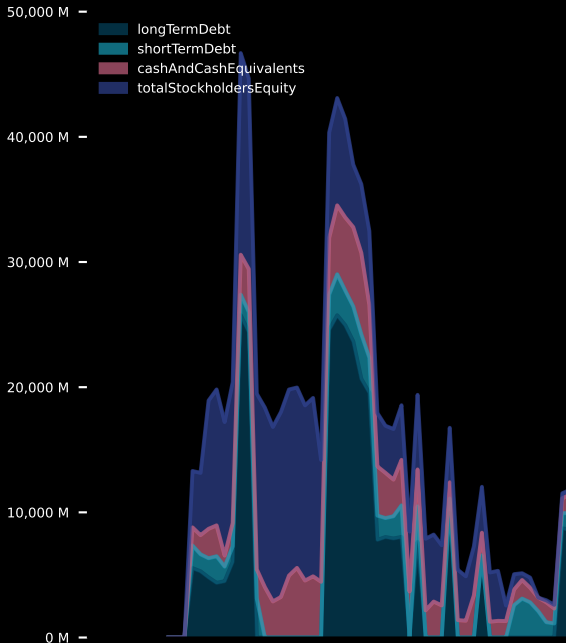
Price vs shares outstanding, quarterly



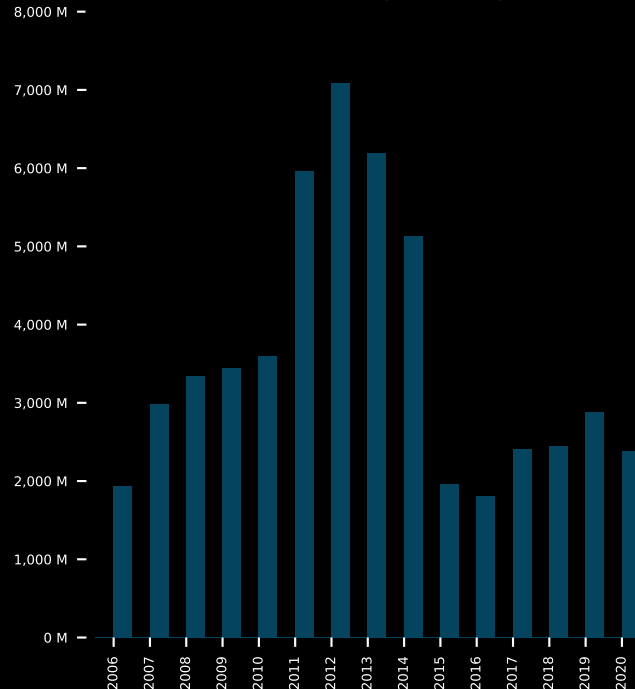
Sales, NI &amp; Operating CF, annually



## VEON / Telecom Services / NL / 2022-08-23

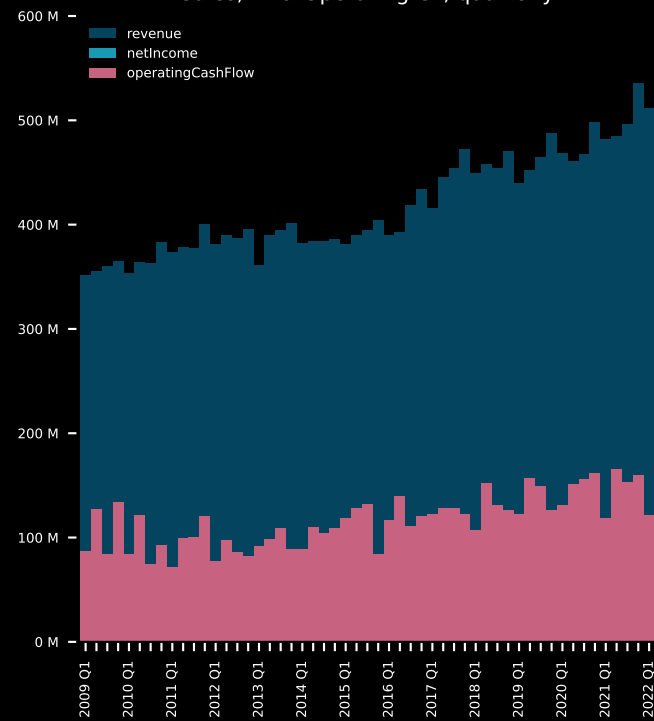


Owners Earnings, annually

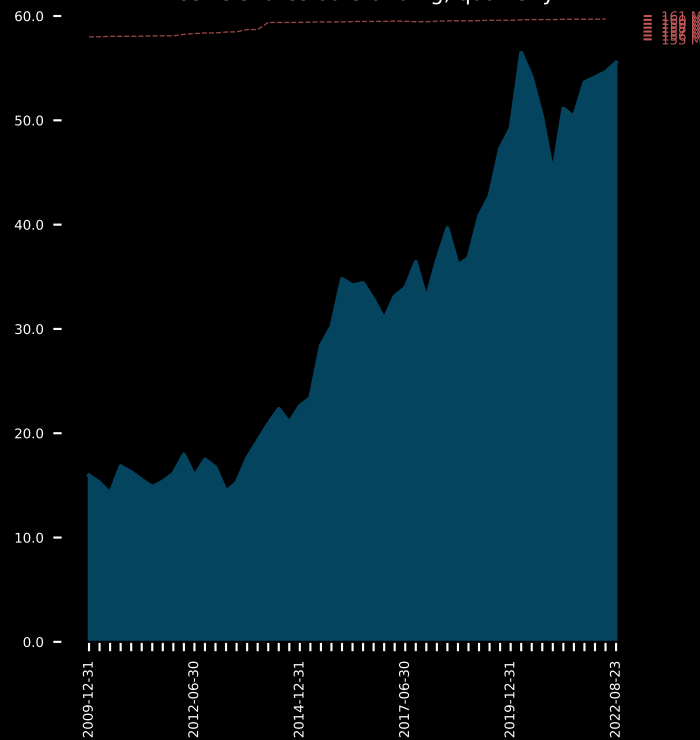


VEON Ltd., through its subsidiaries, provides mobile and fixed-line telecommunications services. It offers voice, data, and other telecommunication services through a range of wireless, fixed, and broadband internet services. The company provides value added services, including short messages, multimedia messages, caller number identification, call waiting, data transmission, mobile internet, downloadable content, mobile finance services, machine-to-machine, and other services; national and international roaming services; wireless internet access and mobile financial services; and mobile bundles and call completion services. It also offers fixed-line telecommunication services, such as voice, data, internet, and value added services for corporations, operators, and consumers, as well as sells equipment and accessories. The company provides its services under the Beeline, Kyivstar, Jazz, Djezzy, and banglalink brands in Russia, Pakistan, Algeria, Uzbekistan, Ukraine, Bangladesh, Kazakhstan, Kyrgyzstan, and Georgia. It serves approximately 210 million customers. The company was formerly known as VimpelCom Ltd.

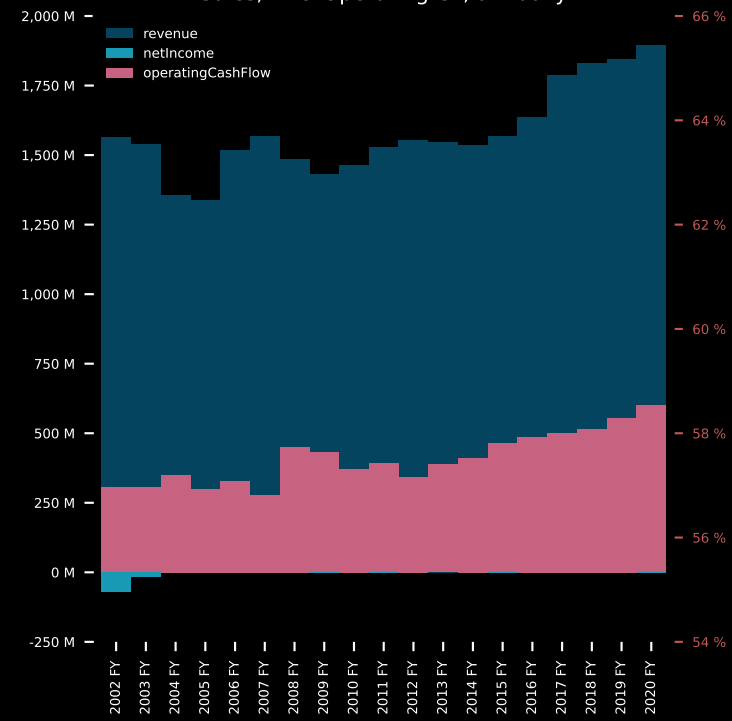
Sales, NI &amp; Operating CF, quarterly



Price vs shares outstanding, quarterly



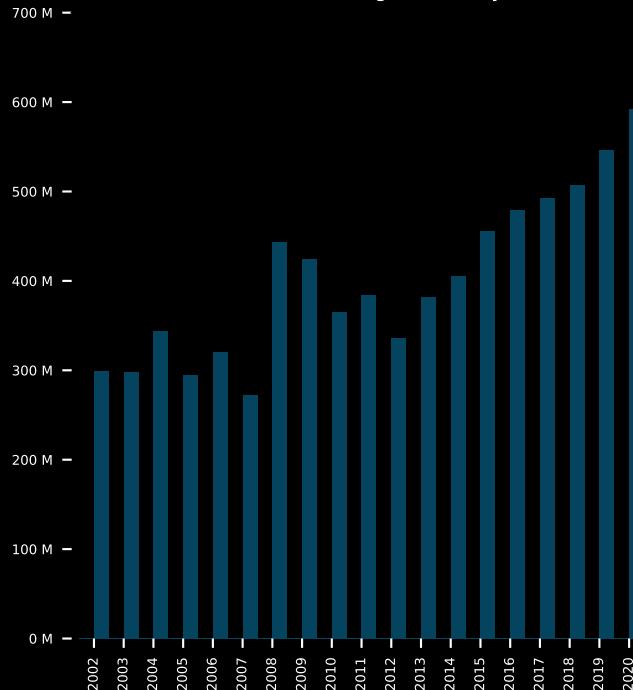
Sales, NI &amp; Operating CF, annually



## ELISA.HE / Telecom Services / FI / 2022-08-23

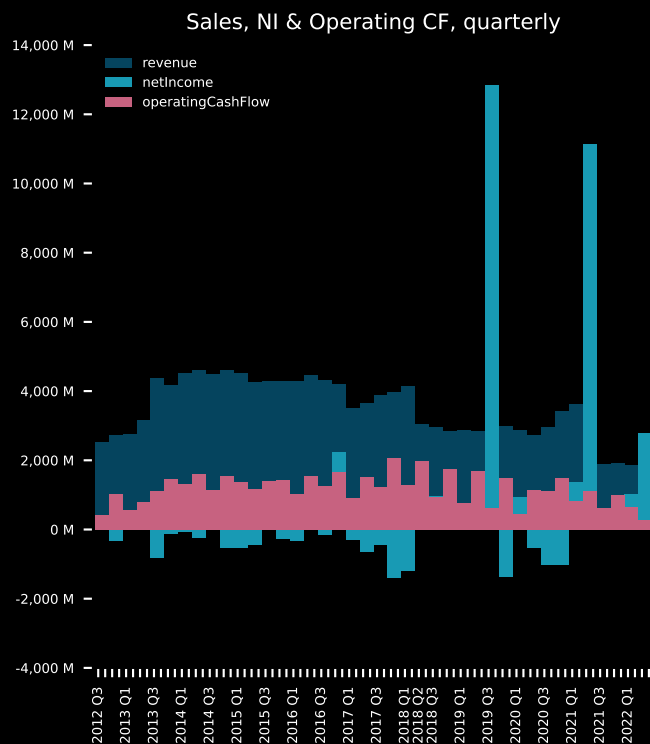


Owners Earnings, annually

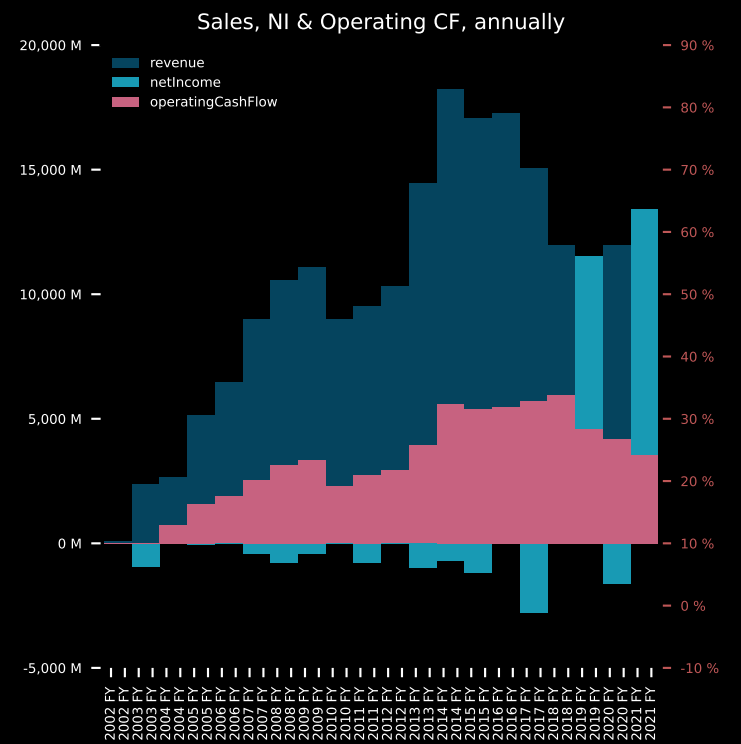
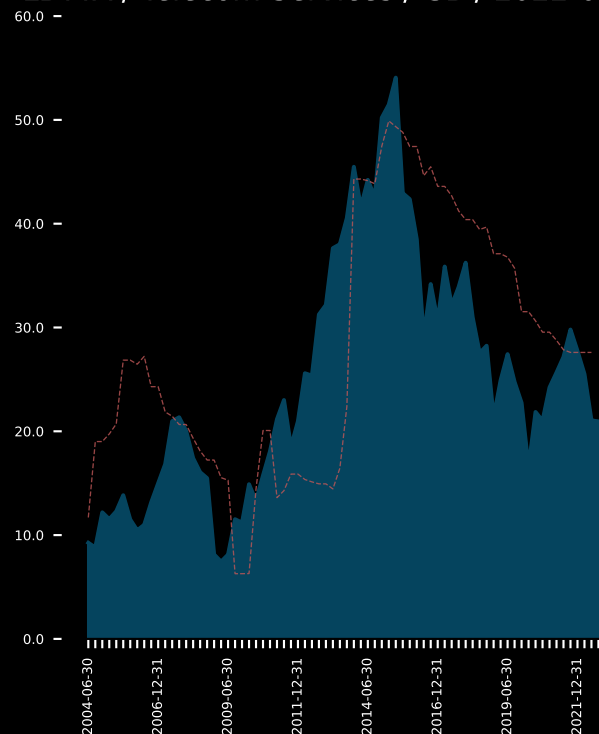


*Elisa Oyj provides data communications and digital services. It operates in two segments, Consumer Customers and Corporate Customers segments. The company offers telecommunications and communications services, such as fixed and mobile subscription, digital, cable-tv subscription, entertainment, and e-reading services, as well as video conferencing services. It also provides industrial IoT solutions for manufacturers, remote patient monitoring and healthcare solutions, and B2B customer support services; and online services. The company serves approximately 2.8 million consumers, companies, and public administration organizations in Finland, rest of Europe, and internationally. Elisa Oyj was founded in 1882 and is headquartered in Helsinki, Finland.*

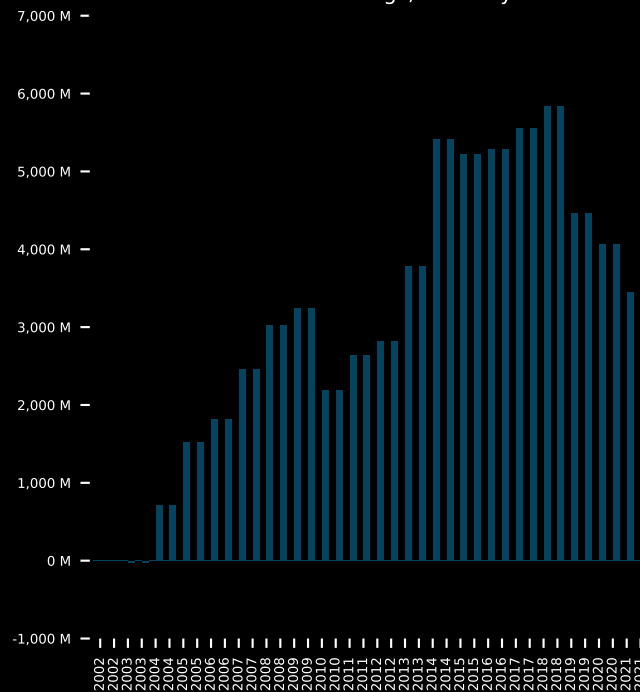




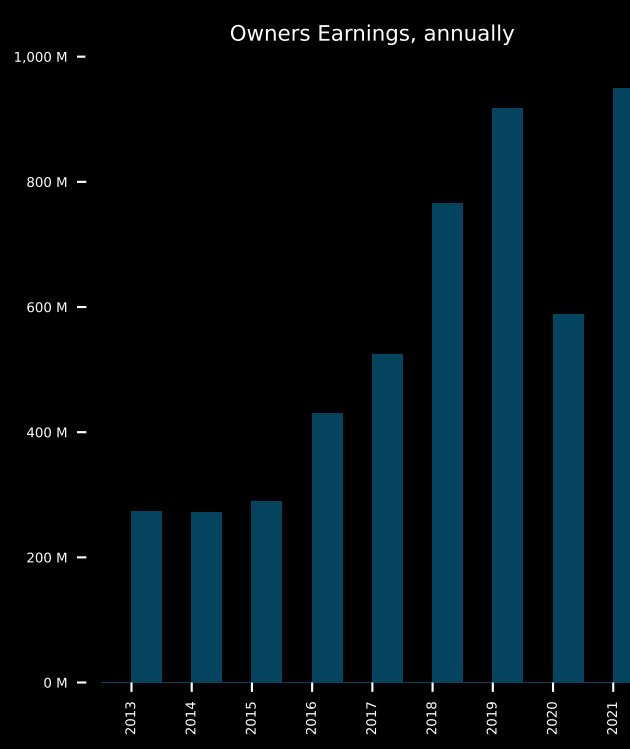
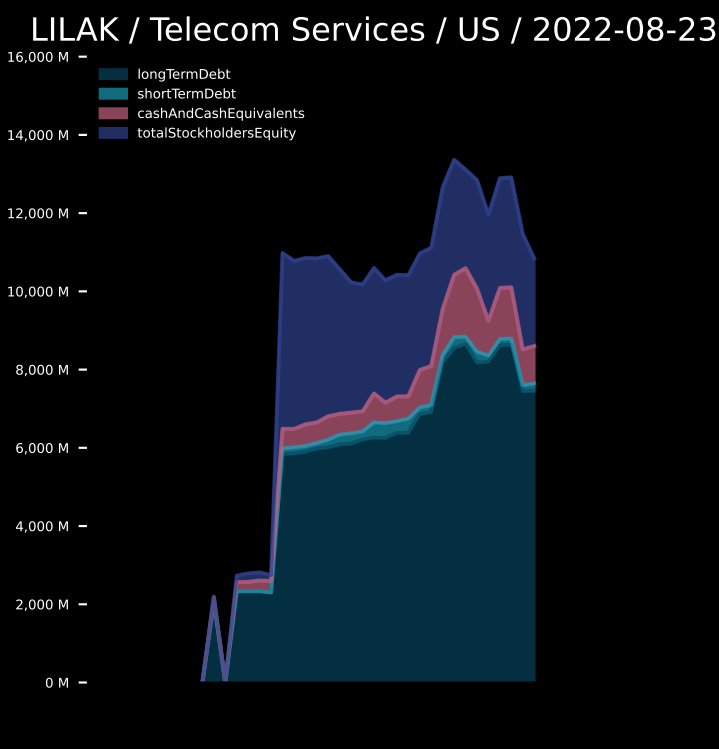
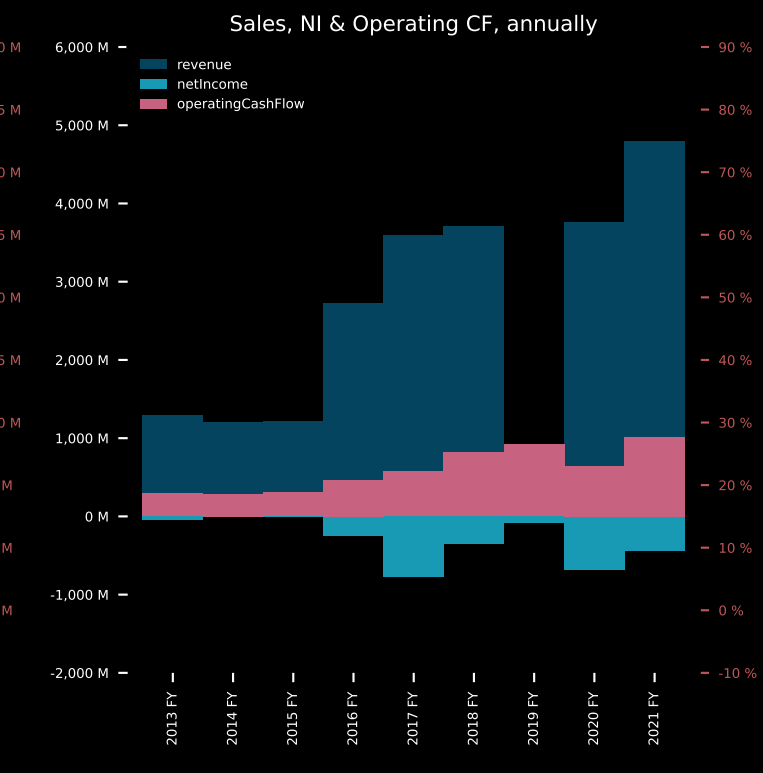
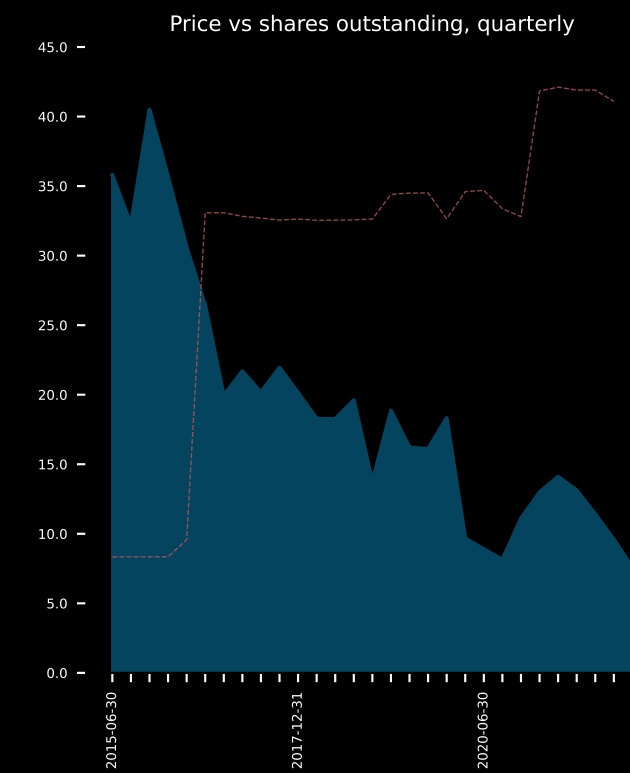
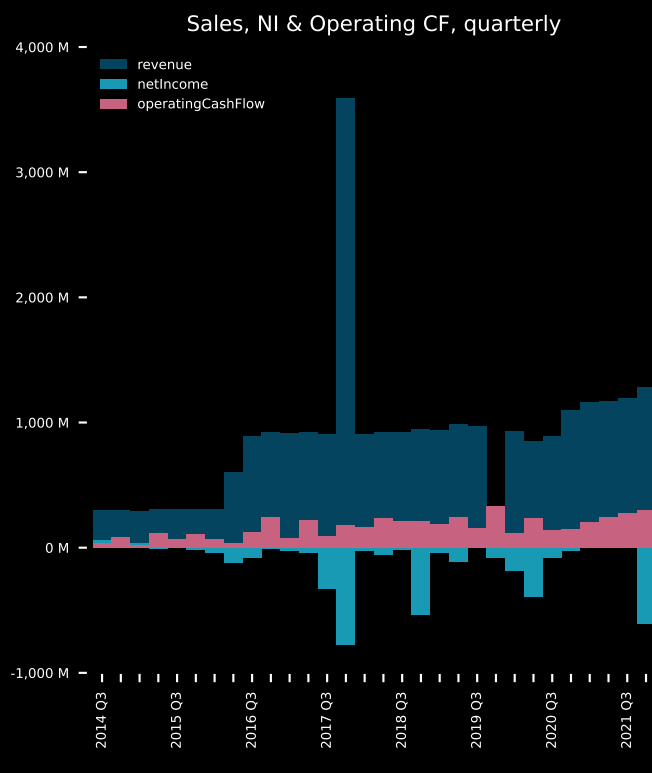
## LBTYA / Telecom Services / GB / 2022-08-23



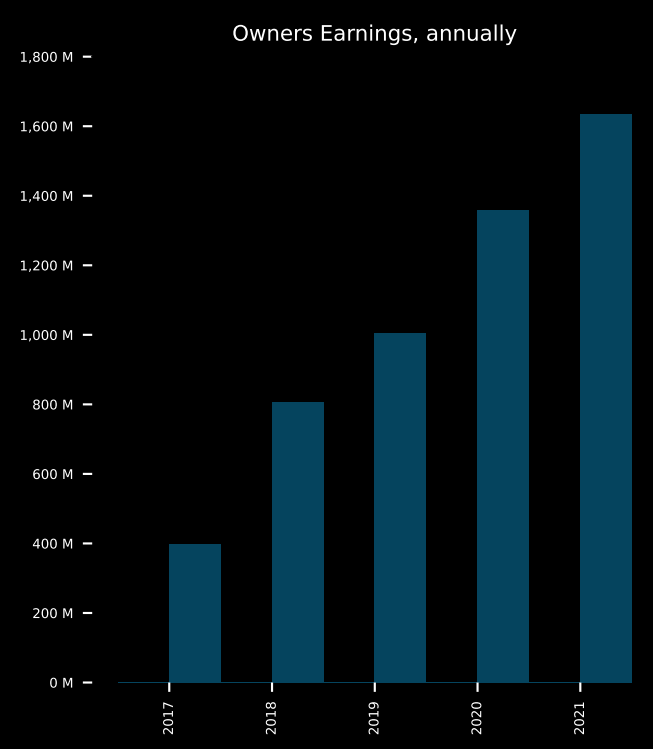
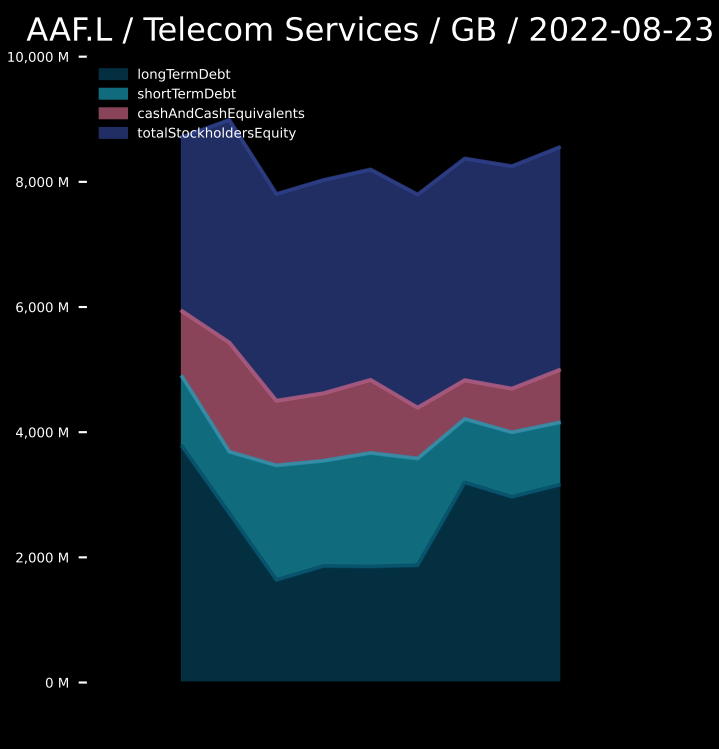
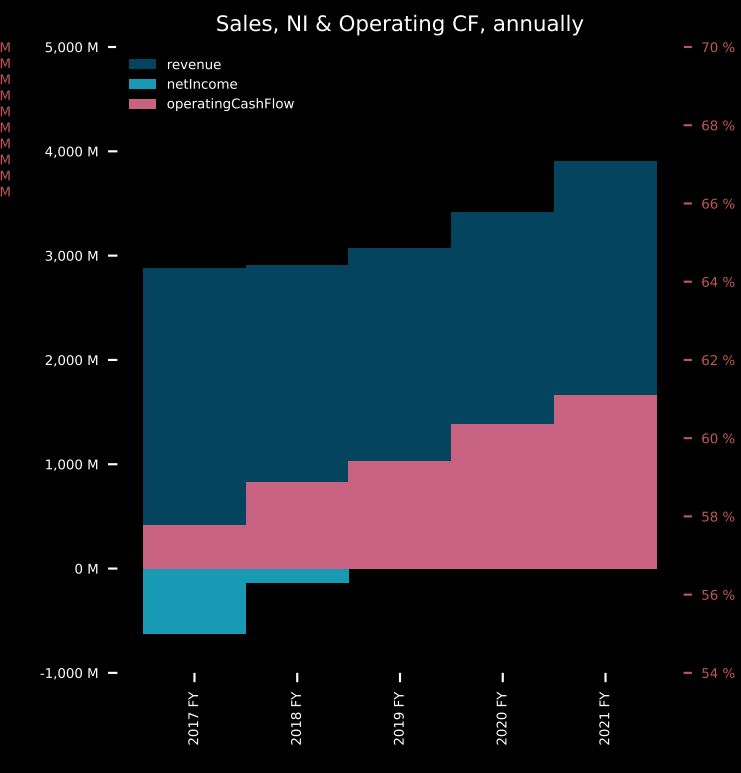
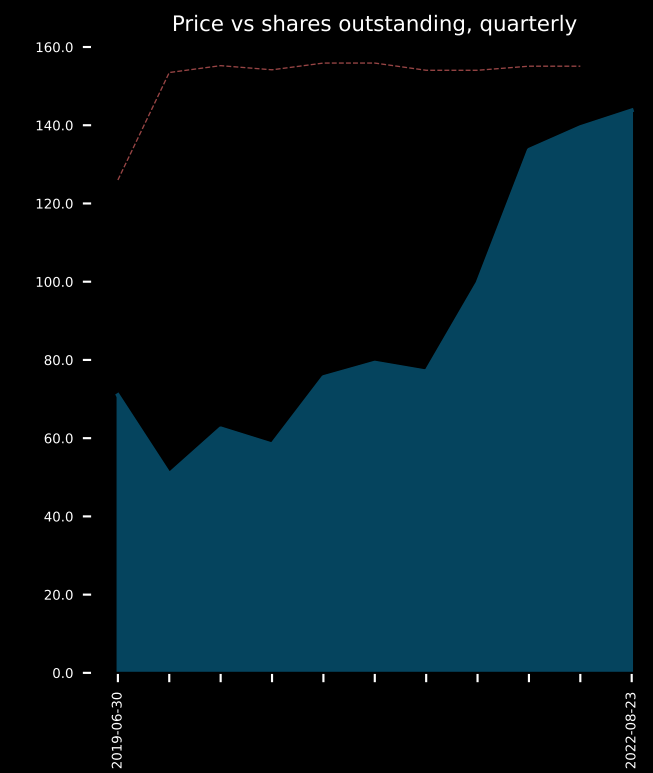
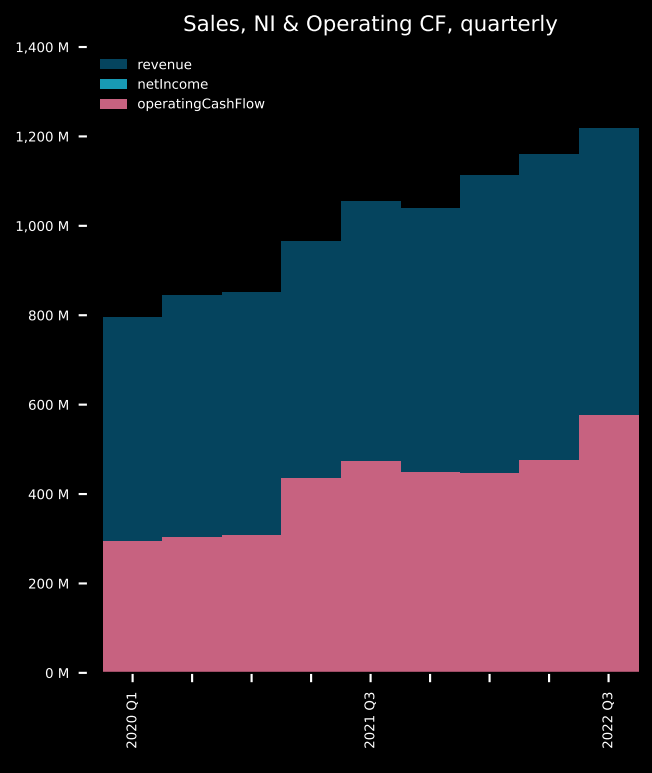
## Owners Earnings, annually



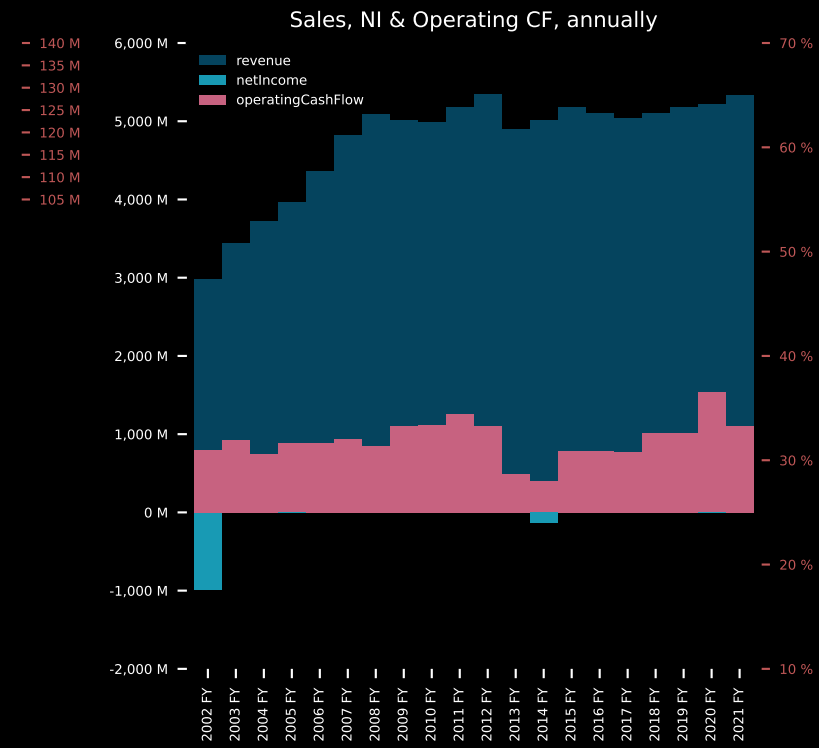
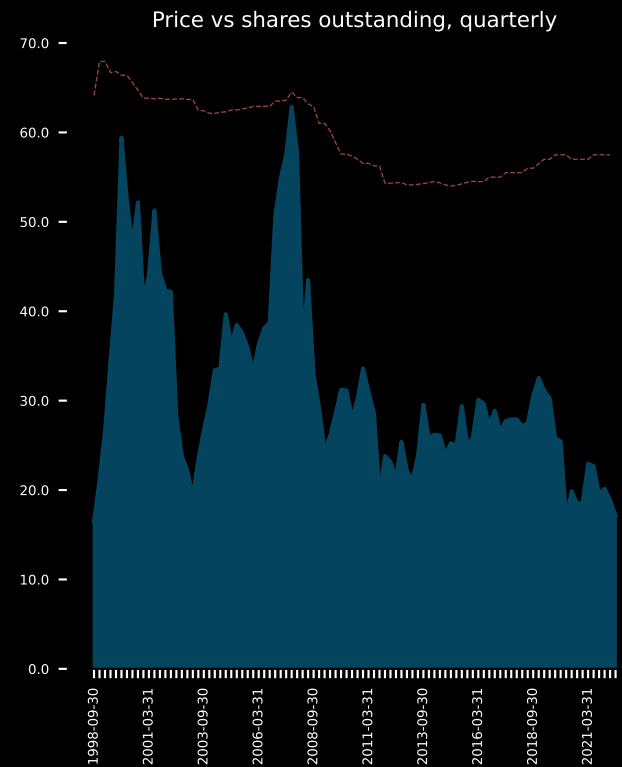
*Liberty Global plc, together with its subsidiaries, provides broadband internet, video, fixed-line telephony, and mobile communications services to residential and business customers. It offers value-added broadband services, such as intelligent WiFi features; security; smart home, online storage solutions, and Web spaces; Connect Box, a set-top or Horizon box that delivers in-home Wi-Fi service; community Wi-Fi via routers in home, which provides access to the internet; and public Wi-Fi access points in train stations, hotels, bars, restaurants, and other public places. The company also provides various tiers of digital video programming and audio services, as well as digital video recorders and multimedia home gateway systems; and channels, including general entertainment, sports, movies, series, documentaries, lifestyles, news, adult, children, and ethnic and foreign channels. In addition, it offers postpaid and prepaid mobile services; circuit-switched telephony services; and personal call manager, unified messaging, and a second or third phone line at an incremental cost. Further, the company offers business services comprising*



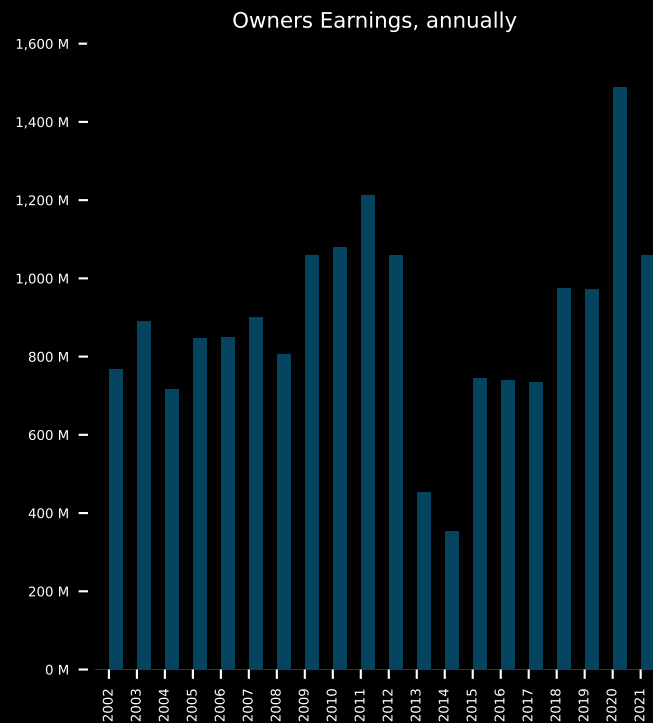
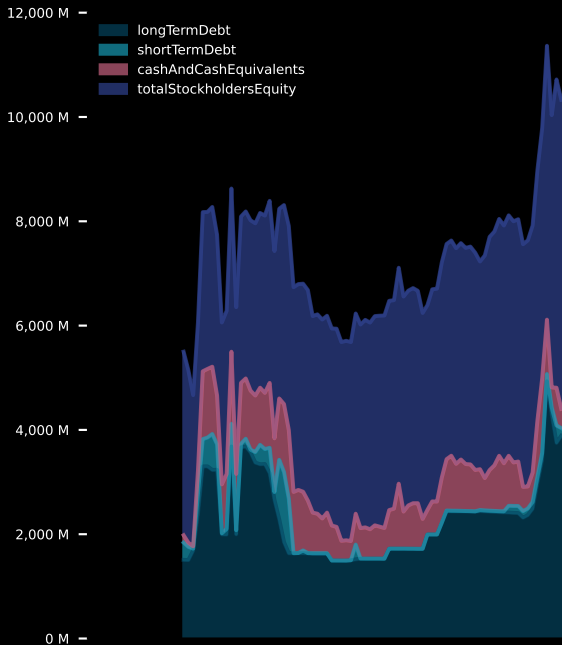
*Liberty Latin America Ltd., together with its subsidiaries, provides fixed, mobile, and subsea telecommunications services. The company offers communications and entertainment services, including video, broadband internet, fixed-line telephony, and mobile services to residential and business customers; and business products and services that include enterprise-grade connectivity, data center, hosting, and managed solutions, as well as information technology solutions for small and medium enterprises, international companies, and governmental agencies. It also operates a sub-sea and terrestrial fiber optic cable network that connects approximately 40 markets. The company provides its services in approximately 20 countries in Latin America, the Caribbean, Chile, and Costa Rica under the brands of C&W, VTR, Liberty Puerto Rico, Cabletica, BTC, UTS, Flow, and Móvil. Liberty Latin America Ltd. was incorporated in 2017 and is based in Denver, Colorado.*



*Airtel Africa Plc provides telecommunication and mobile money services to customers in Nigeria, East and Central Africa, and Francophone Africa. It offers prepaid and postpaid wireless voice, international roaming, and fixed line telephone services; data communication services, including 2G, 3G, and 4G; and mobile money services, such as payments, microloans, savings, and international money transfers. The company also messaging, value added, enterprise, and site sharing services, as well as support services; and sells handsets. It serves approximately 165 million customers. The company was incorporated in 2018 and is based in London, the United Kingdom. Airtel Africa Plc is a subsidiary of Airtel Africa Mauritius Limited.*

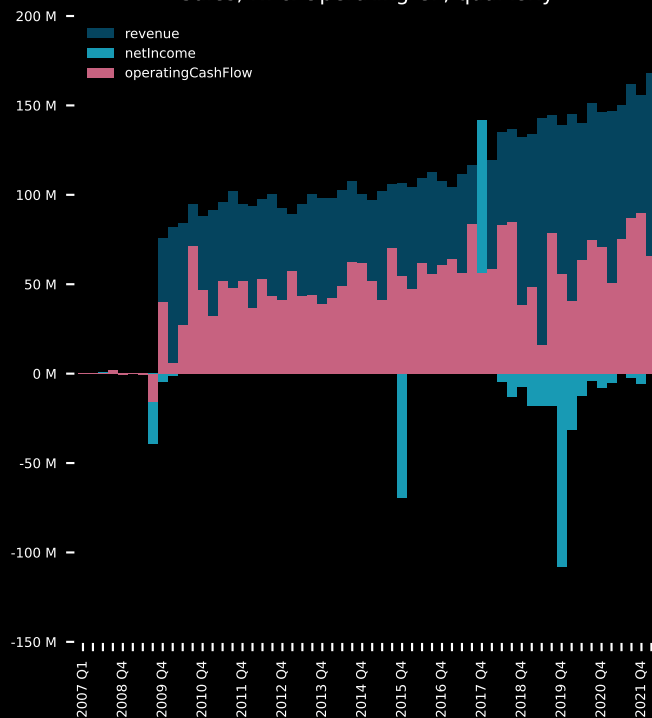


## TDS / Telecom Services / US / 2022-08-23

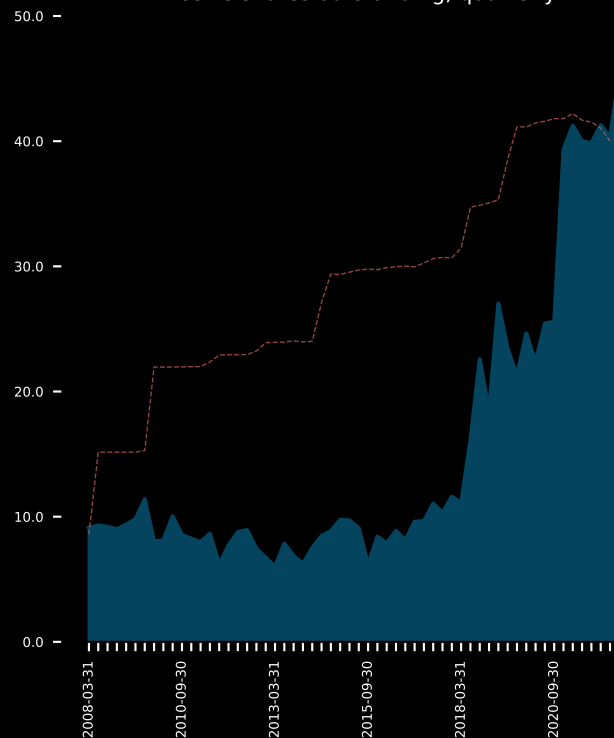


*Telephone and Data Systems, Inc., a telecommunications company, provides communications services in the United States. It operates through two segments: UScellular and TDS Telecom. The company offers wireless solutions to consumers and business and government customers, including a suite of connected Internet of things (IoT) solutions, and software applications for monitor and control, business automation/operations, communication, fleet and asset management, smart water solutions, private cellular networks and custom, and end-to-end IoT solutions; wireless priority services and quality priority and preemption options; smartphones and other handsets, tablets, wearables, mobile hotspots, routers, and IoT devices; and accessories, such as cases, screen protectors, chargers, and memory cards, as well as consumer electronics, including audio, home automation and networking products. It also provides replace and repair services; Trade-In program through which it buys customers' used equipment; internet connections and all-home Wi-Fi services; TDS TV+, an integrated cloud television service that offers content and*

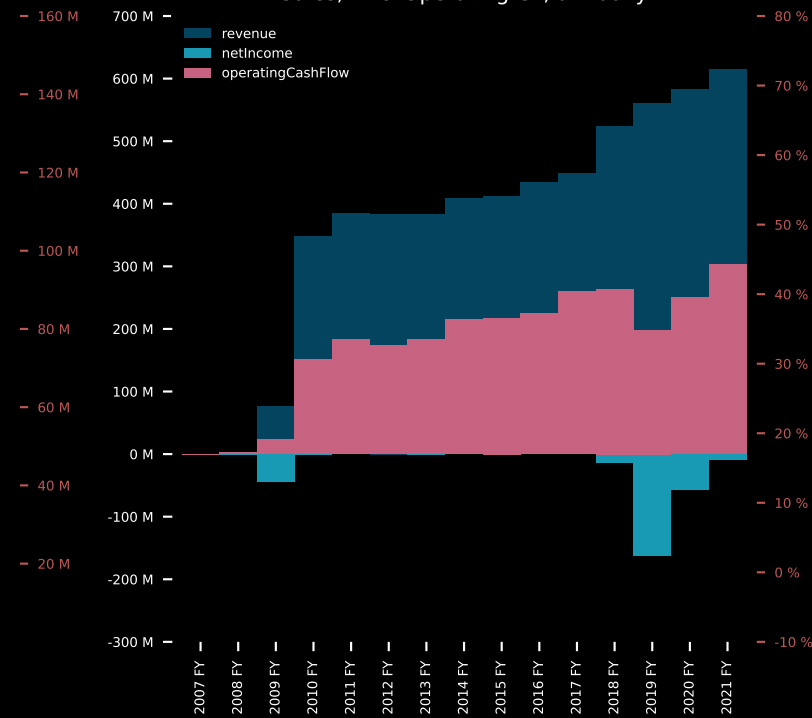
Sales, NI &amp; Operating CF, quarterly



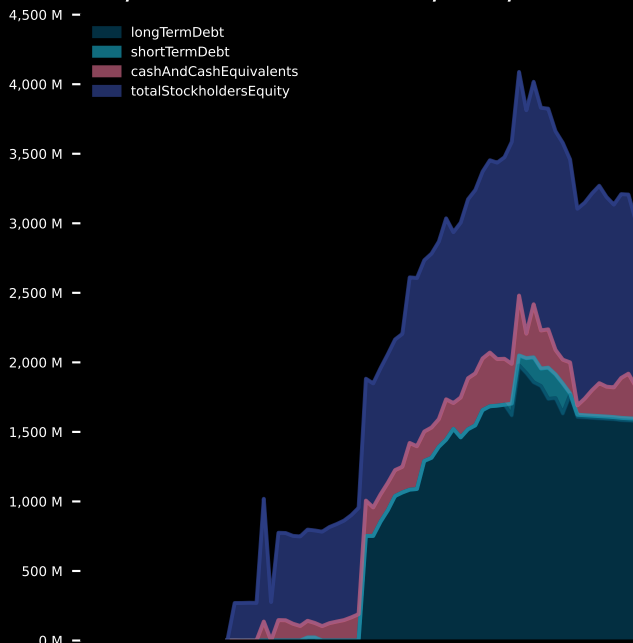
Price vs shares outstanding, quarterly



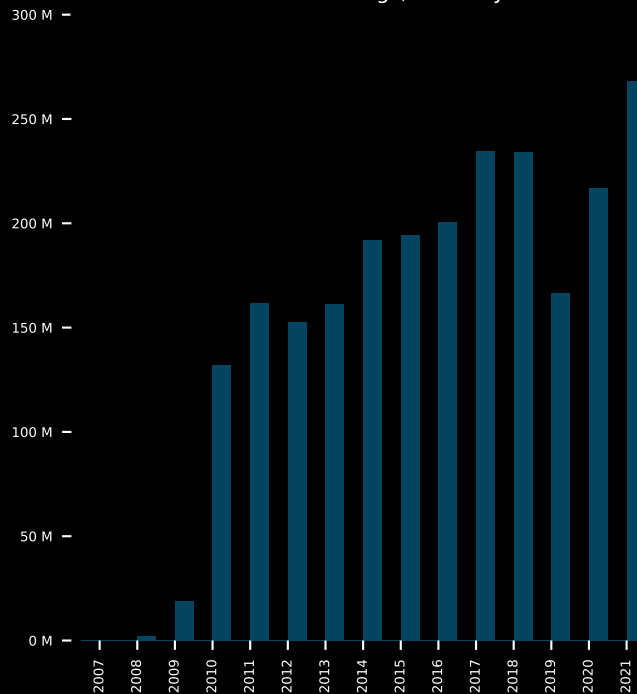
Sales, NI &amp; Operating CF, annually



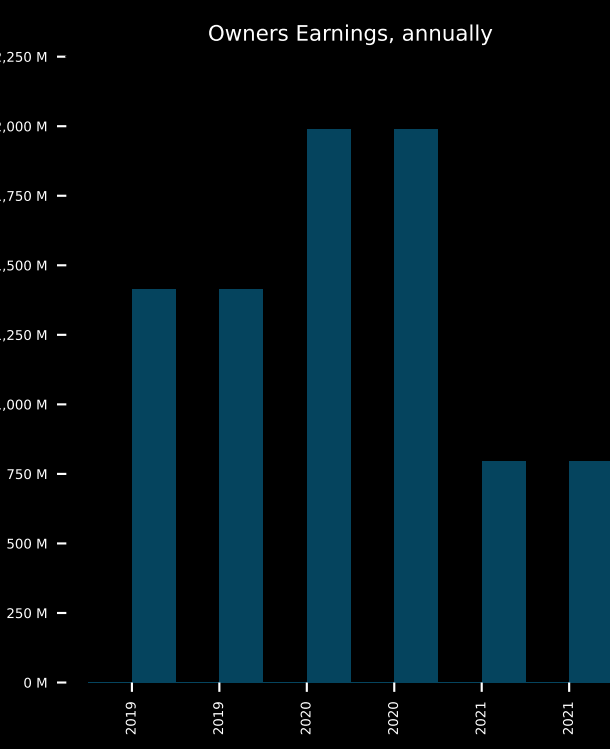
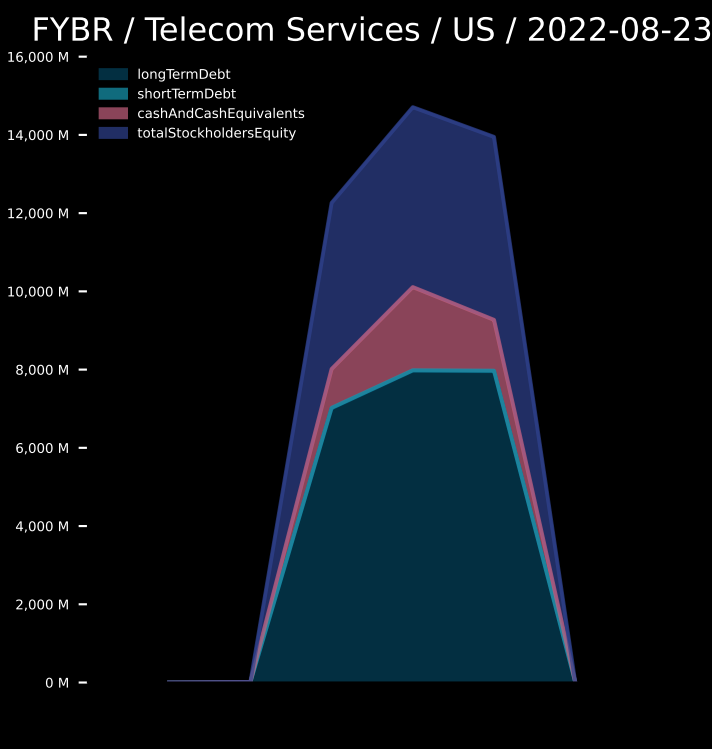
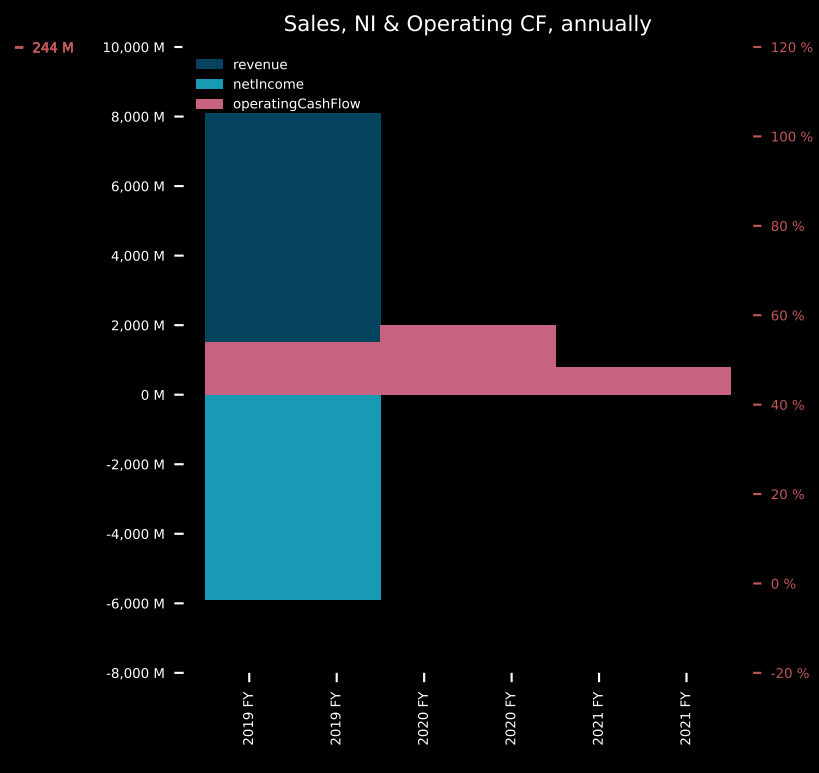
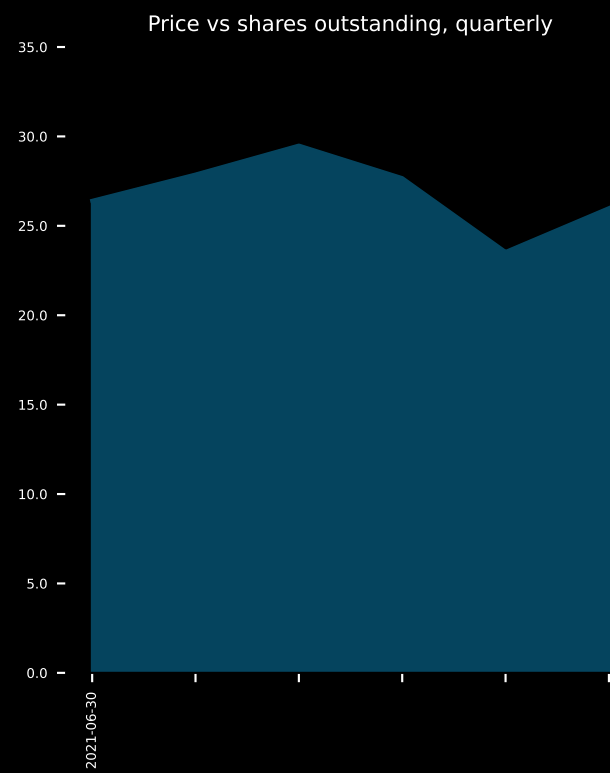
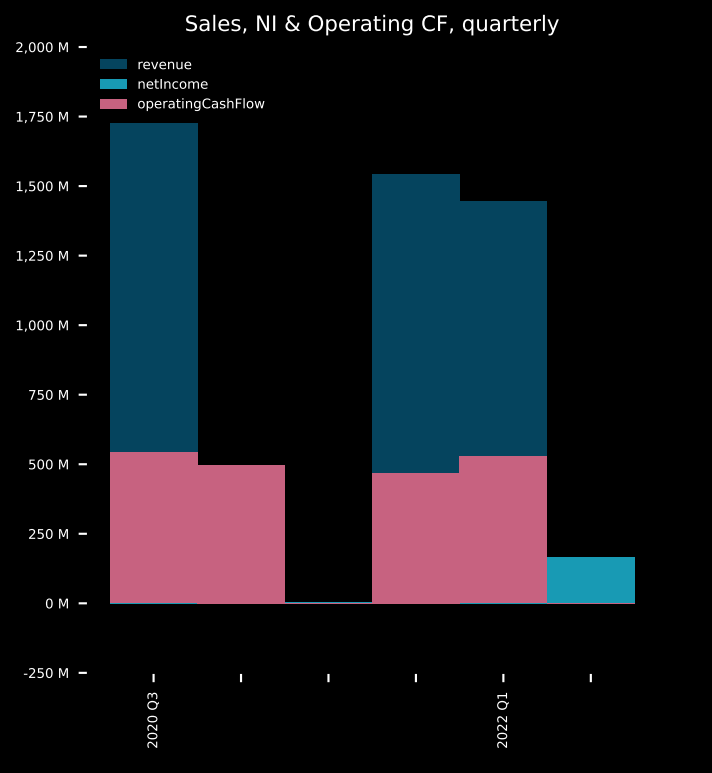
IRDM / Telecom Services / US / 2022-08-23



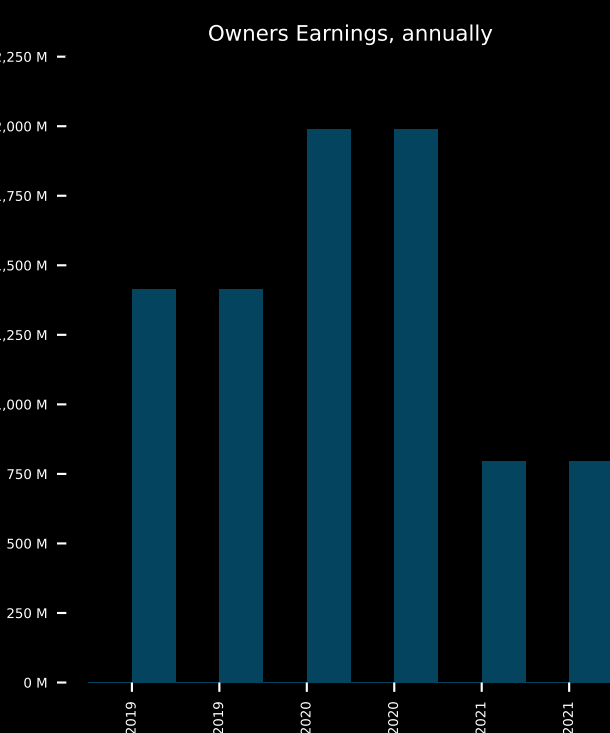
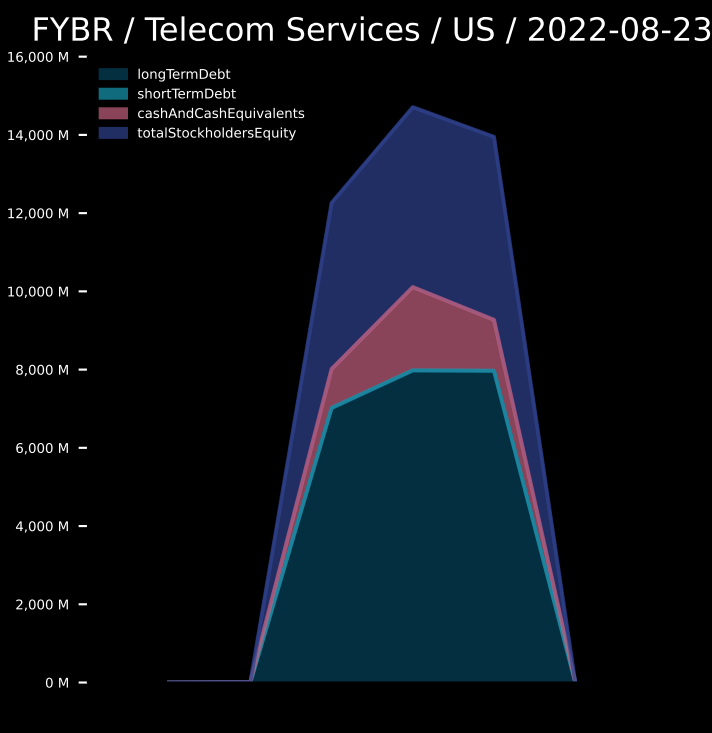
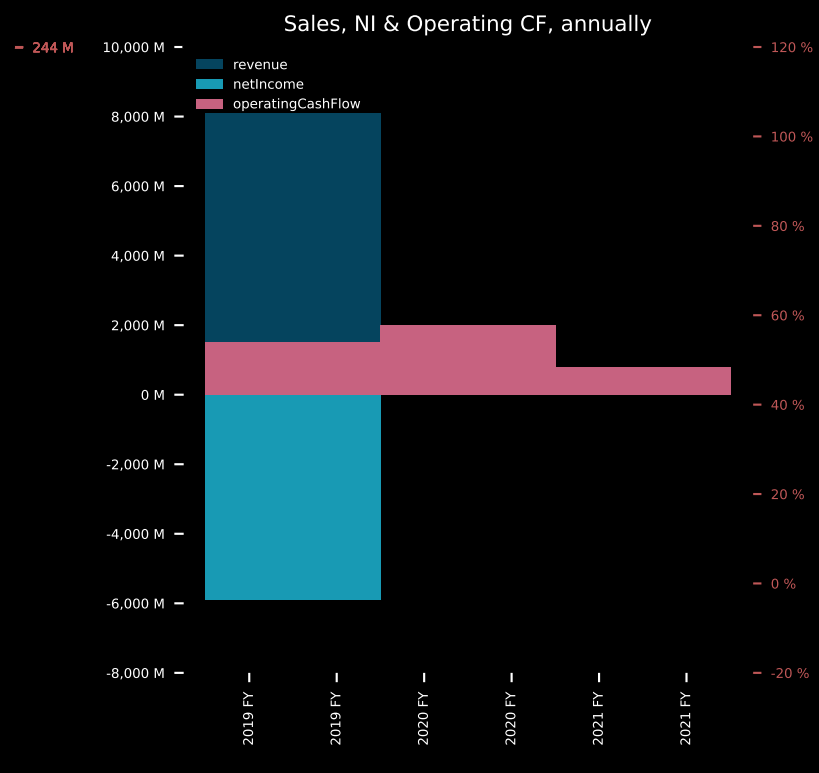
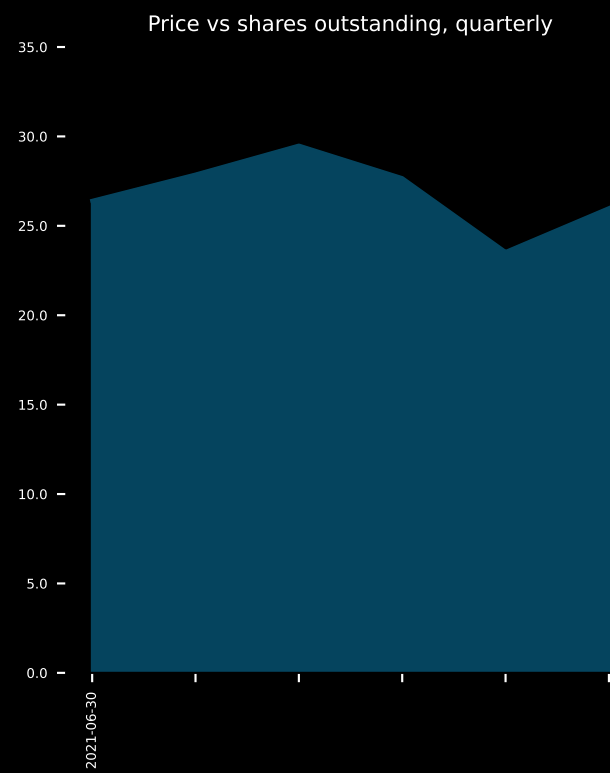
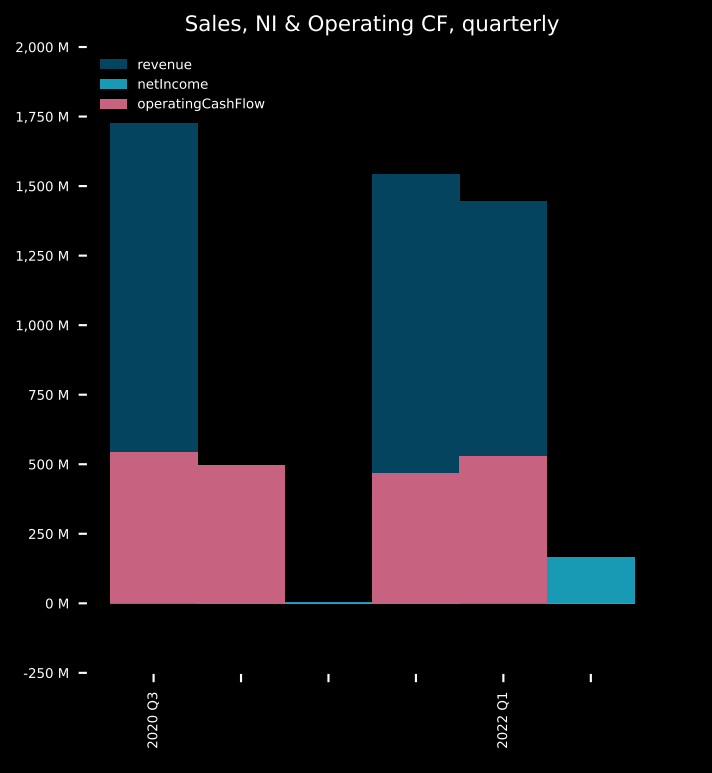
Owners Earnings, annually



*Iridium Communications Inc. provides mobile voice and data communications services and products to businesses, the United States and international governments, non-governmental organizations, and consumers worldwide. The company offers postpaid mobile voice and data satellite communications; prepaid mobile voice satellite communications; push-to-talk; broadband data; and Internet of Things (IoT) services. It also provides hosted payload and other data services, such as satellite time and location services, and inbound connections from the public switched telephone network, short message, subscriber identity module, activation, customer reactivation, and other peripheral services. In addition, the company offers voice and data solutions comprising personnel tracking devices; asset tracking devices for equipment, vehicles, and aircrafts; beyond-line-of-sight aircraft communications applications; maritime communications applications; specialized communications solutions for high-value individuals; mobile communications and data devices for the military and intelligence agencies,*



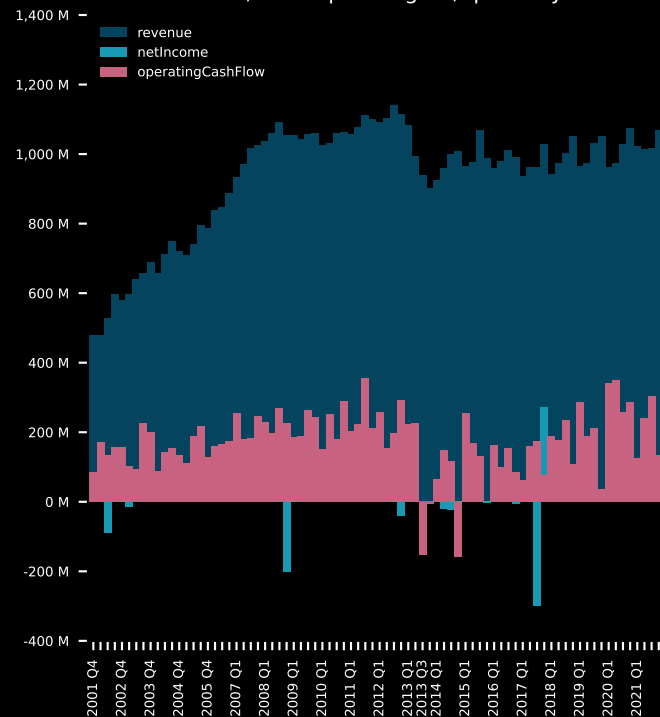
Frontier Communications Parent, Inc., together with its subsidiaries, provides communications services for consumer and business customers in 25 states in the United States. It offers data and Internet, voice, video, and other services. The company was formerly known as Frontier Communications Corporation and changed its name to Frontier Communications Parent, Inc. in April 2021. Frontier Communications Parent, Inc. was incorporated in 1935 and is based in Norwalk, Connecticut.



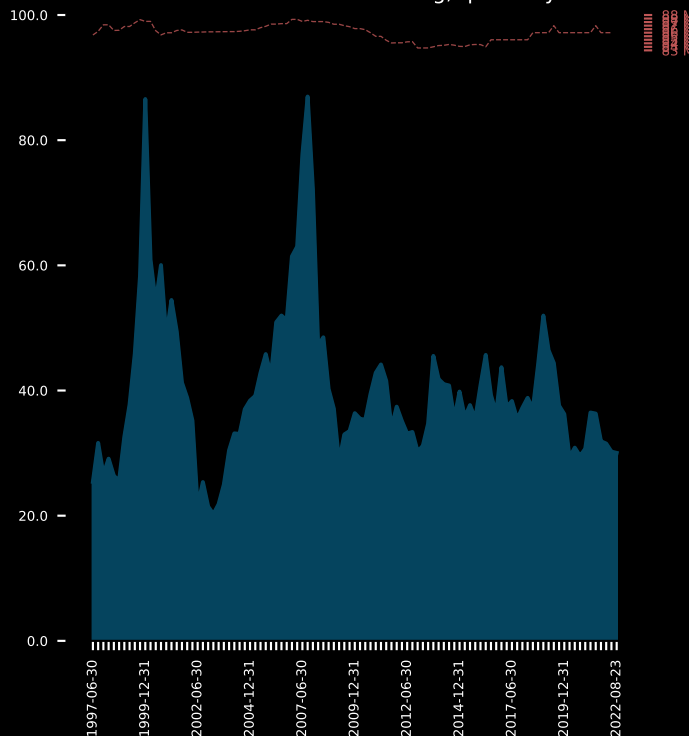
Frontier Communications Parent, Inc., together with its subsidiaries, provides communications services for consumer and business customers in 25 states in the United States. It offers data and Internet, voice, video, and other services. The company was formerly known as Frontier Communications Corporation and changed its name to Frontier Communications Parent, Inc. in April 2021. Frontier Communications Parent, Inc. was incorporated in 1935 and is based in Norwalk, Connecticut.



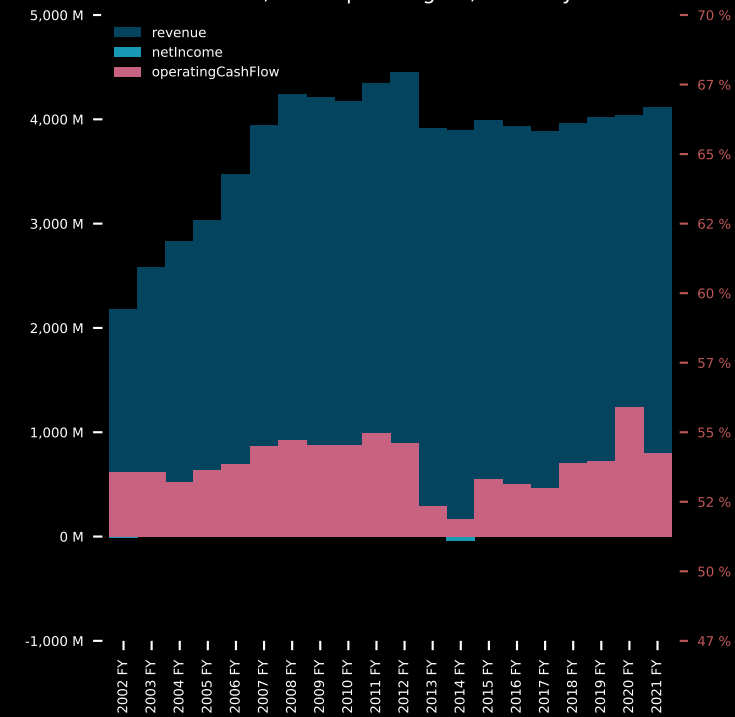
Sales, NI &amp; Operating CF, quarterly



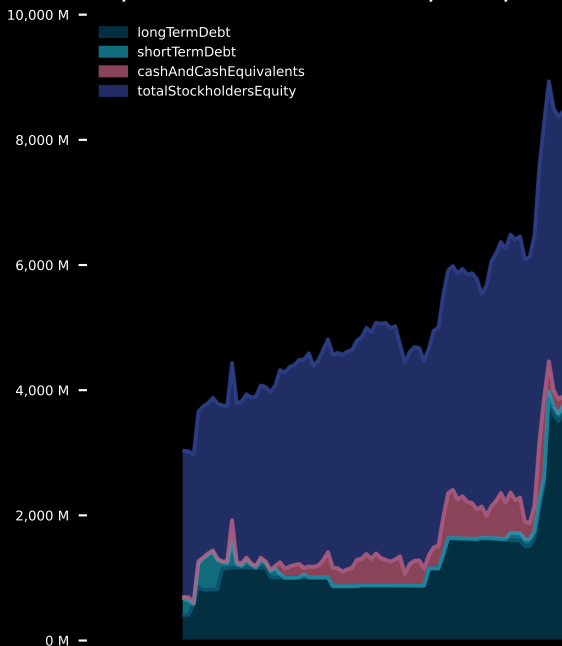
Price vs shares outstanding, quarterly



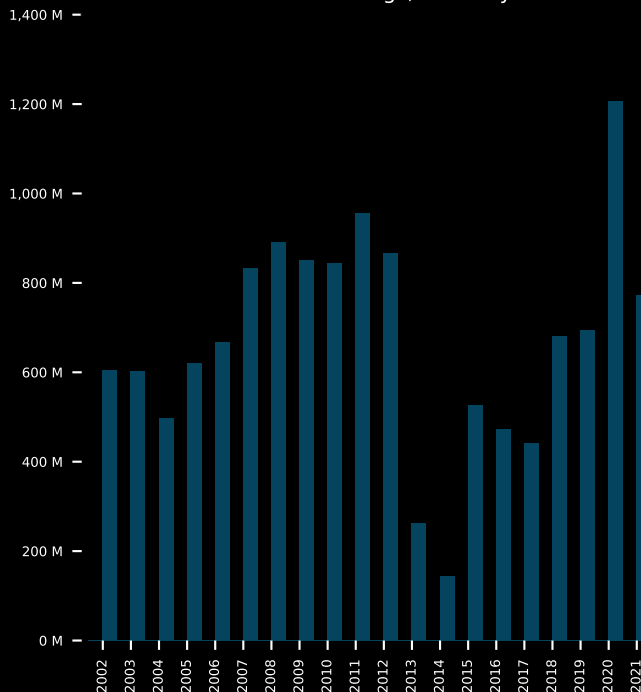
Sales, NI &amp; Operating CF, annually



USM / Telecom Services / US / 2022-08-23

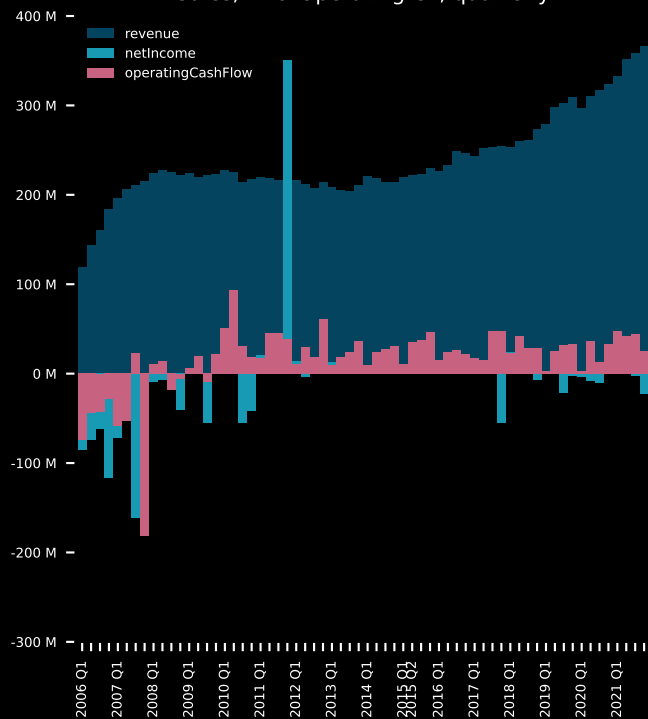


Owners Earnings, annually

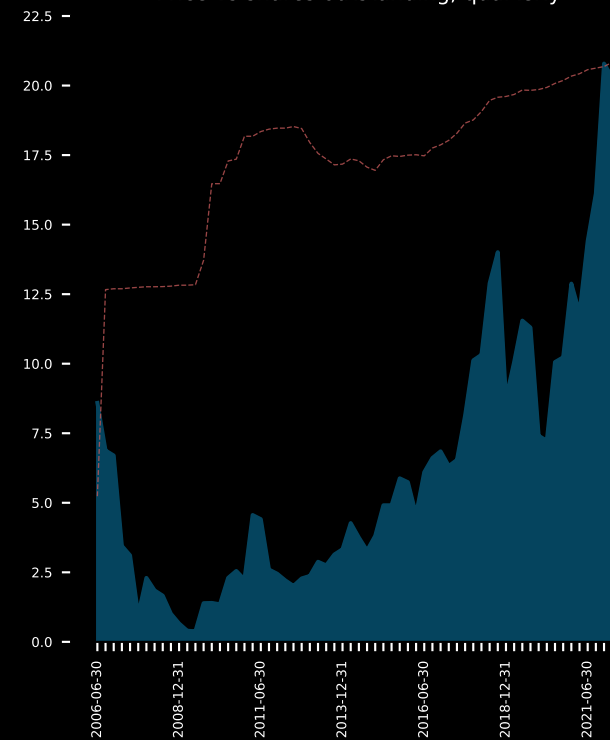


*United States Cellular Corporation provides wireless telecommunications services in the United States. The company offers wireless services, including voice, messaging, and data services. It also provides devices, such as smartphones and other handsets, tablets, wearables, mobile hotspots, routers, and internet of things devices. In addition, the company offers various accessories, such as cases, screen protectors, chargers, and memory cards; and consumer electronics, including audio, home automation, and networking products; as well as offers option to purchase devices and accessories under installment contracts. Further, the company offers roaming, wireless eligible telecommunications carrier, and wireless tower rental services. It serves consumer, business, and government customers with 5.0 million connections, including 4.4 million postpaid, 0.5 million prepaid, and 0.1 million reseller and other connections in 21 states. The company provides its products and services through retail sales, direct sales, third-party national retailers, and independent agents, as well as e-commerce and telesales. The company was incorporated in 1992, which was later merged with Sprint Corporation.*

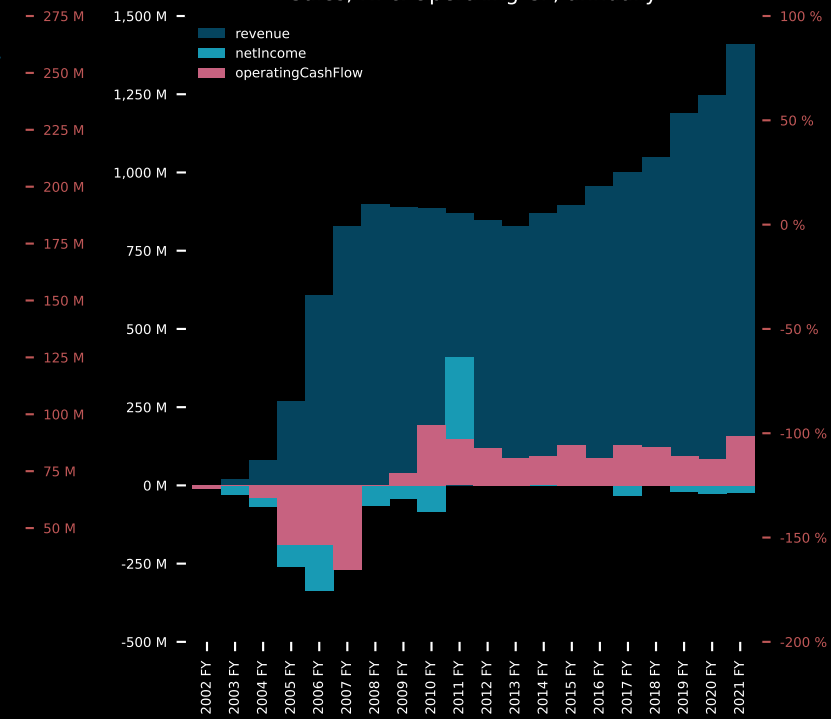
Sales, NI &amp; Operating CF, quarterly



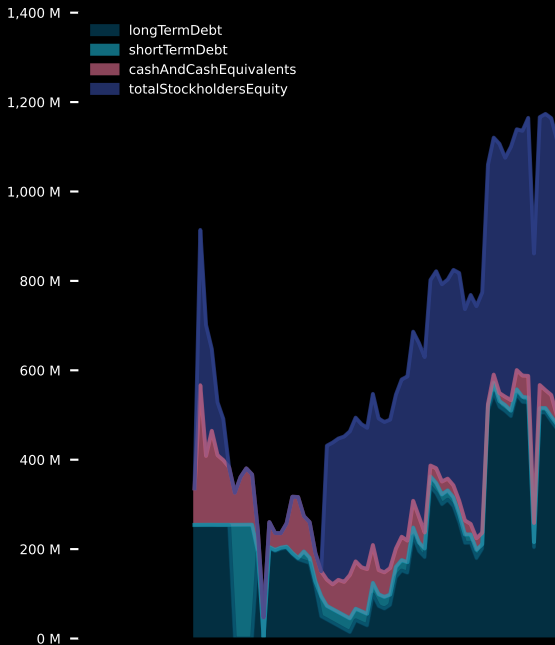
Price vs shares outstanding, quarterly



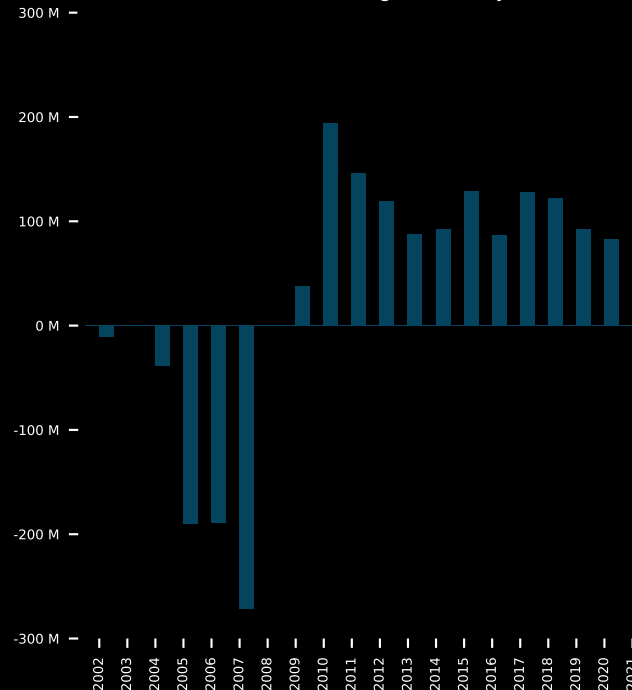
Sales, NI &amp; Operating CF, annually



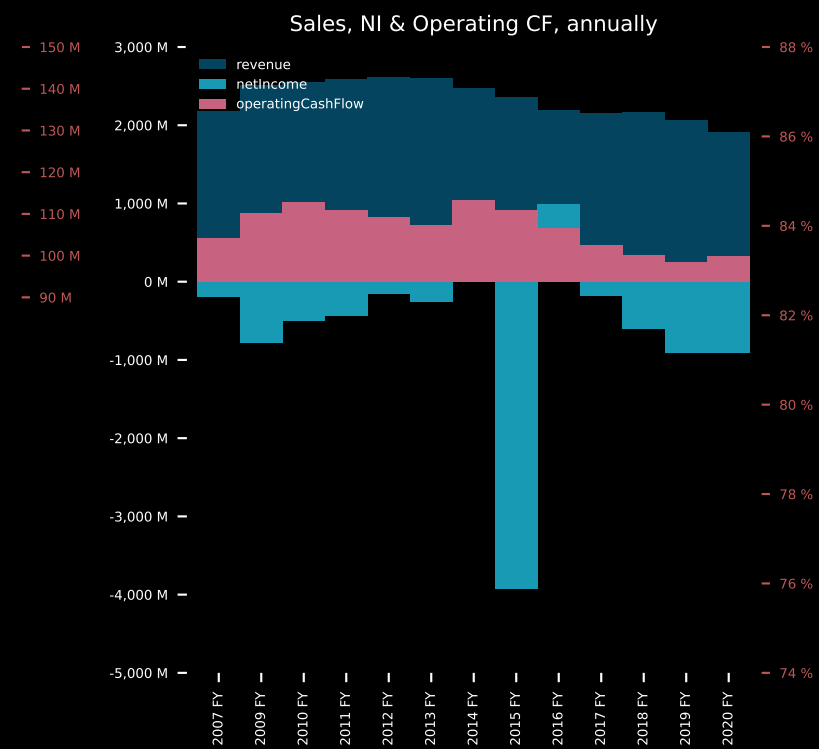
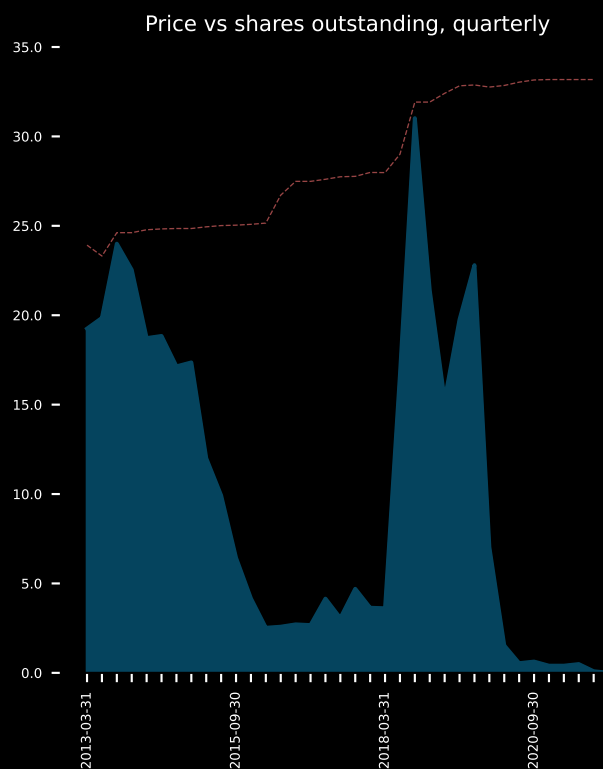
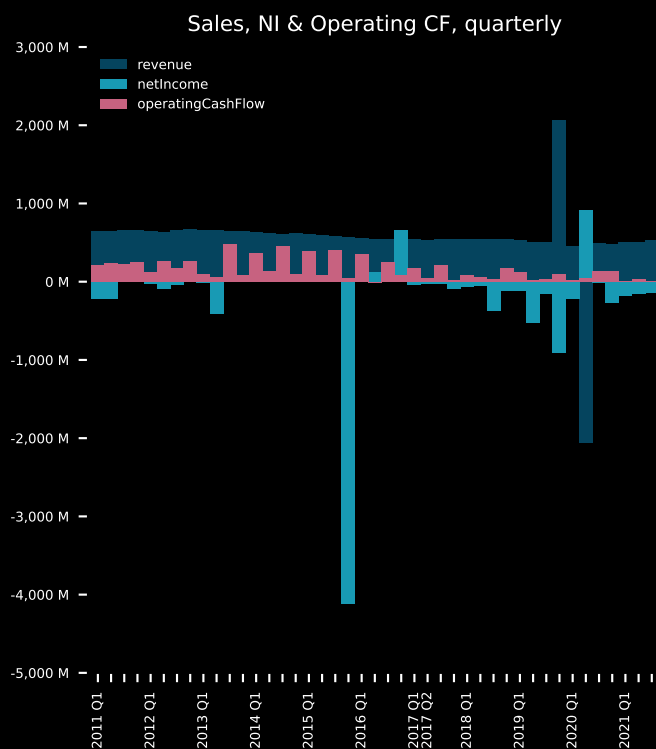
VG / Telecom Services / US / 2022-08-23



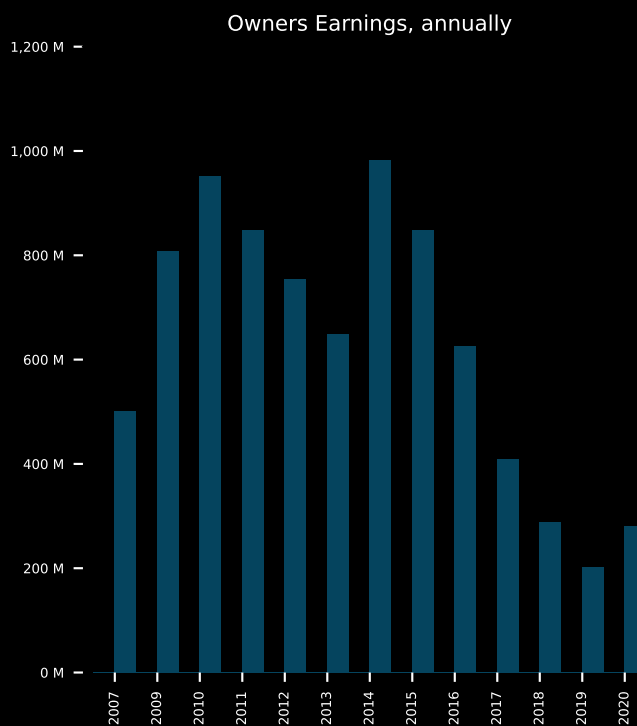
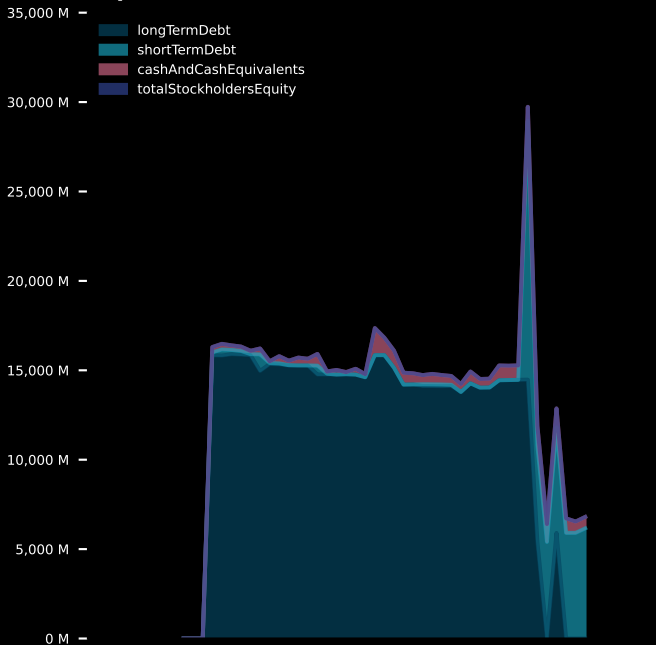
Owners Earnings, annually



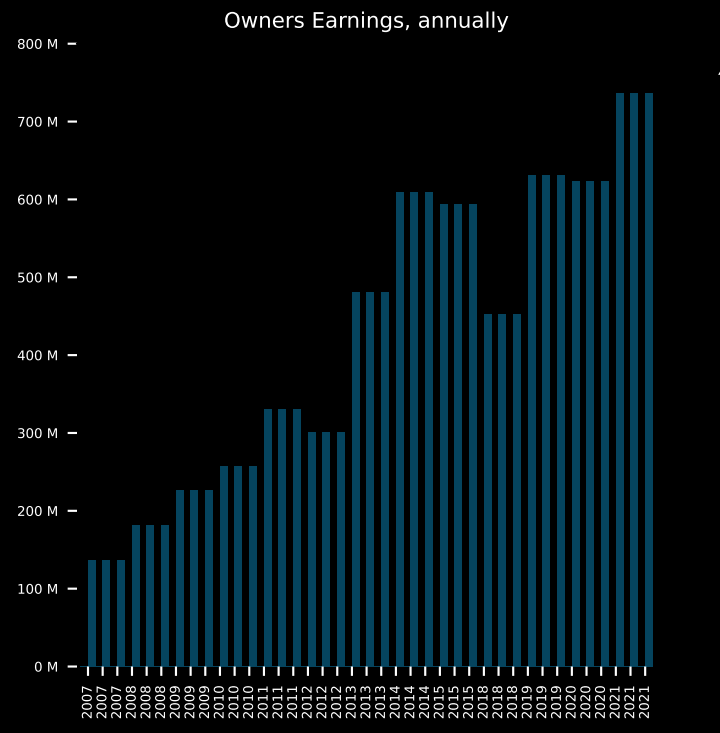
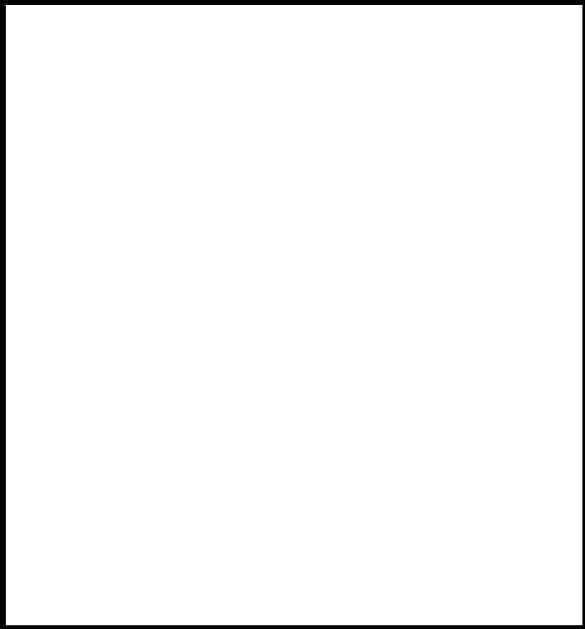
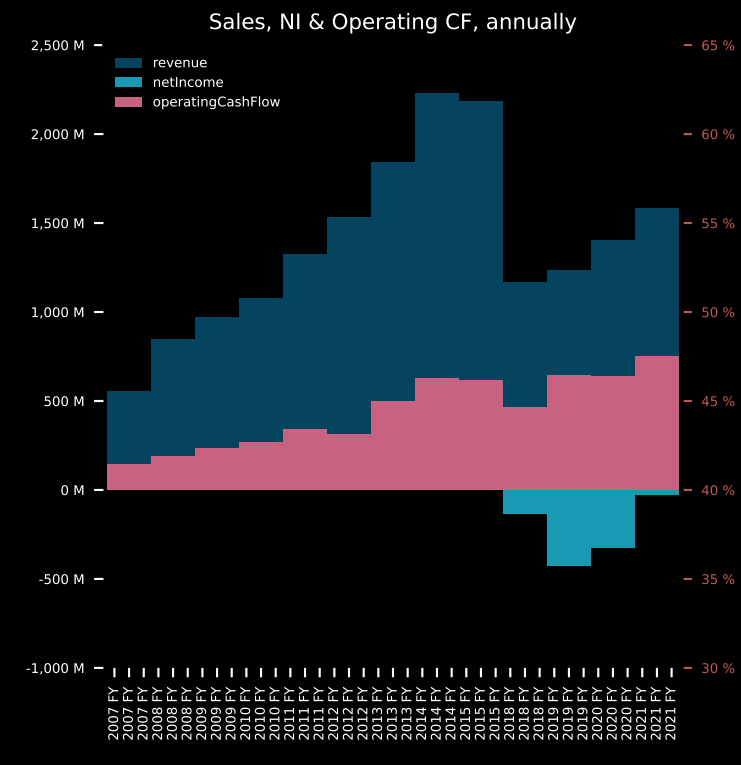
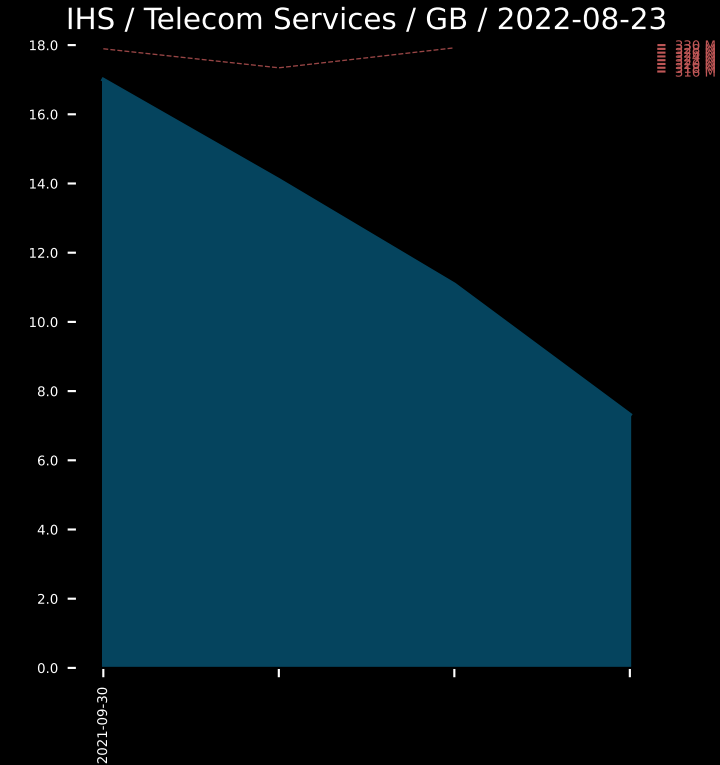
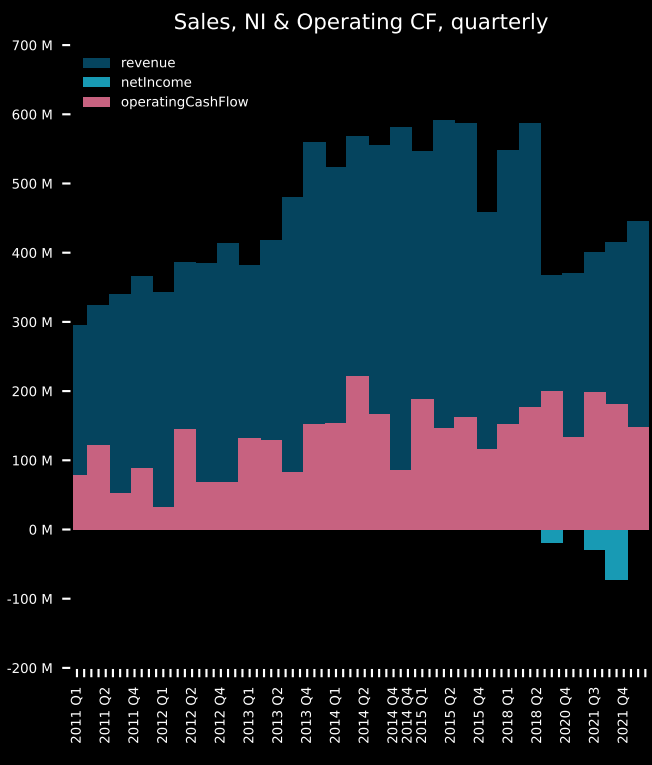
Vonage Holdings Corp. primarily operates as a cloud communications company in the United States, Canada, the United Kingdom, the European Union, and Asia. It operates in two segments, Vonage Communications Platform and Consumer. The Vonage Communications Platform segment offers programmable, embeddable, and customizable application program interfaces that enable software developers to build communications capabilities, such as messaging and voice calling within their applications; and Vonage Contact Center, a cloud contact center solution. This segment also provides Vonage Business Communications, a cloud-native proprietary technology platform that delivers integrated unified communication services; and Vonage Business Enterprise, a cloud-based platform for mid-market and enterprise customers that provides unified communication and collaboration services, including voice, data, video, mobile, and contact center services. The Consumer segment provides home telephone services through various service plans with basic features, including voicemail, call waiting, call forwarding, and call transfer.



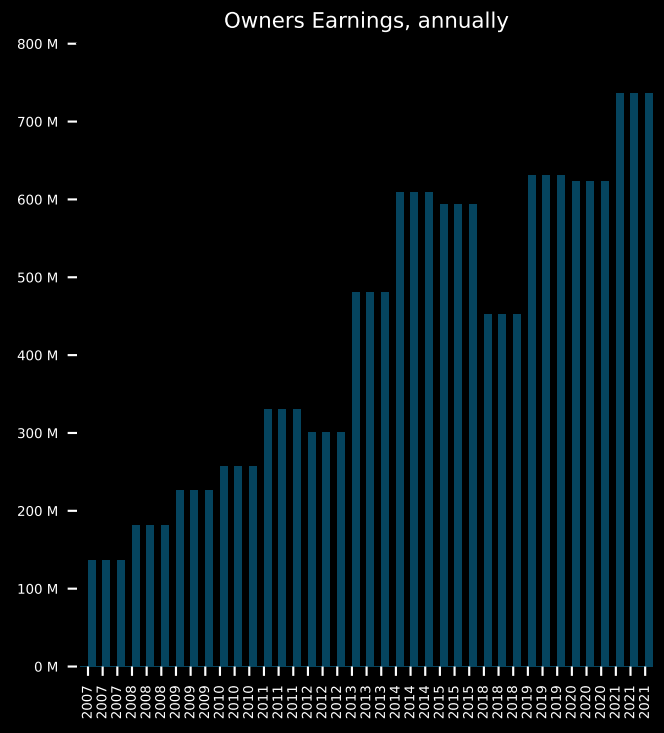
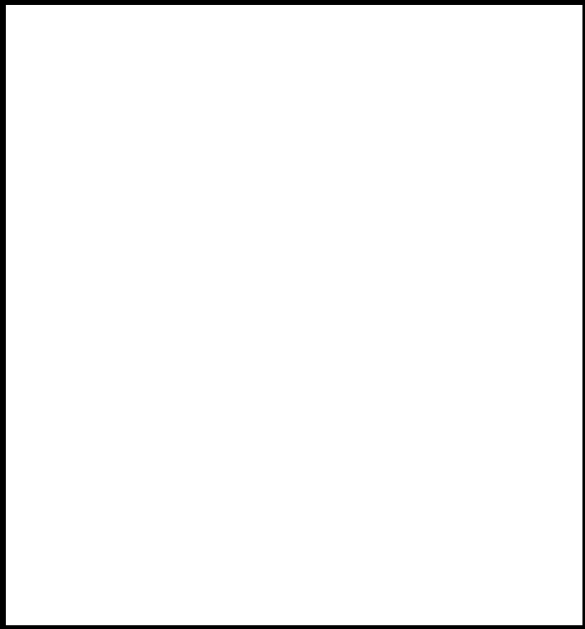
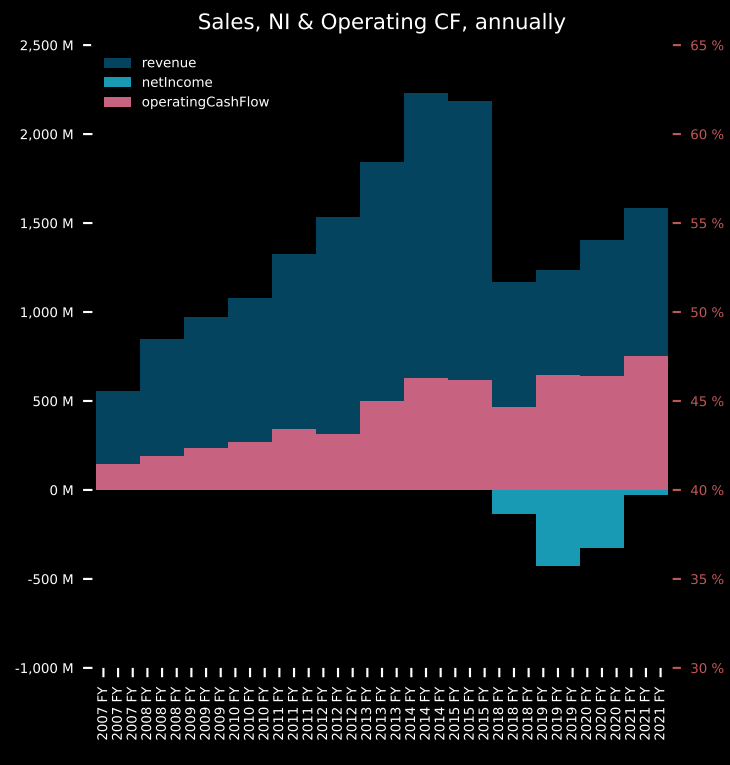
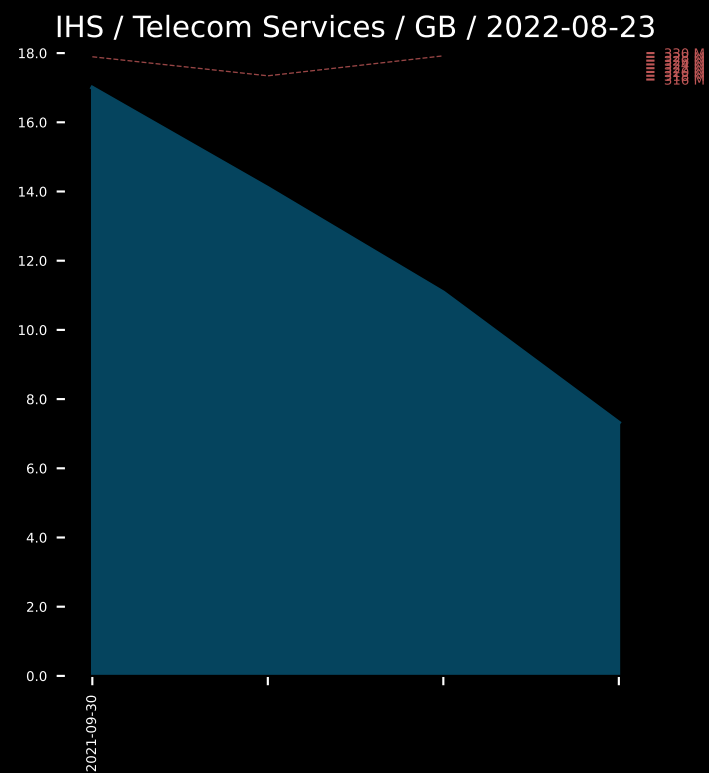
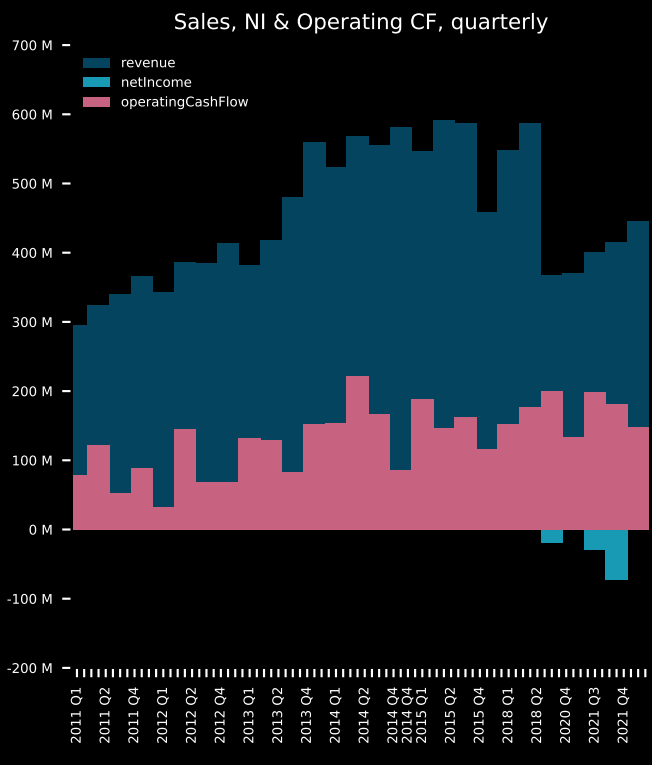
## INTEQ / Telecom Services / LU / 2022-08-23



*Intelsat S.A., together with its subsidiaries, provides satellite communications services worldwide. The company offers a range of communications services to media companies, fixed and wireless telecommunications operators, data networking service providers for enterprise and mobile applications in the air and on the seas, multinational corporations, and Internet service providers; and commercial satellite communication services to the U.S. government and other military organizations and their contractors. It provides various on-network services, including transponder services; managed services that combine satellite capacity, teleport facilities, satellite communications hardware, and other ground facilities to provide managed and monitored broadband, trunking, video, and private network services to customers; and channel services primarily used for providing point-to-point bilateral services to telecommunications providers. The company also offers off-network services comprising transponder, mobile satellite, and other services. In addition, it offers satellite-related consulting and technical services that include the*



*IHS Holding Limited, together with its subsidiaries, owns, operates, and develops shared telecommunications infrastructure in Africa, Latin America, Europe, and the Middle East. It offers colocation and lease agreement, build-to-suit, fiber connectivity, and rural telephony solutions. The company serves mobile network operators, internet service providers, broadcasters, security functions, and private corporations. IHS Holding Limited was founded in 2001 and is based in London, the United Kingdom.*

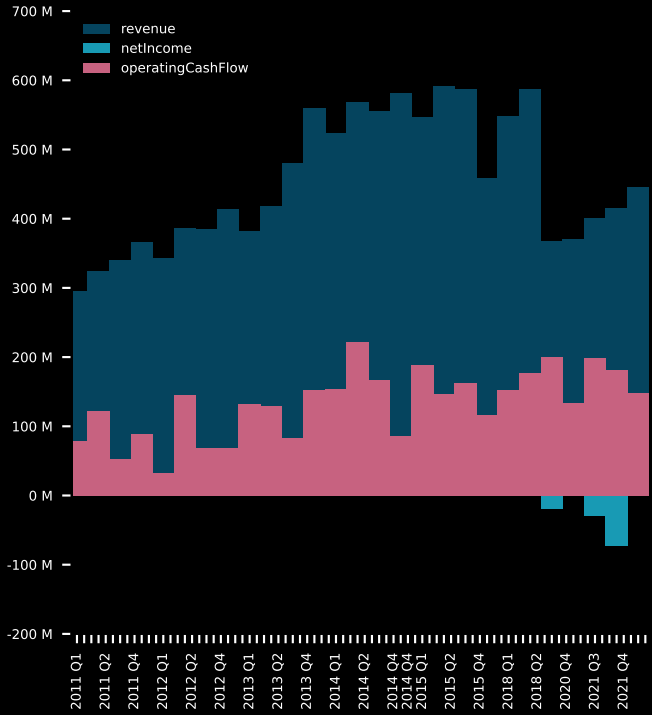


*IHS Holding Limited, together with its subsidiaries, owns, operates, and develops shared telecommunications infrastructure in Africa, Latin America, Europe, and the Middle East. It offers colocation and lease agreement, build-to-suit, fiber connectivity, and rural telephony solutions. The company serves mobile network operators, internet service providers, broadcasters, security functions, and private corporations. IHS Holding Limited was founded in 2001 and is based in London, the United Kingdom.*

The chart displays three financial metrics over time:

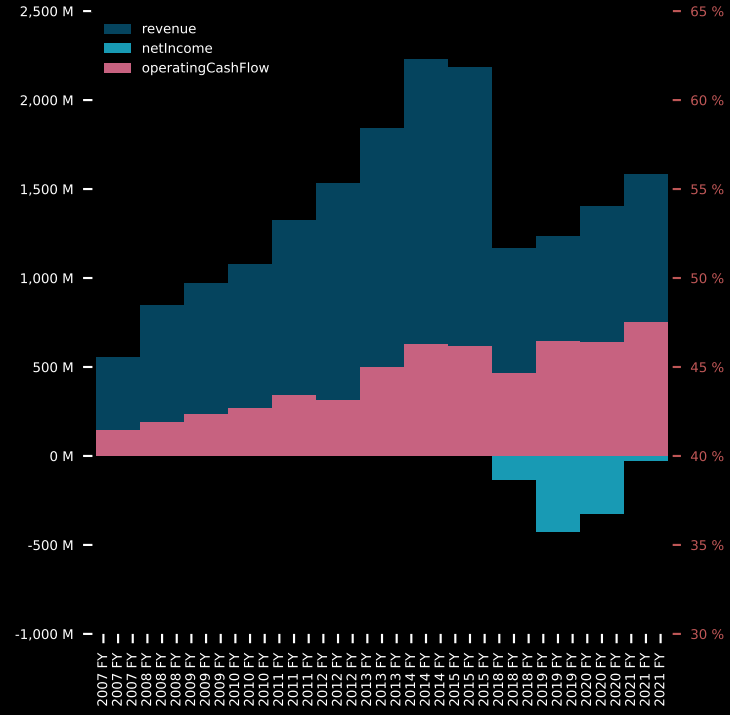
- revenue** (blue bars)
- netIncome** (orange bars)
- operatingCashFlow** (green bars)

The Y-axis represents values in millions (M), ranging from -200 M to 700 M. The X-axis shows quarters from 2011 Q1 to 2021 Q4. Revenue shows a strong upward trend, peaking in 2015 Q2 at nearly 600 M, before a sharp decline in 2015 Q4 and 2016 Q1. Net income and operating cash flow also show fluctuations, with a notable dip in net income in 2015 Q4 and 2016 Q1.



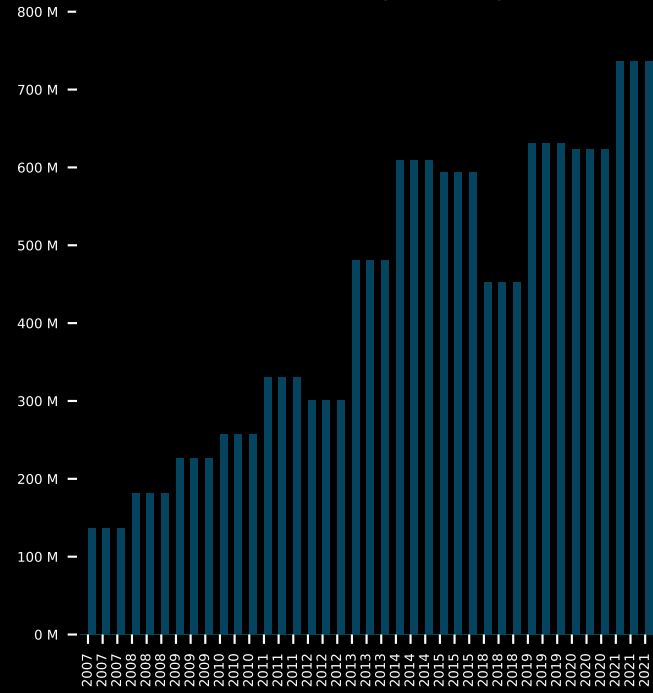
The chart displays three financial metrics over a 15-year period (2007 FY to 2021 FY). Revenue (blue bars) shows a general upward trend, peaking in 2014 and 2015 before a sharp decline in 2018 and 2019, followed by a recovery. Net income (red area) and operating cash flow (green area) both show a significant decline starting in 2018, with net income reaching a low point in 2019 and 2020 before a slight recovery in 2021.

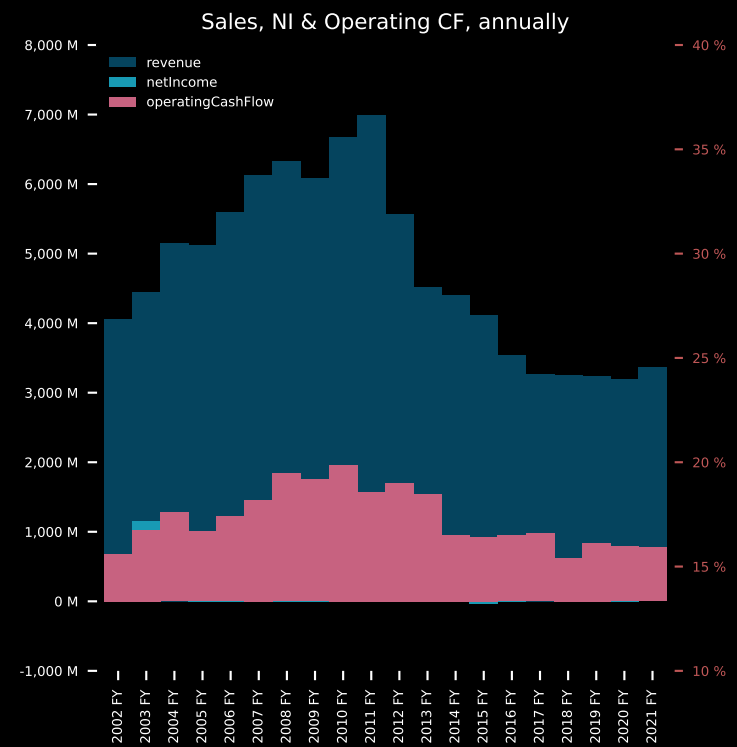
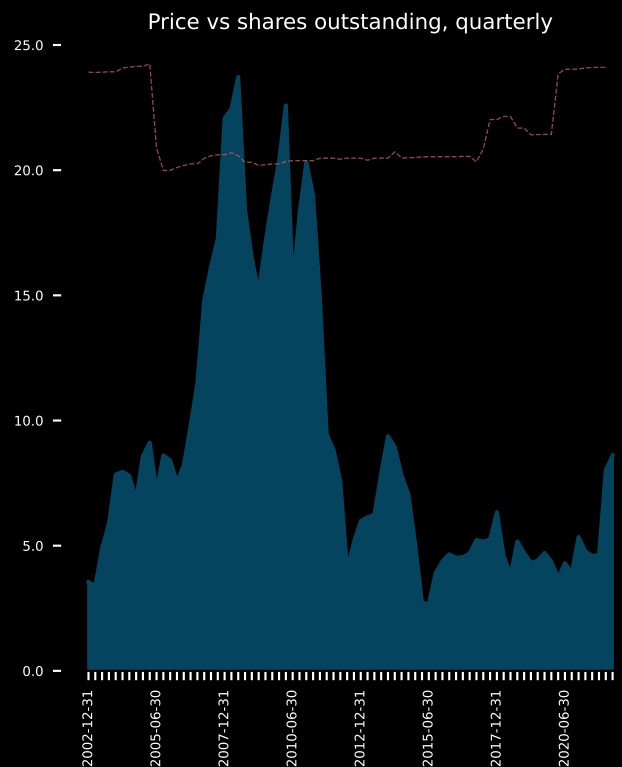
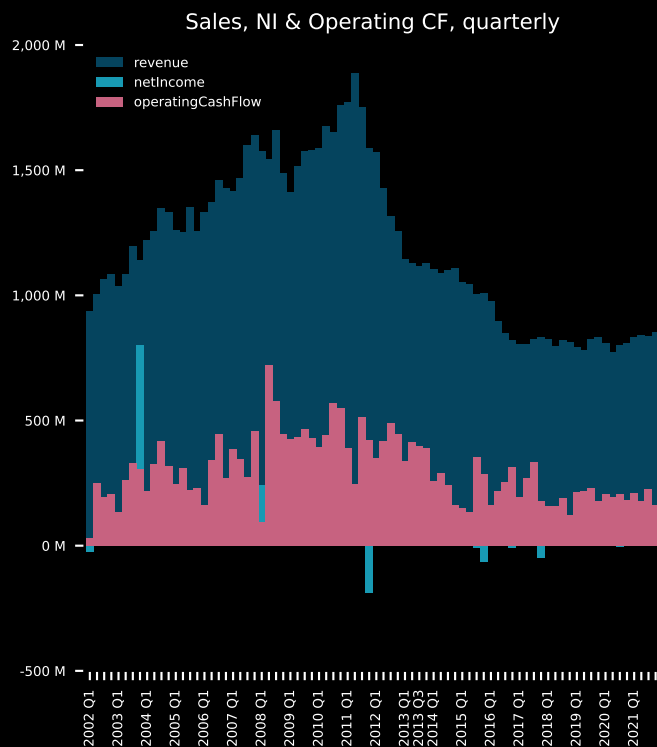
Fiscal Year	Revenue (M)	Net Income (M)	Operating Cash Flow (M)
2007 FY	550	150	150
2008 FY	850	200	200
2009 FY	950	250	250
2010 FY	1050	300	300
2011 FY	1300	350	350
2012 FY	1500	300	300
2013 FY	1850	500	500
2014 FY	2250	600	600
2015 FY	2200	600	600
2016 FY	1150	450	450
2017 FY	1150	600	600
2018 FY	450	-100	-100
2019 FY	1200	-400	-400
2020 FY	1400	-300	-300
2021 FY	1600	-100	-100



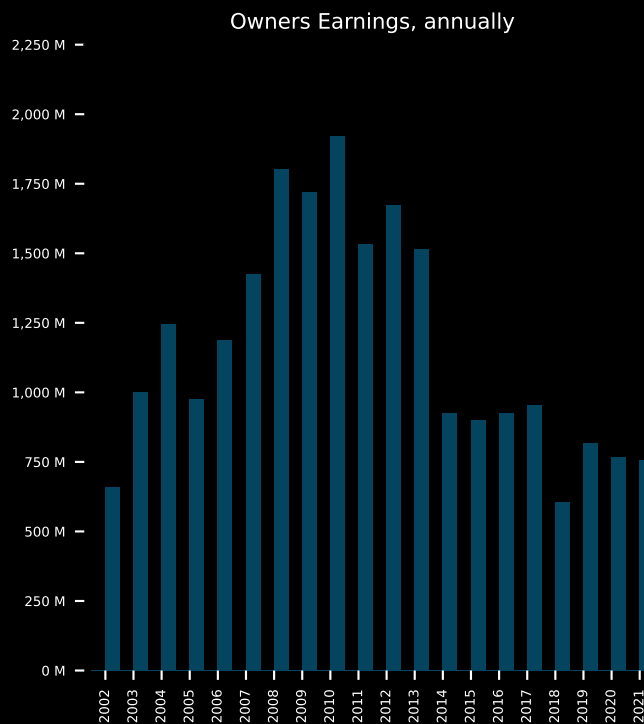
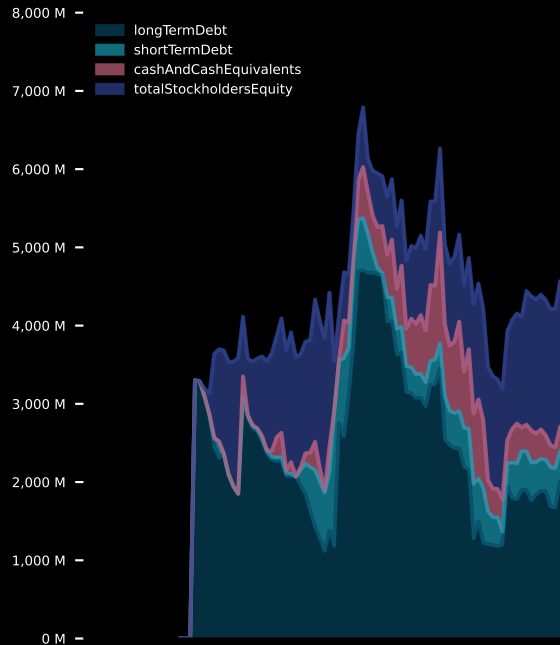
*IHS Holding Limited, together with its subsidiaries, owns, operates, and develops shared telecommunications infrastructure in Africa, Latin America, Europe, and the Middle East. It offers colocation and lease agreement, build-to-suit, fiber connectivity, and rural telephony solutions. The company serves mobile network operators, internet service providers, broadcasters, security functions, and private corporations. IHS Holding Limited was founded in 2001 and is based in London, the United Kingdom.*

Year	Employees (M)
2007	140
2007	140
2007	140
2008	185
2008	185
2008	185
2009	225
2009	225
2009	225
2010	260
2010	260
2010	260
2011	330
2011	330
2011	330
2012	300
2012	300
2012	300
2013	480
2013	480
2013	480
2014	605
2014	605
2014	605
2015	595
2015	595
2015	595
2016	590
2016	590
2016	590
2017	450
2017	450
2017	450
2018	455
2018	455
2018	455
2019	630
2019	630
2019	630
2020	625
2020	625
2020	625
2021	740
2021	740
2021	740





## PTNR / Telecom Services / IL / 2022-08-23



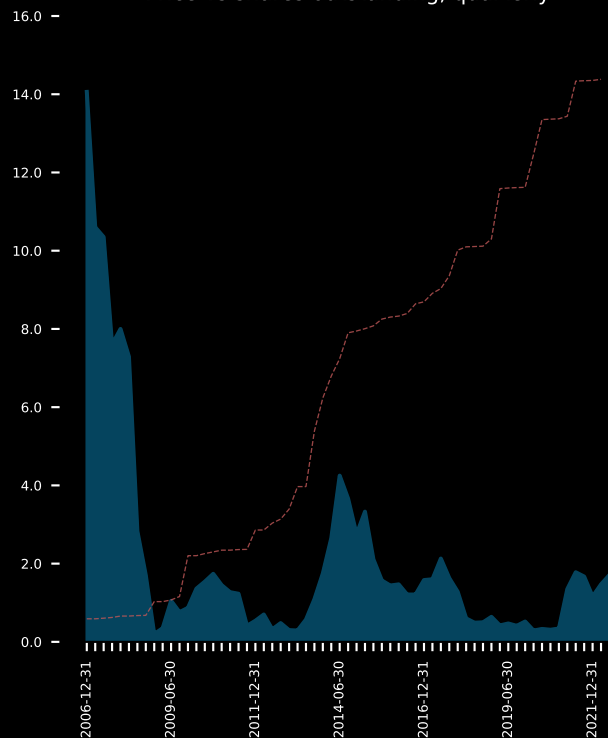
*Partner Communications Company Ltd. provides various telecommunication services in Israel. It operates in two segments, Cellular and Fixed-Line. The company offers cellular telephony services, including basic cellular telephony, text messaging, internet browsing and data transfer, content, handset repair, roaming, and services provided to other operators that are permitted to use its cellular network, as well as Machine to Machine and Internet of Things services. It also provides cellular content and value-added services, such as multimedia messaging, cyber protection, cloud backup, ringtone, music streaming, and various business services; and international roaming services, as well as sells and leases cellular handsets, and related cellular devices and accessories. In addition, the company offers Internet service provider (ISP) services comprising email accounts, Wi-Fi networking, anti-virus and anti-spam filtering, and infrastructure and ISP access; network and data infrastructure services, information security and integration solutions, designated services, business information storage services, and data center and cloud services; information and data center services; and*



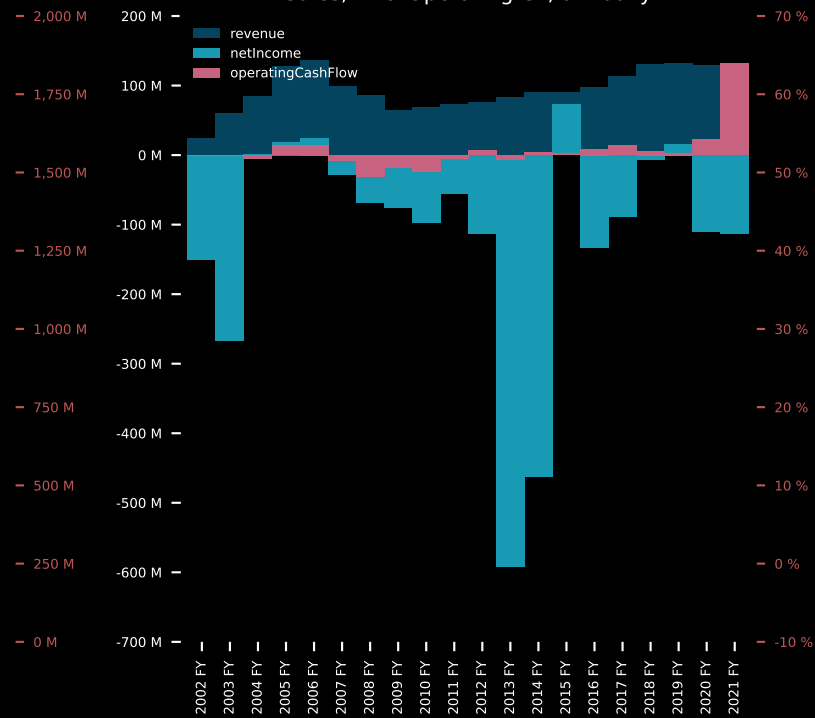
Sales, NI &amp; Operating CF, quarterly



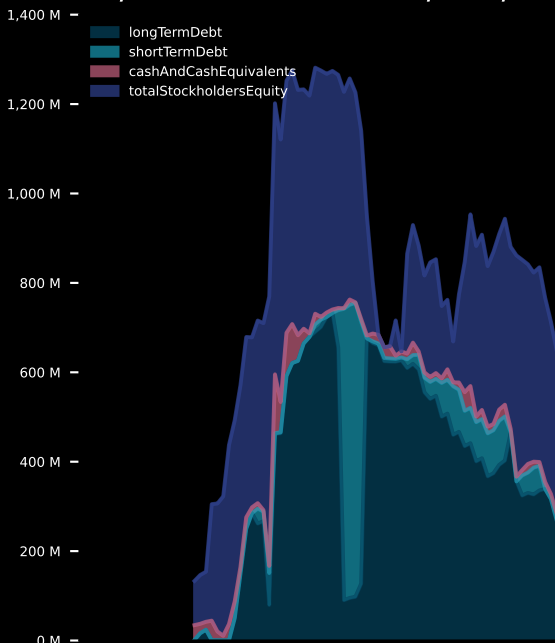
Price vs shares outstanding, quarterly



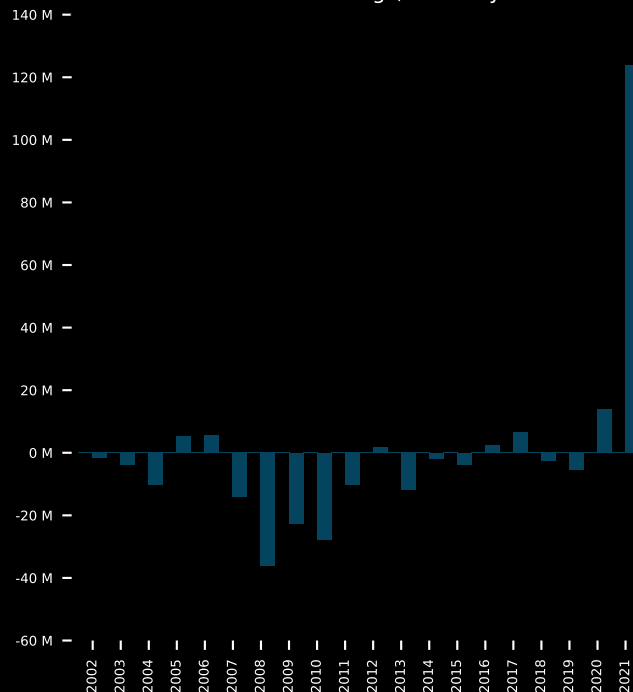
Sales, NI &amp; Operating CF, annually



GSAT / Telecom Services / US / 2022-08-22

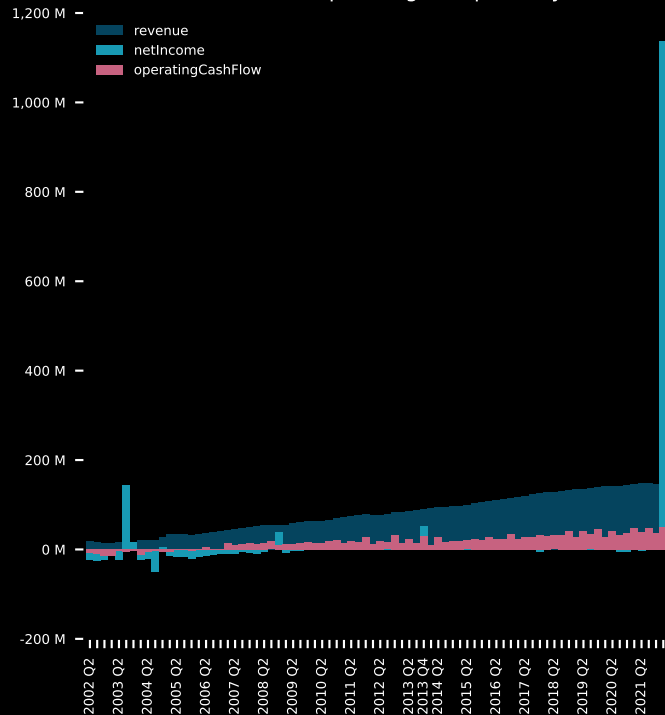


Owners Earnings, annually

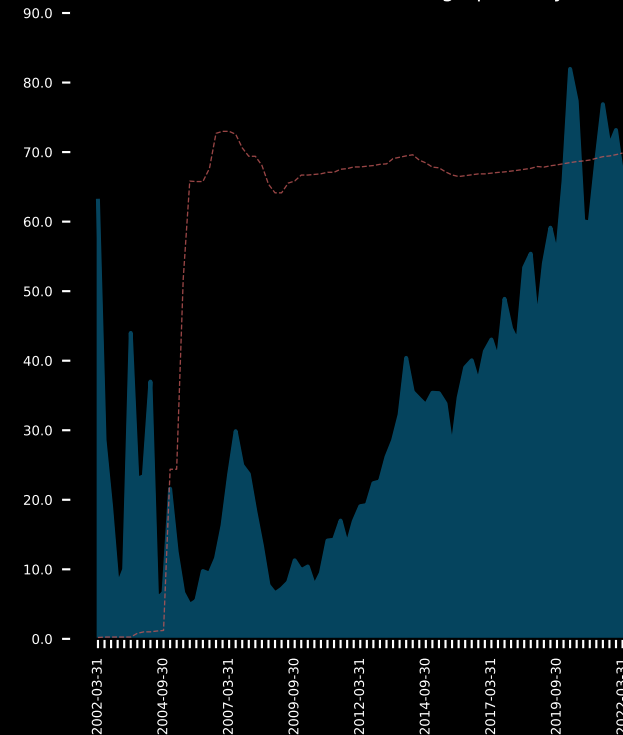


Globalstar, Inc. provides mobile satellite services worldwide. The company offers duplex two-way voice and data products, including mobile voice and data satellite communications services and equipment for remote business continuity, recreational usage, safety, emergency preparedness and response, and other applications; fixed voice and data satellite communications services and equipment at industrial, commercial, and residential sites, as well as rural villages and ships; and data modem services and equipment. It also provides SPOT consumer retail products, such as SPOT satellite GPS messenger for personal tracking, emergency location, and messaging solutions; and SPOT Trace, an anti-theft and asset tracking device. In addition, the company offers commercial Internet of Things one-way transmission products to track cargo containers and rail cars, as well as to monitor utility meters, and oil and gas assets. Further, it sells wholesale minutes to independent gateway operators (IGOs); and provides engineering services, such as hardware and software designs to develop specific applications; and installation of

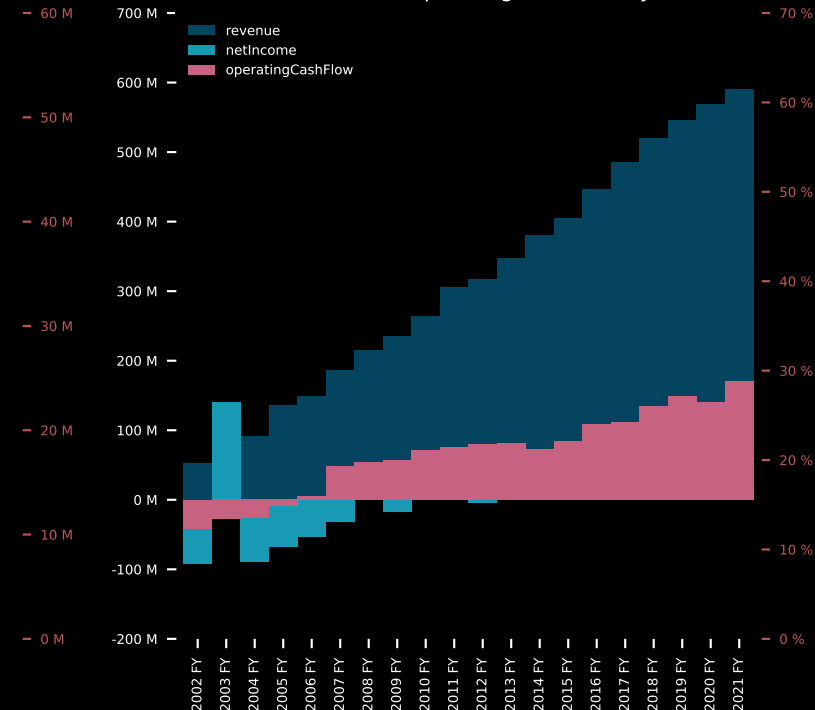
Sales, NI &amp; Operating CF, quarterly



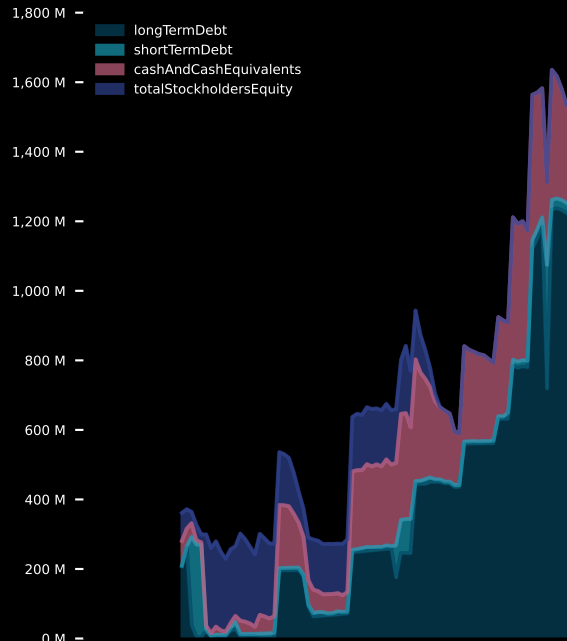
Price vs shares outstanding, quarterly



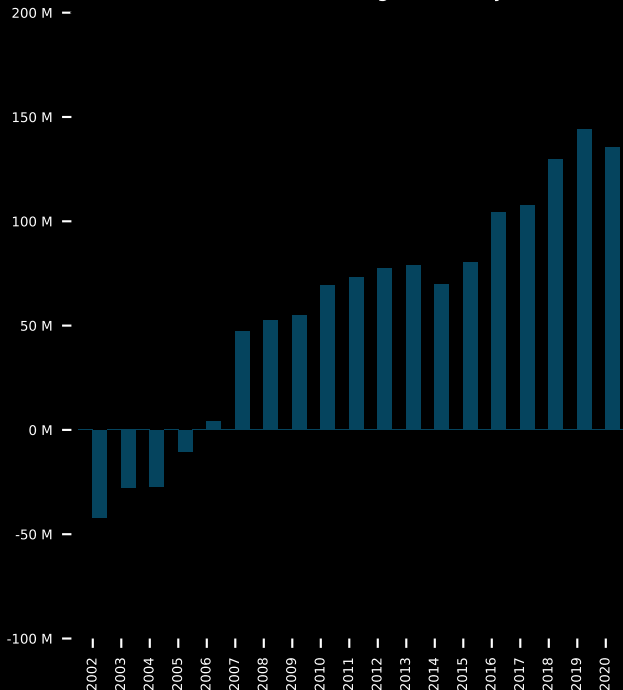
Sales, NI &amp; Operating CF, annually



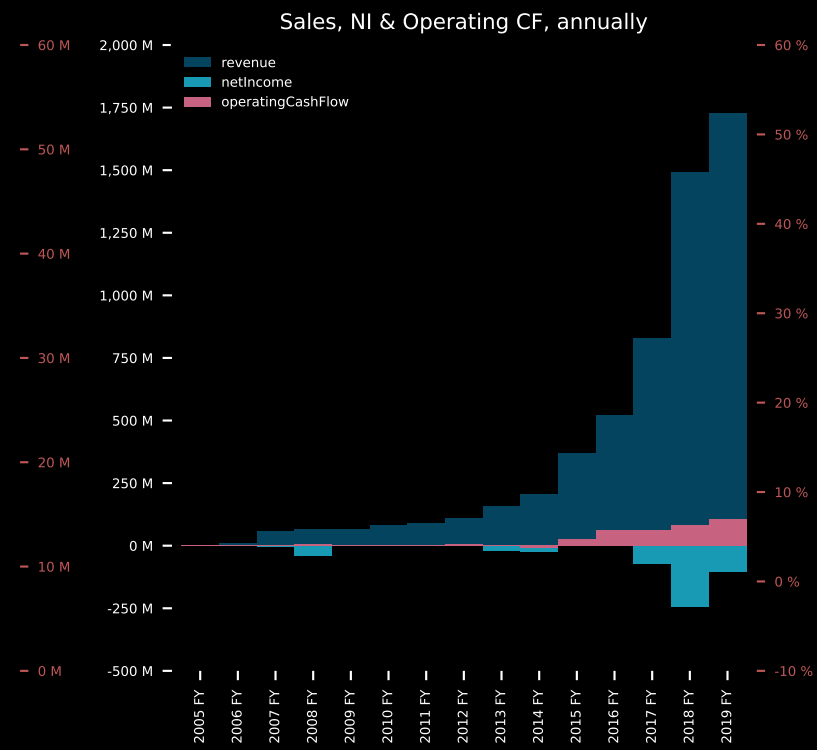
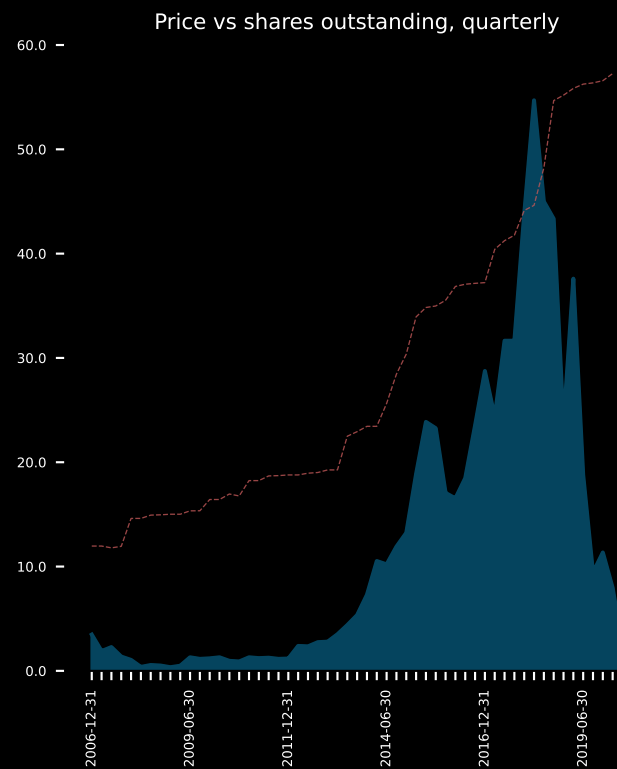
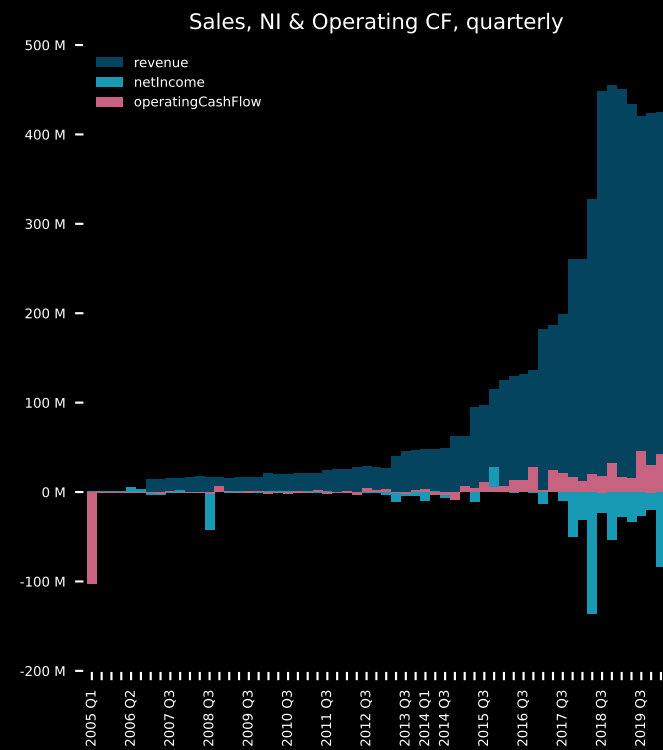
CCOI / Telecom Services / US / 2022-08-22



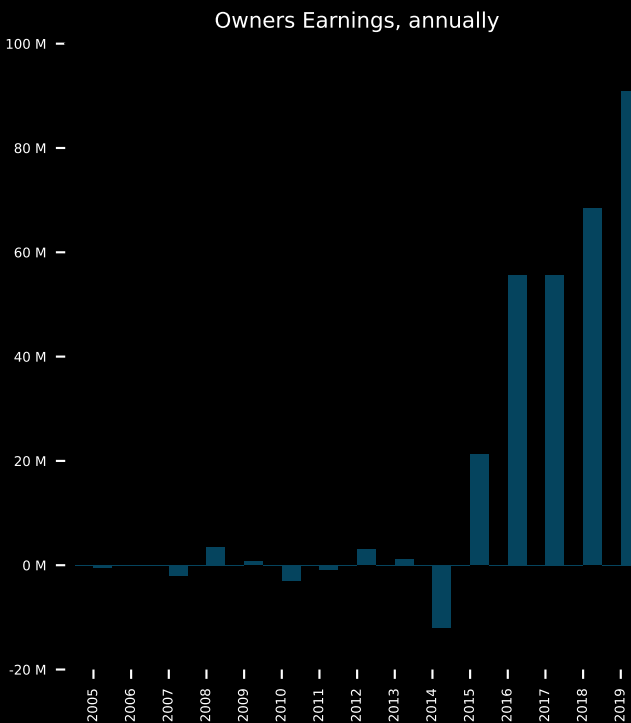
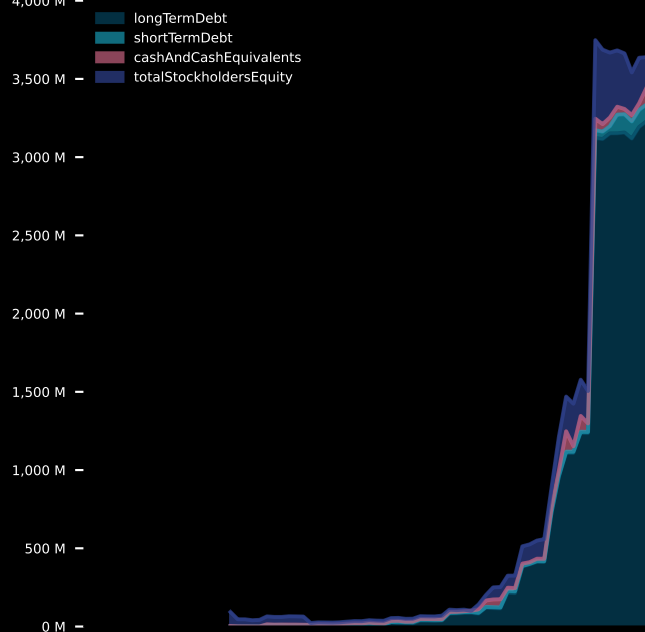
Owners Earnings, annually



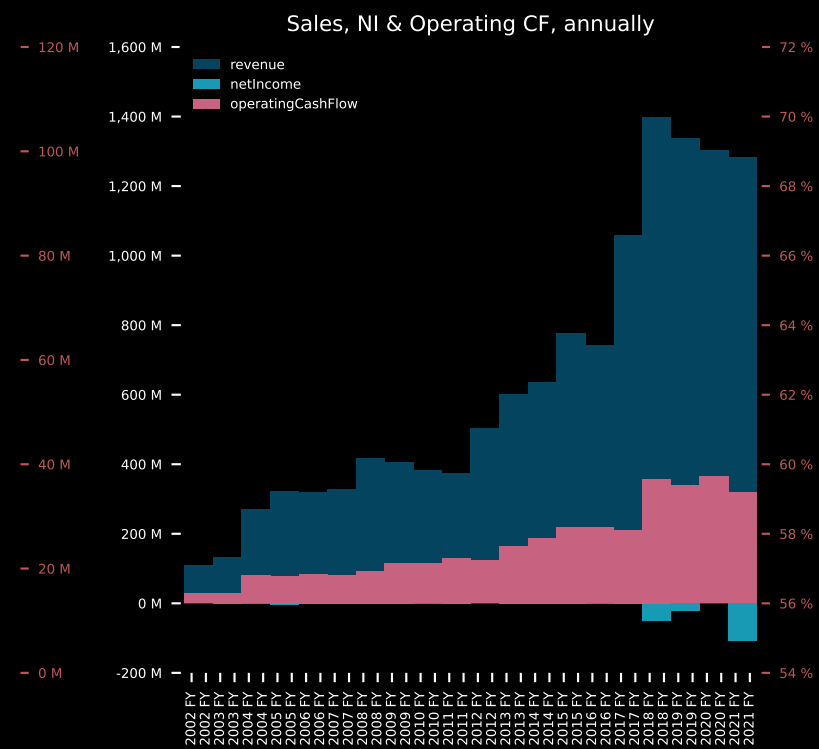
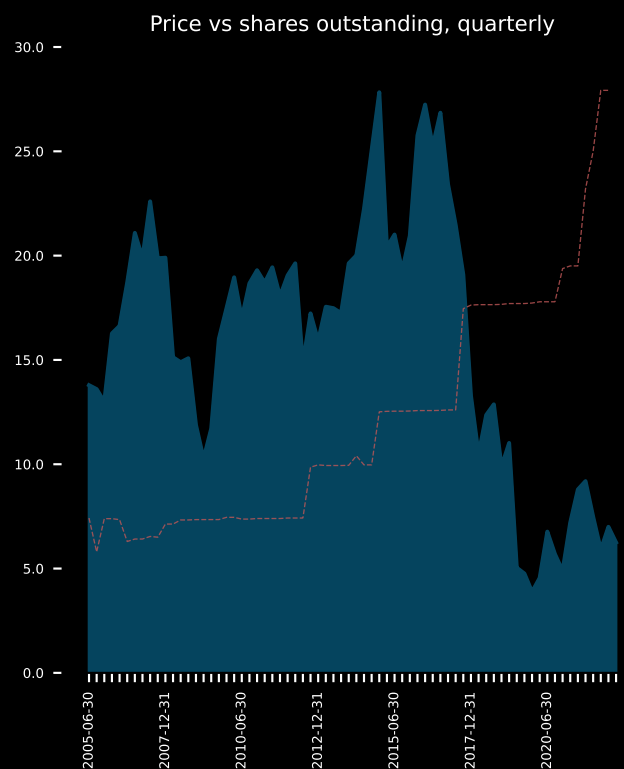
*Cogent Communications Holdings, Inc., through its subsidiaries, provides high-speed Internet access, private network, and data center colocation space services in North America, Europe, Asia, South America, Australia, and Africa. The company offers on-net Internet access and private network services to law firms, financial services firms, and advertising and marketing firms, as well as health care providers, educational institutions and other professional services businesses, other Internet service providers, telephone companies, cable television companies, Web hosting companies, media service providers, mobile phone operators, content delivery network companies, and commercial content and application service providers. It also provides Internet access and private network services to customers that are not located in buildings directly connected to its network; and on-net services to customers located in buildings that are physically connected to its network. In addition, the company offers off-net services to corporate customers using other carriers' circuits to provide the last mile portion of the link from the customers' premises to the network. For the information presented in this*



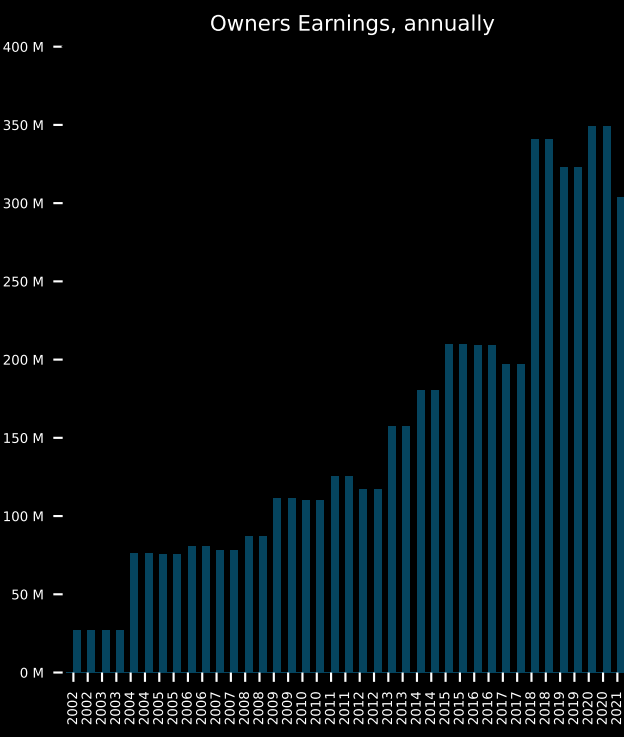
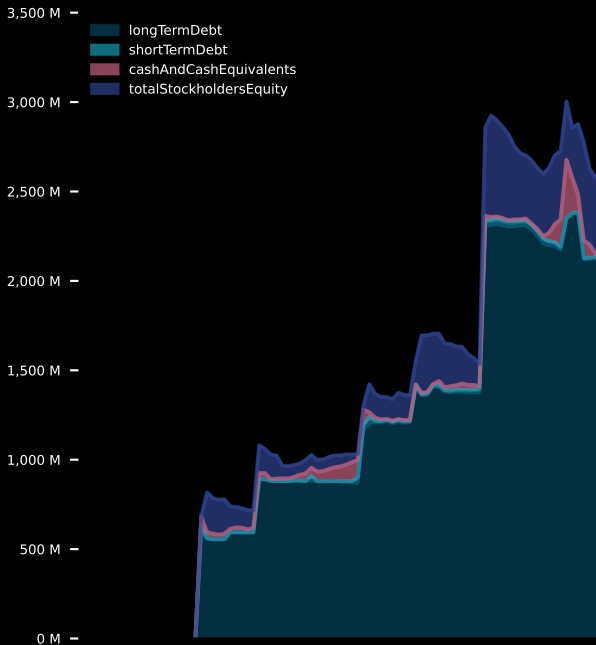
## GTT / Telecom Services / US / 2022-08-23



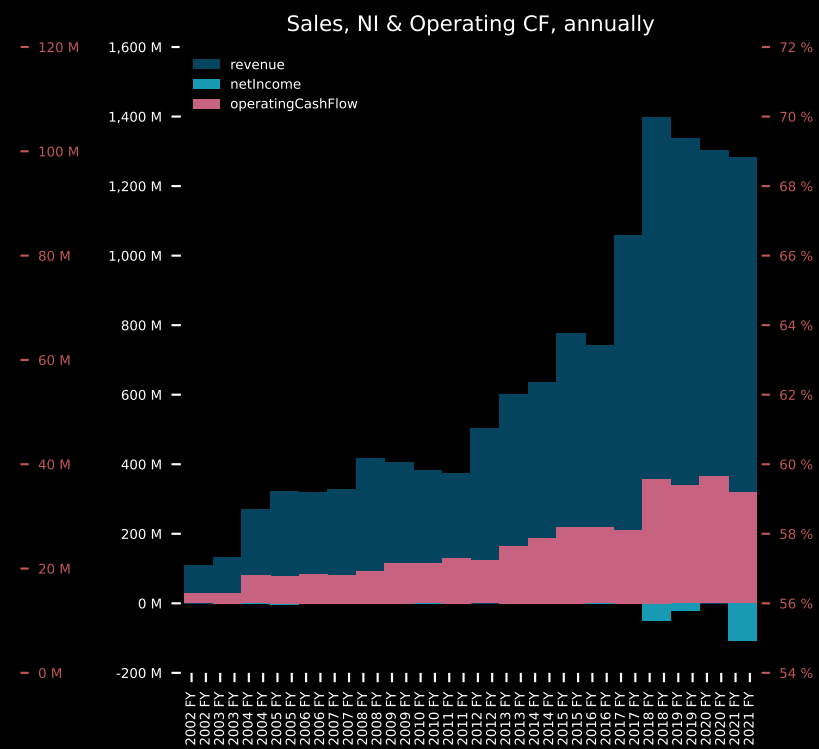
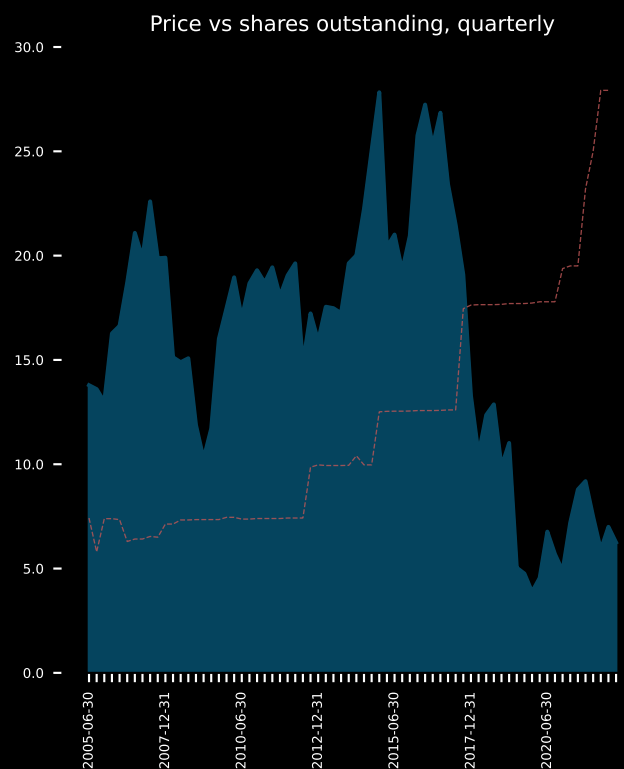
GTT Communications, Inc. provides cloud networking services to multinational enterprises, carriers, and government customers in the United States, Europe, and internationally. The company offers wide area networking, such as software-defined wide area networking, multiprotocol label switching, and virtual private LAN service; high bandwidth-Internet connectivity and IP transit, as well as broadband and wireless Internet access services; managed equipment and security services; and unified communication services consisting of session initiation protocol trunking, cloud unified communication service, and traditional analog voice. It also provides transport services, such as Ethernet services that enable to design network equipment; and video transport services to support broadcast quality transmission of live events, sports entertainment, and news to media and entertainment industry. In addition, the company offers infrastructure services enabling transport of high volume data between data centers, enterprise office locations, and media hubs; wavelength services to deliver scalable high-performance optical connectivity; colocation, and other services to support the needs of its customers.



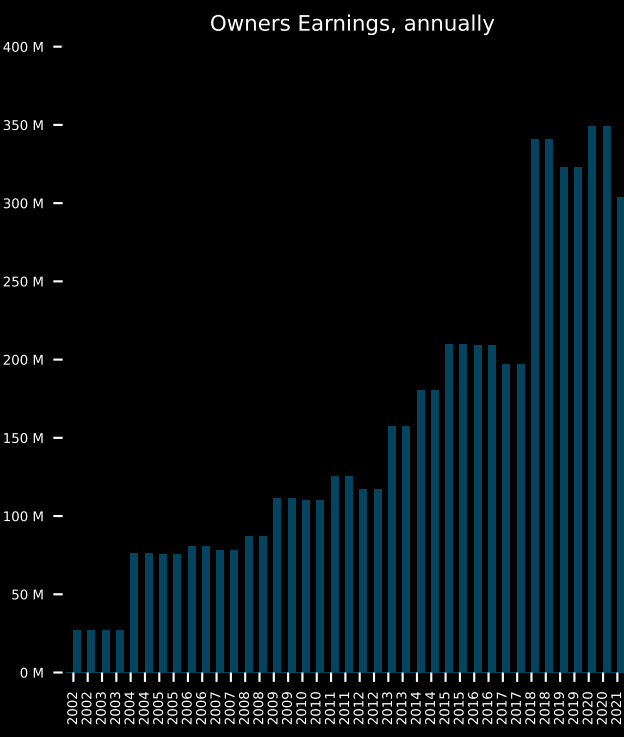
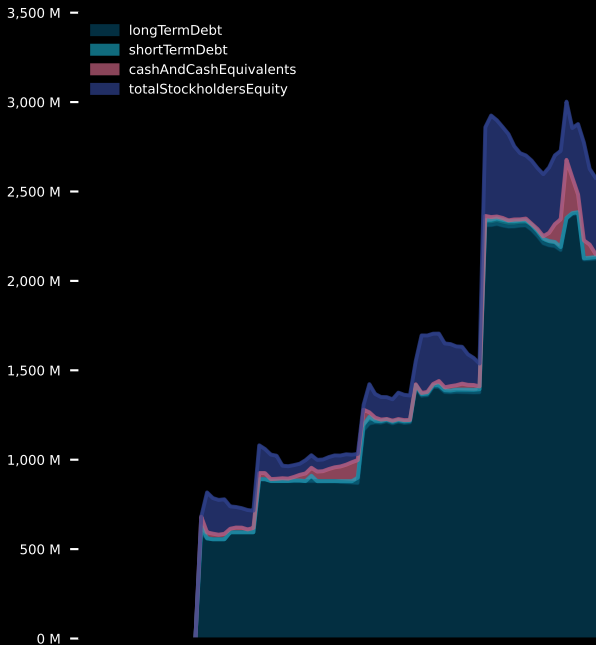
## CNSL / Telecom Services / US / 2022-08-23



*Consolidated Communications Holdings, Inc., together with its subsidiaries, provides broadband and business communication solutions for consumer, commercial, and carrier channels in the United States. It offers high-speed broadband Internet access and voice over Internet protocol (VoIP) phone services; commercial data connectivity services in various markets, including Ethernet services, private line data services, software defined wide area network, and multi-protocol label switching services; networking services; cloud-based services; data center and disaster recovery solutions; and wholesale services to regional and national interexchange, and wireless carriers comprising cellular backhaul and other fiber transport solutions. The company also provides voice services, such as local phone and long-distance services; and sells business equipment, as well as offers related hardware and maintenance support, video, and other miscellaneous services. In addition, it offers video services, which consist of high-definition television, digital video recorders (DVR), and/or a whole home DVR; and on-demand streaming TV services that*

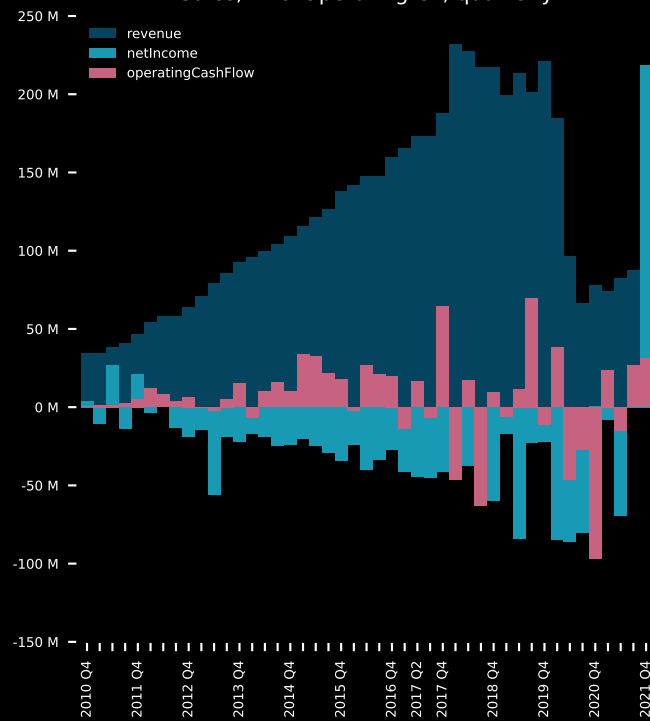


## CNSL / Telecom Services / US / 2022-08-23

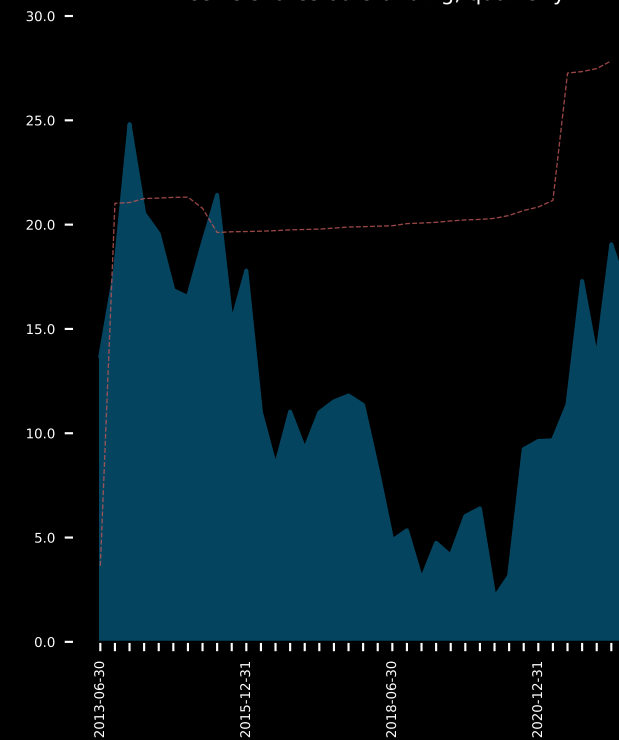


*Consolidated Communications Holdings, Inc., together with its subsidiaries, provides broadband and business communication solutions for consumer, commercial, and carrier channels in the United States. It offers high-speed broadband Internet access and voice over Internet protocol (VoIP) phone services; commercial data connectivity services in various markets, including Ethernet services, private line data services, software defined wide area network, and multi-protocol label switching services; networking services; cloud-based services; data center and disaster recovery solutions; and wholesale services to regional and national interexchange, and wireless carriers comprising cellular backhaul and other fiber transport solutions. The company also provides voice services, such as local phone and long-distance services; and sells business equipment, as well as offers related hardware and maintenance support, video, and other miscellaneous services. In addition, it offers video services, which consist of high-definition television, digital video recorders (DVR), and/or a whole home DVR; and on-demand streaming TV services that*

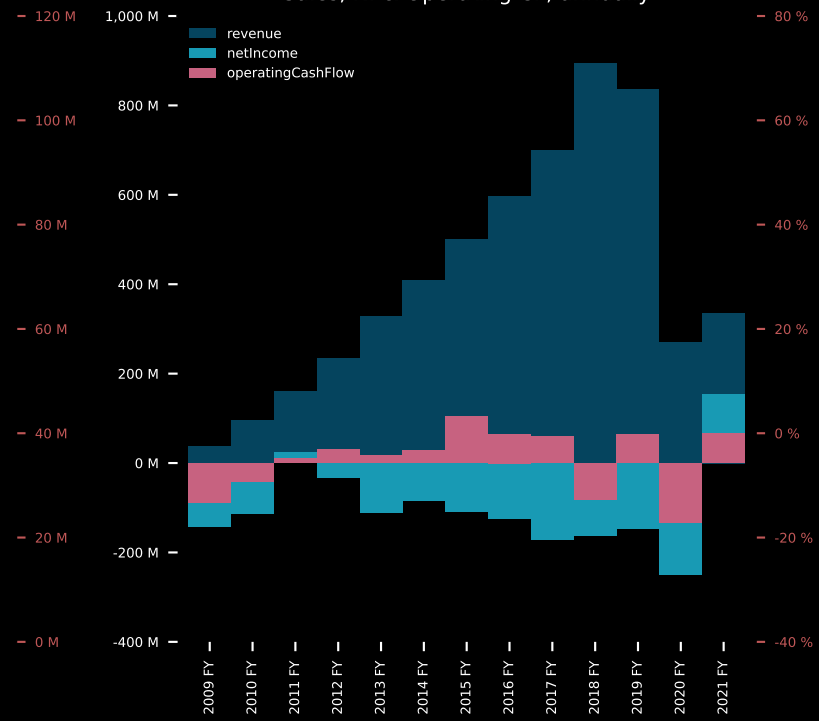
Sales, NI &amp; Operating CF, quarterly



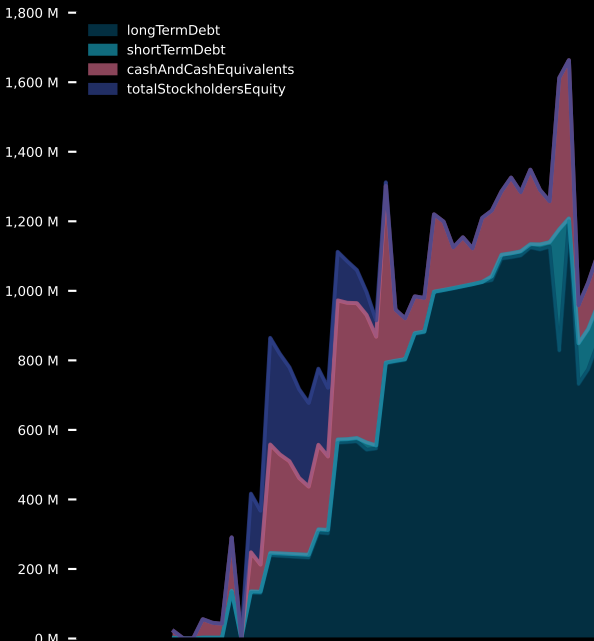
Price vs shares outstanding, quarterly



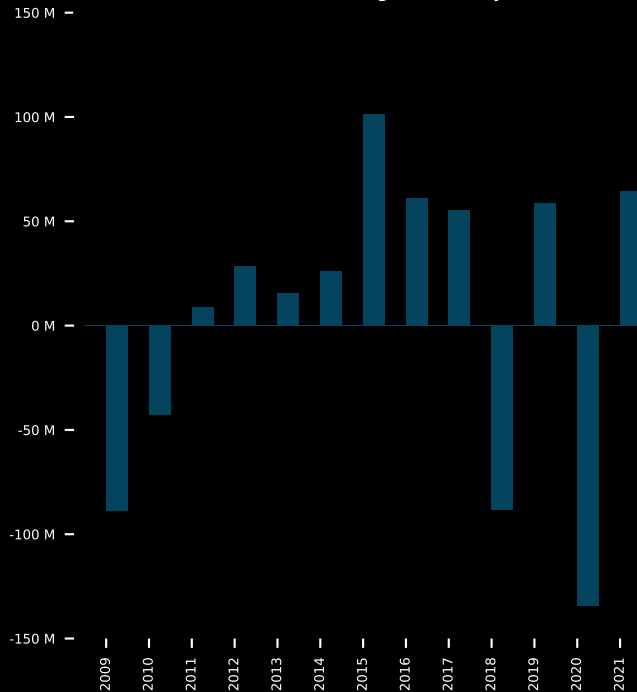
Sales, NI &amp; Operating CF, annually



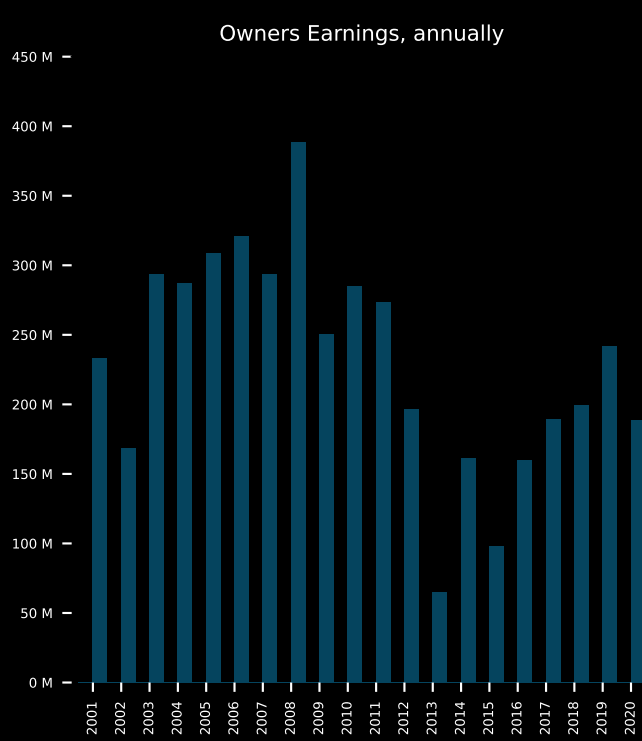
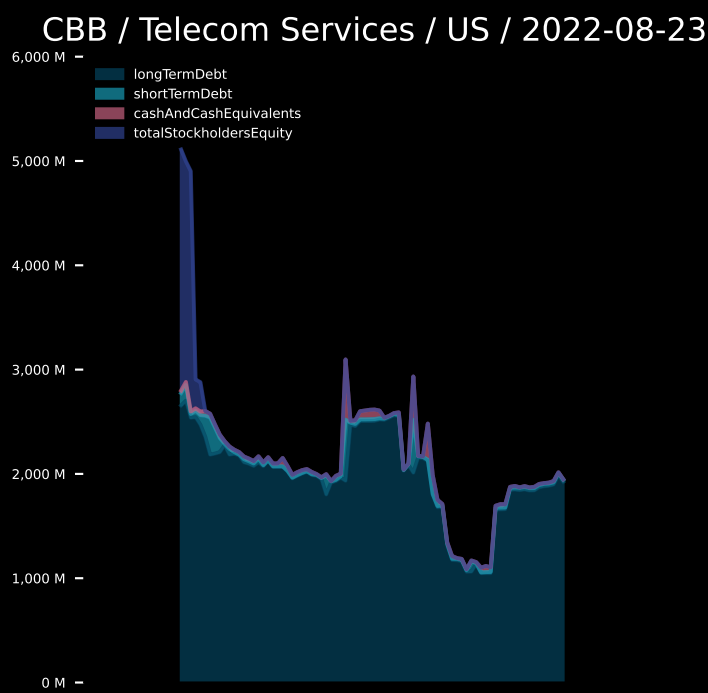
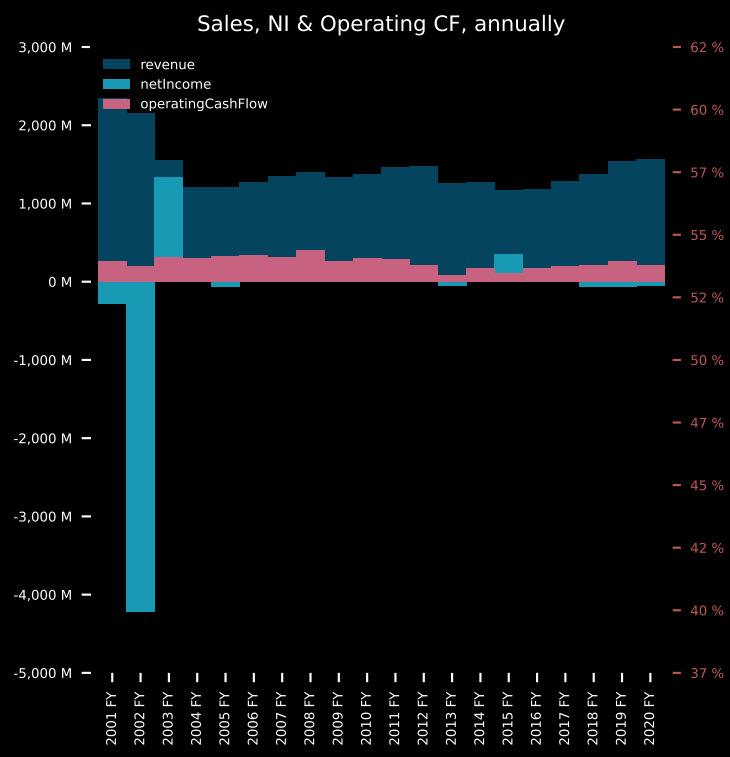
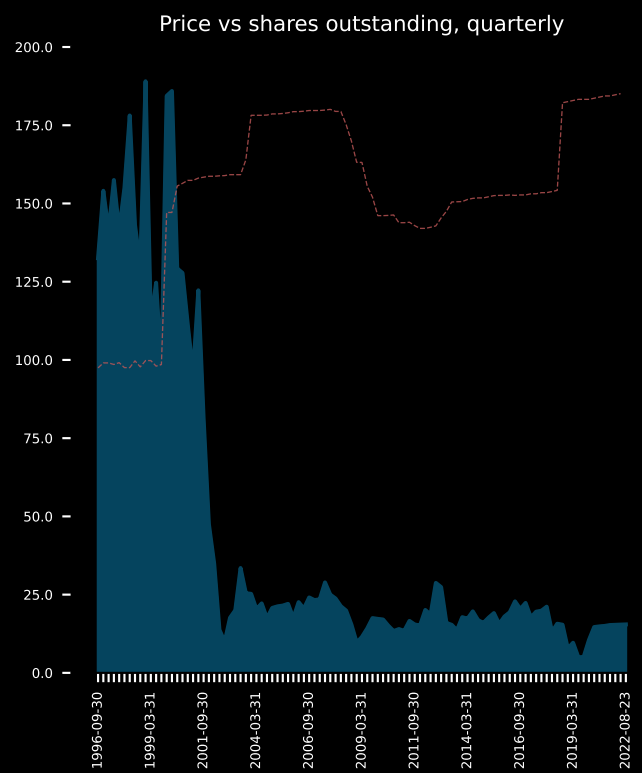
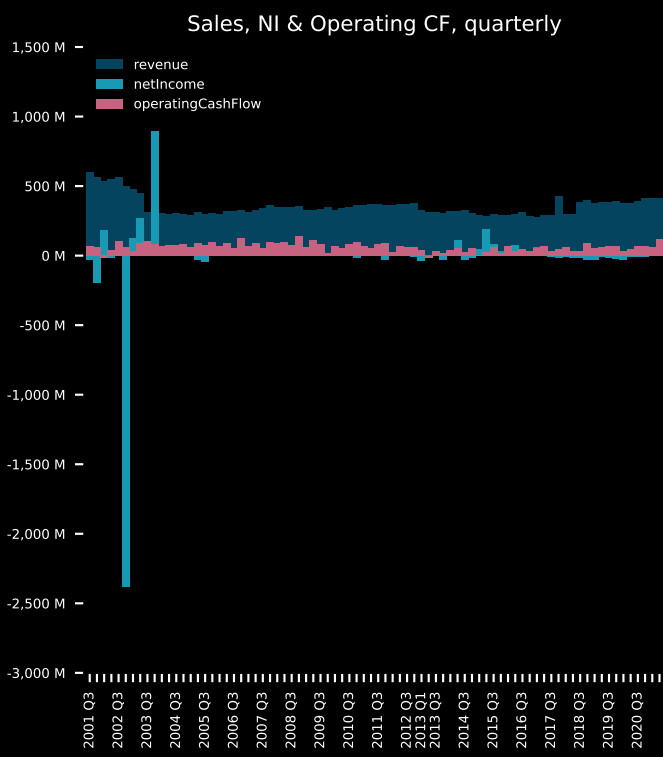
GOGO / Telecom Services / US / 2022-08-23



Owners Earnings, annually



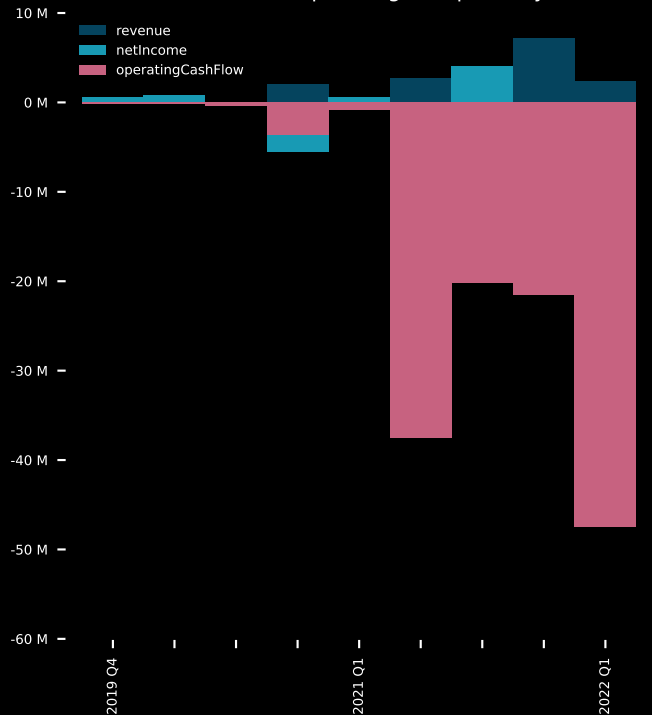
Gogo Inc., through its subsidiaries, provides broadband connectivity services to the aviation industry in the United States and internationally. It operates through Commercial Aviation North America (CA-NA), Commercial Aviation Rest of World (CA-ROW), and Business Aviation (BA) segments. The company design, build and operate air-to-ground networks, engineer and maintain in-flight systems of proprietary hardware and software, and deliver customizable connectivity and wireless entertainment services. It also offers suite of integrated equipment, network, and internet connectivity products and services, as well as includes suite of smart cabin systems for integrated connectivity, in-flight entertainment, and voice solutions. In addition, the company portfolio comprises of in-flight network, in-flight systems, in-flight services, aviation partner support, and production operations functions. Further, the company offers satellite-based voice and data services. Gogo Inc. was founded in 1991 and is headquartered in Broomfield, Colorado.



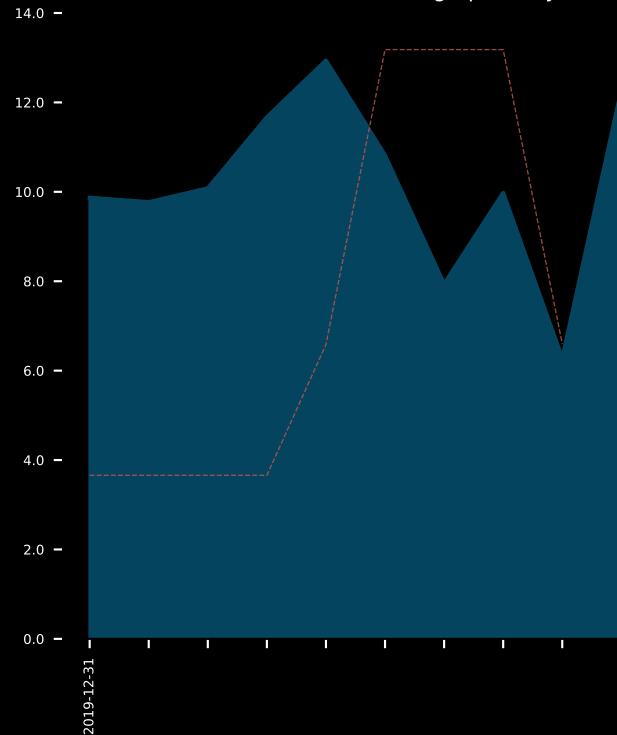
Cincinnati Bell Inc., together with its subsidiaries, provides diversified telecommunications and technology services to residential and business customers in the United States. It operates in two segments, Entertainment and Communications, and IT Services and Hardware. The Entertainment and Communications segment offers data services, including high-speed Internet access, data transport, and interconnection services, as well as metro-Ethernet products; and voice local services, as well as long distance, digital trunking, switched access, and other value-added services, such as caller identification, voicemail, call waiting, and call return. This segment also provides video services comprising entertainment channels, including digital music, local, movie, and sports programming with high-definition channels, parental controls, HD DVR, and video on-demand. In addition, this segment undertakes wiring projects for business customers; and offers advertising, directory assistance, maintenance, and information services. The IT Services and Hardware segment provides consulting services consisting of IT staffing and project-based



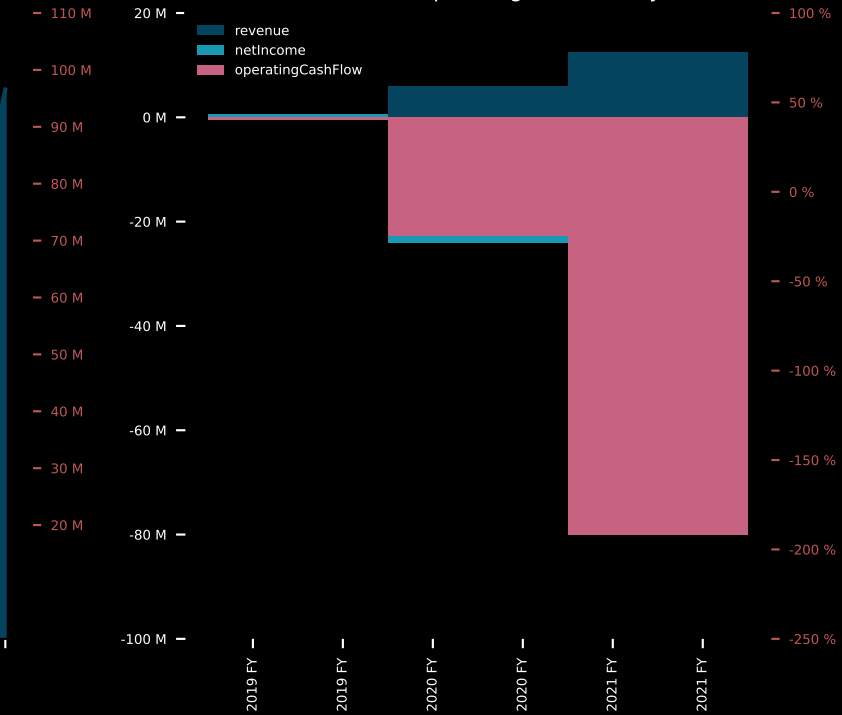
Sales, NI &amp; Operating CF, quarterly



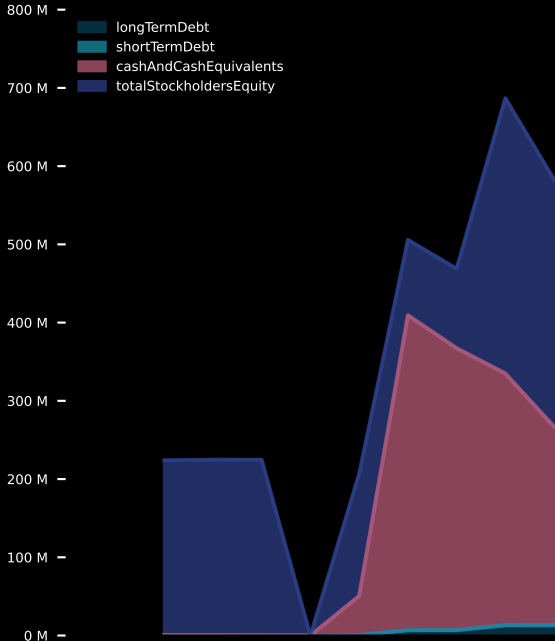
Price vs shares outstanding, quarterly



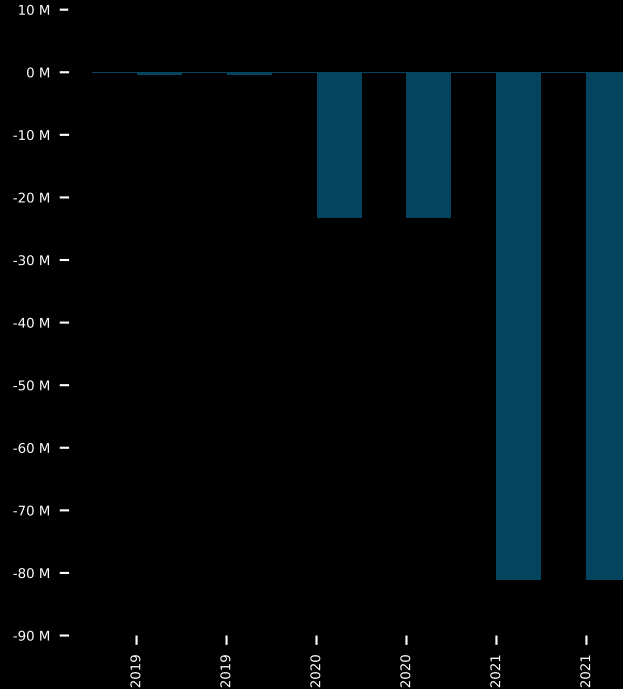
Sales, NI &amp; Operating CF, annually



ASTS / Telecom Services / US / 2022-08-23

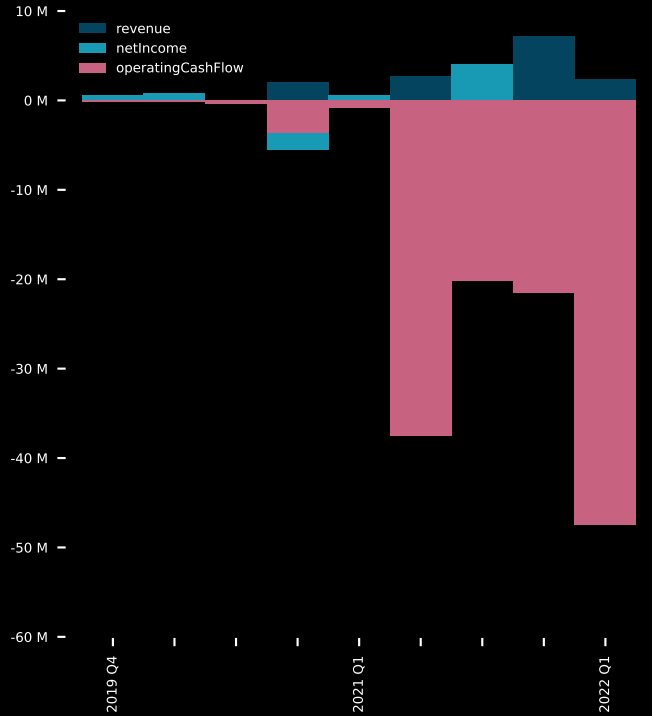


Owners Earnings, annually

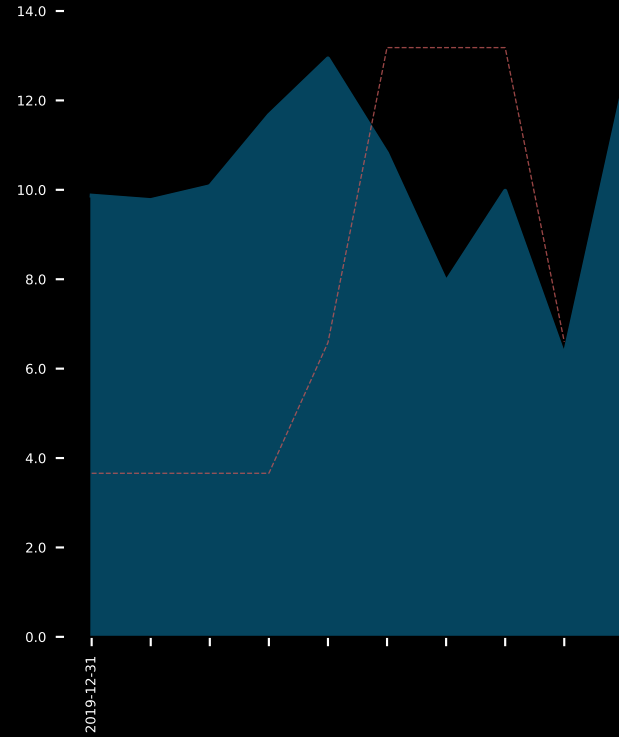


*AST SpaceMobile, Inc. operates space-based cellular broadband network for mobile phones. Its SpaceMobile service provides mobile broadband services for users traveling in and out of areas without terrestrial mobile services on land, at sea, or in flight. The company is headquartered in Midland, Texas.*

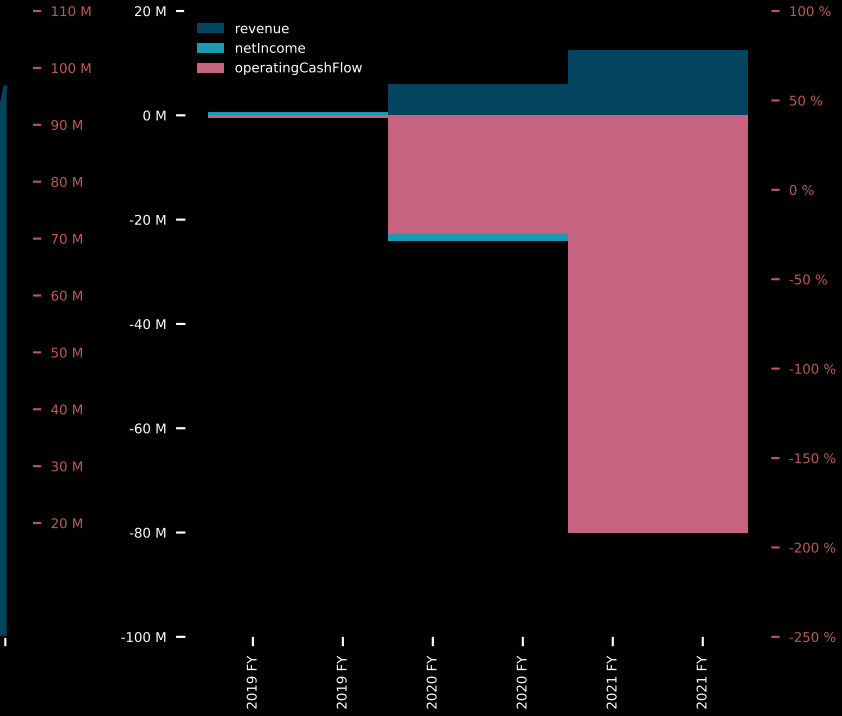
Sales, NI &amp; Operating CF, quarterly



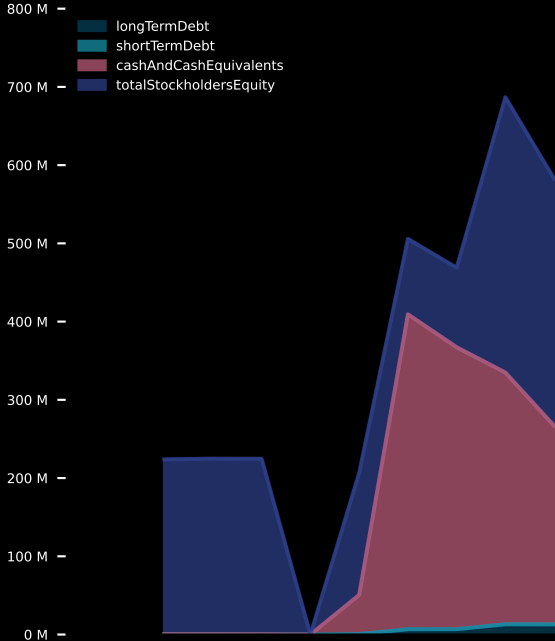
Price vs shares outstanding, quarterly



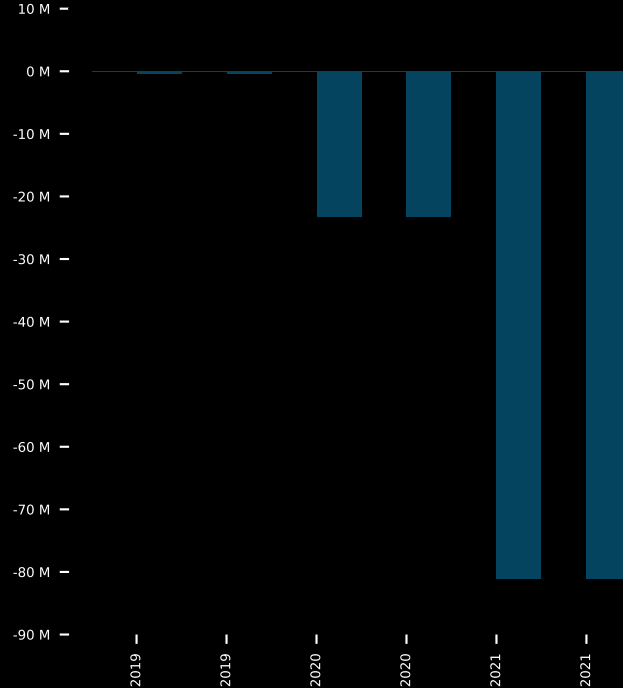
Sales, NI &amp; Operating CF, annually



ASTS / Telecom Services / US / 2022-08-23

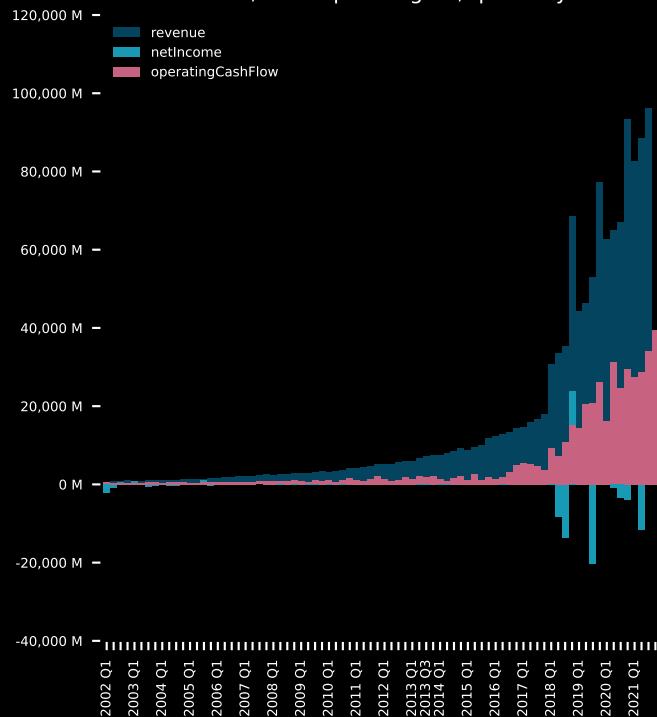


Owners Earnings, annually

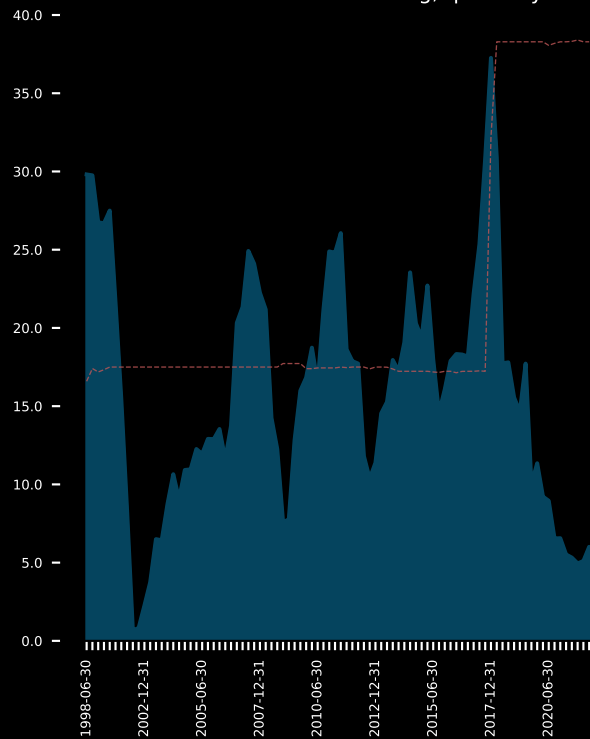


*AST SpaceMobile, Inc. operates space-based cellular broadband network for mobile phones. Its SpaceMobile service provides mobile broadband services for users traveling in and out of areas without terrestrial mobile services on land, at sea, or in flight. The company is headquartered in Midland, Texas.*

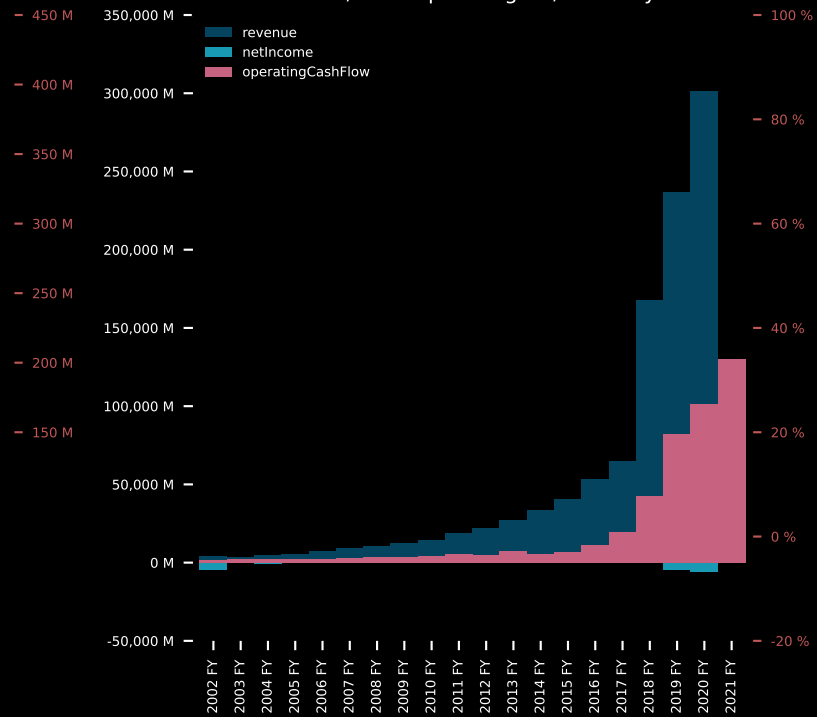
Sales, NI &amp; Operating CF, quarterly



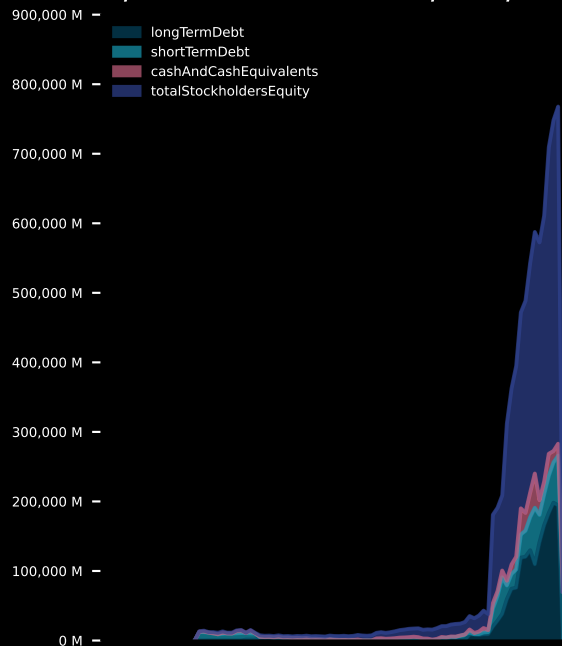
Price vs shares outstanding, quarterly



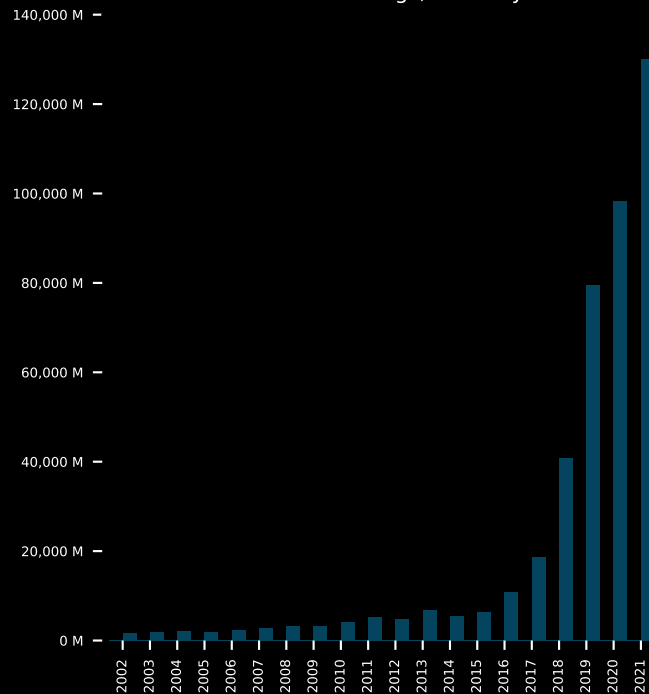
Sales, NI &amp; Operating CF, annually



TEO / Telecom Services / AR / 2022-08-23

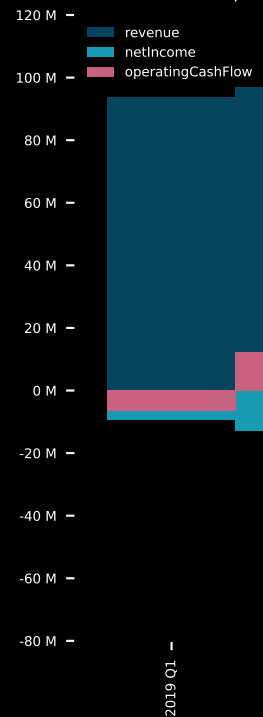


Owners Earnings, annually

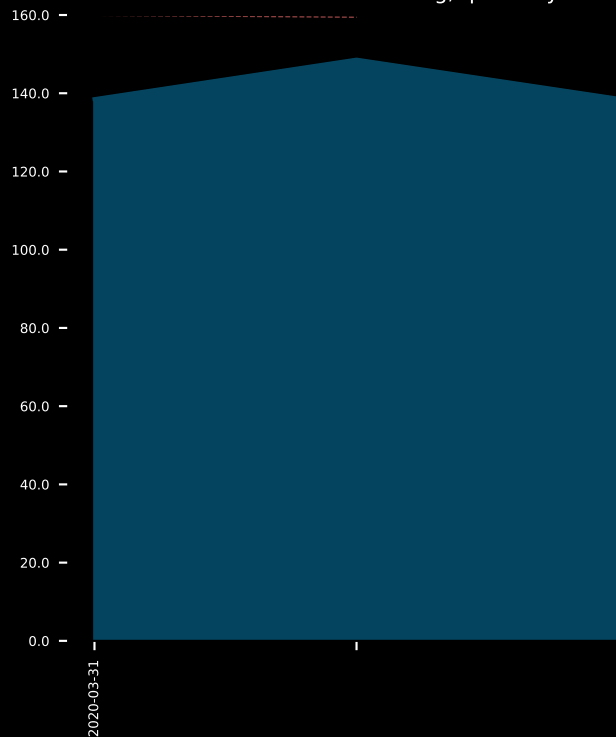


*Telecom Argentina S.A., together with its subsidiaries, provides telecommunications services in Argentina and internationally. The company offers telephone services, including local, domestic, and international long-distance telephone services, as well as public telephone services; interconnection services, such as traffic and interconnection resource, dedicated Internet access, video signals transportation in standard and high definitions, audio and video streaming, dedicated links, backhaul links for mobile operators, Internet protocol virtual private network, video links, value-added, data center hosting/housing, and other services; and call waiting, call forwarding, conference calls, caller ID, voice mail, itemized billing, and maintenance services. It also provides mobile telecommunications services, including voice communications, high-speed mobile Internet content and applications download, online streaming, and other services; and sells mobile communication devices, such as handsets, Modems mifi and wingles, and smart watches under the Personal brand. In addition, the company*

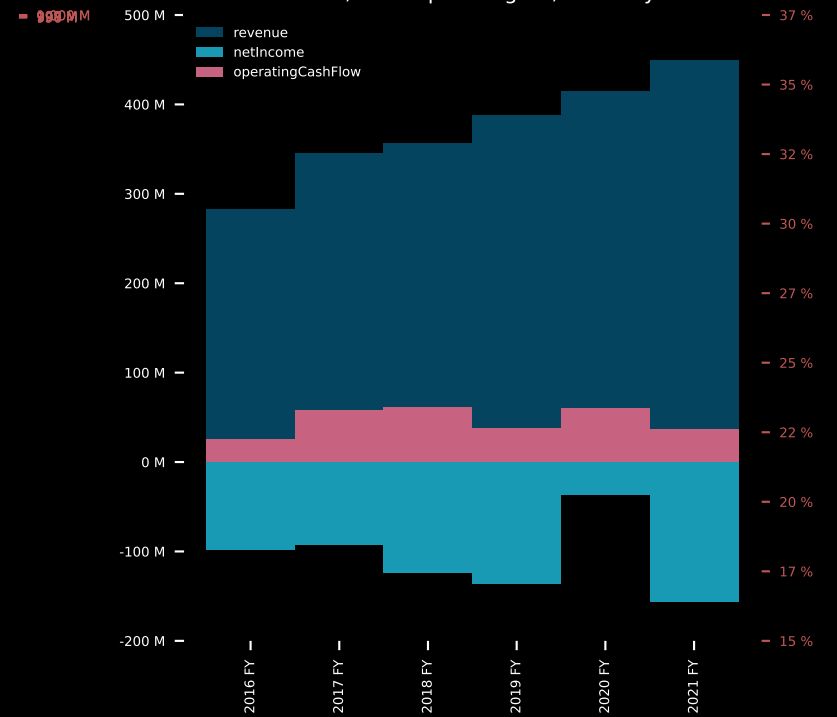
Sales, NI &amp; Operating CF, quarterly



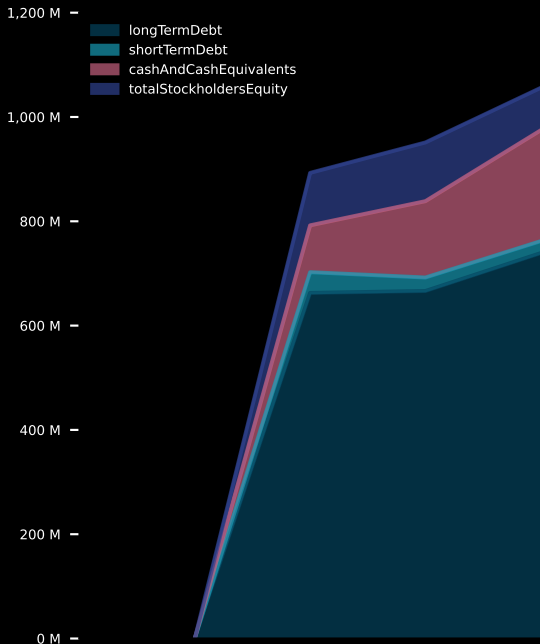
Price vs shares outstanding, quarterly



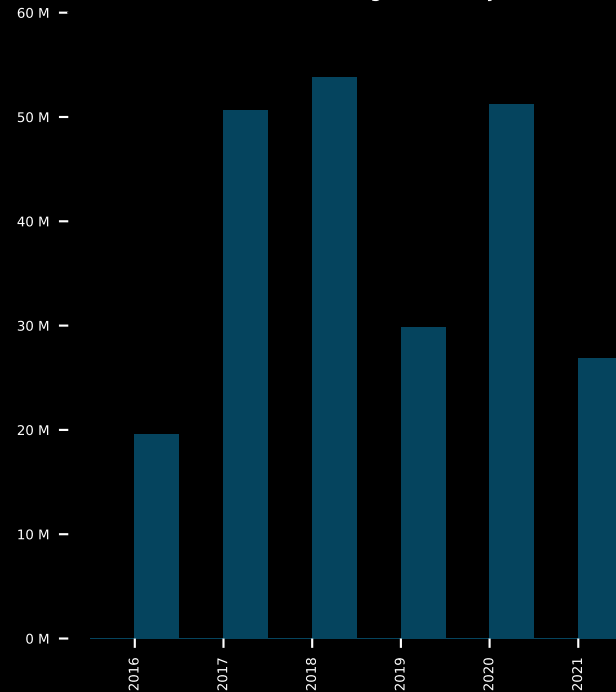
Sales, NI &amp; Operating CF, annually



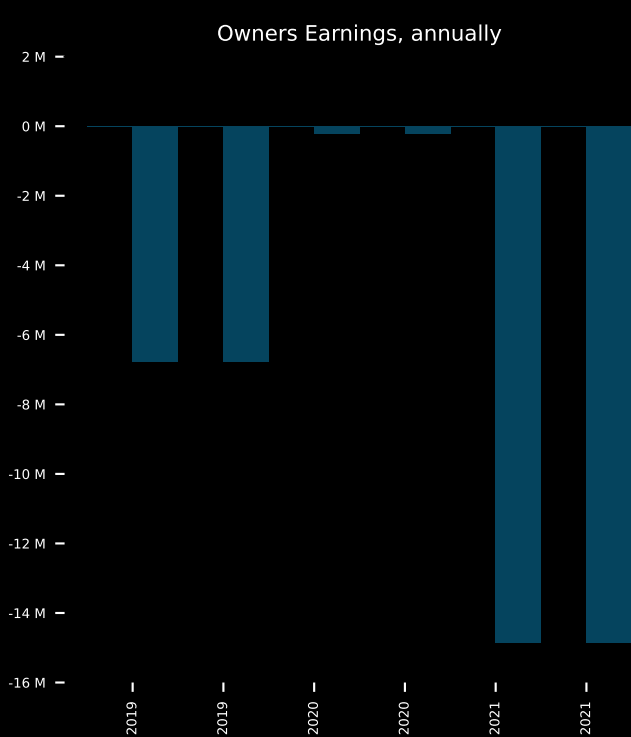
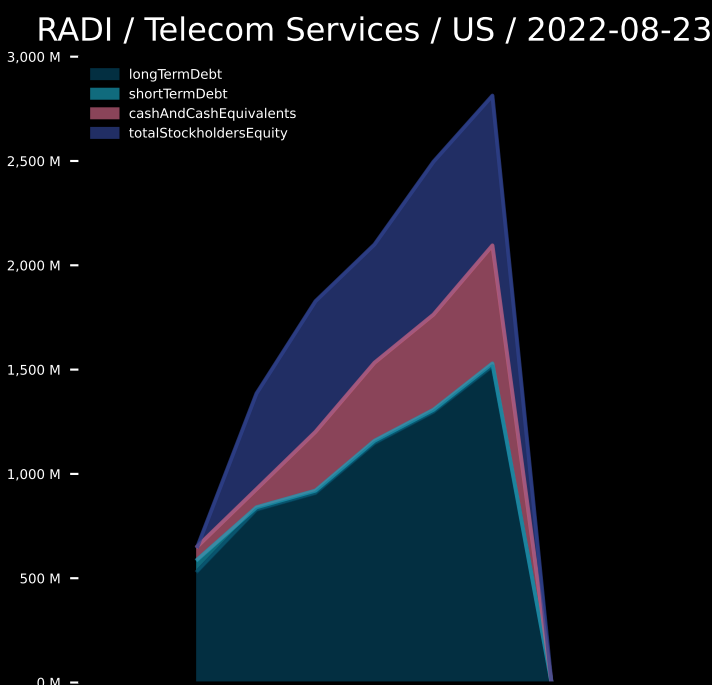
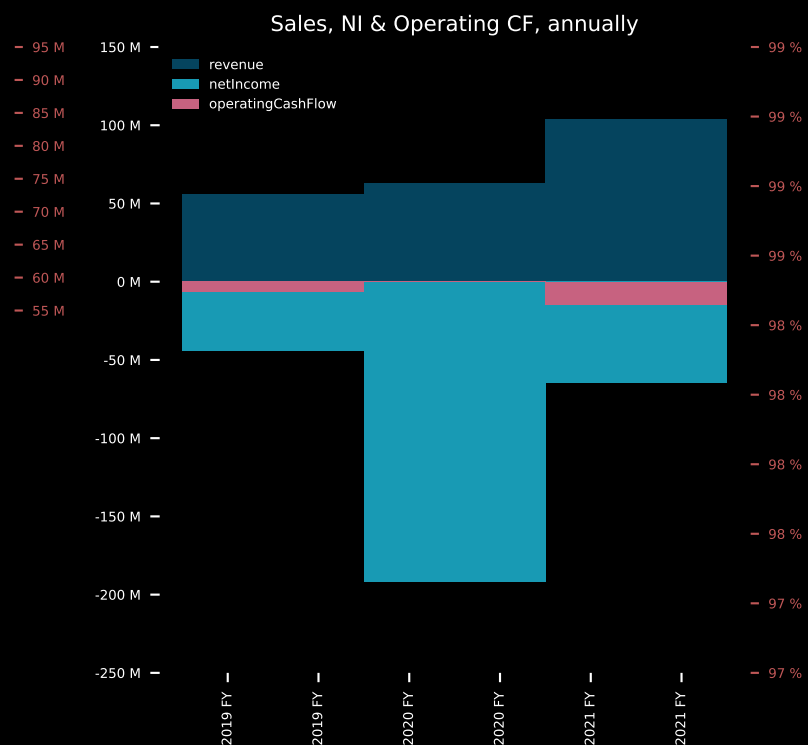
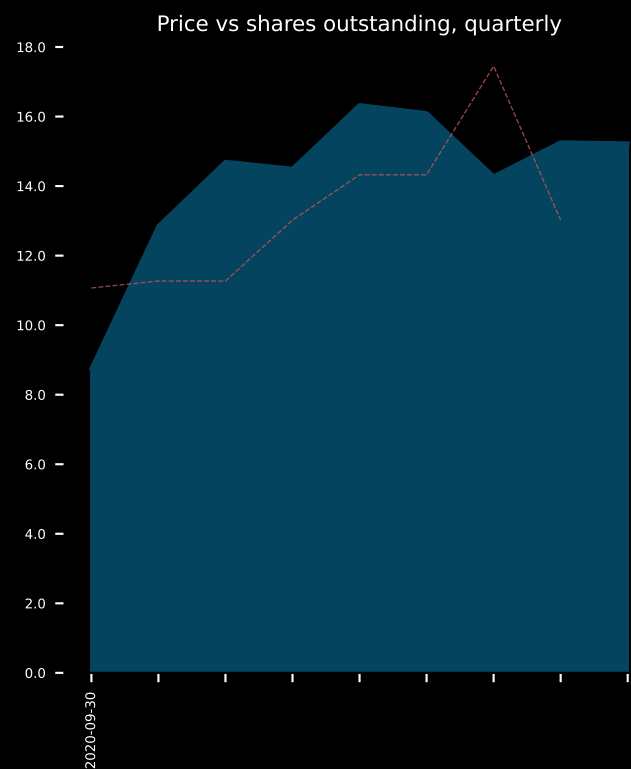
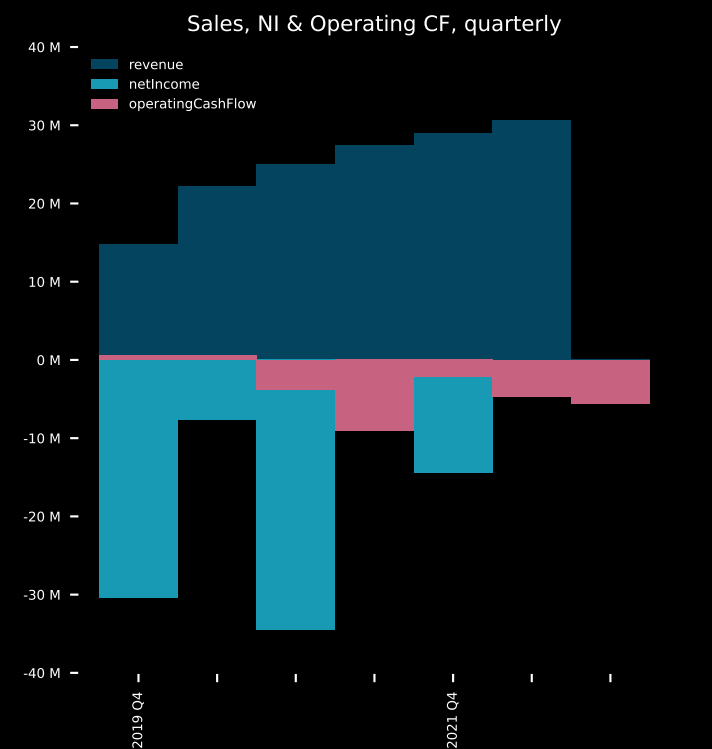
HTWS.L / Telecom Services / GB / 2022-08-23



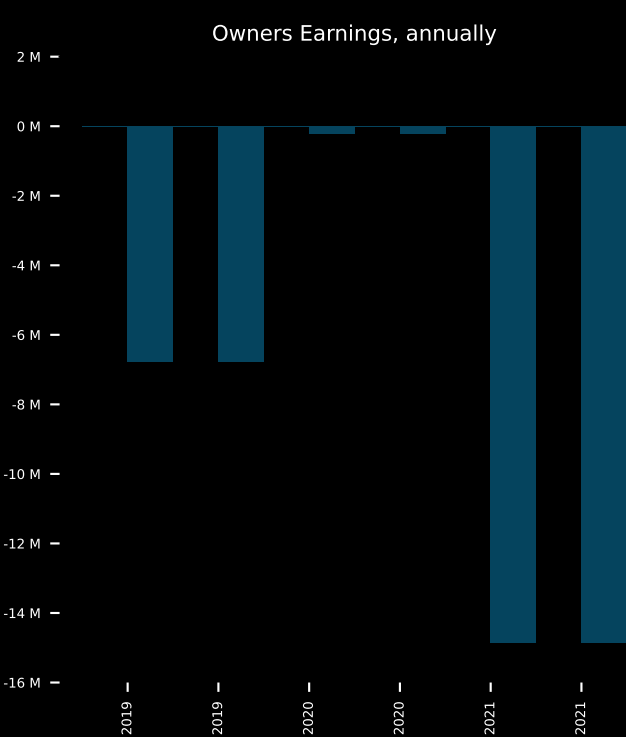
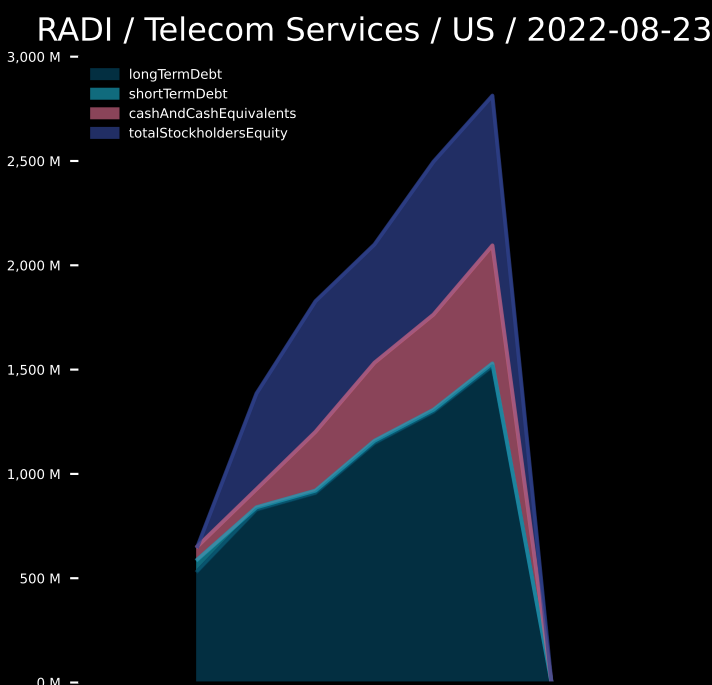
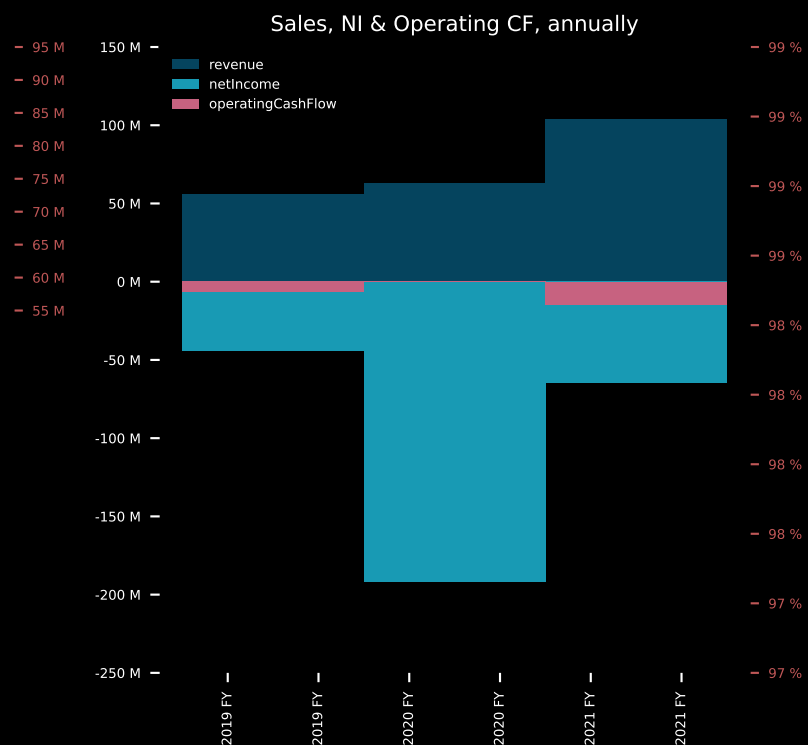
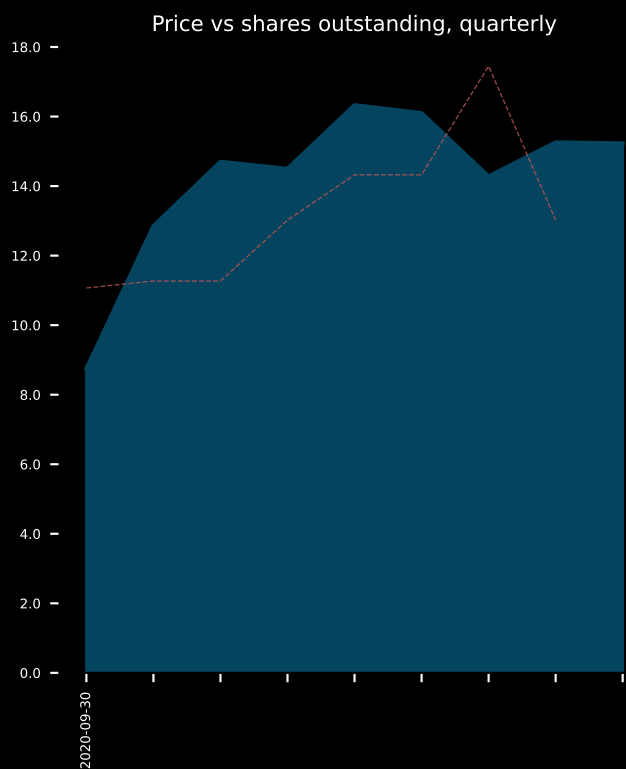
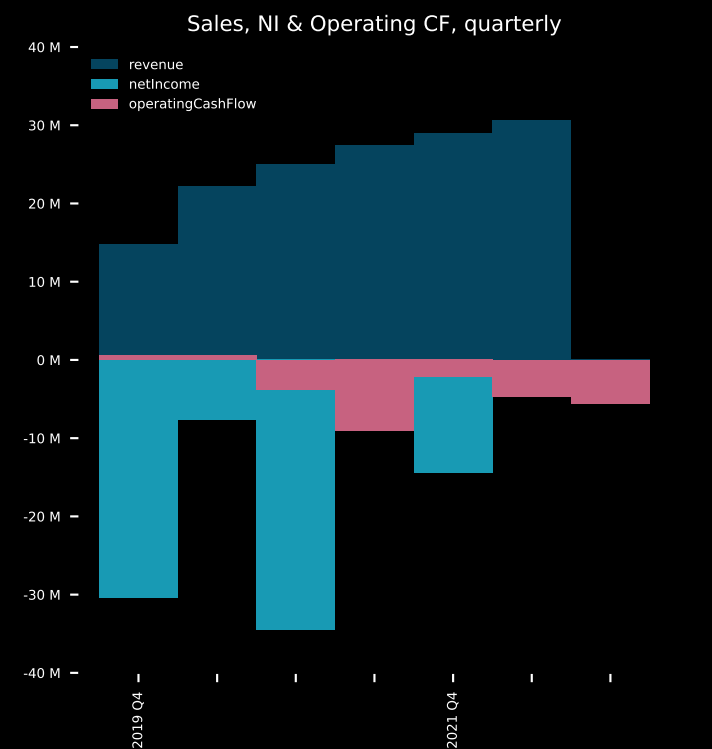
Owners Earnings, annually



*Helios Towers plc, an independent tower company, acquires, builds, and operates telecommunications towers and passive infrastructure. It provides site space to mobile network operators and other telecommunications providers that in turn provide wireless voice and data services to consumers and businesses. The company also offers comprehensive tower-related operational services, including site selection, site preparation, maintenance, security, and power management. As of December 31, 2021, it operated a network of 9,560 sites and 18,776 tenancies in Tanzania, the Democratic Republic of Congo, Congo Brazzaville, Ghana, South Africa, Senegal, and Madagascar. The company was founded in 2009 and is based in London, the United Kingdom.*



Radius Global Infrastructure, Inc., together with its subsidiaries, engages in the acquisition and rental of telecom real property interests and contractual rights. The company leases wireless towers or antennae, and other communications infrastructure. As of December 31, 2021, it had interests in 8,506 leases situated on 8,186 communications sites located in the United States and 19 other countries. Radius Global Infrastructure, Inc. was founded in 2010 and is based in Bala Cynwyd, Pennsylvania.

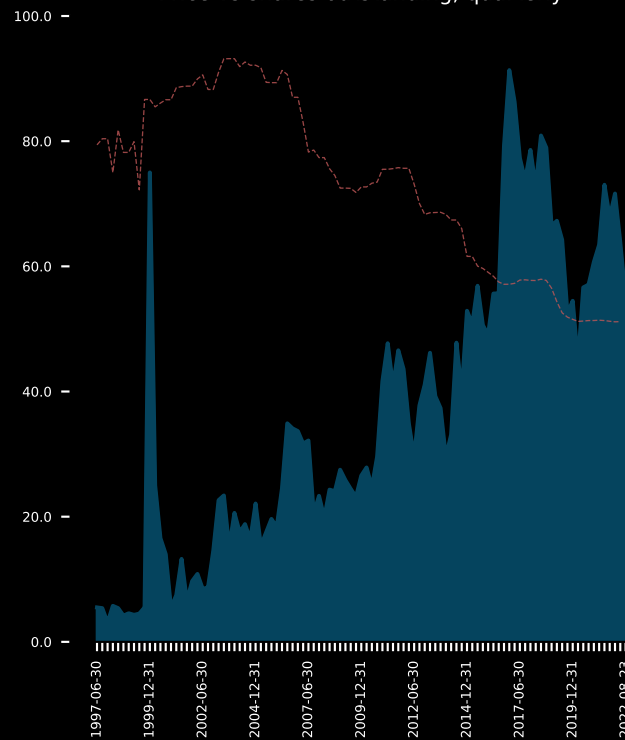


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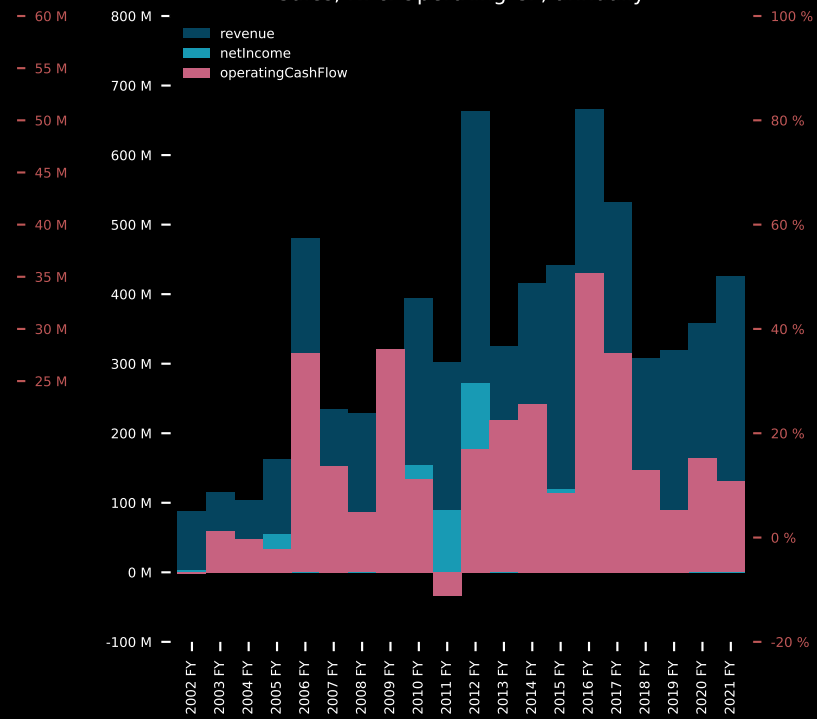
Sales, NI &amp; Operating CF, quarterly



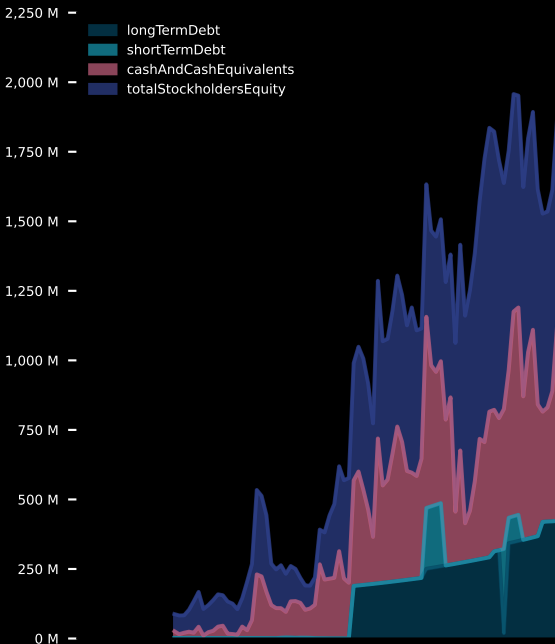
Price vs shares outstanding, quarterly



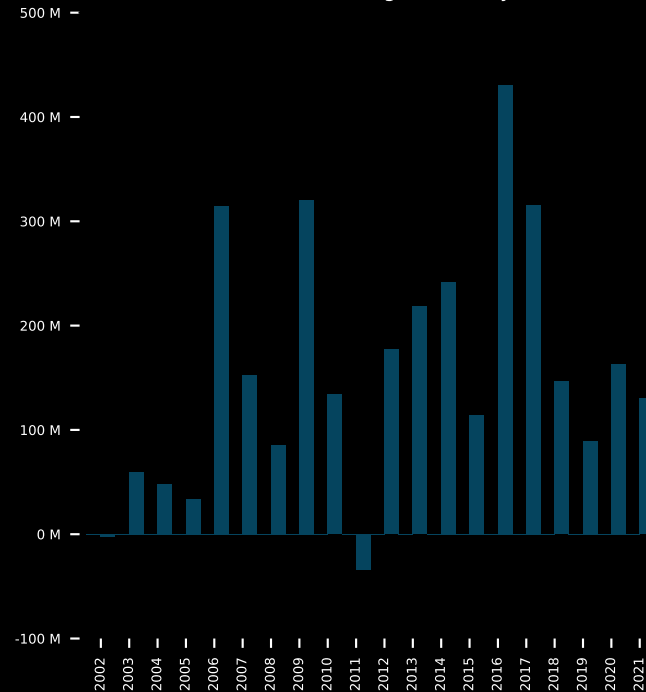
Sales, NI &amp; Operating CF, annually



IDCC / Telecom Services / US / 2022-08-23

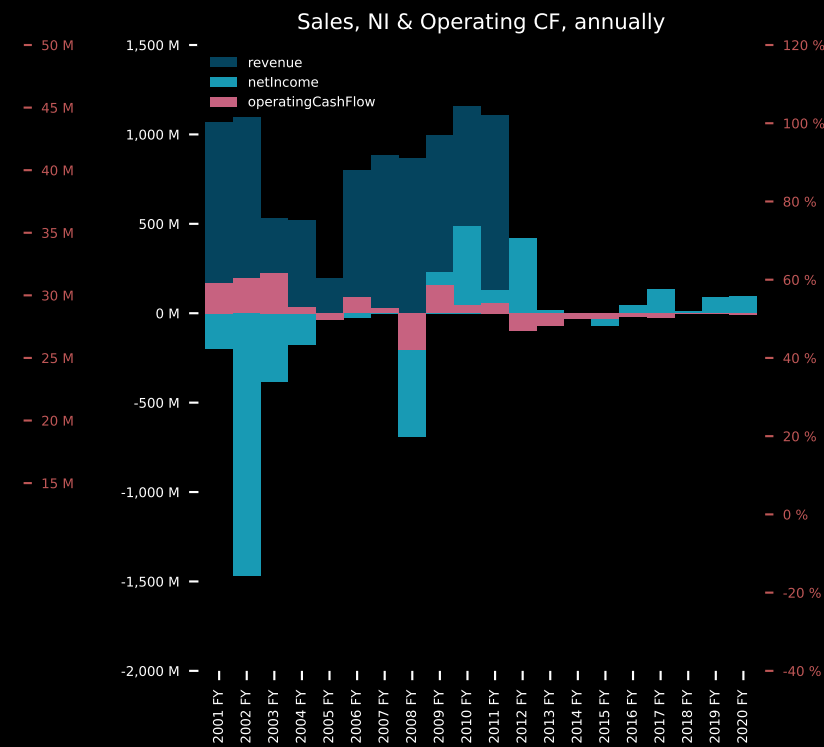
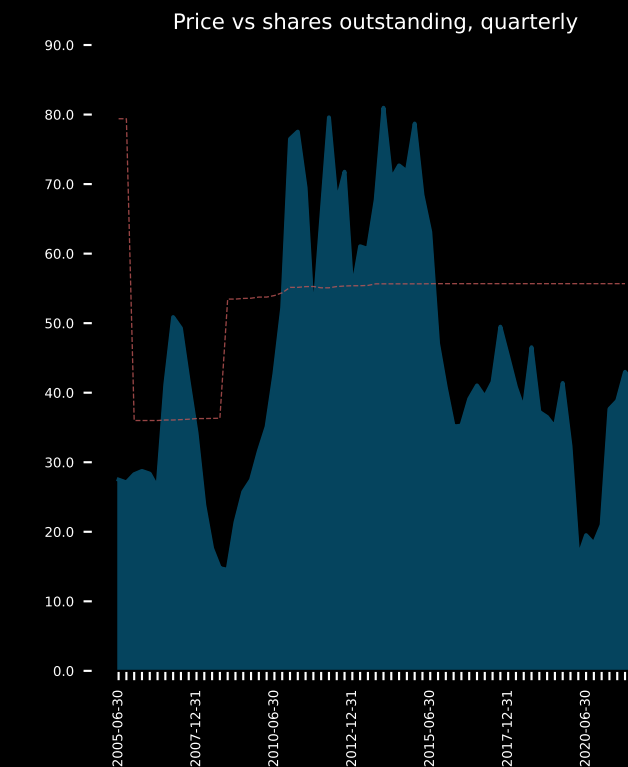


Owners Earnings, annually

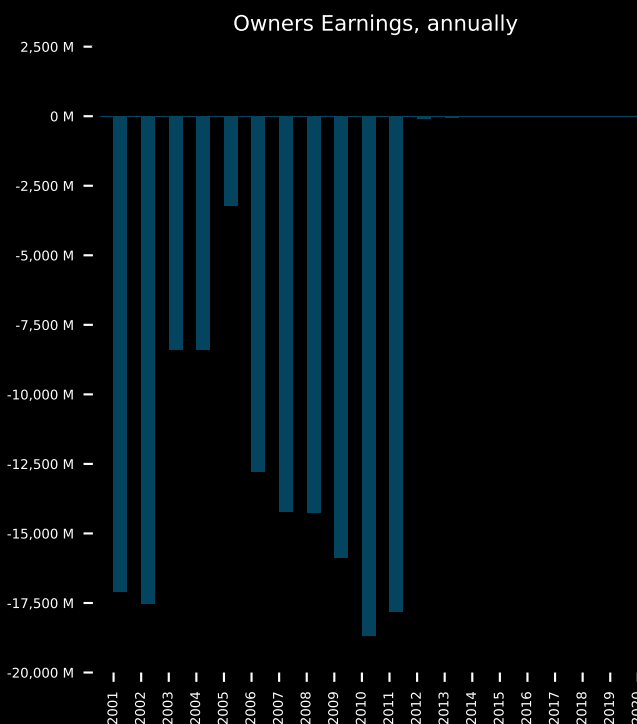
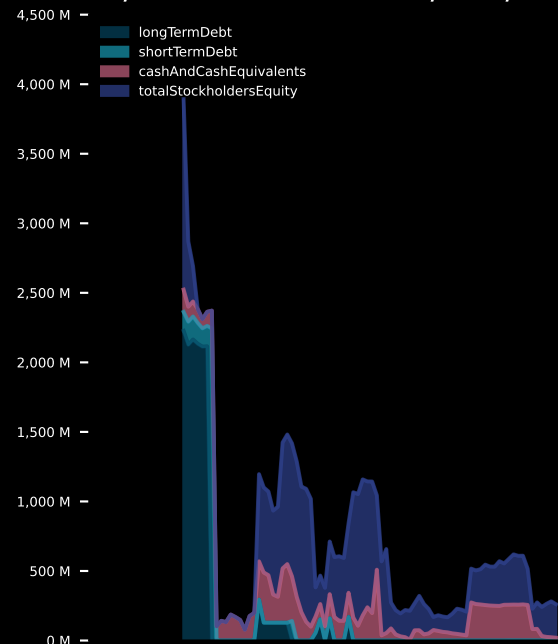


*InterDigital, Inc., together with its subsidiaries, designs and develops technologies that enable and enhance wireless communications in the United States, China, South Korea, Japan, Taiwan, and Europe. It provides technology solutions for use in digital cellular and wireless products and networks, including 2G, 3G, 4G, 5G, and IEEE 802-related products and networks. The company develops cellular technologies, such as technologies related to CDMA, TDMA, OFDM/OFDMA, and MIMO for use in 2G, 3G, 4G, and 5G wireless networks, as well as mobile terminal devices; and 3GPP technology portfolio in 5G NR, beyond 5G (B5G), extended reality over wireless, and cellular Internet of Things (IoT) areas, as well as technologies for automobiles, wearables, smart homes, drones, and other connected consumer electronic products. It also provides video coding and transmission technologies; and engages in the research and development of artificial intelligence. The company's patented technologies are used in various products that include cellular phones, tablets, notebook computers, and wireless personal digital assistants; wireless infrastructure*

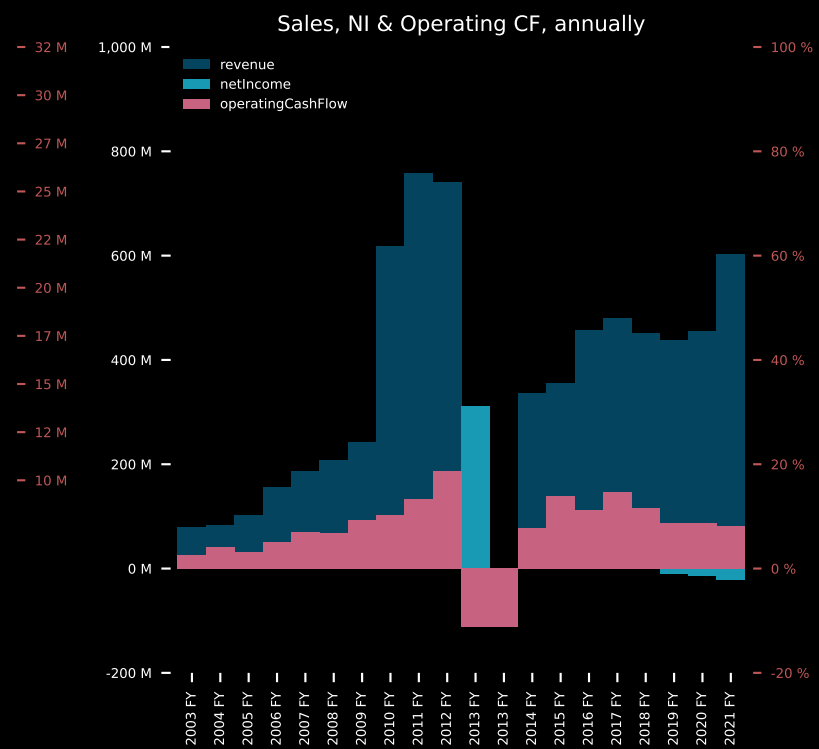
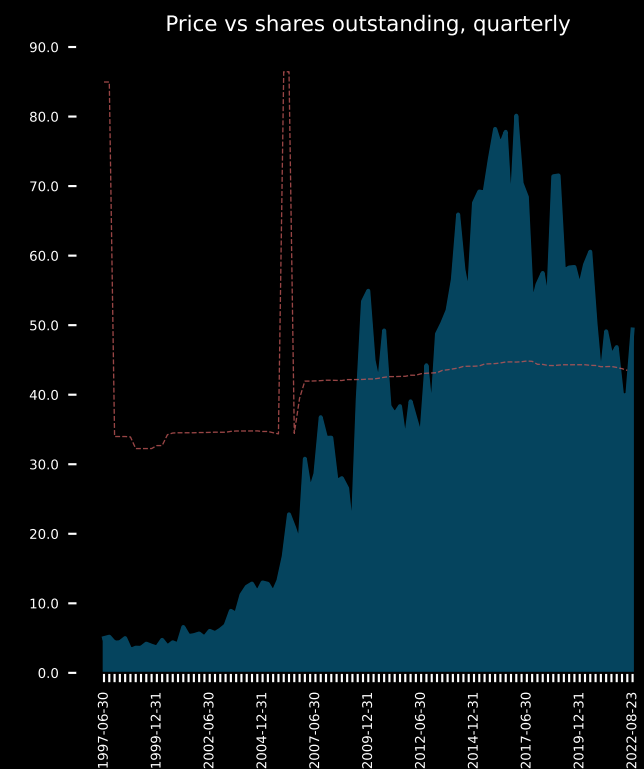
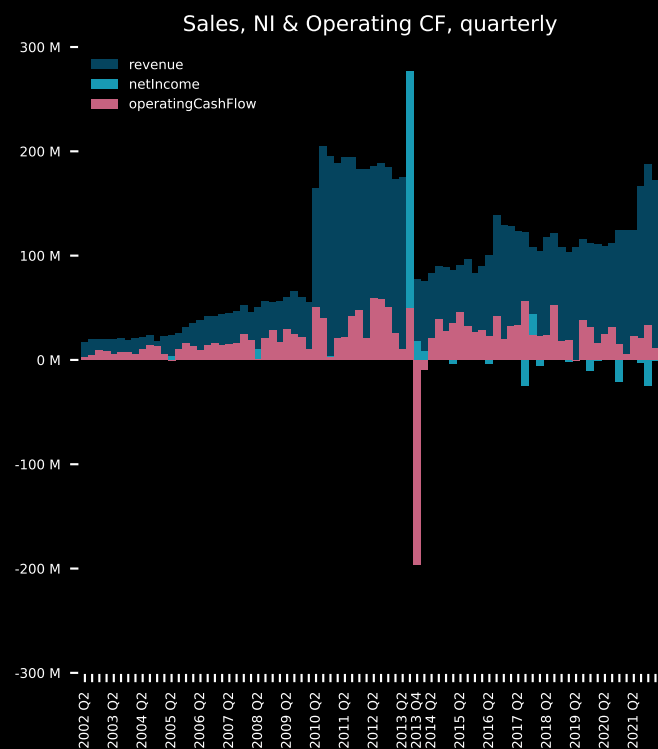




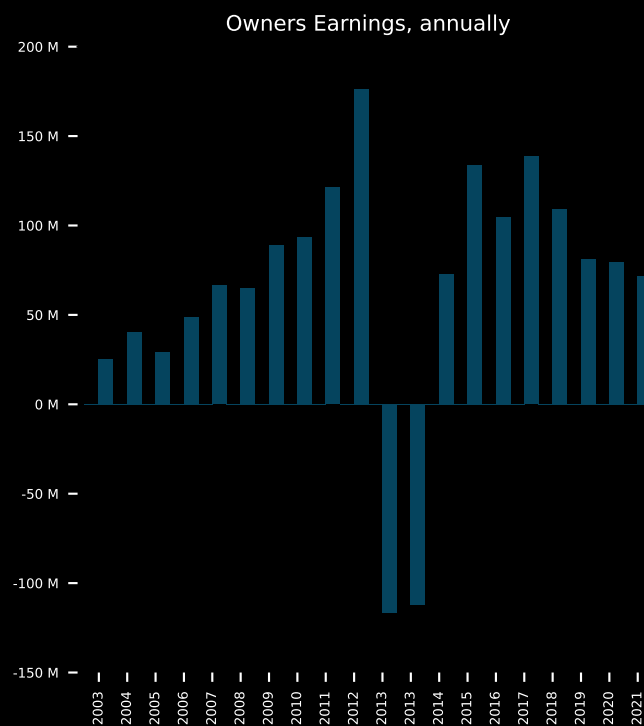
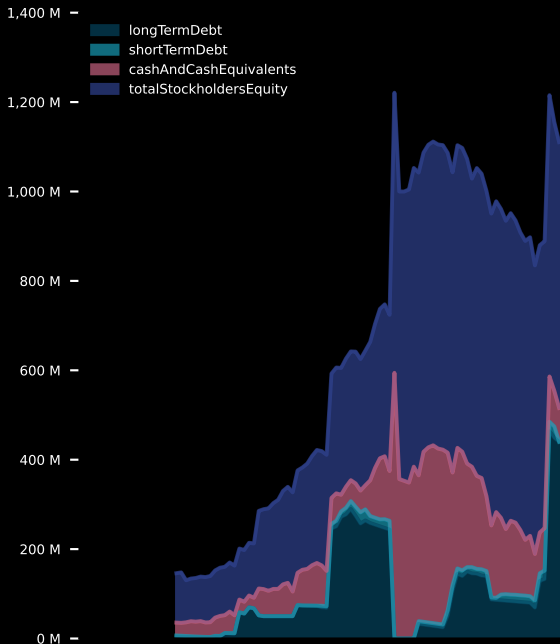
## LORL / Telecom Services / US / 2022-08-22



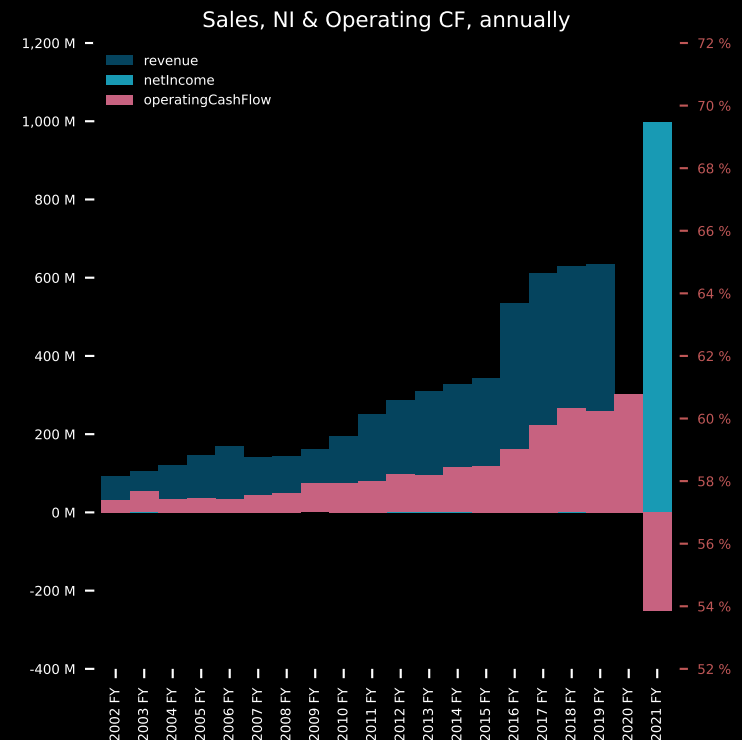
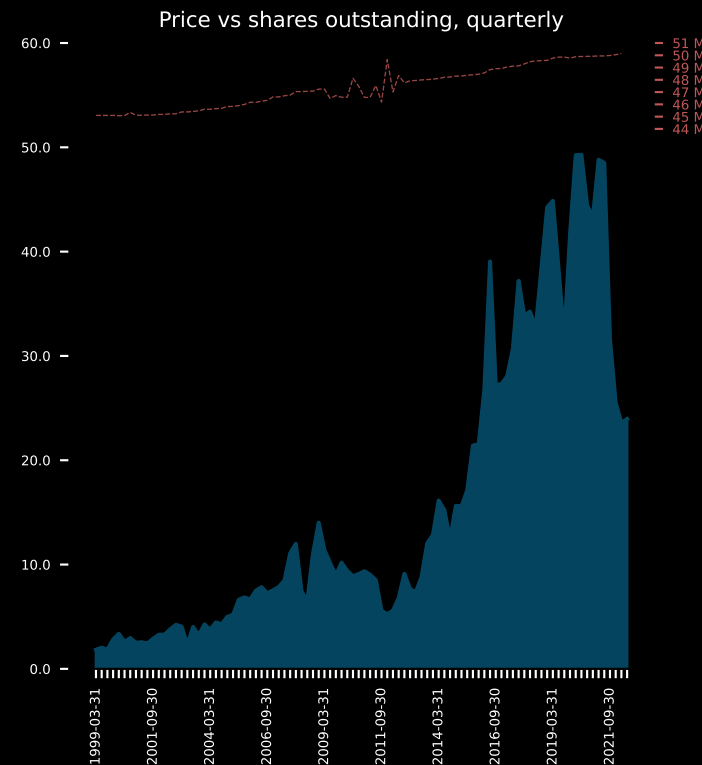
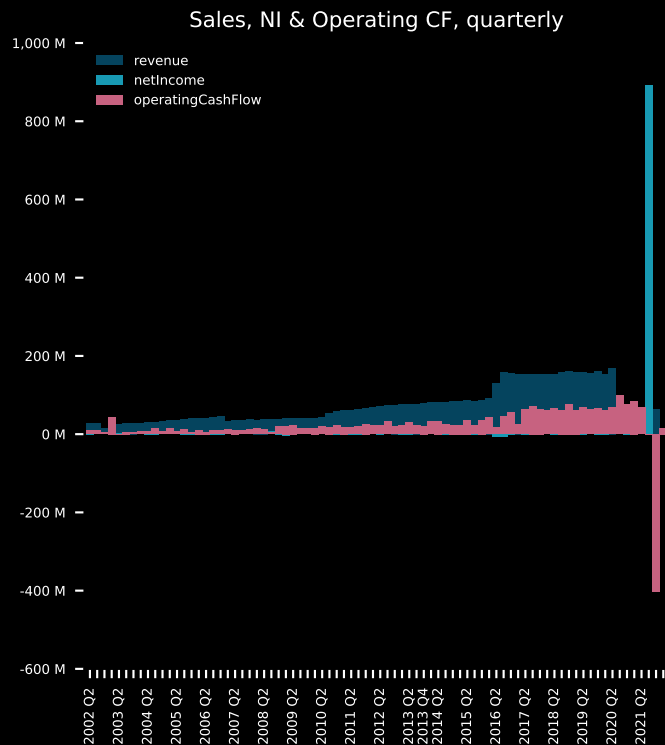
*Loral Space & Communications Inc., a satellite communications company, offers satellite-based communications services to the broadcast, telecom, corporate, and government customers worldwide. As of December 31, 2019, the company provided satellite services to its customers through a fleet of 16 in-orbit geostationary satellites; and owned the Canadian Ka-band payload on the ViaSat-1 satellite. It also offers video distribution and direct-to-home (DTH) video, as well as end-to-end communications services using satellite and hybrid satellite-ground networks; and broadcast services, including DTH, video distribution and contribution, and satellite transmission services for the broadcast of video news, sports, and live event coverage. In addition, the company provides telecommunication carrier and integrator services; maritime and aeronautical services; satellite services to the Canadian government; two-way broadband Internet services; communications services to the on and off shore oil and gas, and mining industries; and satellite operator services. Further, it is involved in the installation and maintenance of the end user terminals and antennas of the VSAT-based networks.*



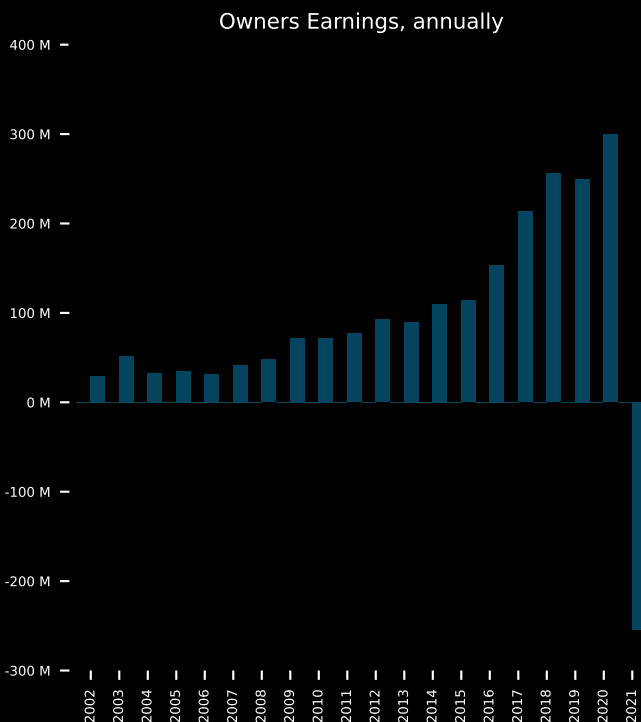
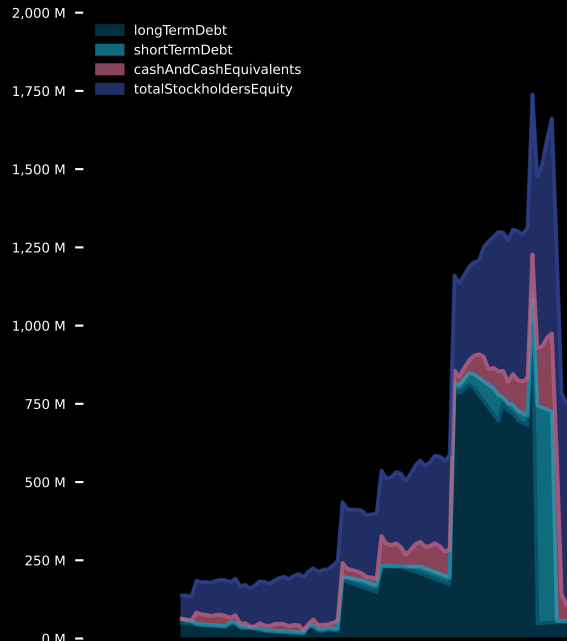
## ATNI / Telecom Services / US / 2022-08-23



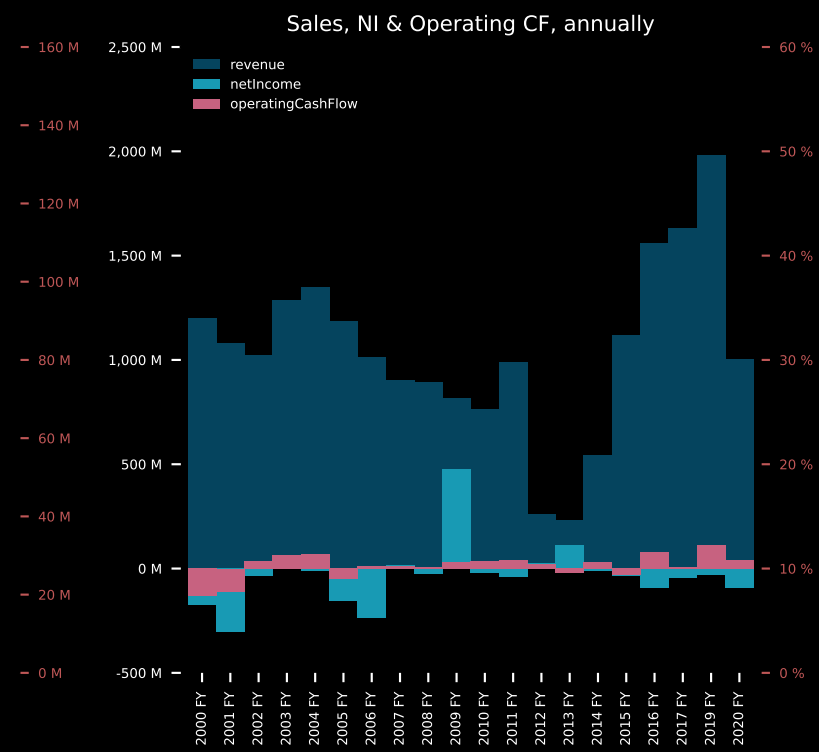
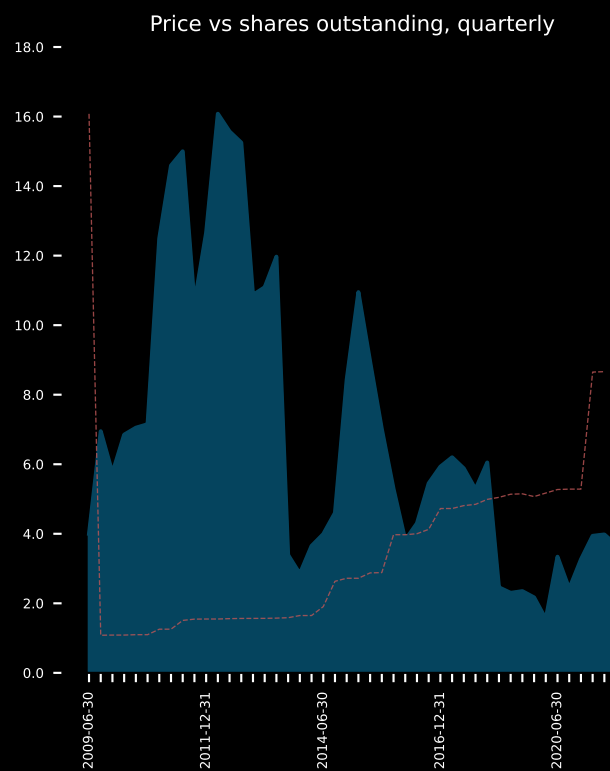
ATN International, Inc., through its subsidiaries, provides telecommunications services. It operates in three segments: International Telecom, US Telecom, and Renewable Energy. The International Telecom segment provides fixed data and voice; fixed, carrier, managed, and mobility services to customers in Bermuda, the Cayman Islands, Guyana, and the US Virgin Islands, as well as video services in Bermuda, the Cayman Islands, and the US Virgin Islands. This segment also offers mobile, data, and voice services to retail and business customers in Bermuda, Guyana, and US Virgin Islands under the One, GTT+, and Viya brands; roaming services; and handsets and accessories. The US Telecom segment provides carrier services, such as wholesale roaming services; fixed, mobility, carrier, and managed services to business and consumer; private network services to enterprise and consumer customers; and site maintenance services and international long-distance services, as well as leases critical network infrastructure, including towers and transport facilities. The Renewable Energy segment provides distributed generation solar power to



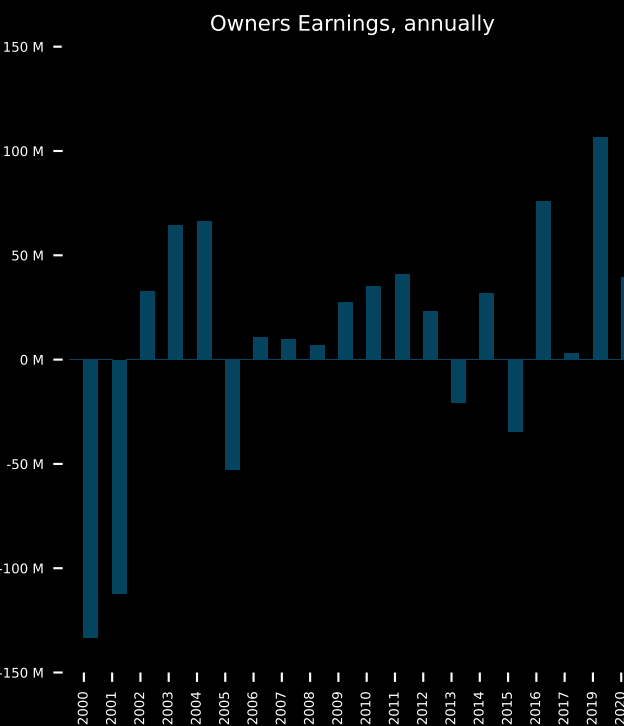
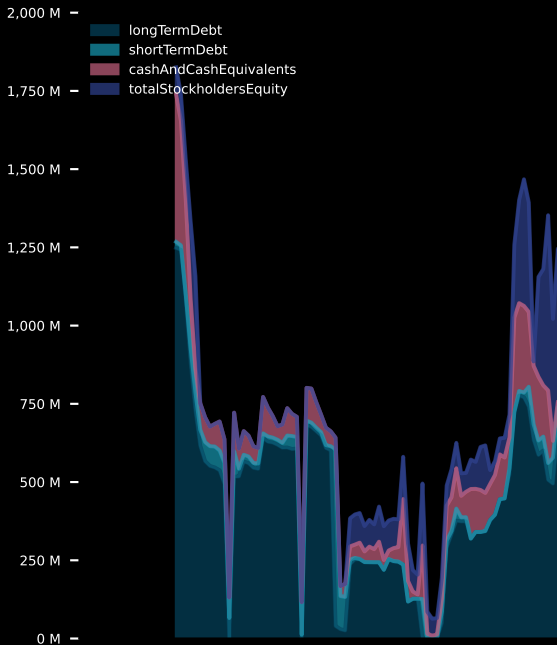
## SHEN / Telecom Services / US / 2022-08-22



*Shenandoah Telecommunications Company, together with its subsidiaries, provides a range of broadband communication services and cell tower colocation space in the Mid-Atlantic portion of the United States. Its Broadband segment offers broadband, video, and voice services to residential and commercial customers in Virginia, West Virginia, Maryland, Pennsylvania, and Kentucky, via hybrid fiber coaxial cable under the Shentel brand, fiber optic services under the Glo Fiber brand, and fixed wireless network services under the Beam brand name. This segment leases fiber and provides Ethernet and wavelength fiber optic services. In addition, the company offers voice and digital subscriber line telephone services. The company's Tower segment owns 220 cell towers and leases colocation space on the towers. Shenandoah Telecommunications Company was founded in 1902 and is based in Edinburg, Virginia.*



## HCHC / Telecom Services / US / 2022-08-23

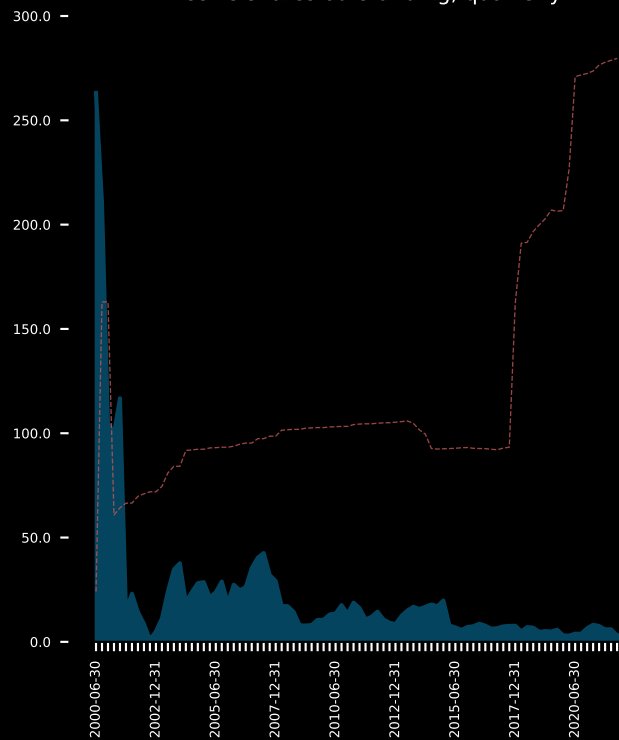


*HC2 Holdings, Inc. provides construction, marine services, energy, telecommunications, insurance, life sciences, broadcasting, and other services in the United States, the United Kingdom, and internationally. The company models, details, fabricates, and erects structural steel for commercial and industrial, and infrastructure construction projects, including building and office complexes, hotels and casinos, convention centers, sports arenas and stadiums, shopping malls, hospitals, dams, bridges, mines, and power plants. It also fabricates trusses and girders; and fabricates and erects water pipes, water storage tanks, pollution control scrubbers, tunnel liners, pressure vessels, strainers, filters, separators, and various customized products. In addition, the company offers subsea cable installation and maintenance services for the telecommunications sector; installation, maintenance, and repair services for fiber optic communication and power infrastructure to offshore oil and gas platforms; and installation services for inter-array power cables for use in offshore wind farms. Further, it distributes natural gas motor fuels; designs, builds,*

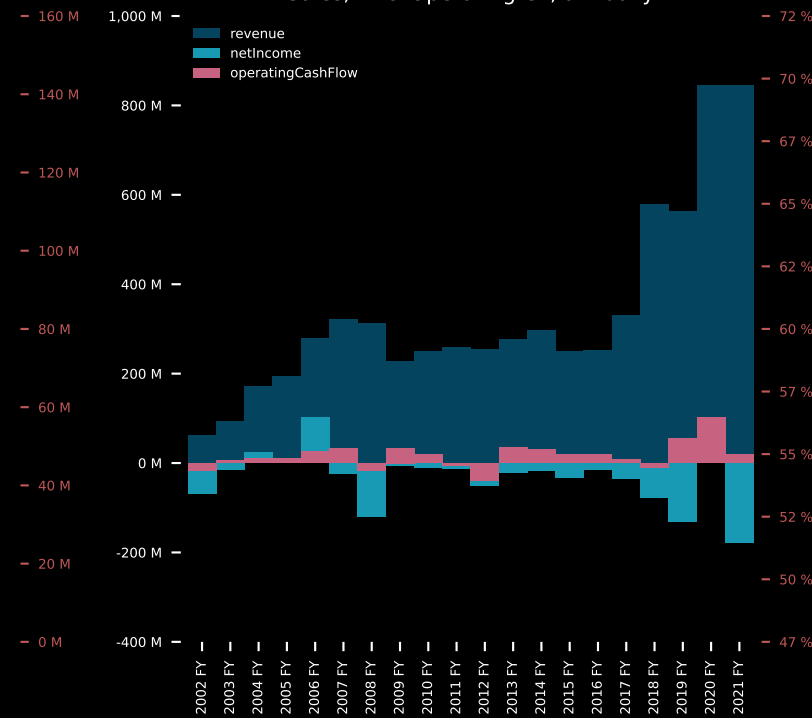
Sales, NI &amp; Operating CF, quarterly



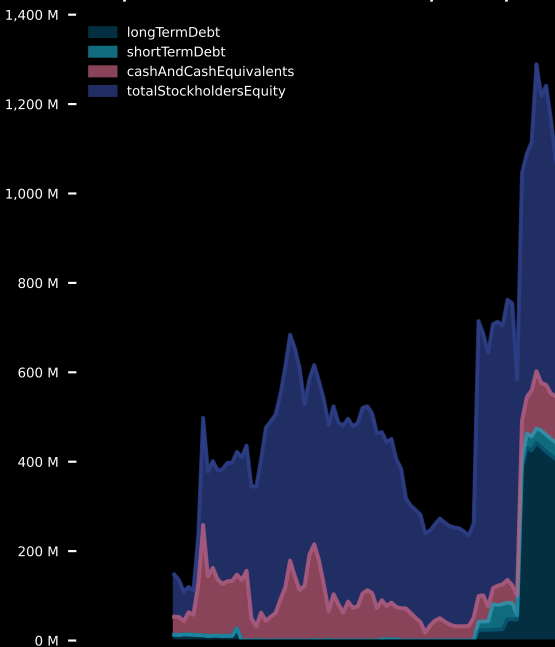
Price vs shares outstanding, quarterly



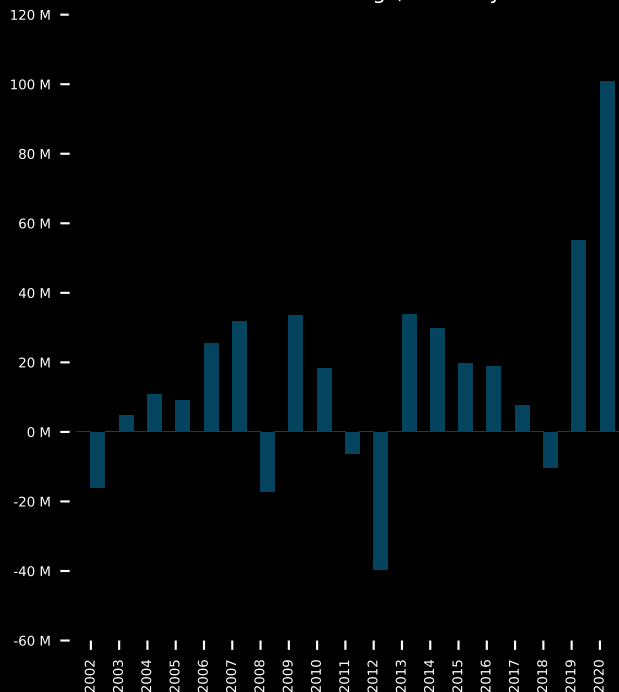
Sales, NI &amp; Operating CF, annually



RBBN / Telecom Services / US / 2022-08-23



Owners Earnings, annually

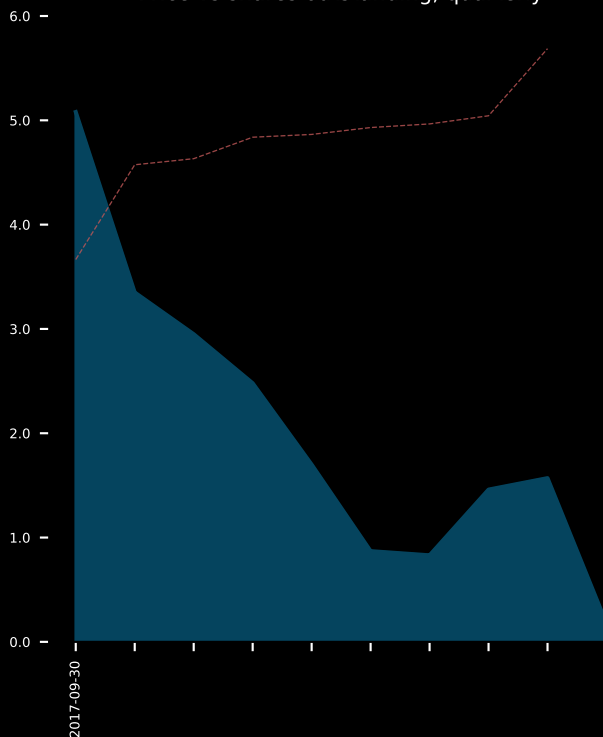


*Ribbon Communications Inc. provides communications technology in the United States, Europe, the Middle East, Africa, the Asia Pacific, and internationally. It operates through two segments, Cloud and Edge, and IP Optical Networks. The Cloud and Edge segment provides software and hardware products; and solutions and services for enabling voice over internet protocol communications, voice over long-term evolution, and voice over 5G communications and unified communications and collaboration. It also offers session border controller and network transformation products. This segment serves private, public, or hybrid cloud infrastructures, as well as data centers, enterprise premises, and service provider networks. It also provides multiple solutions for VoIP, VoLTE, VoNR, and UC&C in network, on-premises, or via the telco cloud. The IP Optical Networks segment provides hardware and software solutions for IP networking, switching, routing, and optical transport to support and enable technologies, such as 5G, distributed cloud computing, and corresponding applications. It also offers multiple solutions, including 5G-native*

Sales, NI &amp; Operating CF, quarterly



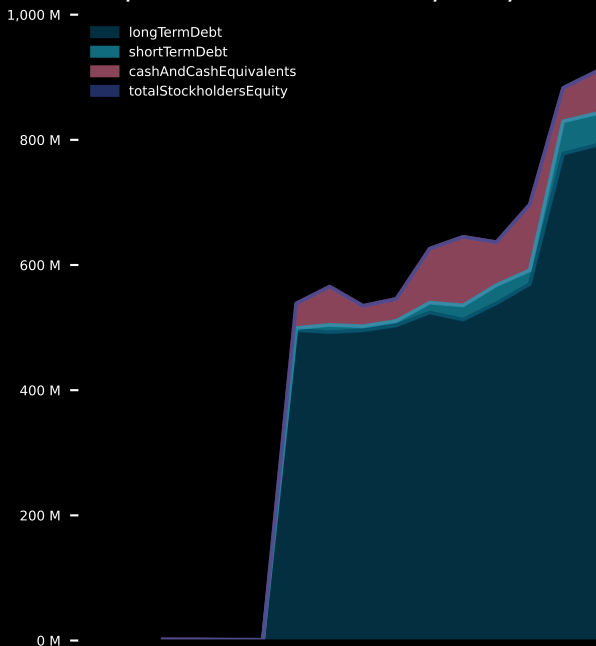
Price vs shares outstanding, quarterly



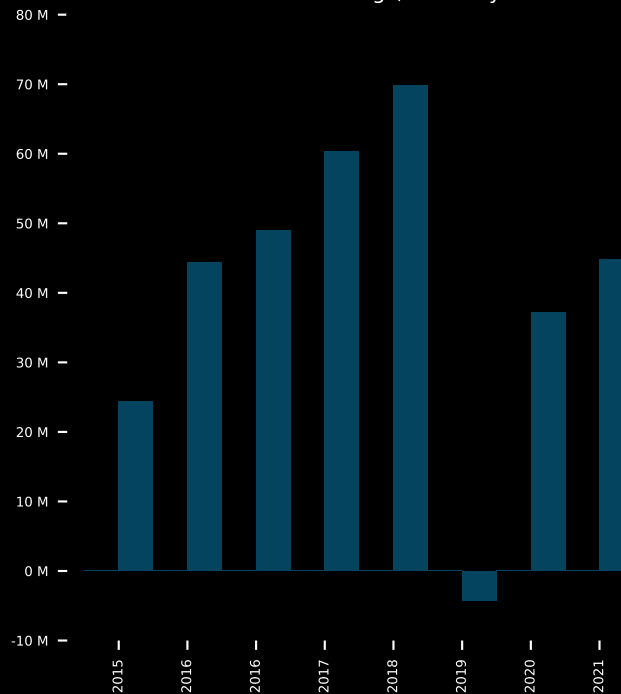
Sales, NI &amp; Operating CF, annually



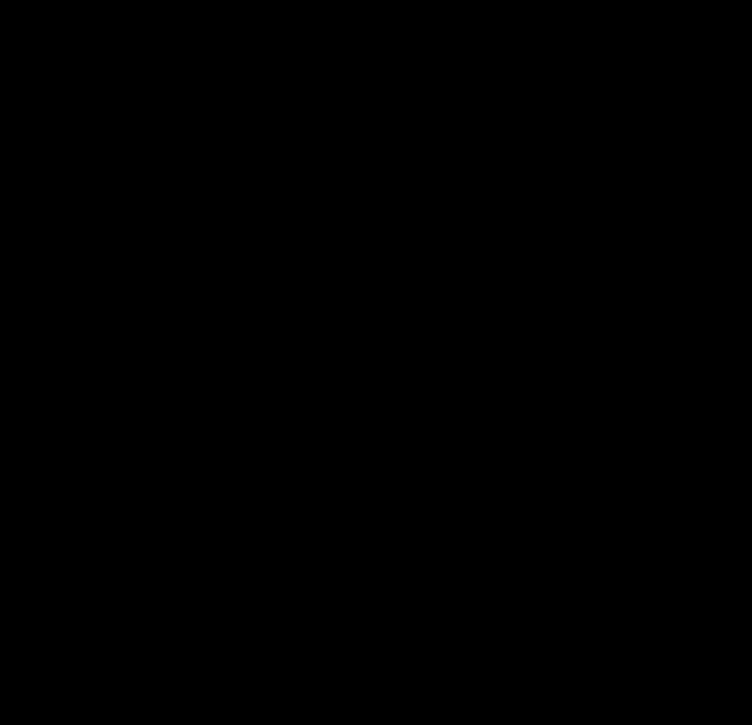
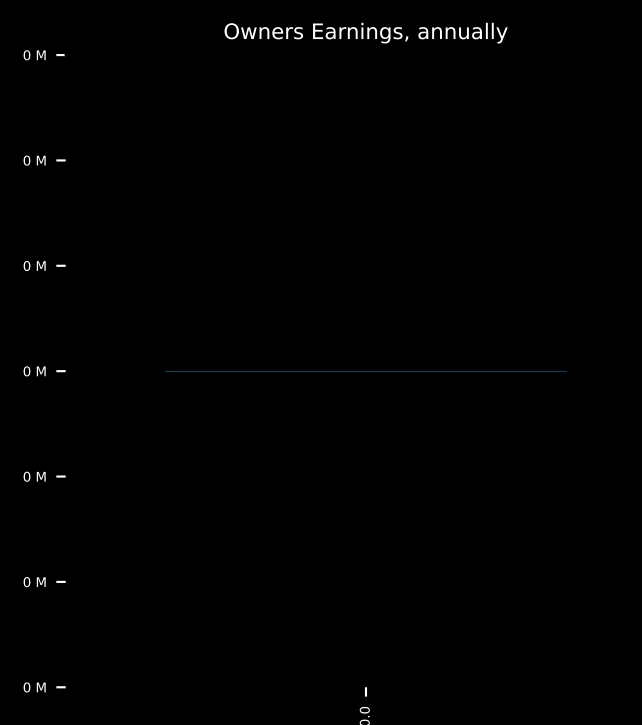
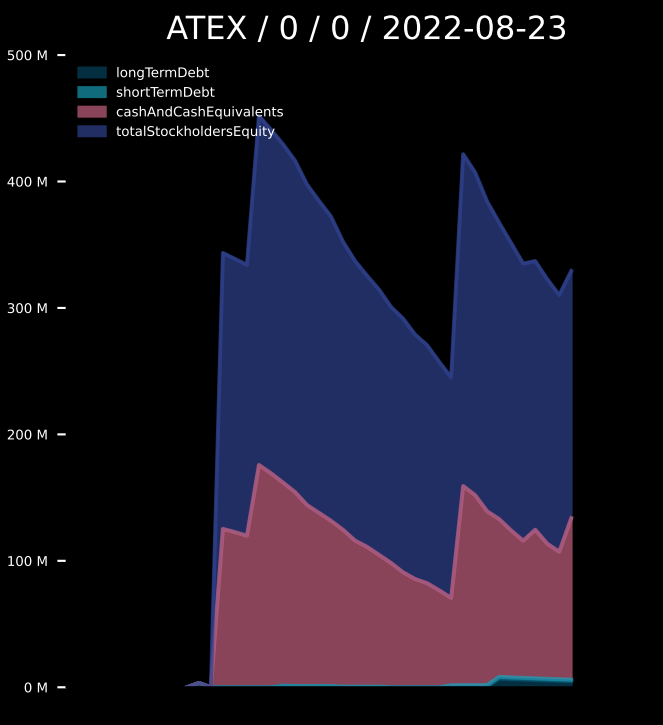
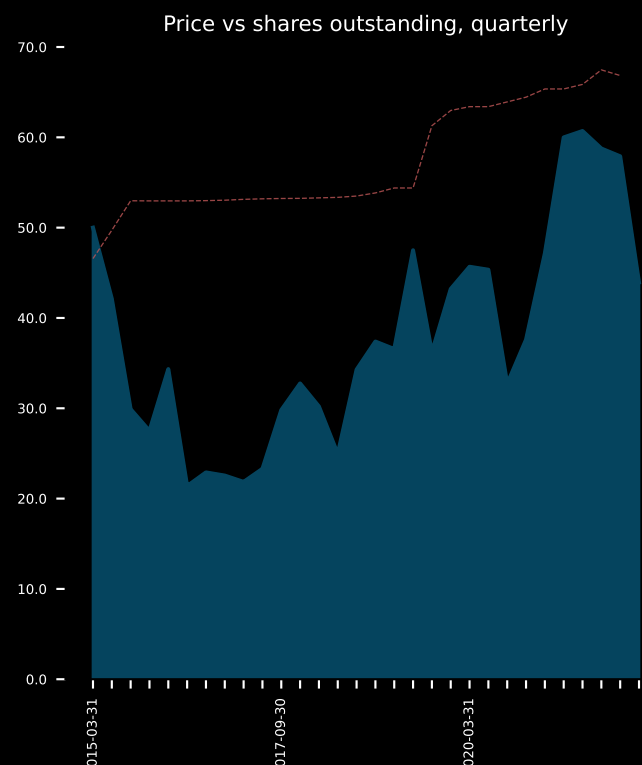
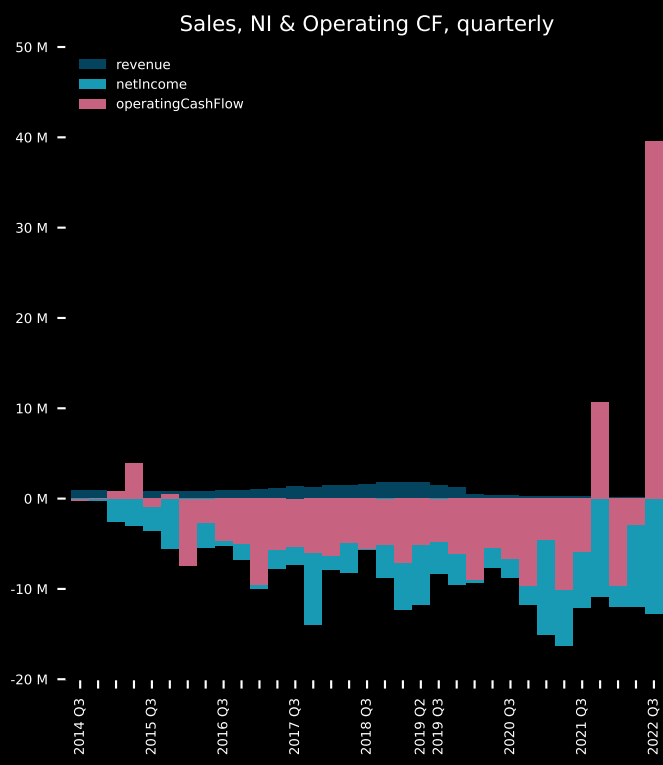
TLLYF / Telecom Services / US / 2022-08-23



Owners Earnings, annually

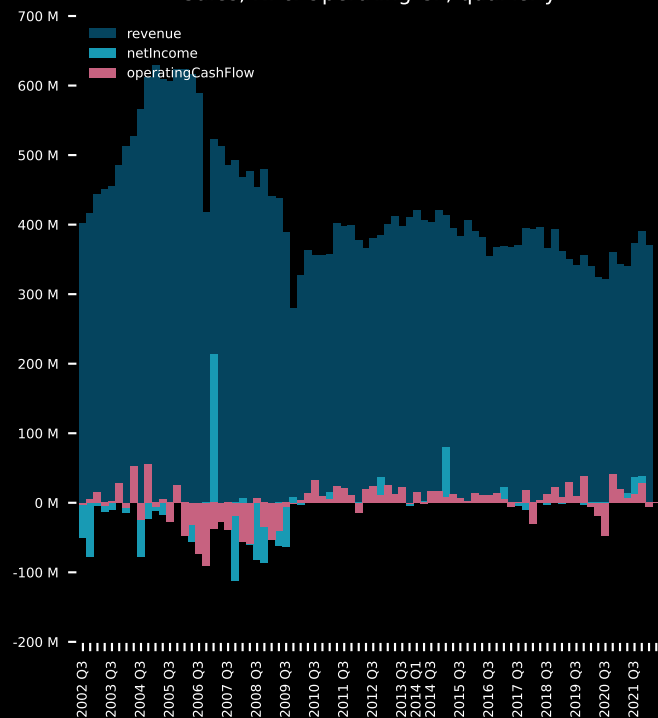


Trilogy International Partners Inc., together with its subsidiaries, provides wireless voice and data communications services in New Zealand, Bolivia, and internationally. It offers prepaid and postpaid payment plans, including local, international long distance, and roaming services to customers and international visitors roaming on its networks. The company also provides fixed broadband communications to residential and enterprise customers, as well as a range of mobile and fixed line services in New Zealand and Australia; and fixed public telephony and wireless broadband services in Bolivia. As of December 31, 2021, it had a distribution network of approximately 13 company owned stores, 170 dealers, and 8,300 other dealer points of presence in Bolivia; and a distribution network of approximately 20 company owned retail stores, 40 independent dealers, and 2,500 points of sale through national retail chains and grocery stores in New Zealand. The company's services cover an aggregate population of 16.8 million users. It also provides services through its online self-service store in New Zealand; and operates under the Viva brand name in Bolivia.

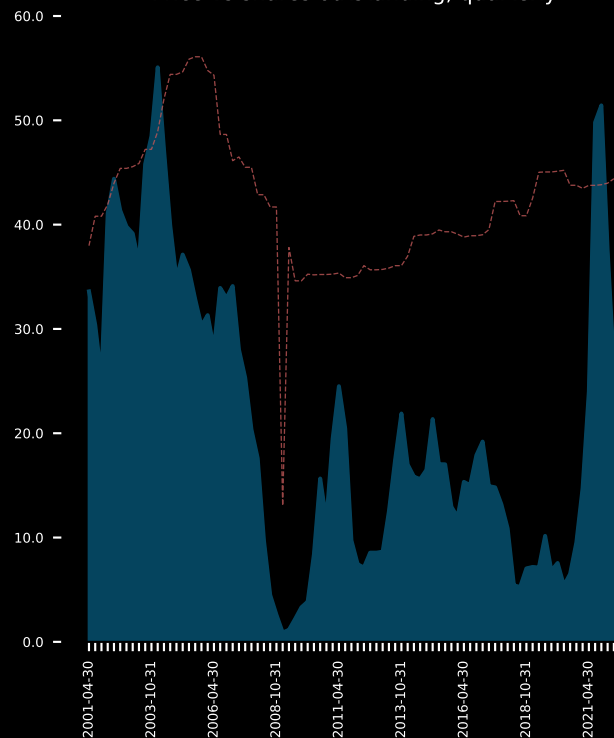




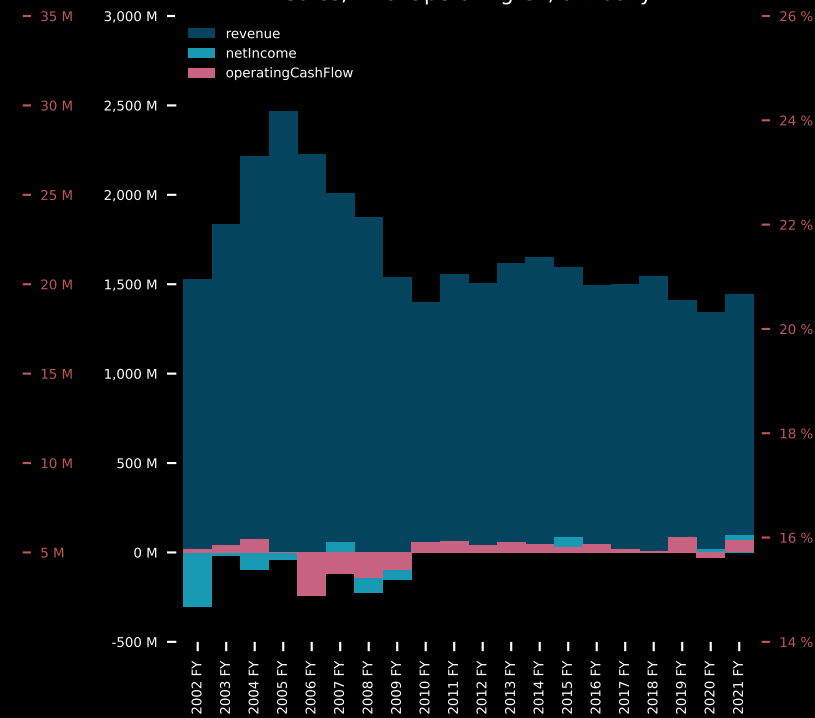
Sales, NI &amp; Operating CF, quarterly



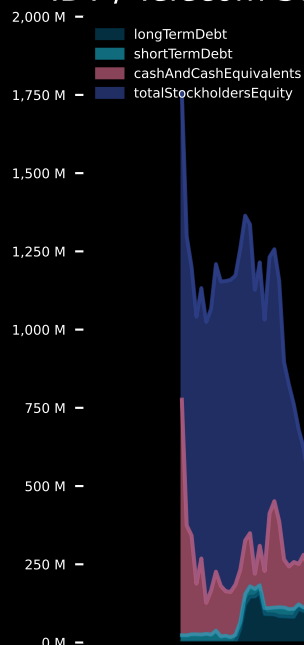
Price vs shares outstanding, quarterly



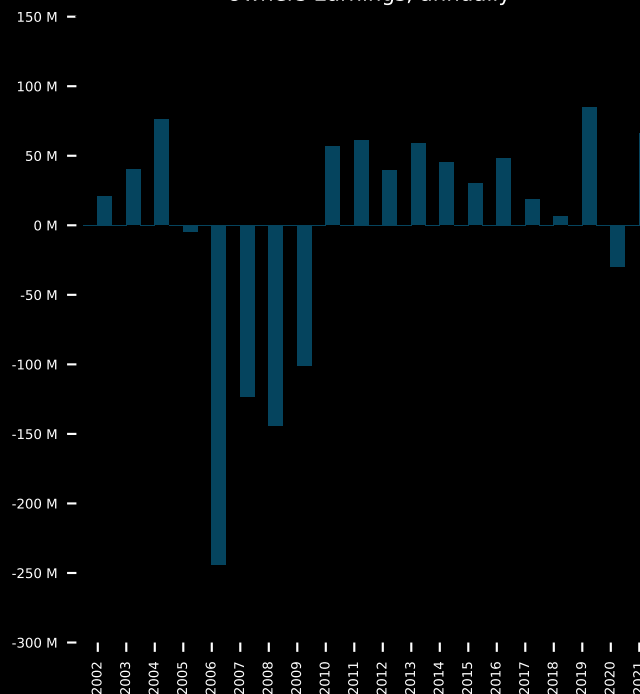
Sales, NI &amp; Operating CF, annually



IDT / Telecom Services / US / 2022-08-23

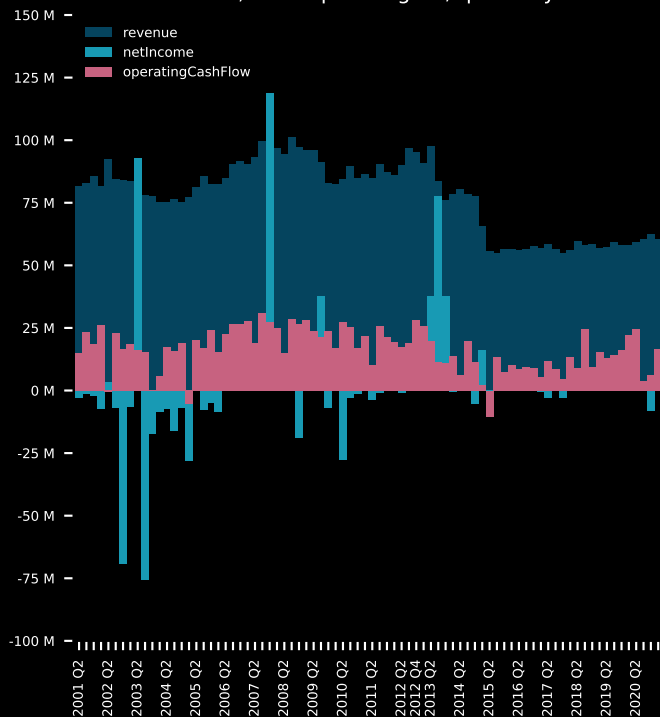


Owners Earnings, annually

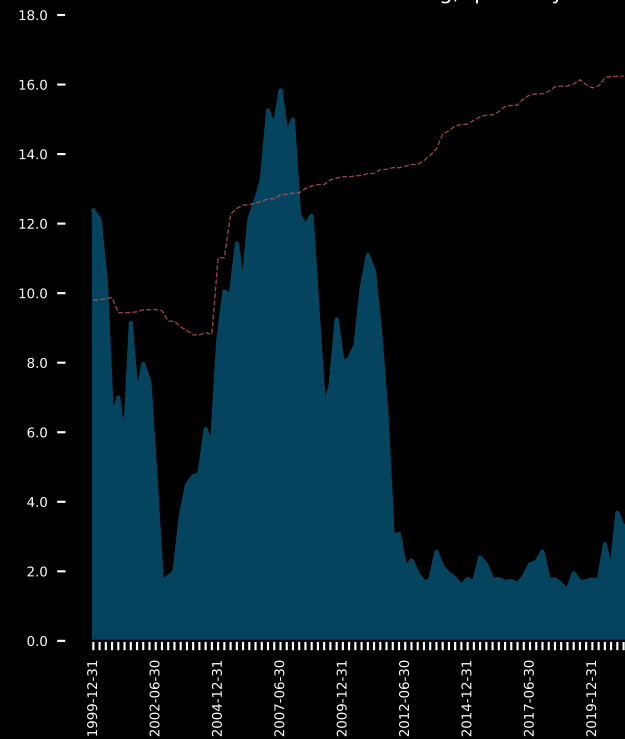


IDT Corporation operates in the communications and payment industries in the United States and internationally. The company operates through three segments: Fintech; net2phone-UCaaS (Unified Communications as a Service); and Traditional Communications. The Fintech segment offers international money remittance and related value/payment transfer services under the BOSS Revolution brand name; national retail solutions, such as point of sale network providing payment processing, digital advertising, transaction data, and ancillary services under the NRS brand name. The net2phone-UCaaS segment provides net2phone-UCaaS, a cloud communications service for businesses; and cable telephony services under the net2phone brand name. The Traditional Communications segment, which include Mobile Top-Up, that enables customers to transfer airtime and bundles of airtime, messaging, and data to international and domestic mobile accounts; BOSS Revolution Calling, an international long-distance calling service; Carrier Services, a wholesale provider of international voice and SMS termination, and outsourced traffic management

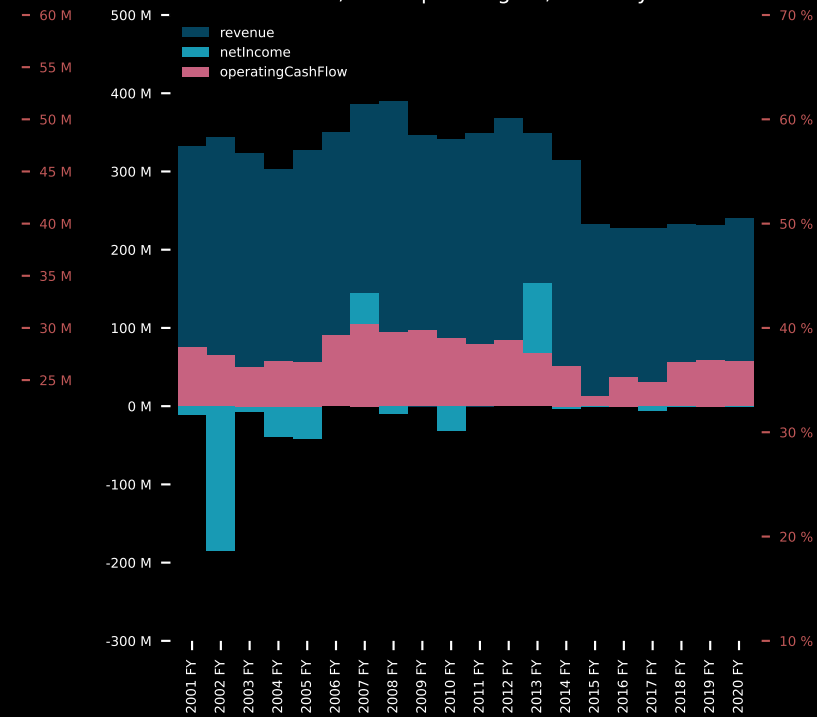
Sales, NI &amp; Operating CF, quarterly



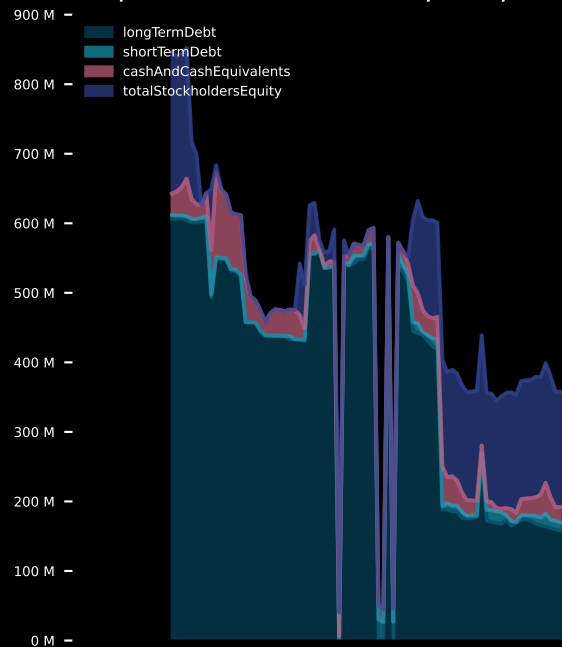
Price vs shares outstanding, quarterly



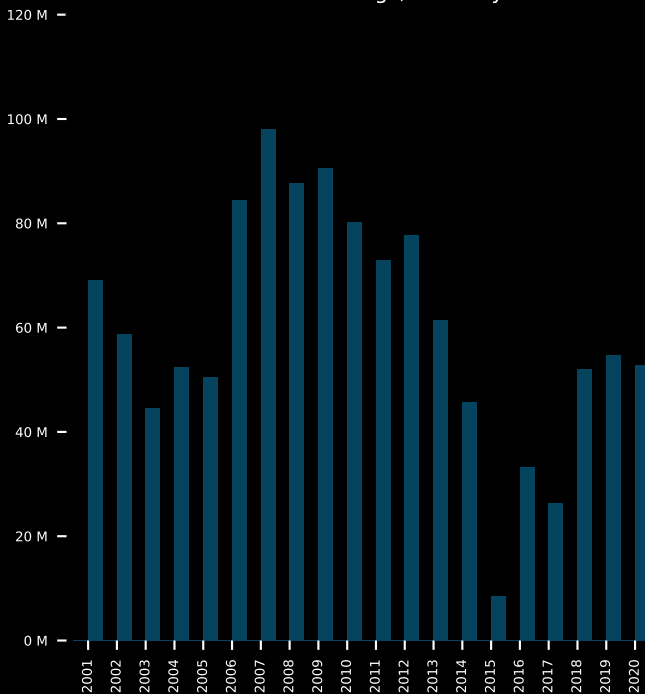
Sales, NI &amp; Operating CF, annually



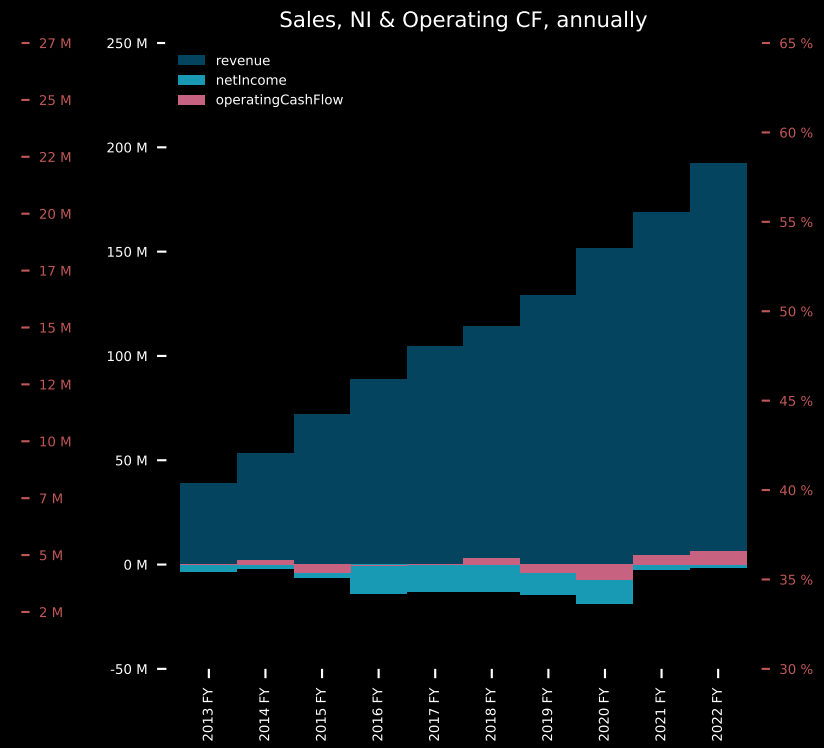
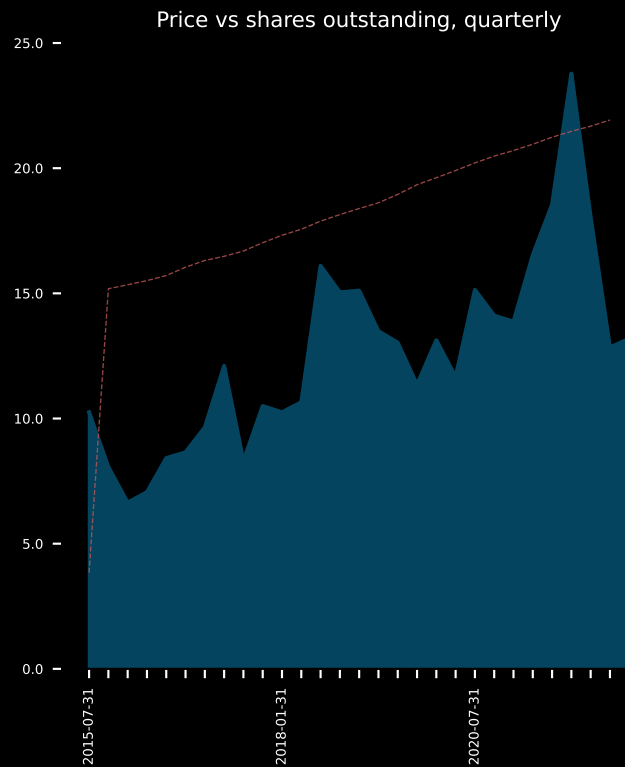
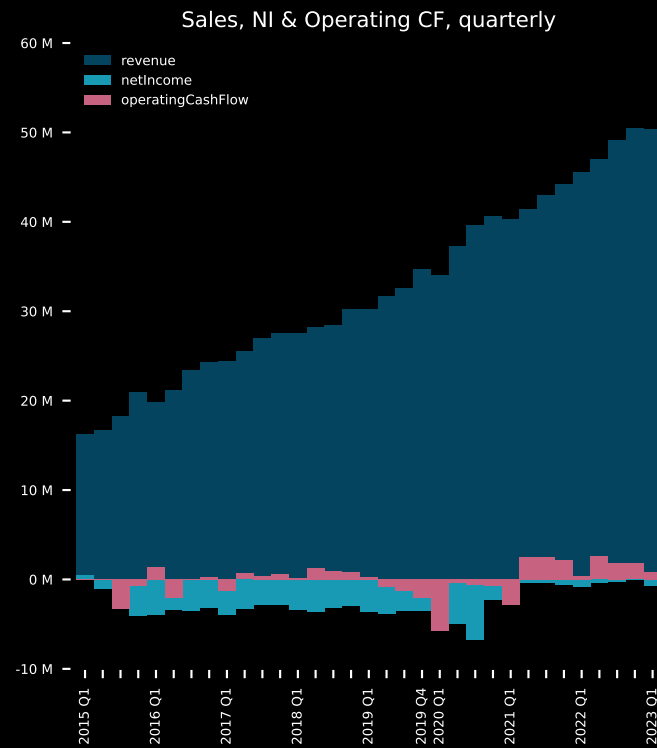
ALSK / Telecom Services / US / 2022-08-23



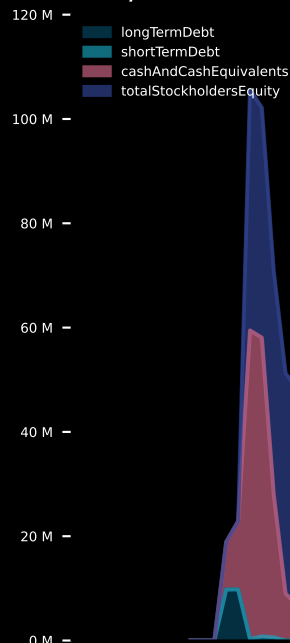
Owners Earnings, annually



*Alaska Communications Systems Group, Inc., through its subsidiaries, provides broadband telecommunication and managed information technology services to business, wholesale, and consumer customers in the United States. Its services include voice and broadband services; and managed IT services comprising remote network monitoring and support service, managed IT security and IT professional services, and long distance services primarily over its own terrestrial network to business and wholesale customers. The company's business customers comprise enterprises; federal, state, and local governments; and small and medium business. It also provides voice and broadband services to residential customers in residential homes and multi-dwelling units; voice and broadband origination and termination services to inter and intrastate carriers; and access and support services. The company markets and sells its products through direct sales channels. Alaska Communications Systems Group, Inc. was incorporated in 1998 and is based in Anchorage, Alaska.*

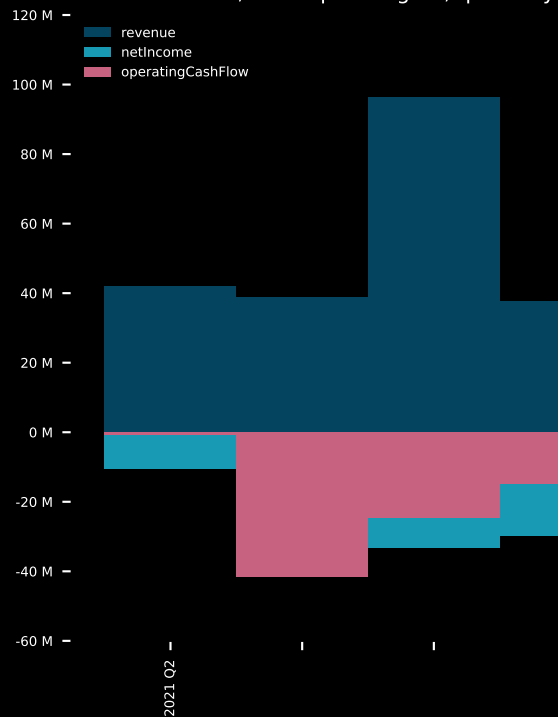


## OOMA / Telecom Services / US / 2022-08-23

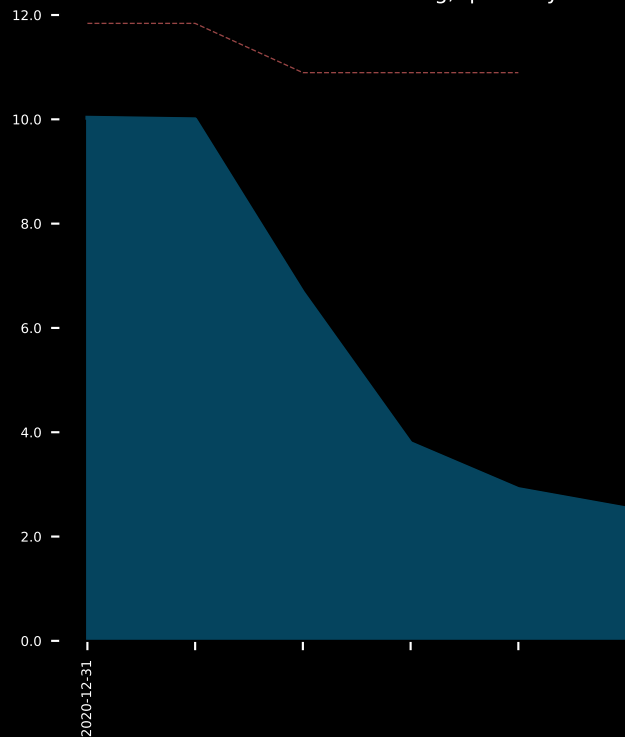


Ooma, Inc. provides communications services and related technologies for businesses and consumers in the United States and Canada. The company's products and services include Ooma Office, a cloud-based multi-user communications system for small and medium-sized businesses; Ooma Office Pro that offers services, including HD video meetings, call recording, enhanced call blocking, and voicemail transcription; Ooma Connect, which delivers fixed wireless internet connectivity; Ooma Managed Wi-Fi, a plug-and-play enterprise-grade Wi-Fi solution; and Ooma Enterprise, a unified-communications-as-a-service solution. It also provides Ooma AirDial, a plain old telephone service; Ooma Telo basic that provides unlimited personal calling within the Unites States; Ooma Premier, a suite of advanced calling features on a monthly or annual subscription basis; PureVoice HD, a residential phone services; Ooma Telo, a home communications solution designed to serve as the primary phone line in the home; and Ooma Telo 4G, which combines the Ooma Telo base station with the Ooma 4G Cellular Adapter and battery back-up. In addition, the company offers Ooma MobileHD, a mobile phone service that provides HD video meetings, call recording, enhanced call blocking, and voicemail transcription.

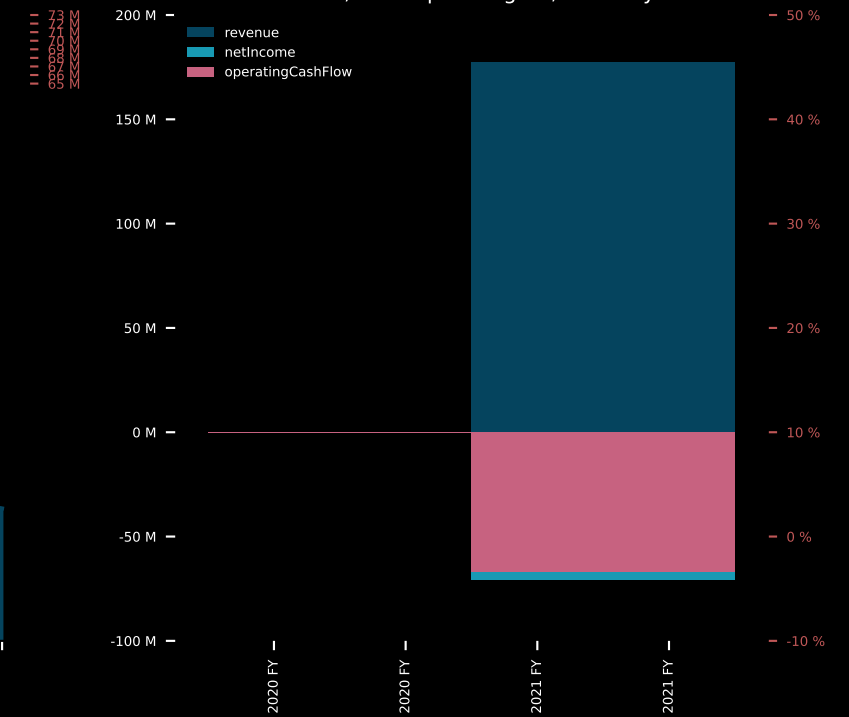
Sales, NI &amp; Operating CF, quarterly



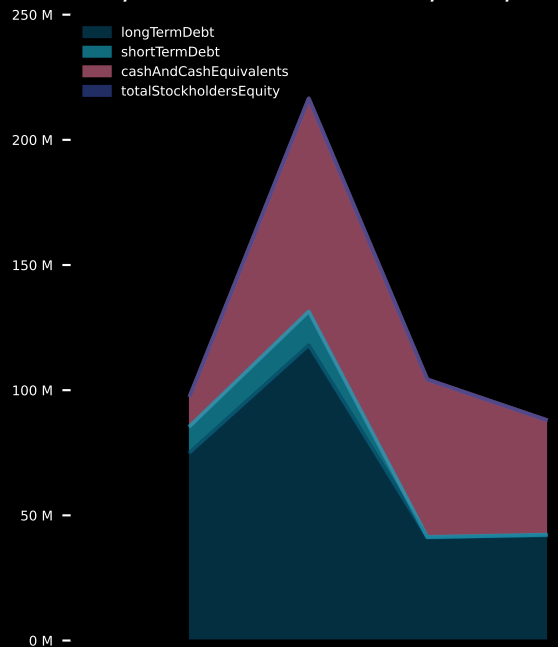
Price vs shares outstanding, quarterly



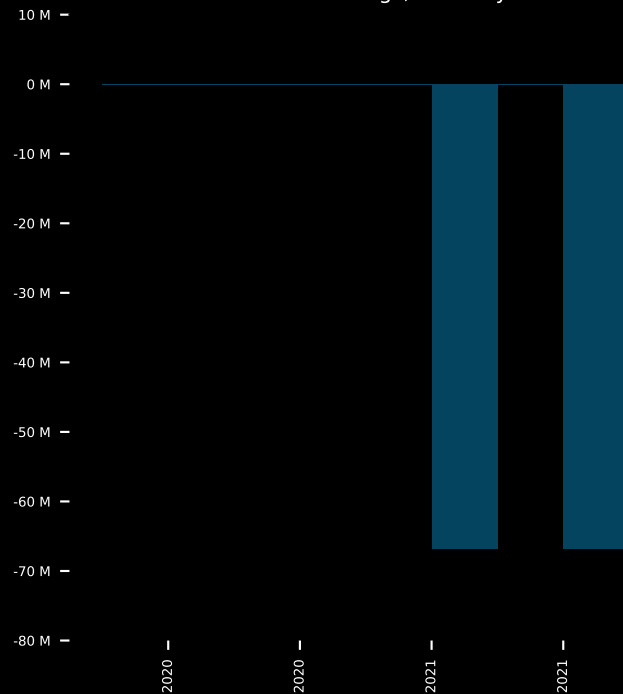
Sales, NI &amp; Operating CF, annually



MIMO / Telecom Services / US / 2022-08-23

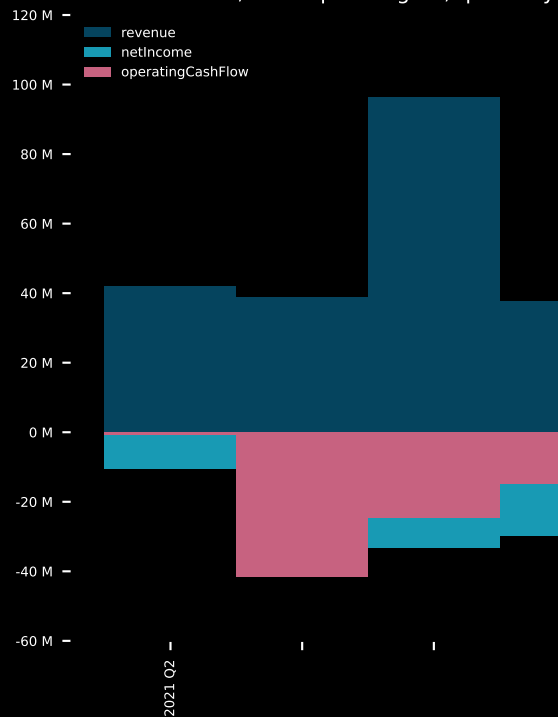


Owners Earnings, annually

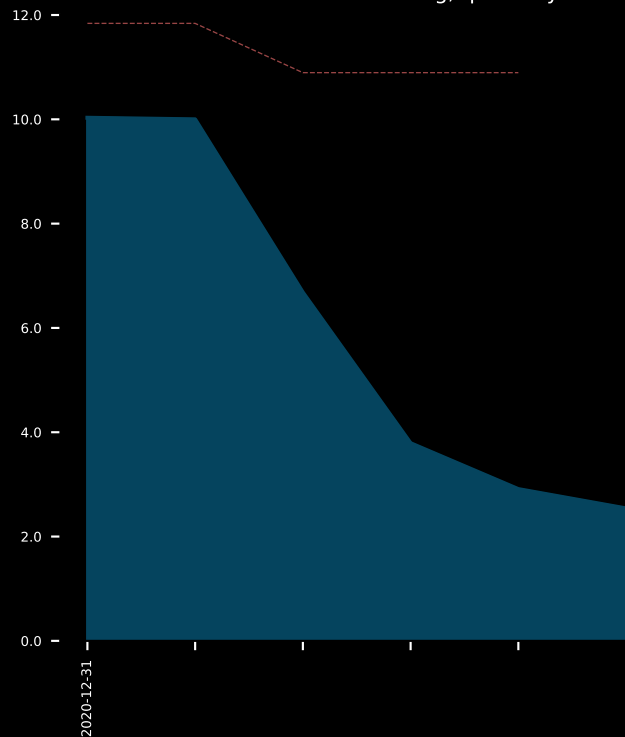


*Airspan Networks Holdings Inc. designs and produces wireless network equipment for 4G and 5G networks for mainstream public telecommunications service providers and private network implementations. It offers a range of 4G and 5G network build and network densification products with a portfolio of software and hardware tools for indoor and outdoor, compact femto, pico, micro, and macro base stations, as well as fixed wireless access and backhaul solutions portfolio for point-to-point and point-to-multipoint applications. The company serves mobile communications service providers, large enterprises, military communications integrators, and internet service providers. Airspan Networks Holdings Inc. is headquartered in Boca Raton, Florida.*

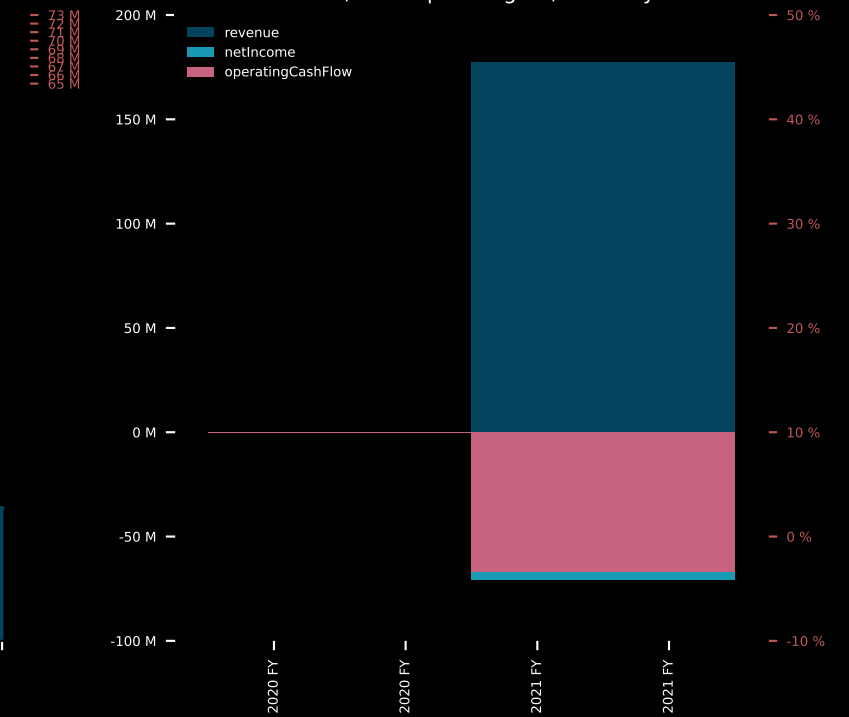
Sales, NI &amp; Operating CF, quarterly



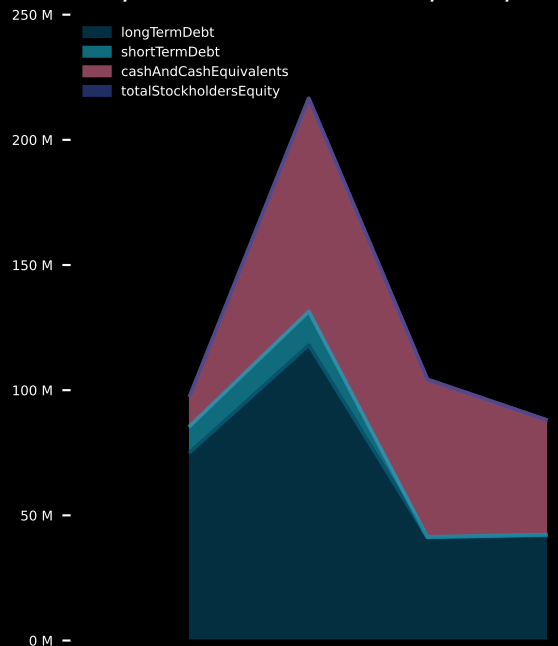
Price vs shares outstanding, quarterly



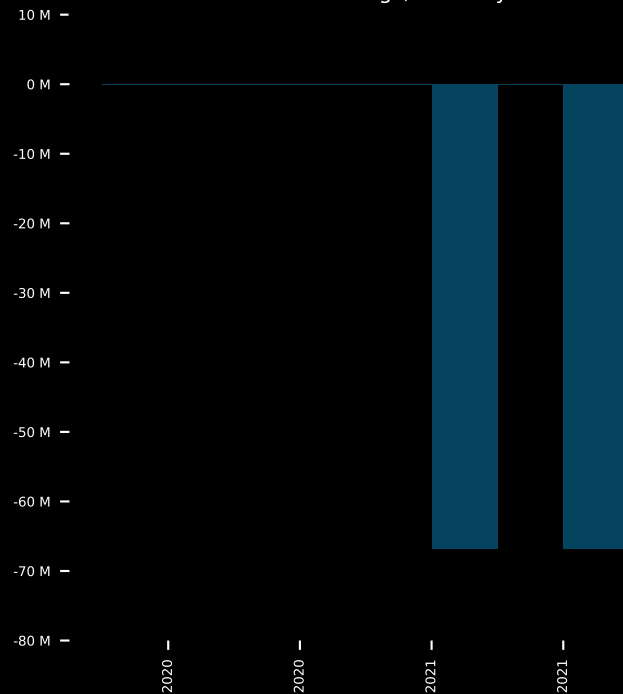
Sales, NI &amp; Operating CF, annually



MIMO / Telecom Services / US / 2022-08-23

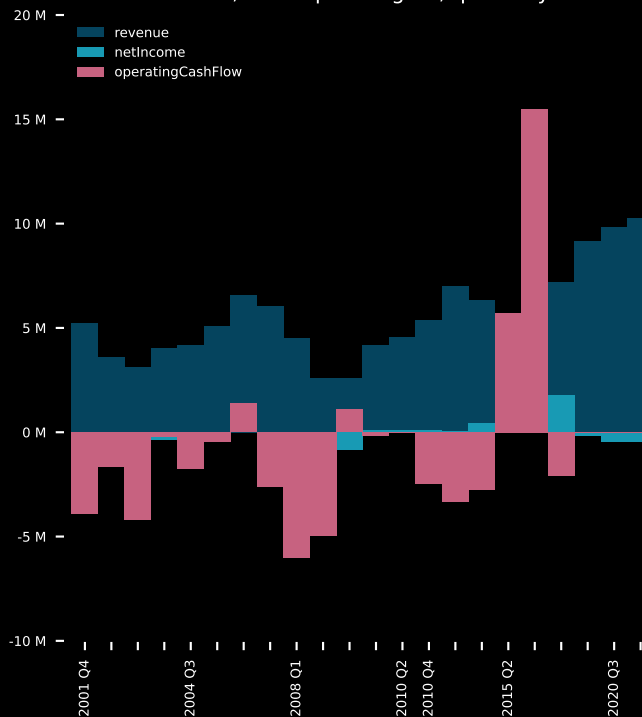


Owners Earnings, annually

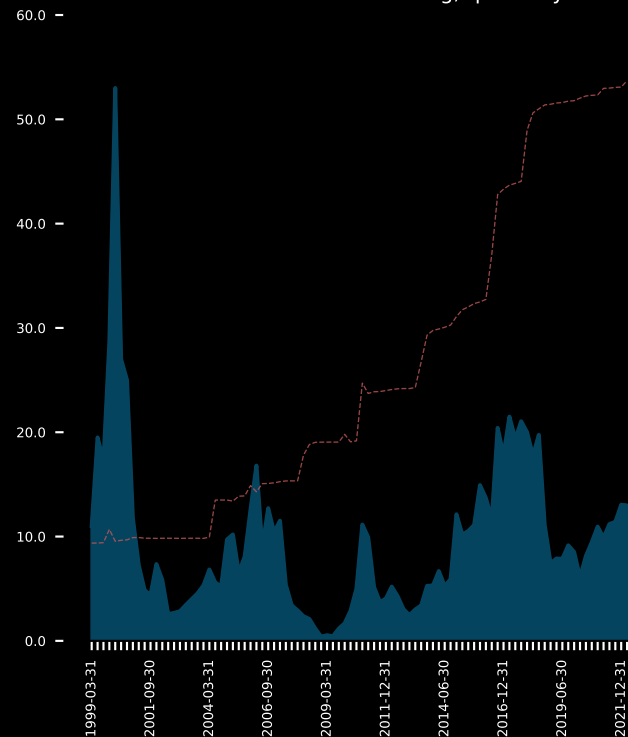


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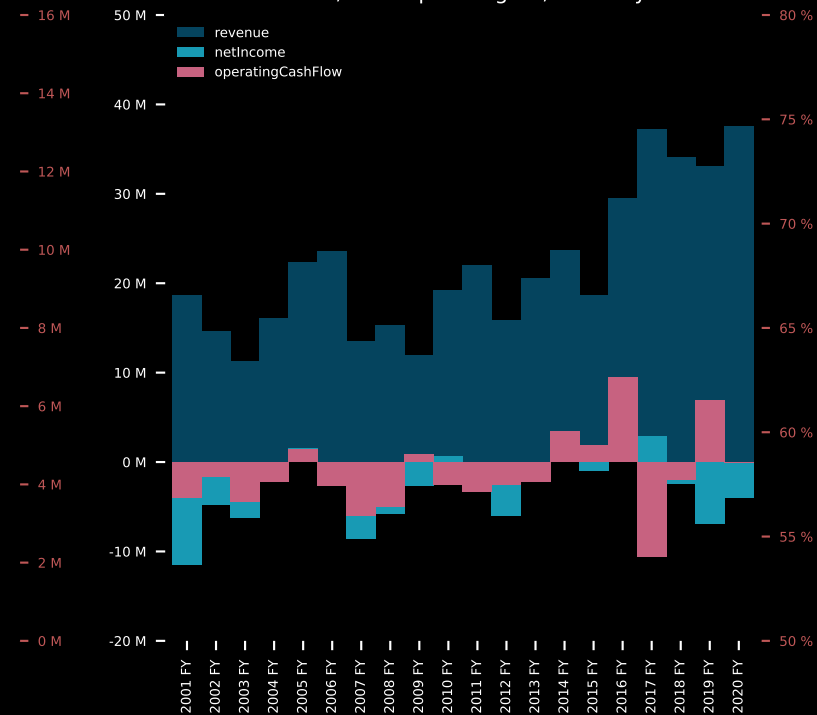
Sales, NI &amp; Operating CF, quarterly



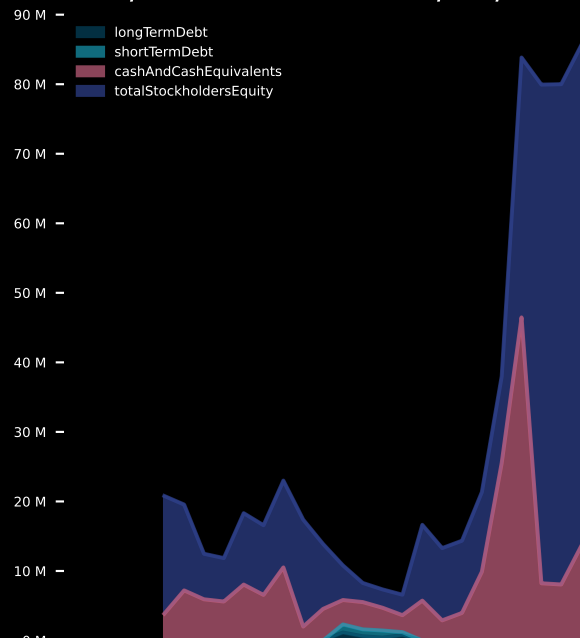
Price vs shares outstanding, quarterly



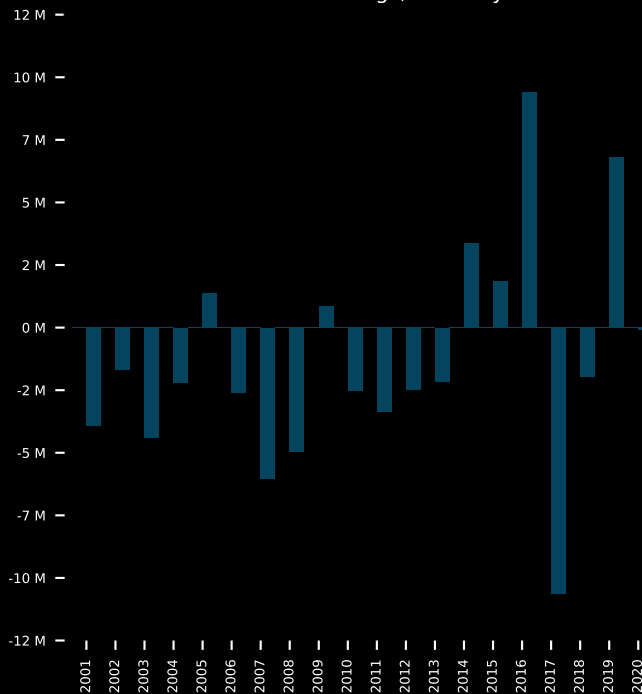
Sales, NI &amp; Operating CF, annually



RDCM / Telecom Services / IL / 2022-08-23



Owners Earnings, annually

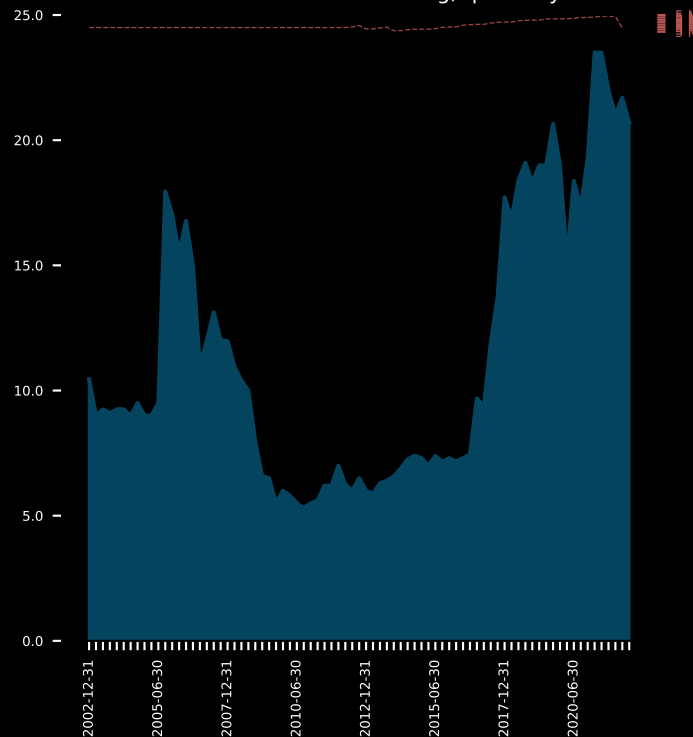


RADCOM Ltd. provides 5G ready cloud-native network intelligence and service assurance solutions for telecom operators or communication service providers (CSPs). It offers RADCOM ACE, including RADCOM Service Assurance, a cloud-native, 5G-ready, and virtualized service assurance solutions, which allows telecom operators to gain end-to-end network visibility and customer experience insights across all networks; RADCOM Network Visibility, a cloud-native network packet broker and filtering solution that allows CSPs to manage network traffic at scale across multiple cloud environments, and control the visibility layer to perform analysis of select datasets; and RADCOM Network Insights, a business intelligence solution that offers insights for multiple use cases enabled by data captured and correlated through RADCOM Network Visibility and RADCOM Service Assurance. The company also provides solutions for mobile and fixed networks, such as 5G, long term evolution, voice over LTE, voice over Wifi, IP multimedia subsystem, voice over IP, and universal mobile telecommunication service. It sells its products directly, as well as through a network of distributors and resellers.

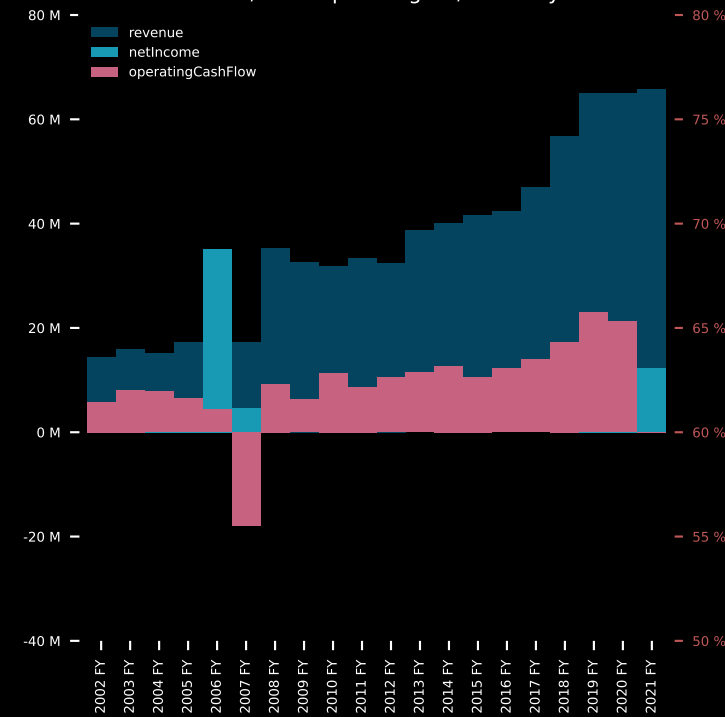
Sales, NI &amp; Operating CF, quarterly



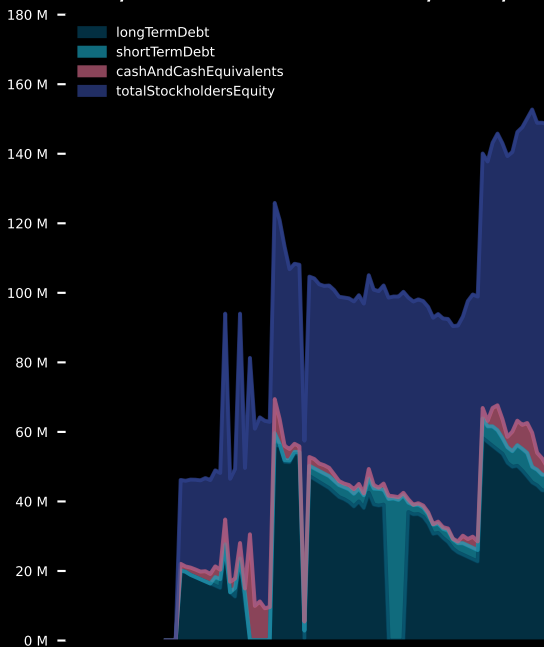
Price vs shares outstanding, quarterly



Sales, NI &amp; Operating CF, annually



NUVR / Telecom Services / US / 2022-08-23



Owners Earnings, annually



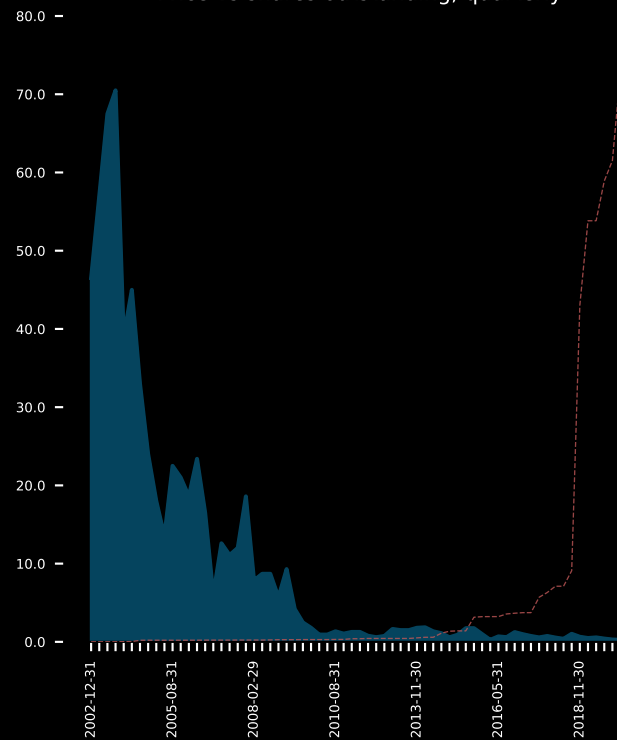
Nuvera Communications, Inc. operates as a diversified communications company in the United States. The company offers broadband Internet access and voice over Internet protocol (VoIP) phone services; and voice services to make and receive telephone calls within a defined local calling area; and network access services to other communication carriers for the use of its facilities to terminate or originate long distance calls on its network. It also provides video services, including commercial TV programming, cable television services, and video-on-demand services; high-speed Internet to business and residential customers; e-mail and managed services comprising web hosting and design, online file back up, and online file storage; directory assistance, operator service, and long-distance private lines; directory publishing, bill processing, and other customer services; and fiber-delivered communications and managed information technology solutions, as well as sells and services customer premise equipment. In addition, it is involved in the retail sale and service of cellular phones and accessories; and the operation of



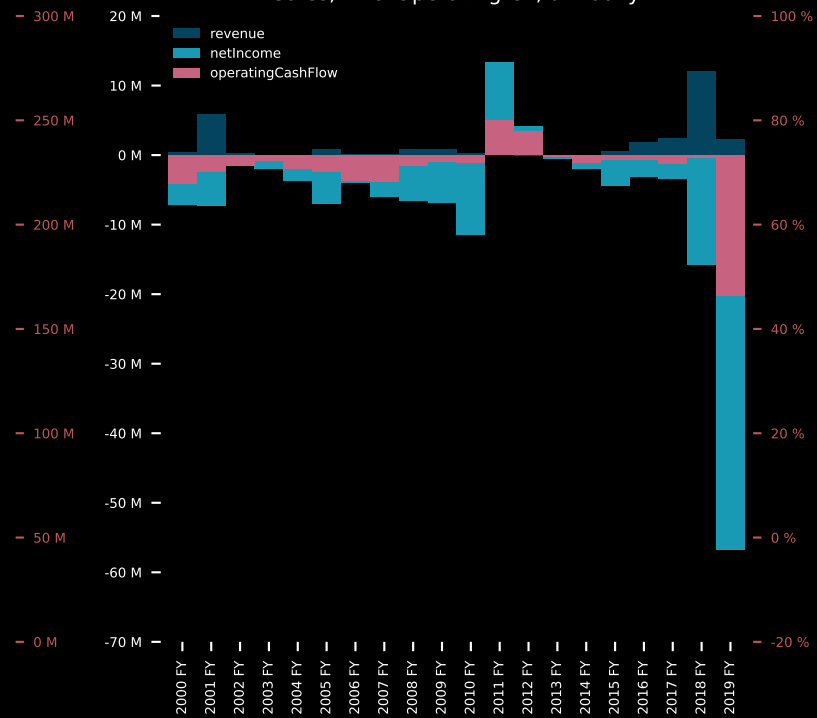
Sales, NI &amp; Operating CF, quarterly



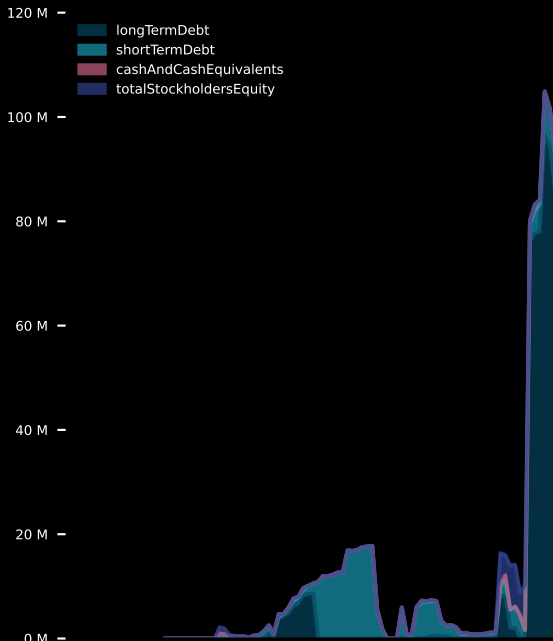
Price vs shares outstanding, quarterly



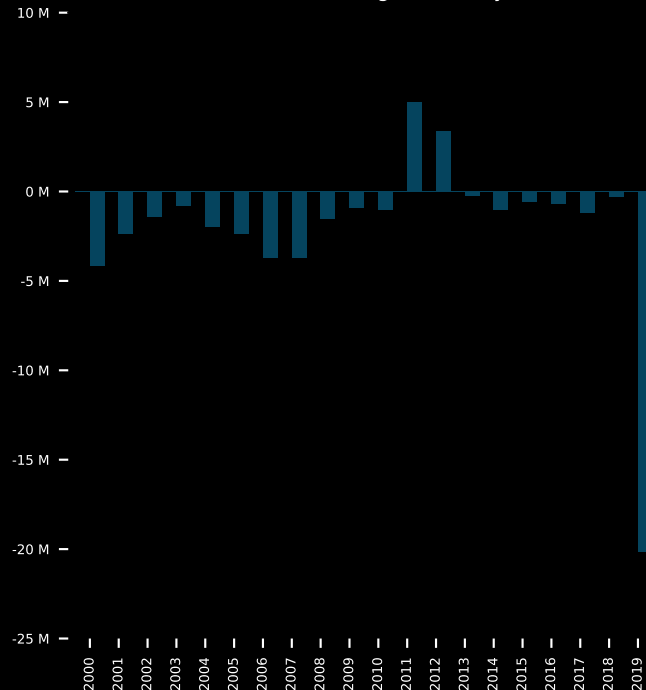
Sales, NI &amp; Operating CF, annually



IOTC / Telecom Services / US / 2022-08-23



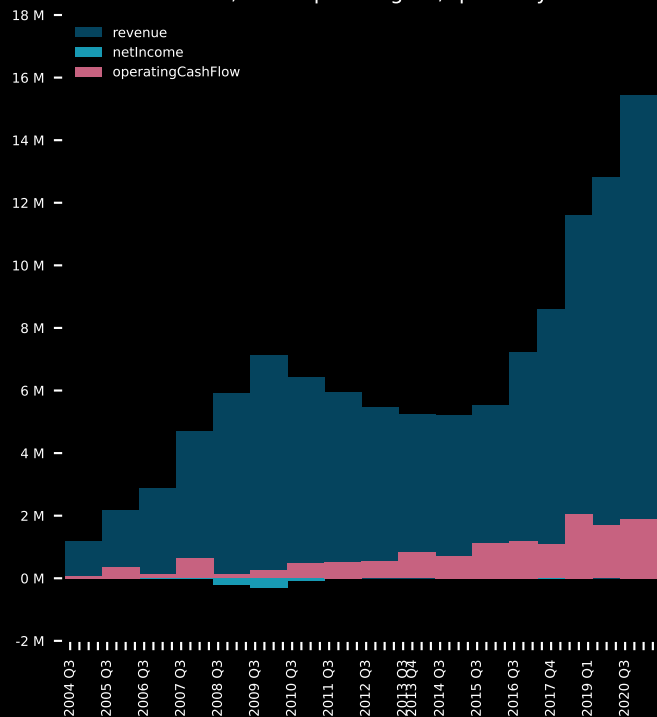
Owners Earnings, annually



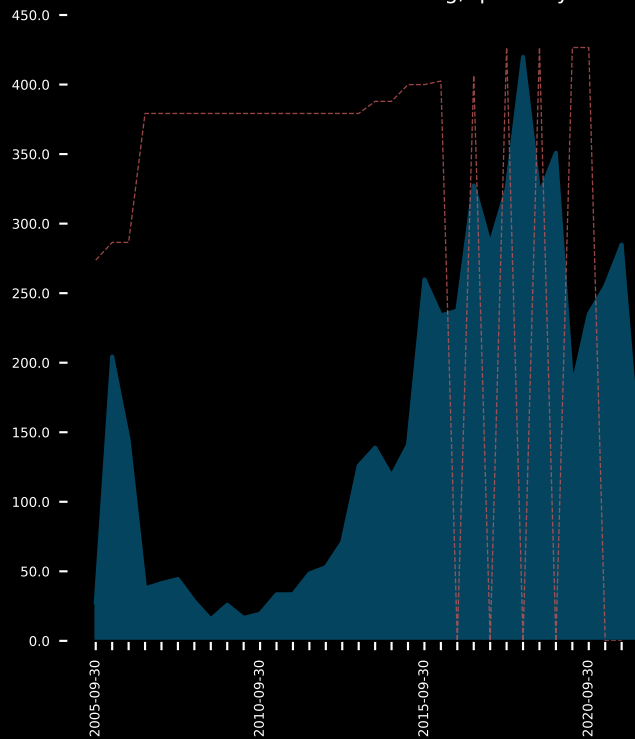
*Iota Communications, Inc., through its subsidiaries, provides Internet of Things (IoT) solutions. It also provides energy conservation solutions. The company operates through Iota Networks, Iota Commercial Solutions, Iota Communications, and Iota Holdings. In addition, the company offers delphi360, a wireless connectivity and data analytics platform to integrate with devices and sensors, as well as provides BrightAI, an analytic platform that gathers information from sensor connectivity. Further, it provides IoT-based LED and smart lighting. Additionally, it offers smart building solutions, a platform for data management. Furthermore, the company serves healthcare, commercial real estate, education, utility, retail, and manufacturing industries; and city and municipals. Iota Communications, Inc. is based in Allentown, Pennsylvania.*



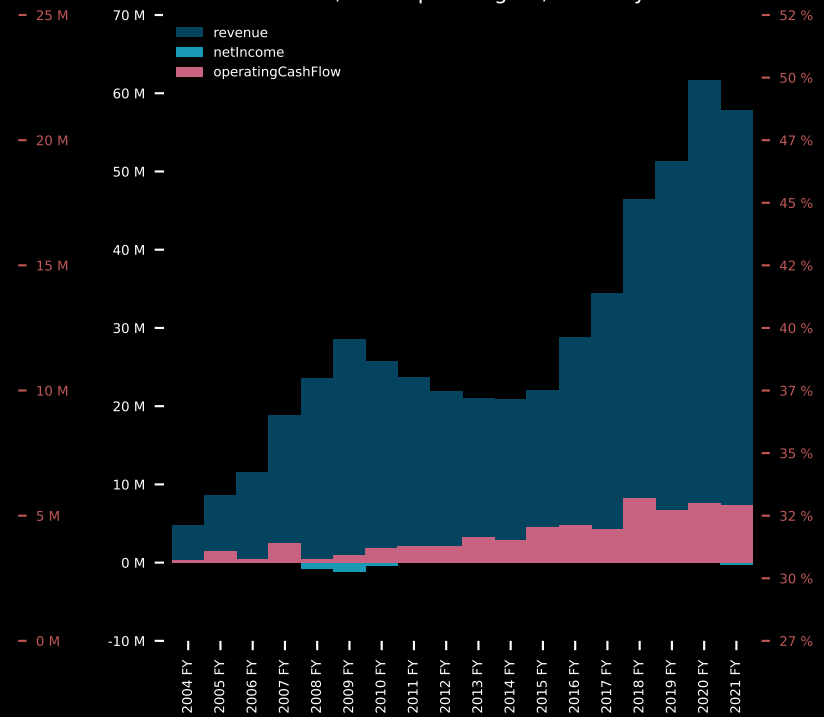
Sales, NI &amp; Operating CF, quarterly



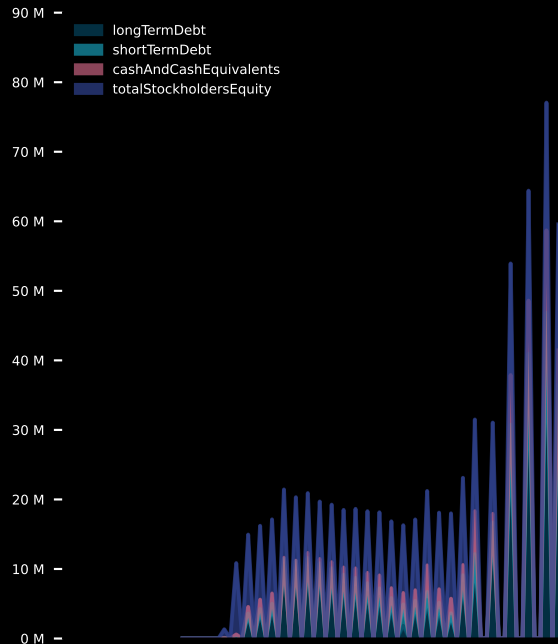
Price vs shares outstanding, quarterly



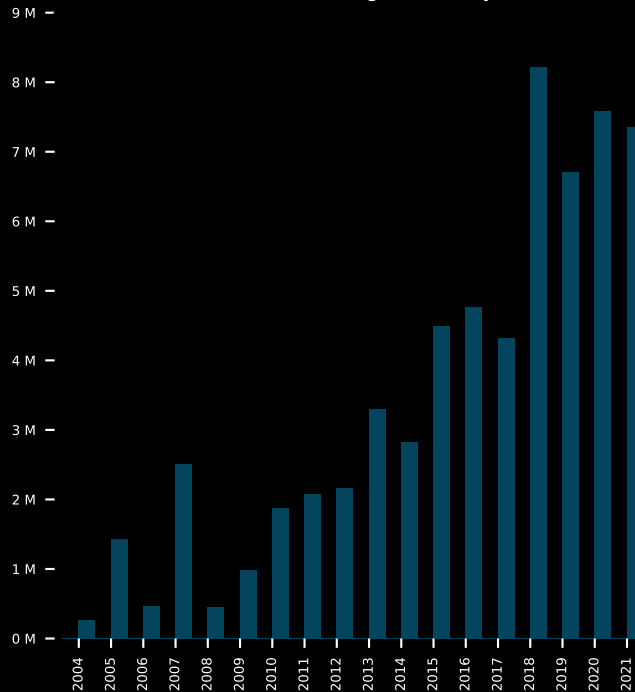
Sales, NI &amp; Operating CF, annually



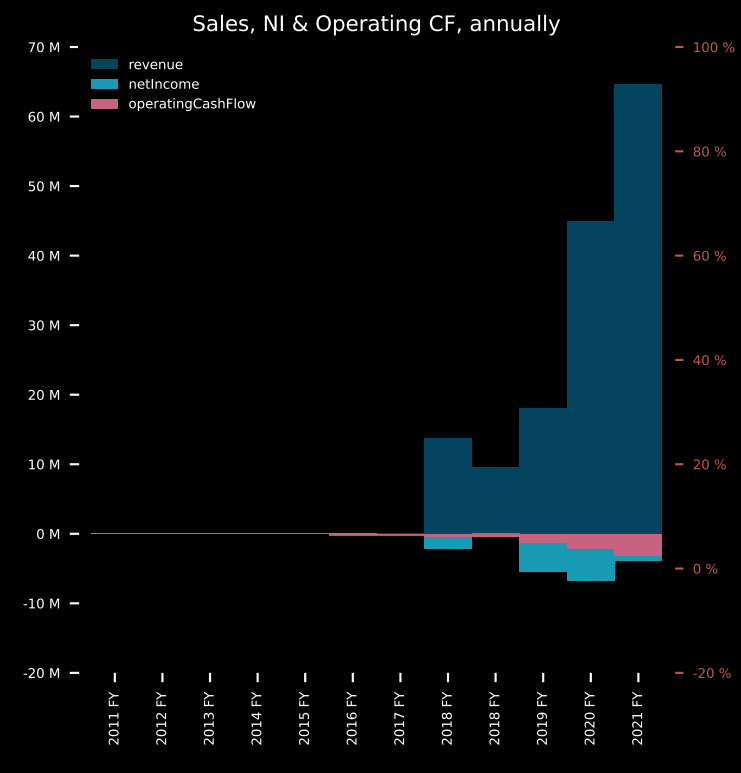
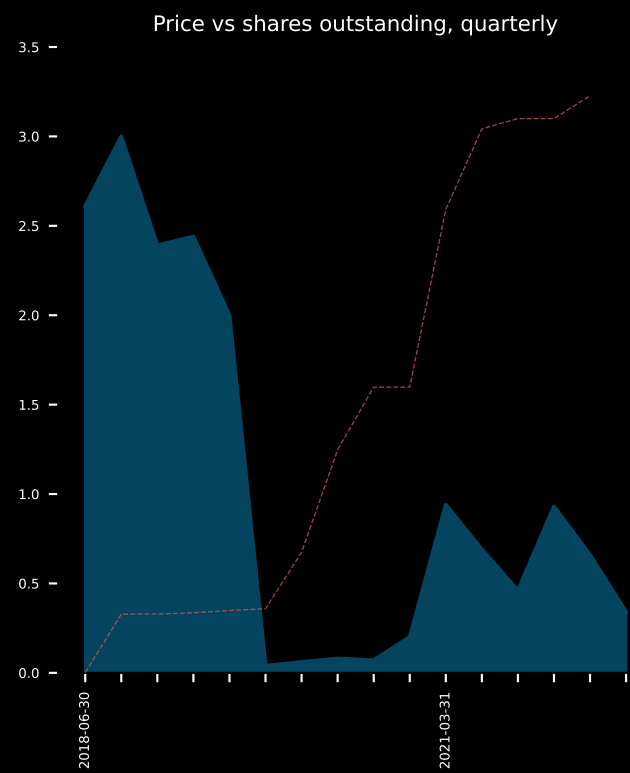
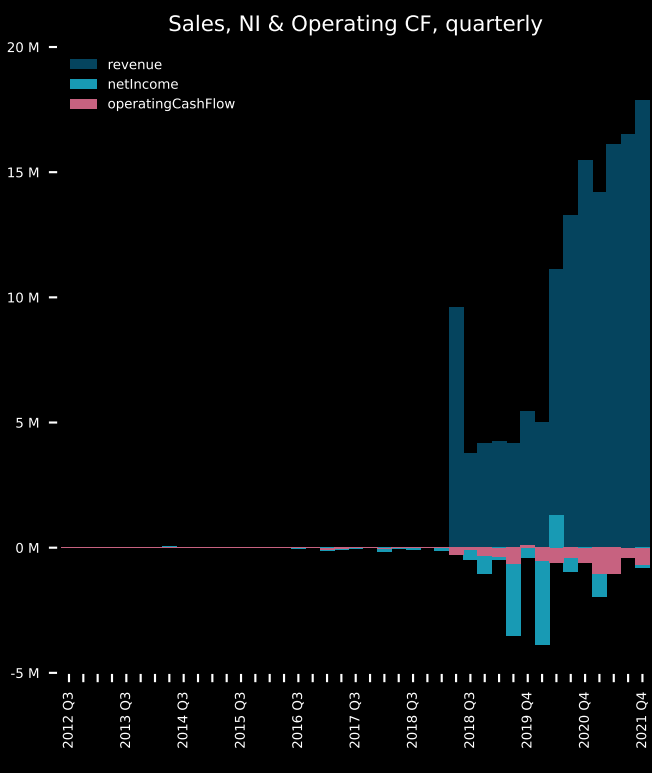
ADT.L / Telecom Services / GB / 2022-08-23



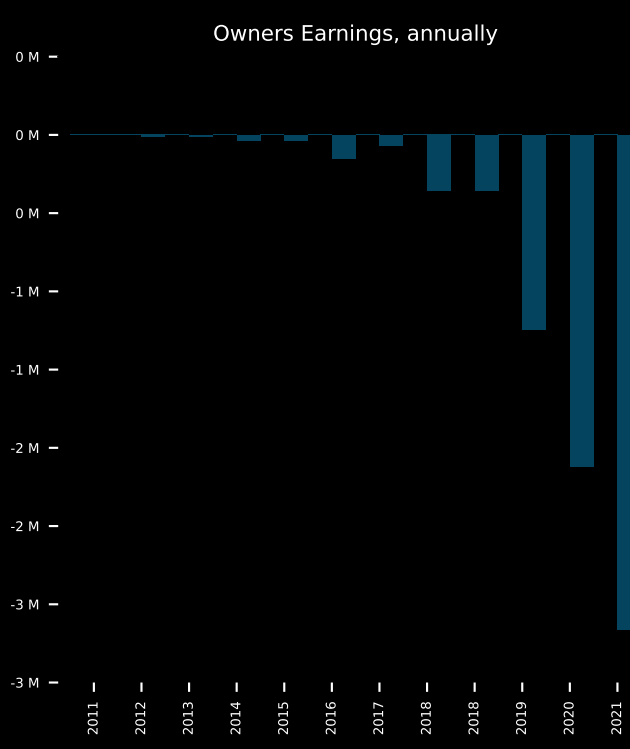
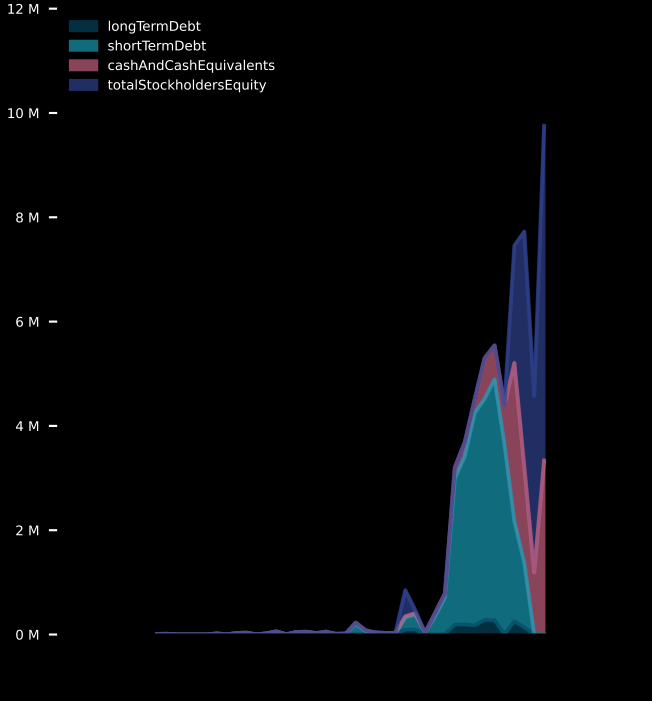
Owners Earnings, annually



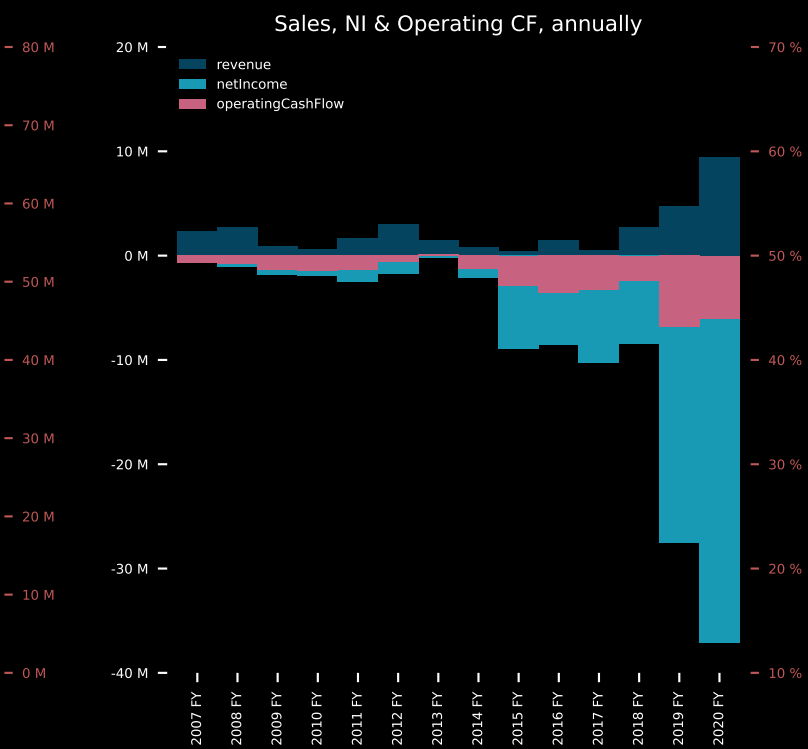
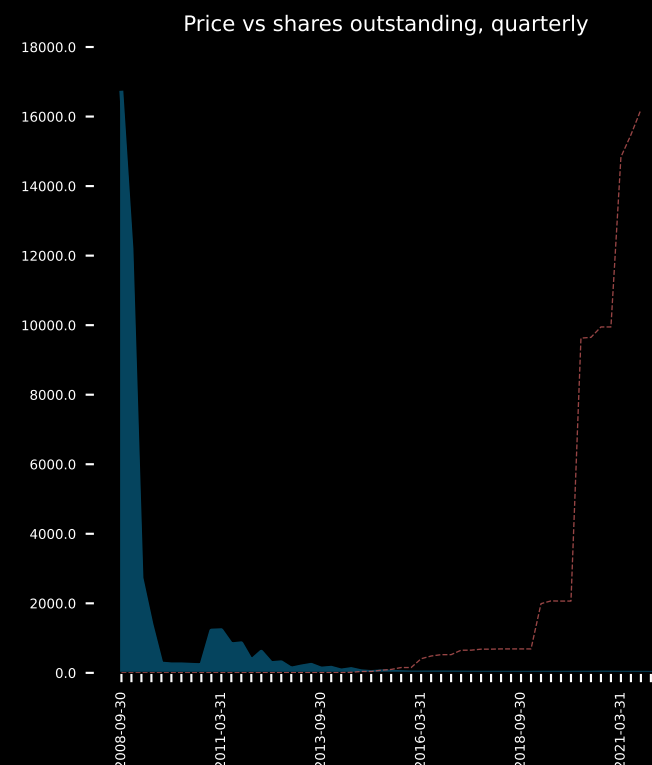
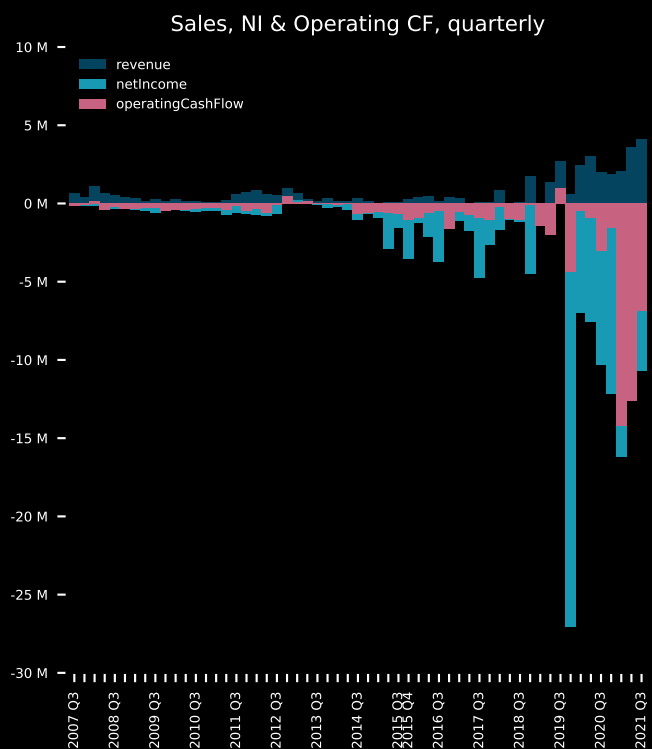
*AdEPT Technology Group plc provides unified communication and IT services in the United Kingdom. It operates through two segments, Fixed Line Services and Managed Services. The company offers call and line rental, data connectivity, IP telephony, support, and maintenance services, as well as voice and cloud services. It also provides IT, equipment installation, managed, Wi-Fi, and IT and communications hardware products, as well as cyber security, business continuity, and professional products and services. In addition, the company supplies ICT solutions to schools and others in the education sector. The company was formerly known as Adept Telecom Plc and changed its name to AdEPT Technology Group plc in September 2019. AdEPT Technology Group plc was founded in 2003 and is headquartered in Tunbridge Wells, the United Kingdom.*



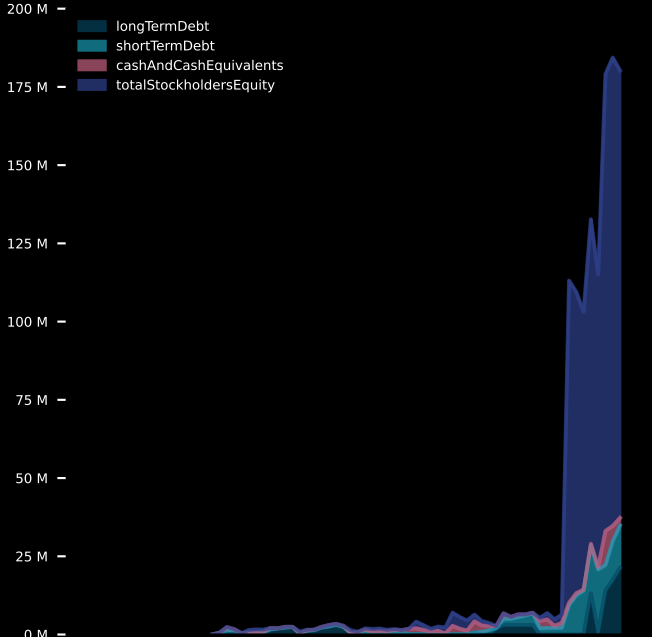
## IQST / Telecom Services / US / 2022-08-23



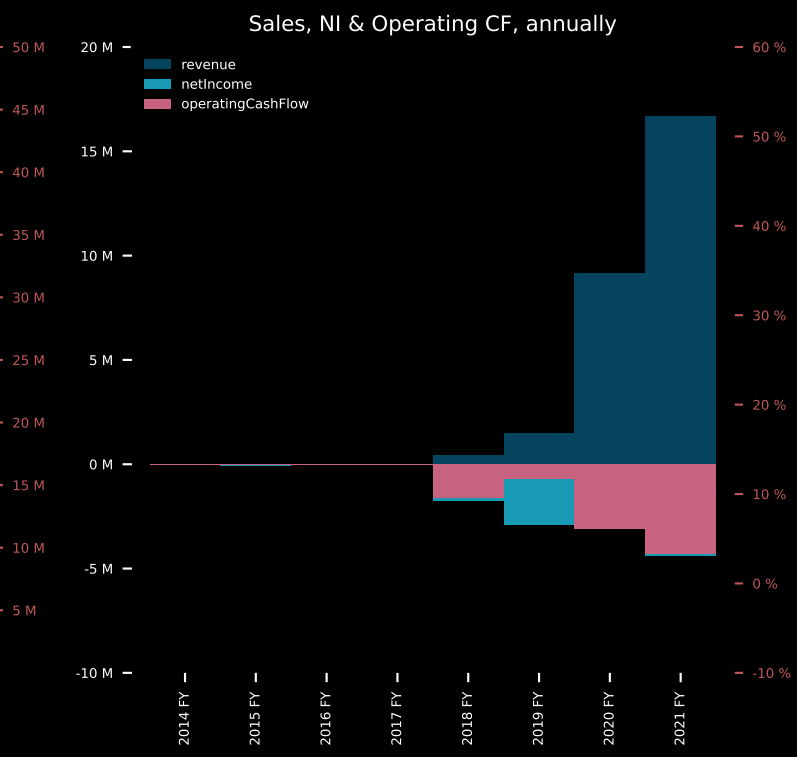
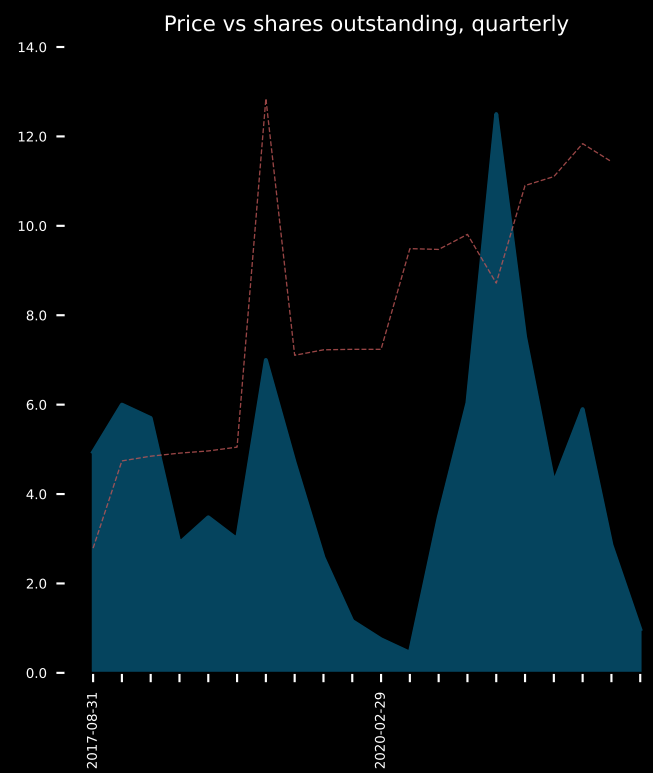
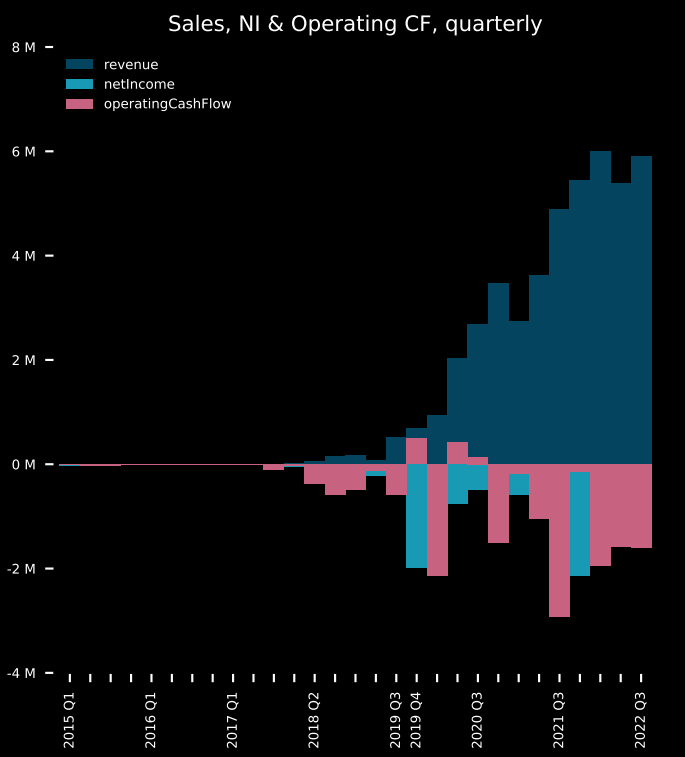
iQSTEL Inc., through its subsidiary, Etelix.com USA, LLC, provides telecom and technology solutions. It provides international long-distance voice services (ILD wholesale) for telecommunications operator; and submarine fiber optic network capacity for internet, such as 4G and 5G. The company offers voice over IP connectivity, short messages service (SMS), and international and domestic SMS termination services. It also provides infrastructure connectivity, Cloud-PBX, OmniChannel marketing, Internet of Things services, and blockchain and payment solutions. iQSTEL Inc. serves wholesale carrier, government, corporate, enterprise, and small and medium companies in North America, Latin America, and Europe. The company was formerly known as PureSnax International, Inc. and changed its name to iQSTEL Inc. in August 2018. iQSTEL Inc. was incorporated in 2011 and is based in Coral Gables, Florida.



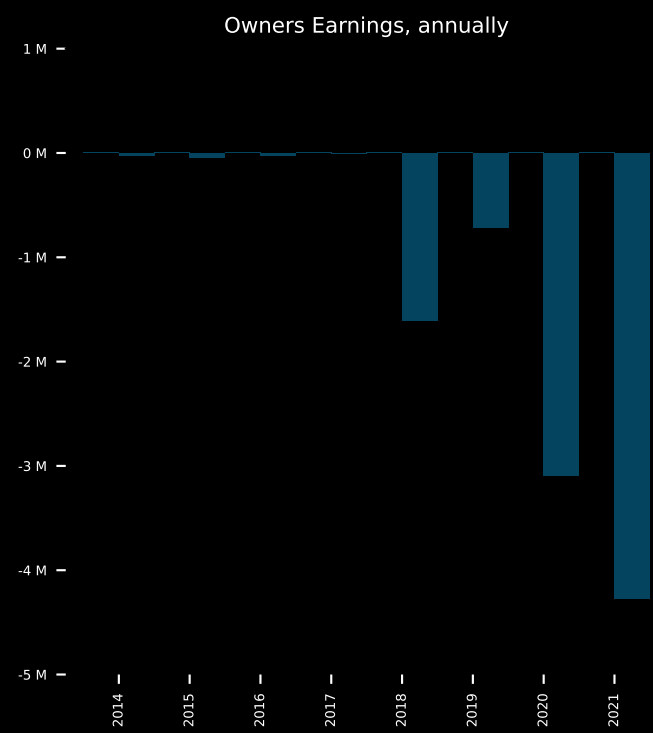
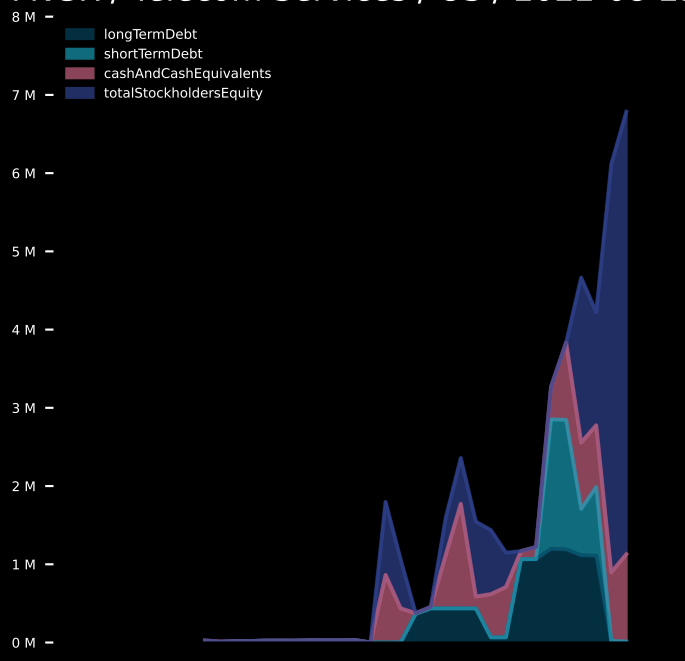
## COMS / Telecom Services / US / 2022-08-23



ComSovereign Holding Corp. designs, develops, markets, and sells technologically-advanced telecom solutions for network operators, mobile device carriers, governmental units, and other enterprises worldwide. The company designs, manufactures, and sells microwave packet radio equipment, such as backhaul telecom radios that transmit broadband voice, video, and data, as well as enable service providers, government agencies, enterprises, and other organizations to meet their increasing bandwidth requirements rapidly and affordably; and in-band full-duplex and transpositional modulation technologies that alleviate the performance limitations of the principal transmission technologies. It also offers intelligent batteries and back-up power solutions for use in cellular towers and other radio access network infrastructures, as well as automotive, aerospace, and marine vehicles; and tethered drones and aerostats for use in intelligence, surveillance, and reconnaissance, as well as communication applications for national defense and security customers. In addition, the company is developing silicon photonic devices used in data



## FNIGR / Telecom Services / US / 2022-08-23

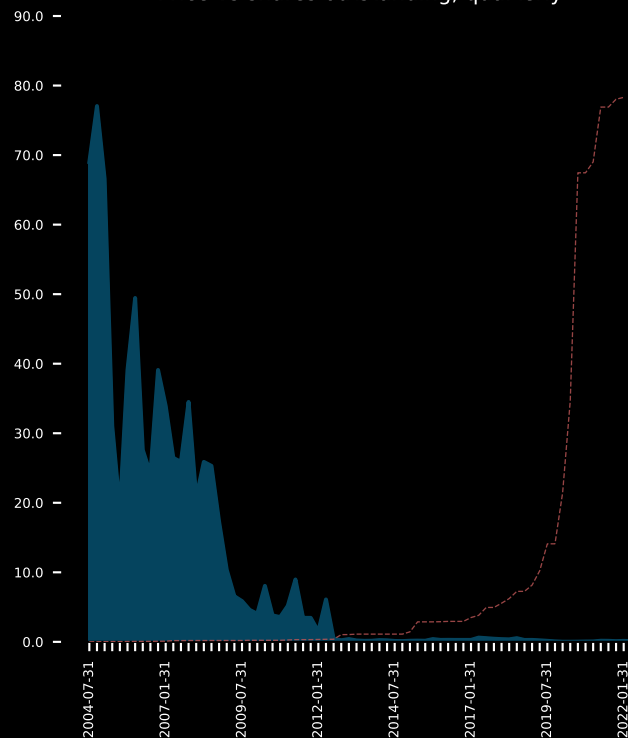


*FingerMotion, Inc., a mobile data specialist company, provides mobile payment and recharge platform solutions in China. The company offers telecommunication providers' products and services, including data plans, subscription plans, mobile phones, and loyalty points redemption services; bulk short message service and multimedia messaging services; and RCS platform, a proprietary business messaging platform that enables businesses and brands to communicate and service their customers on the 5G infrastructure. It also operates Sapiensus, a proprietary big data insights platform that deliver data-driven solutions and insights for businesses in the insurance, healthcare, and financial services industries. FingerMotion, Inc. is headquartered in New York, New York.*

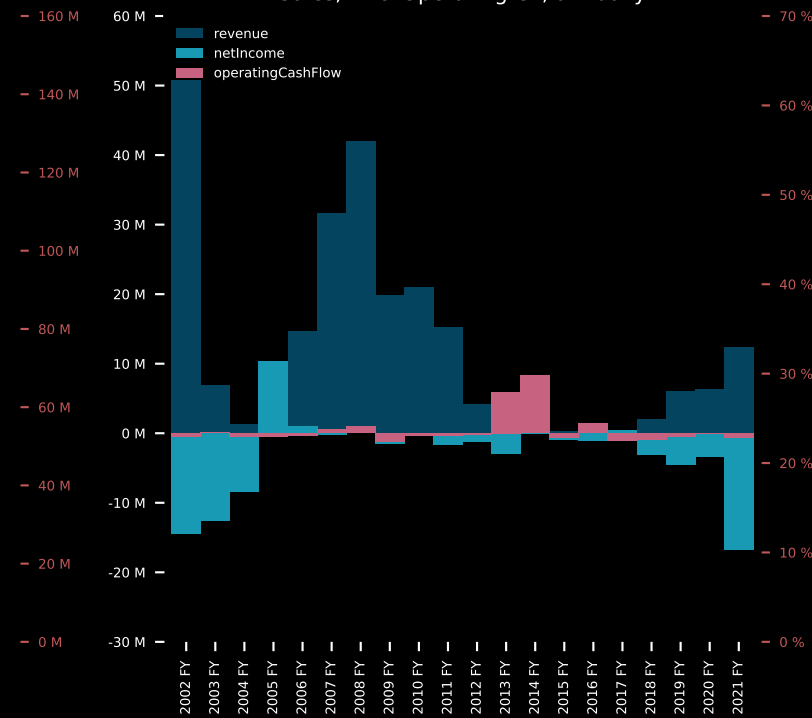
Sales, NI &amp; Operating CF, quarterly



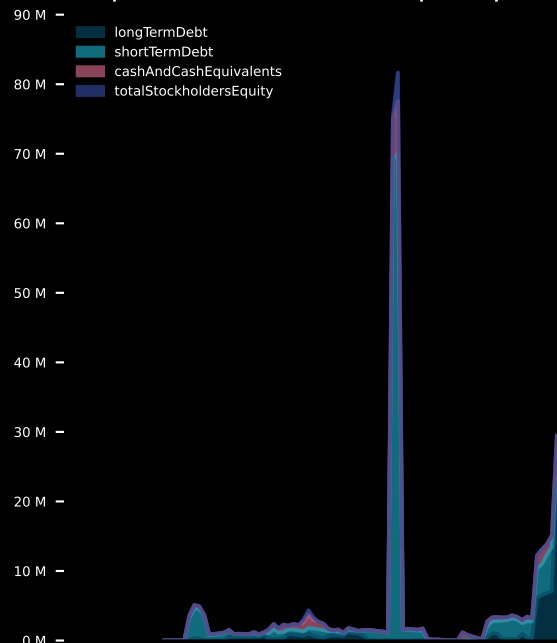
Price vs shares outstanding, quarterly



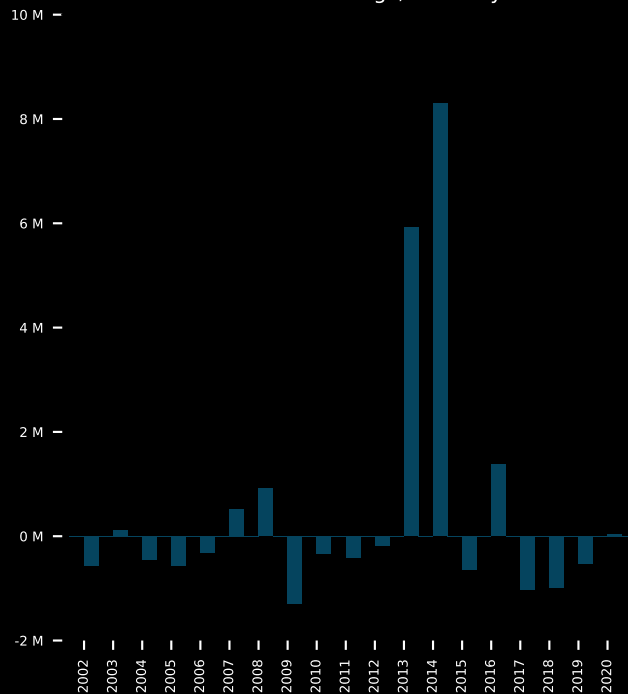
Sales, NI &amp; Operating CF, annually



DTGI / Telecom Services / US / 2022-08-23

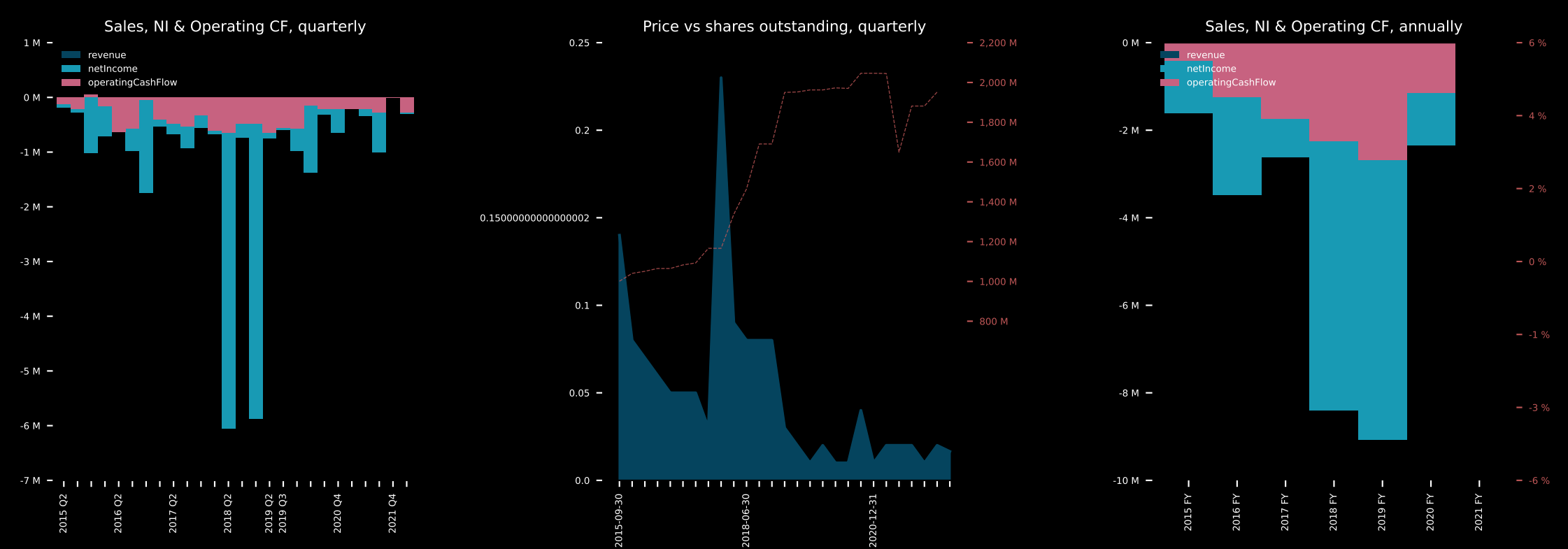


Owners Earnings, annually

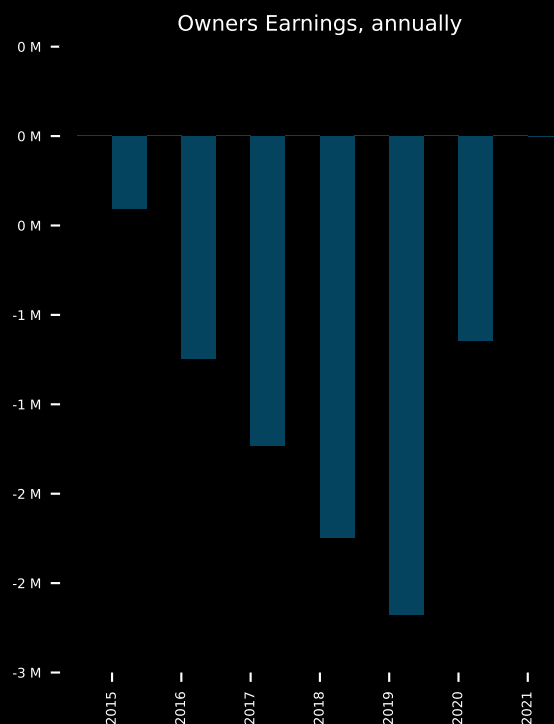
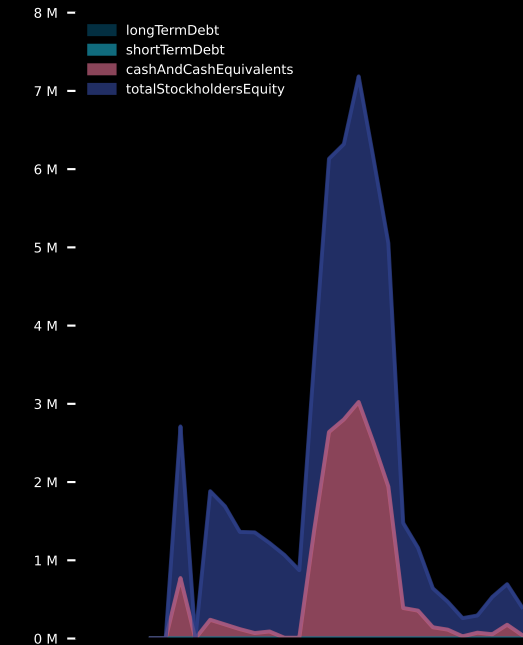


*Digerati Technologies, Inc., through its subsidiaries, provides Internet-based telephony products and services through its cloud application platform and session-based communication network in the United States. The company offers Internet broadband, fiber, mobile broadband, and cloud WAN solutions; cloud communication services, including fully hosted IP/PBX, mobile applications, Voice over Internet Protocol (VoIP) transport, SIP trunking, call center applications, auto attendant, voice and web conferencing, call recording, messaging, voicemail to email conversion, integrated mobility applications, and customized VoIP services; and remote network monitoring, data backup, and disaster recovery services, as well as enterprise-class data and connectivity solutions, such as cloud WAN (wide area network) or software-defined WAN, fiber, mobile broadband, and Ethernet over copper services. It primarily serves small to medium-sized enterprise customers and other resellers. The company was formerly known as ATSI Communications Inc. and changed its name to Digerati Technologies, Inc. in March 2011. Digerati Technologies, Inc. was founded in 1992 by Digerati Technologies, Inc. and is a public company.*

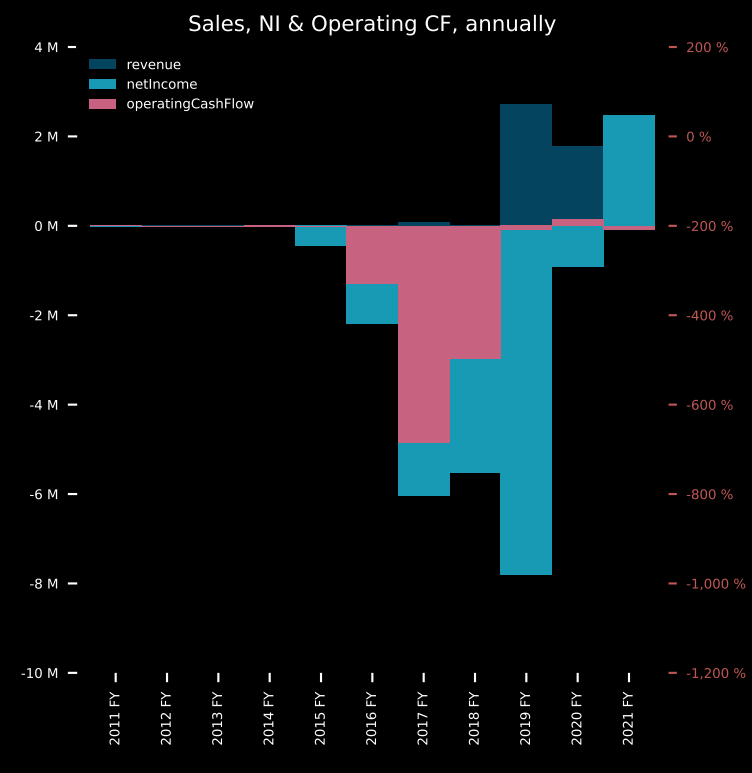
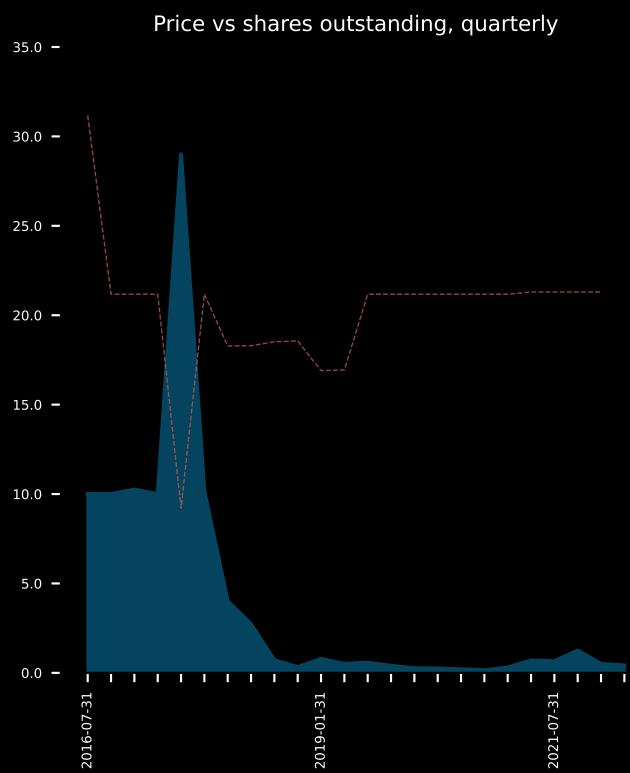
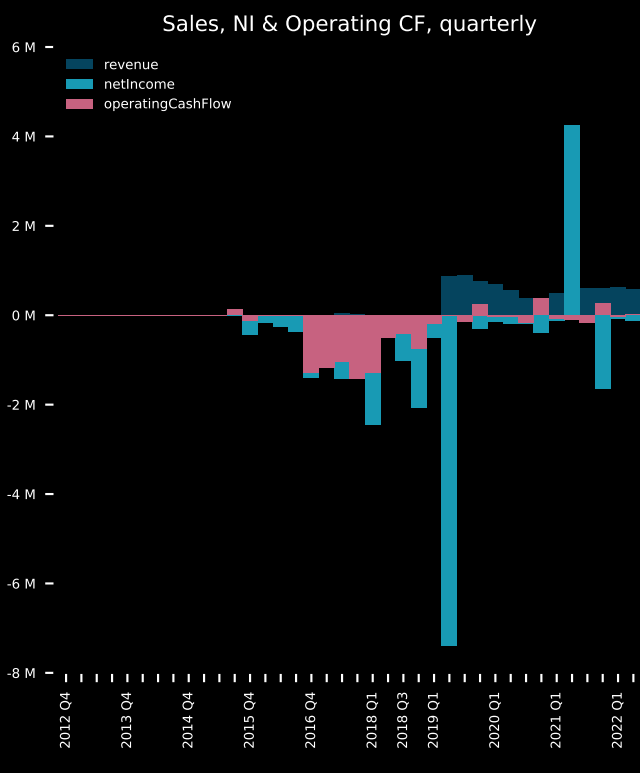




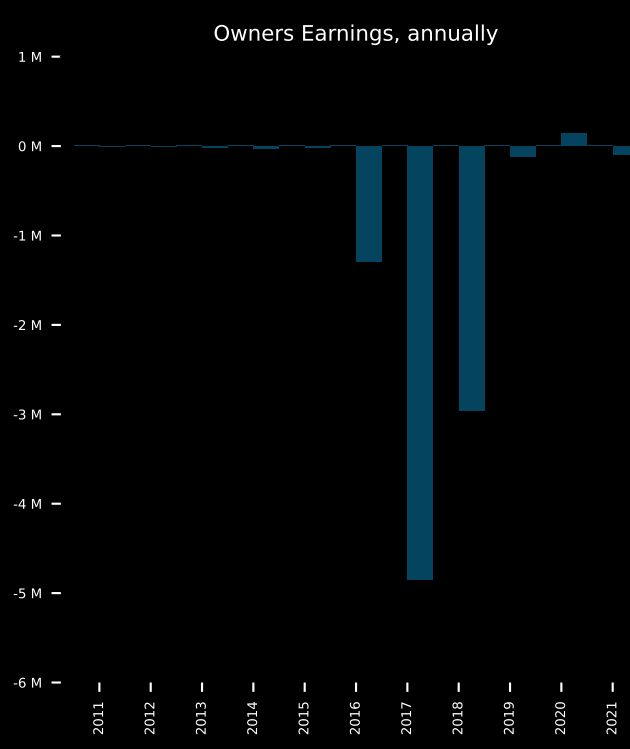
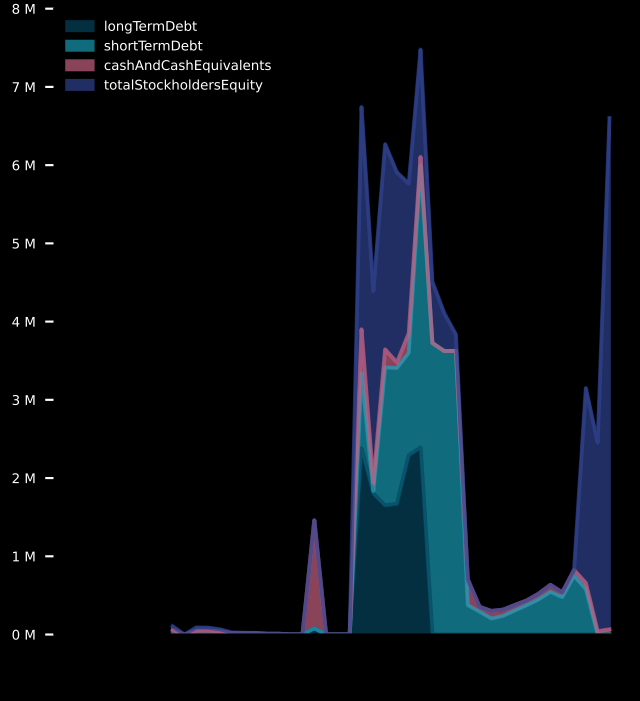
## VPLM / Telecom Services / US / 2022-08-23



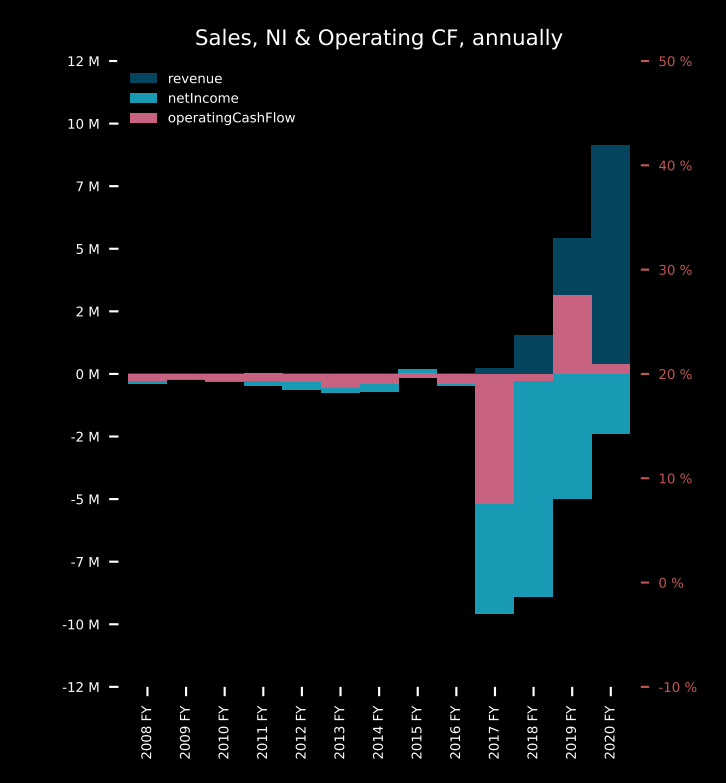
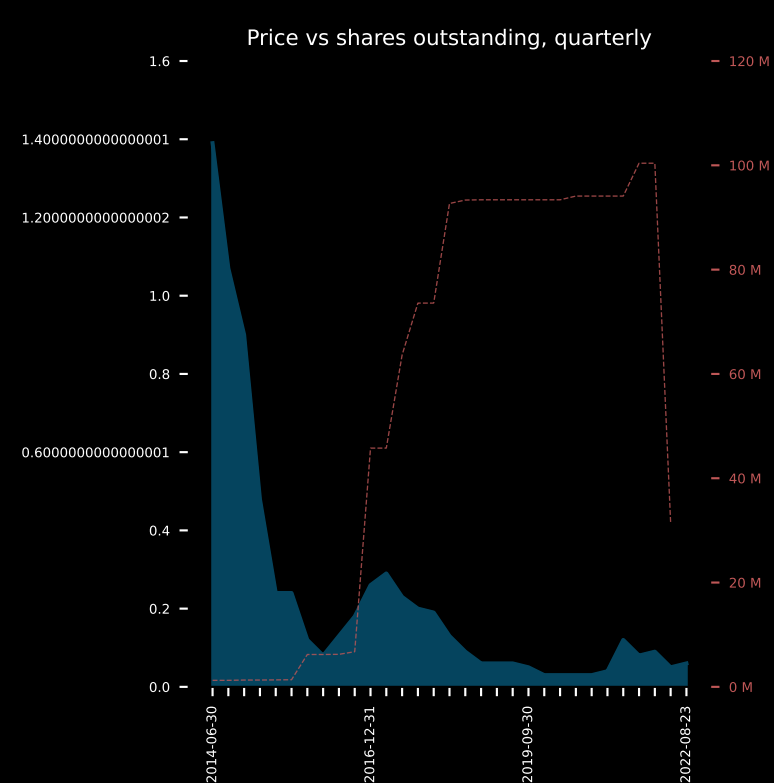
Voip-Pal.com Inc. owns and develops a portfolio of Voice-over-Internet Protocol services in the United States. The company offers classification and routing of communications over various networks and geographically distributed nodes; lawful interception of such communications; enhanced emergency calling support services; mobile gateways; uninterrupted transmissions during endpoint changes; and metering and billing, including the reselling of white label telecommunication services. It serves telephony system vendors, network suppliers, and retail and wholesale carriers. The company was formerly known as VOIP MDI.com. and changed its name to Voip-Pal.com Inc. in September 2006. Voip-Pal.com Inc. was incorporated in 1997 and is based in Waco, Texas.



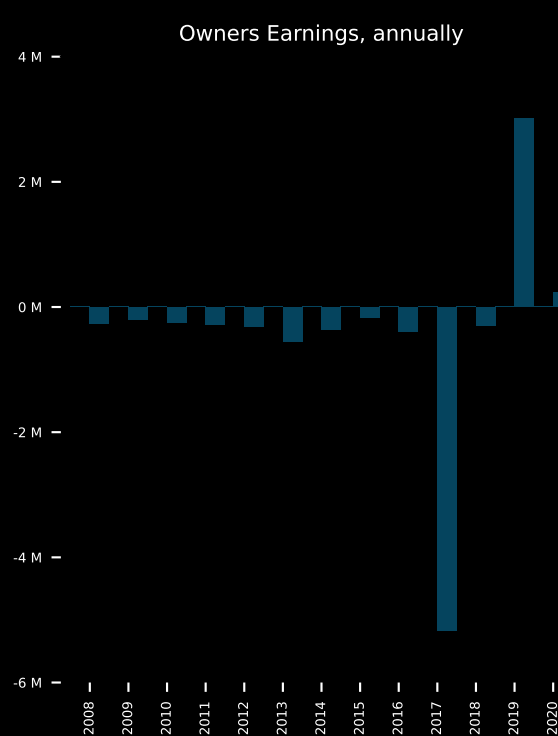
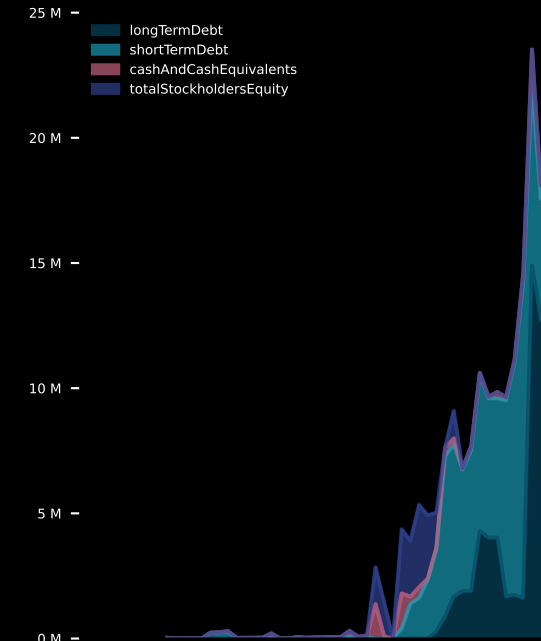
## HMMR / Telecom Services / US / 2022-08-23



*Hammer Technology Holdings invests in financial services and wireless technology. The company develops high speed fixed wireless service for residential, small business, and enterprise clients using its wireless fiber platform, Hammer Wireless AIR, as well as mobility networks, such as 4G/LTE; and over-the-top services comprising voice, SMS, collaboration, and hosting services. The company was formerly known as Hammer Fiber Optics Holdings Corp. The company was incorporated in 2010 and is based in Sarasota, Florida.*



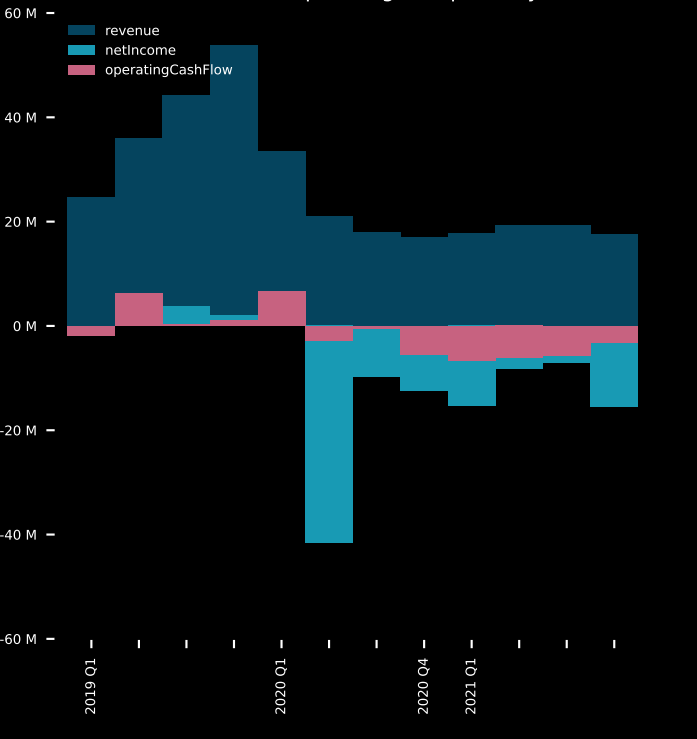
OWTF / Telecom Services / CA / 2022-08-23



Tower One Wireless Corp. owns, develops, and operates build-to-suit multitenant communications structures in Argentina, Colombia, Mexico, the United States, and internationally. It engages in the leasing of space on communications sites to mobile network operators. The company also provides tower-related services, including site acquisition, zoning and permitting, structural analysis, and construction. Tower One Wireless Corp. was founded in 2015 and is based in Vancouver, Canada.

This waterfall chart illustrates the financial performance of a company from 2019 Q1 to 2021 Q1. The y-axis represents monetary values in millions (M), ranging from -60 M to 60 M. The x-axis shows the time periods: 2019 Q1, 2019 Q2, 2019 Q3, 2019 Q4, 2020 Q1, 2020 Q2, 2020 Q3, 2020 Q4, 2021 Q1, 2021 Q2, 2021 Q3, and 2021 Q4. The chart is divided into three main components: revenue (dark blue), net income (light blue), and operating cash flow (pink). Revenue starts at approximately 25 M in 2019 Q1 and peaks at nearly 55 M in 2019 Q4. Net income starts at approximately -1 M in 2019 Q1 and reaches a low of about -42 M in 2020 Q2. Operating cash flow starts at approximately -1 M in 2019 Q1 and remains relatively stable, ending at approximately -1 M in 2021 Q4.

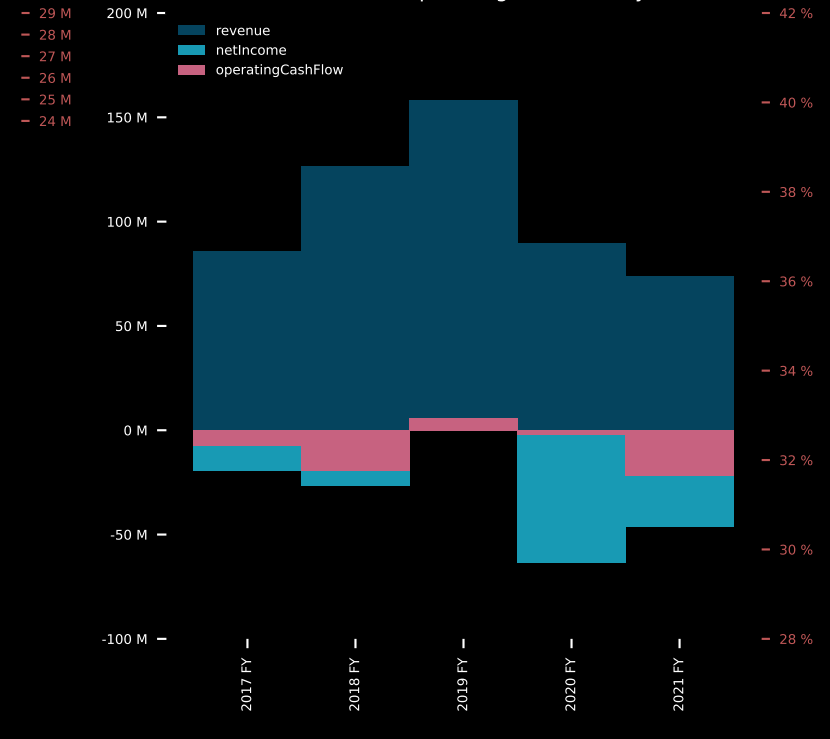
Period	Revenue (M)	Net Income (M)	Operating Cash Flow (M)
2019 Q1	25	-1	-1
2019 Q2	37	6	6
2019 Q3	44	3	3
2019 Q4	55	2	2
2020 Q1	34	7	7
2020 Q2	21	-42	-1
2020 Q3	18	-10	-1
2020 Q4	17	-12	-1
2021 Q1	18	-15	-1
2021 Q2	19	-6	-1
2021 Q3	19	-7	-1
2021 Q4	18	-15	-1



The chart displays the following data series:

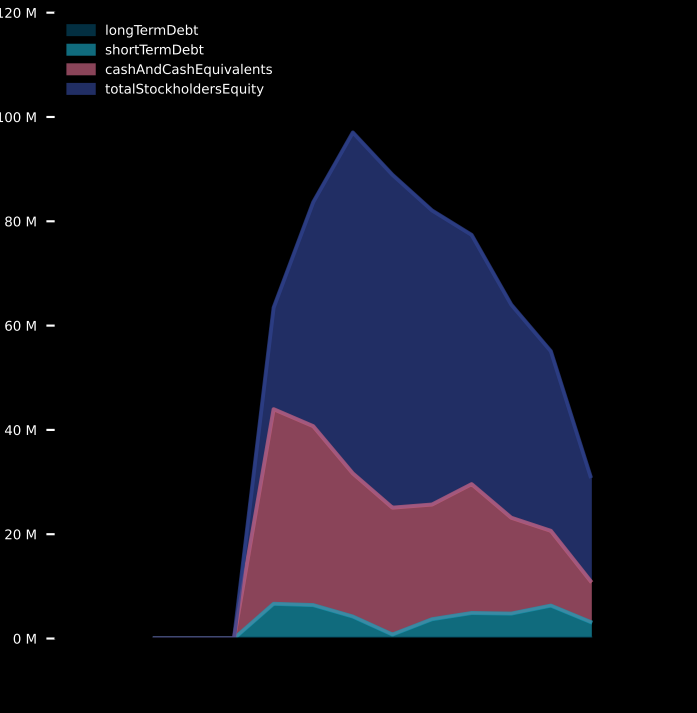
- revenue (dark blue)
- netIncome (light blue)
- operatingCashFlow (pink)

Fiscal Year	revenue (M)	netIncome (M)	operatingCashFlow (M)
2017 FY	85	-20	-10
2018 FY	125	-25	-10
2019 FY	155	0	5
2020 FY	90	-60	-5
2021 FY	75	-25	-10



Stacked area chart showing the components of total stockholders' equity from 2007 to 2015. The components are longTermDebt (dark blue), shortTermDebt (light blue), cashAndCashEquivalents (red), and totalStockholdersEquity (dark blue). The y-axis ranges from 0 M to 120 M. The total stockholders' equity peaks at approximately 98 M in 2010 and ends at approximately 32 M in 2015.

Year	longTermDebt (M)	shortTermDebt (M)	cashAndCashEquivalents (M)	totalStockholdersEquity (M)
2007	0	0	0	0
2008	0	5	38	43
2009	0	5	35	40
2010	0	5	25	98
2011	0	5	20	85
2012	0	5	15	75
2013	0	5	15	65
2014	0	5	15	55
2015	0	5	10	32



uCloudlink Group Inc. operates as a mobile data traffic sharing marketplace in the telecommunications industry. It provides uCloudlink 1.0, a model that focuses on cross-border travelers that need mobile data connectivity services in various countries; and operates portable Wi-Fi services under the Roamingman name in China and Malaysia, which provides global mobile data connectivity services, as well as offers GlocalMe portable Wi-Fi terminals and cloud SIM architecture for mobile virtual network operators (MVNOs), mobile network operators (MNOs), and portable Wi-Fi terminal rental companies. The company also offers uCloudlink 2.0, a model that provides mobile data connectivity services to local users through various MNOs; GlocalMe Inside, an implementation solutions for smartphones and other smart hardware products, which enables them to access its cloud SIM architecture and SIM card pool; and GlocalMe, a world phone series. In addition, it provides uCloudlink 3.0, including B2C retail, B2B2C wholesale, and platform-as-a-service/ software-as-a-service platform-based connectivity

The chart displays the financial performance of the top 100 U.S. companies from 2001 Q1 to 2021 Q1. The Y-axis represents values in millions of dollars, ranging from -1 M to 1 M. The X-axis shows the time period in quarters. The legend indicates three metrics: revenue (blue bars), netIncome (blue area), and operatingCashFlow (red bars). Revenue shows a significant decline during the 2008-2009 financial crisis, followed by a sharp recovery and growth through 2021. Net income also shows a decline during the crisis and a subsequent recovery. Operating cash flow remains relatively stable and positive throughout the period.

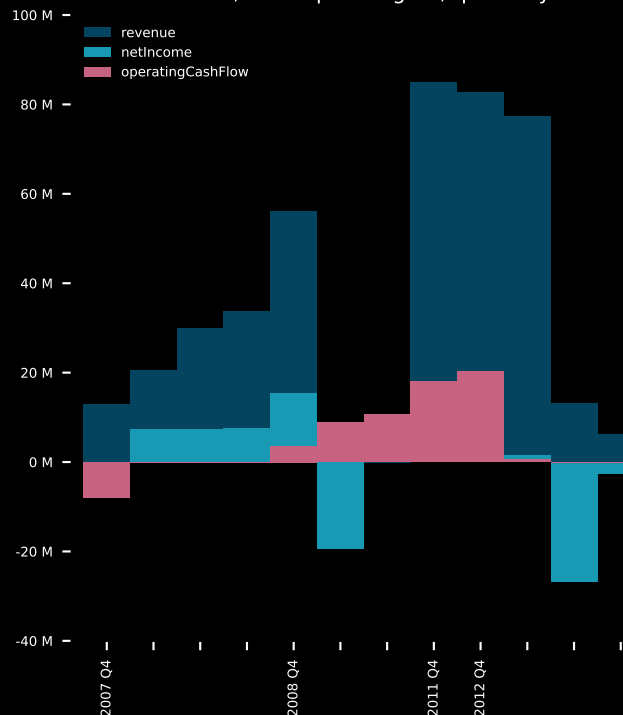
The chart displays three financial metrics over a 20-year period. Revenue (dark blue bars) shows a steady increase from approximately 2.4M in 2002 to 4.2M in 2021. Net income (light blue bars) fluctuates significantly, with a notable loss in 2002 and a peak in 2010. Operating cash flow (pink line) remains relatively stable, hovering around 70-75% of revenue, with a slight upward trend in the later years.

Fiscal Year	Revenue (M)	Net Income (M)	Operating Cash Flow (%)
2002 FY	2.4	-0.8	68
2003 FY	2.1	-0.6	70
2004 FY	2.2	0.6	72
2005 FY	2.3	0.4	71
2006 FY	1.8	-0.4	70
2007 FY	1.9	-0.3	70
2008 FY	1.8	-0.3	70
2009 FY	1.7	-0.1	70
2010 FY	1.8	0.8	70
2011 FY	1.6	-0.1	70
2012 FY	1.6	-0.2	70
2013 FY	1.7	0.2	70
2014 FY	1.8	-0.1	70
2015 FY	1.9	-0.1	70
2016 FY	1.9	0.0	70
2017 FY	1.9	0.0	70
2018 FY	2.0	0.2	71
2019 FY	2.4	0.4	72
2020 FY	3.5	1.0	75
2021 FY	4.2	1.4	77

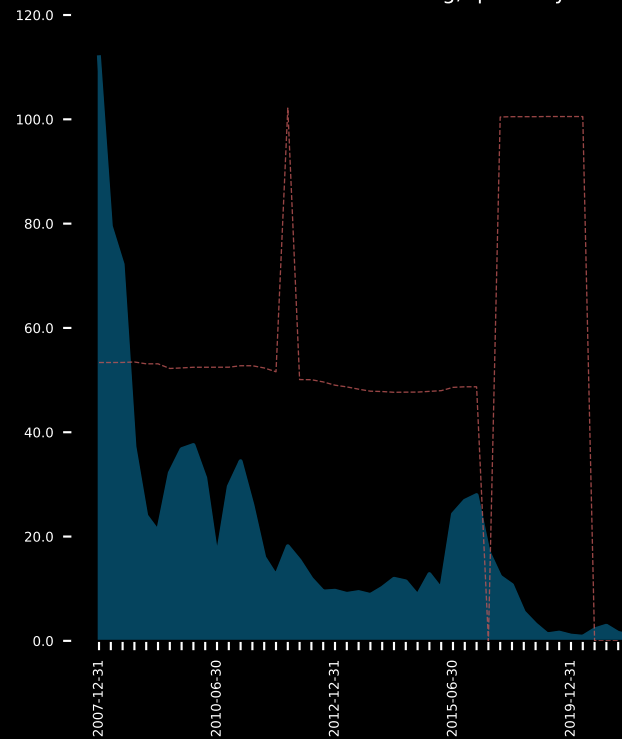
Year	Number of publications (M)
2002	0.00
2003	0.00
2004	0.10
2005	0.20
2006	0.10
2007	0.05
2008	0.02
2009	0.00
2010	0.00
2011	0.01
2012	0.02
2013	0.01
2014	0.02
2015	0.01
2016	0.01
2017	0.01
2018	0.03
2019	0.10
2020	0.90
2021	1.00

*FullNet Communications, Inc., through its subsidiaries, provides integrated communications services to individuals, businesses, organizations, educational institutions, and governmental agencies in the United States. It offers mass notification services using text messages and automated telephone calls; carrier-neutral equipment colocation services; Internet access, and web hosting and related services; customized live help desk outsourcing services; and voice and data solutions. The company was formerly known as CEN-COM of Oklahoma, Inc. and changed its name to FullNet Communications, Inc. in December 1995. FullNet Communications, Inc. was incorporated in 1995 and is based in Oklahoma City, Oklahoma.*

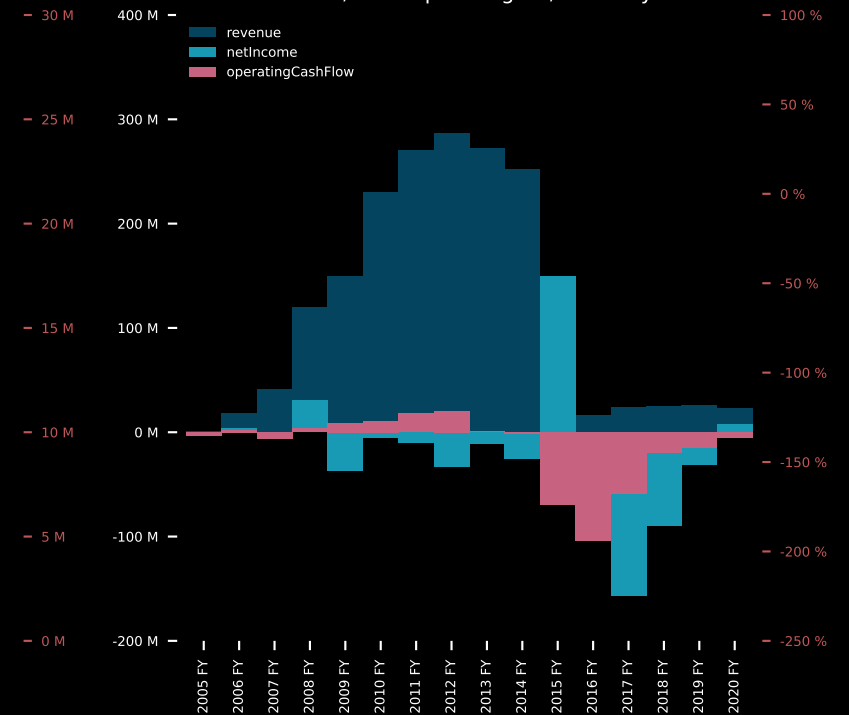
Sales, NI &amp; Operating CF, quarterly



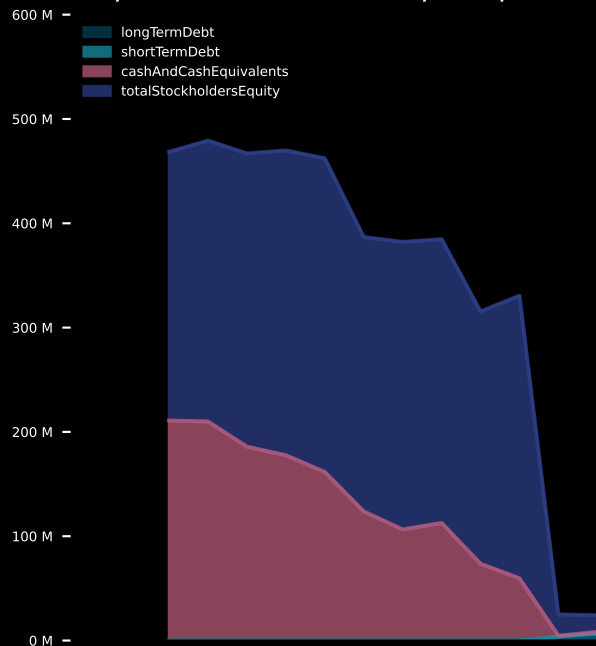
Price vs shares outstanding, quarterly



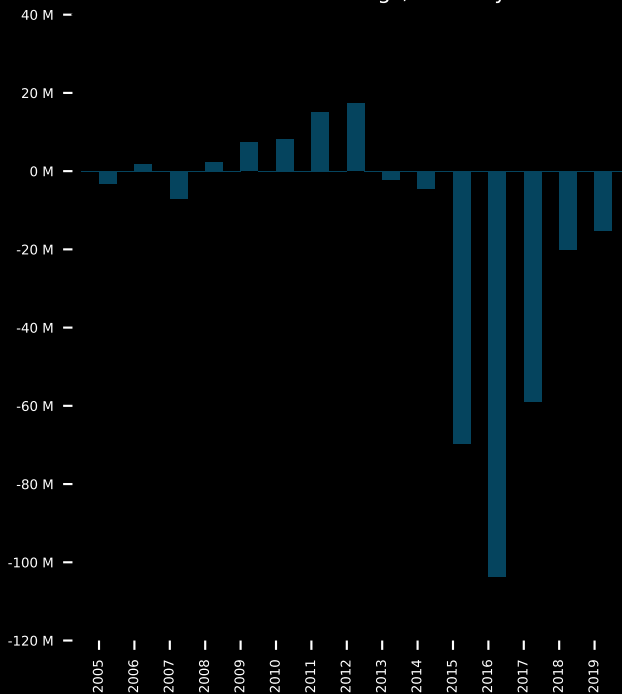
Sales, NI &amp; Operating CF, annually



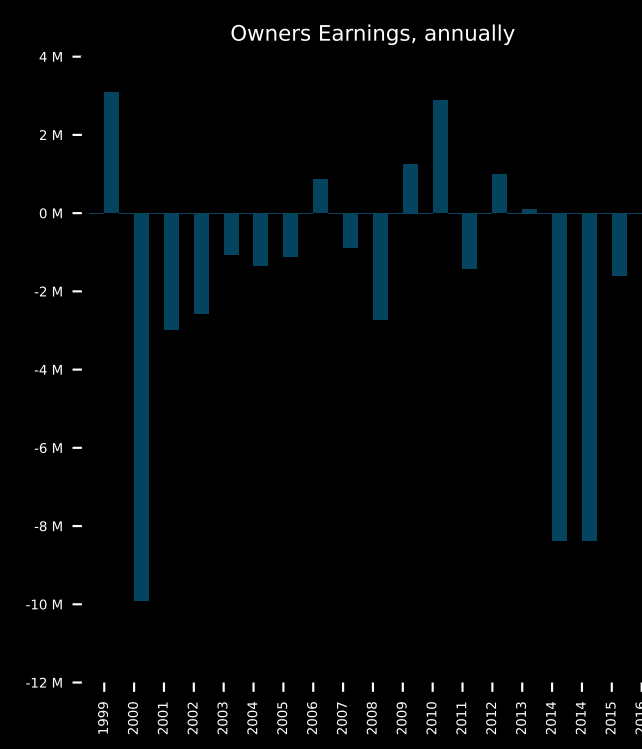
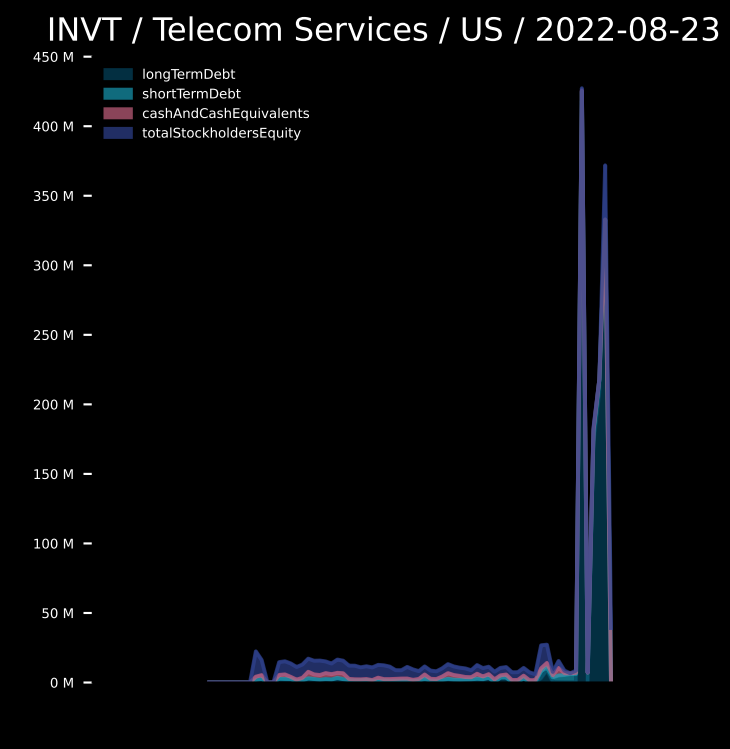
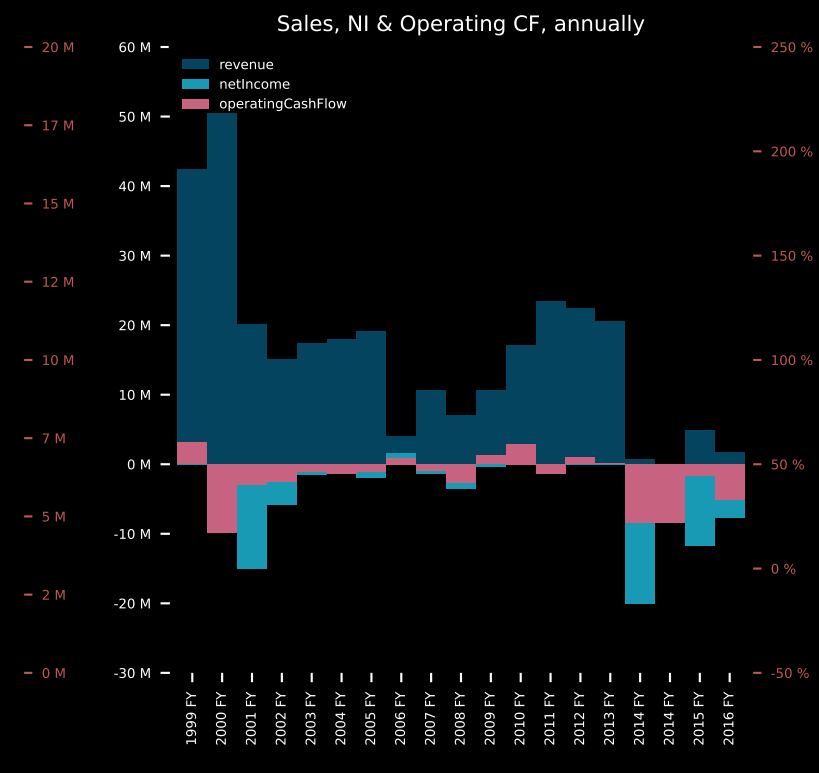
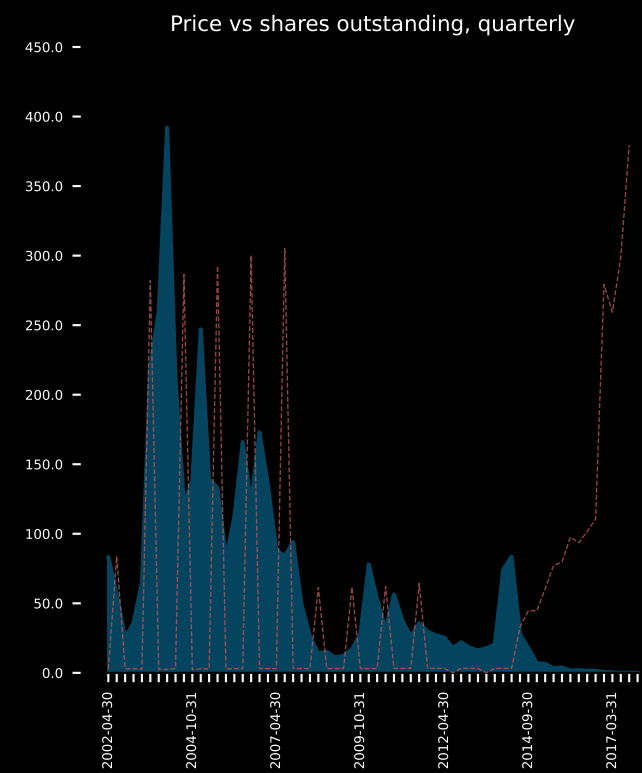
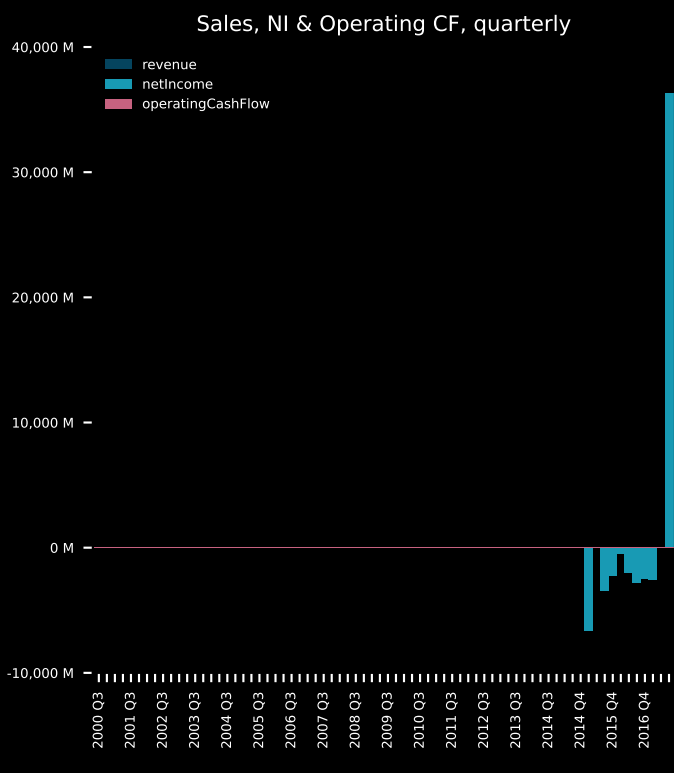
ANTE / Telecom Services / CN / 2022-08-23



Owners Earnings, annually

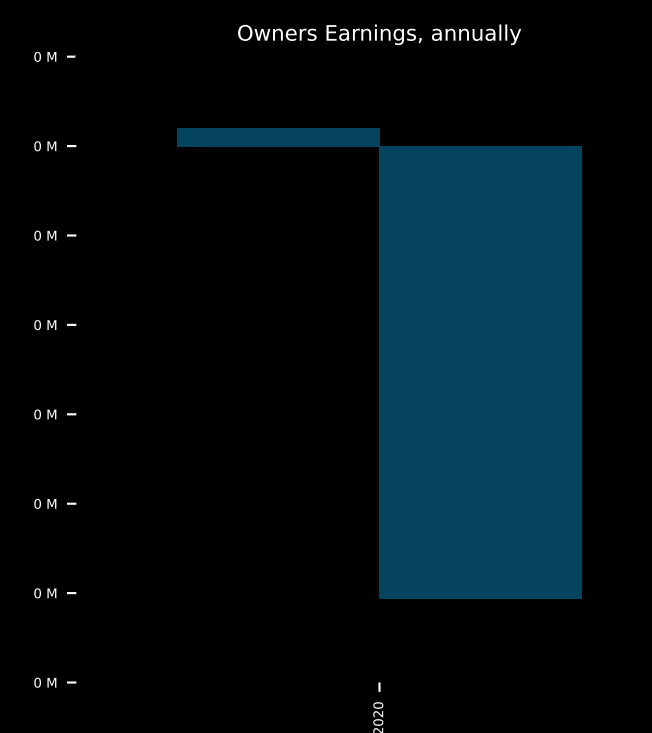
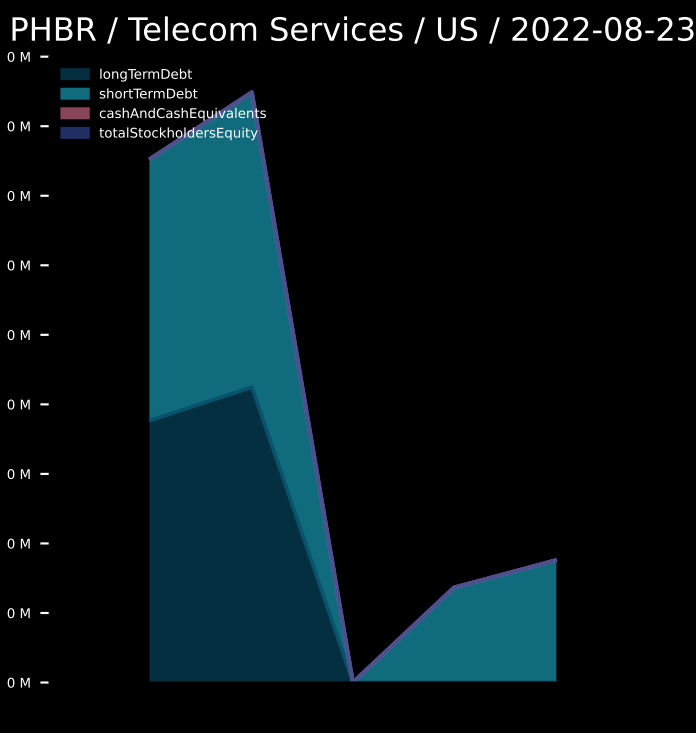
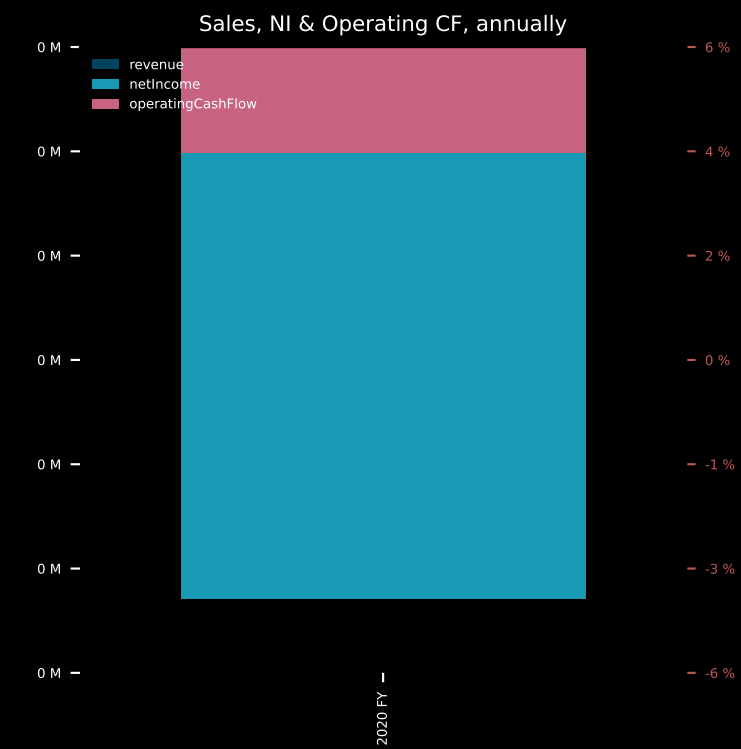
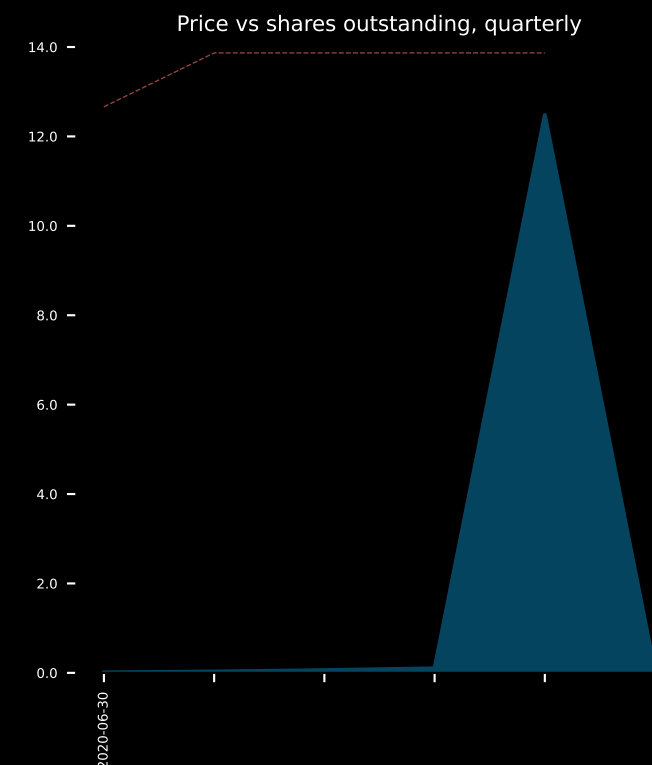
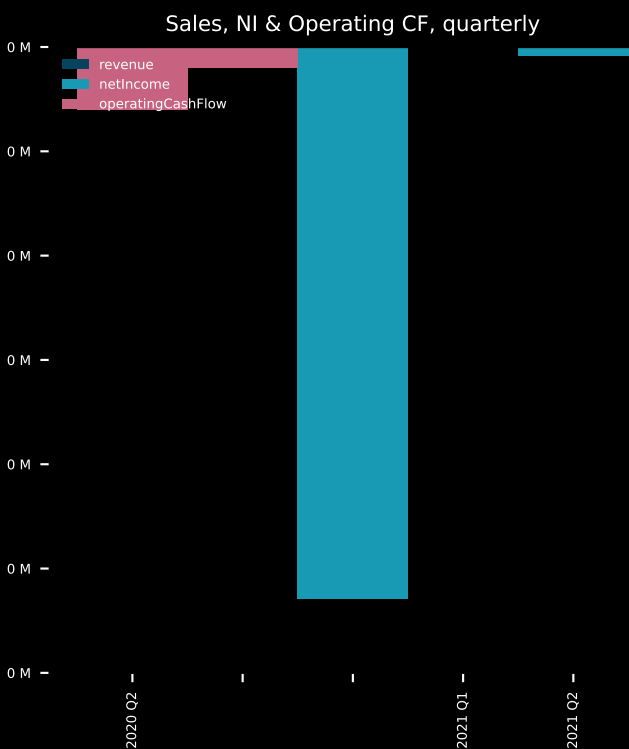


*AirNet Technology Inc. operates out-of-home advertising platforms in the People's Republic of China. The company provides advertising time slots in the form of digital TV screens on airplanes; and media contents display in air travel; and gas station media network. It also displays non-advertising content, including comedy clips, movie, TV series, sports, local attractions, reality shows, commentaries, and documentaries. In addition, the company develops and operates outdoor advertising platforms in gas stations, such as LED screens, billboards, and light boxes. Further, it operates CIBN-AirNet channel to broadcast network TV programs to air travelers. The company was formerly known as AirMedia Group Inc. AirNet Technology Inc. was founded in 2005 and is headquartered in Beijing, the People's Republic of China.*

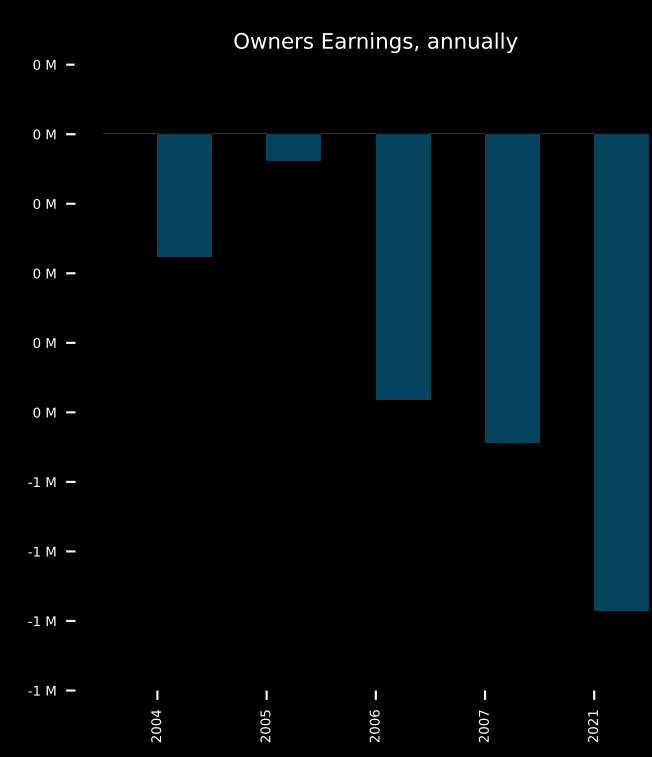
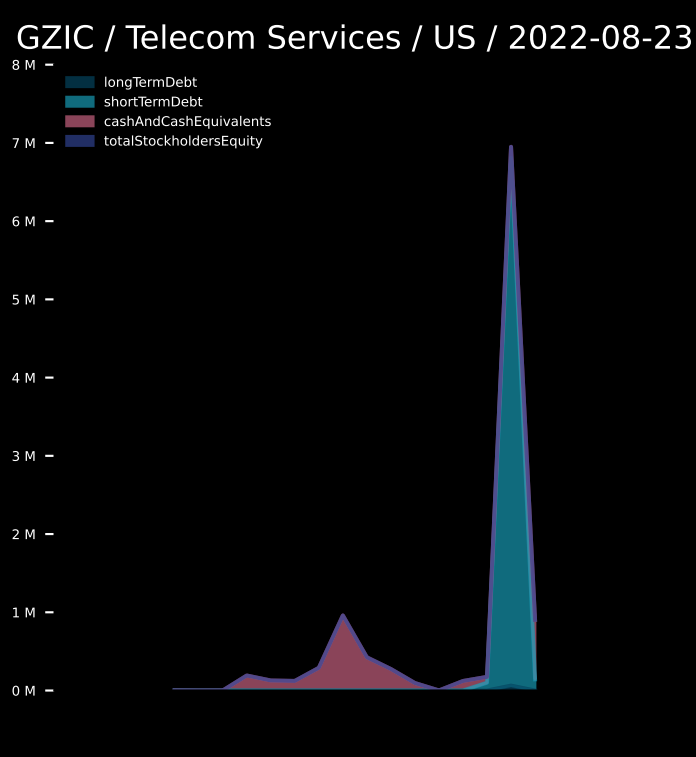
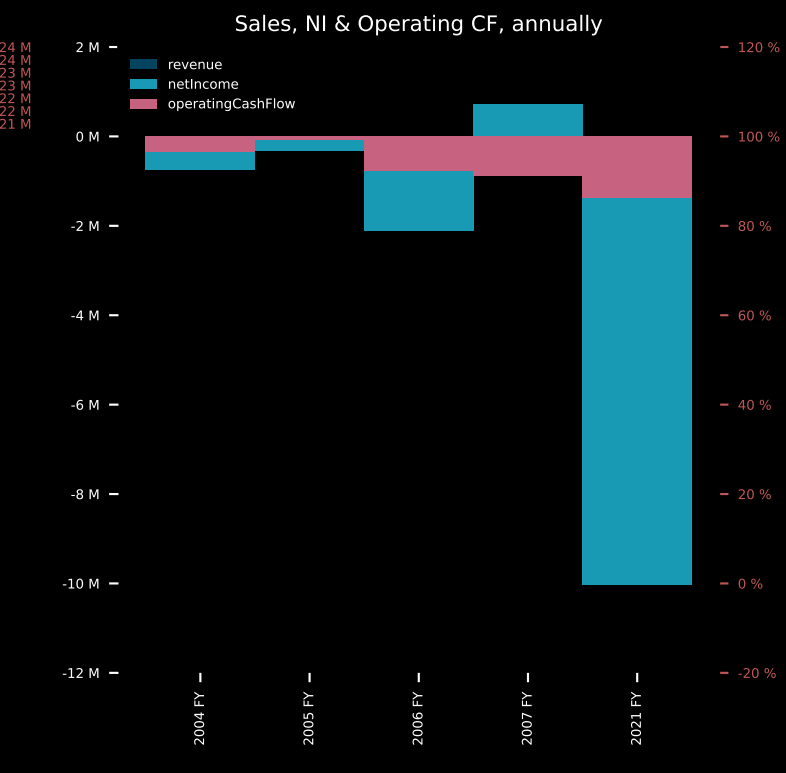
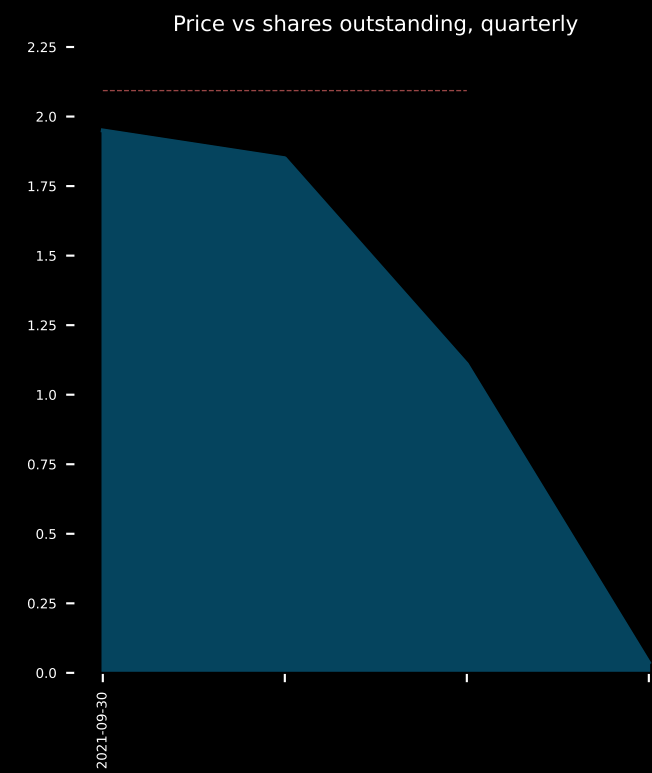


*Inventergy Global, Inc., an intellectual property (IP) investment and licensing company, engages in identifying, acquiring, and licensing patented technologies of various technology and small companies. The company acquires portfolios in the telecommunications industry primarily in core network infrastructure and mobile broadband communications segments. Inventergy Global, Inc. is headquartered in Campbell, California.*

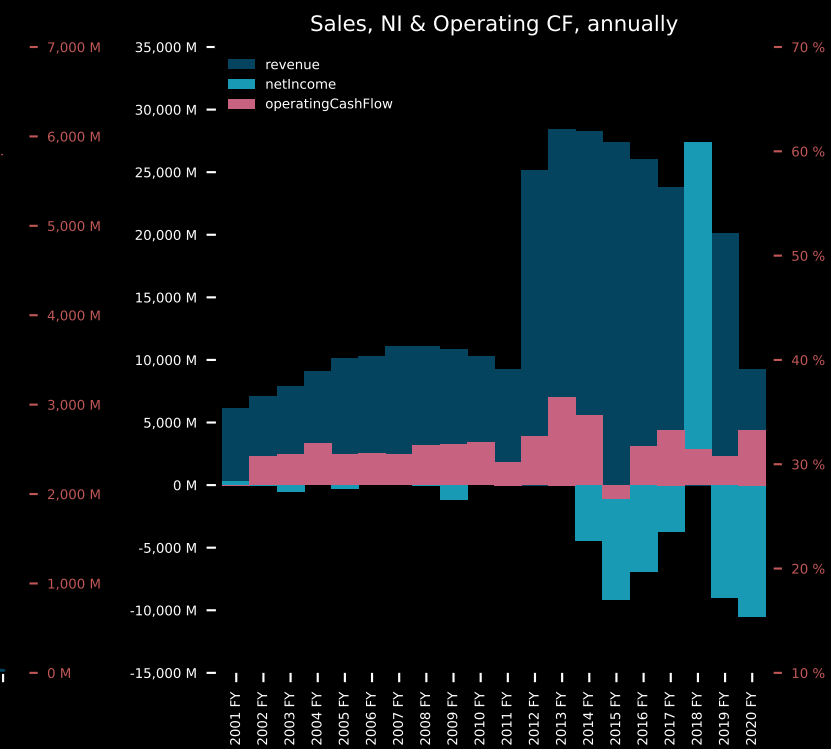
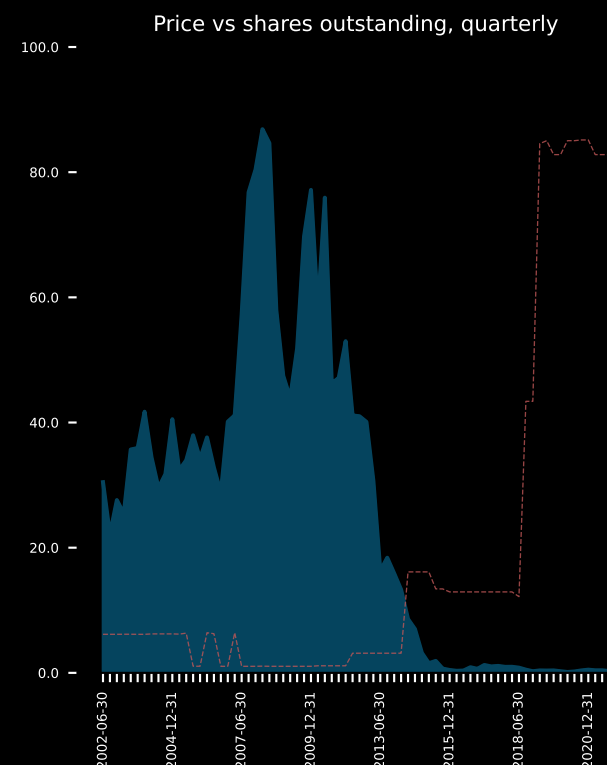
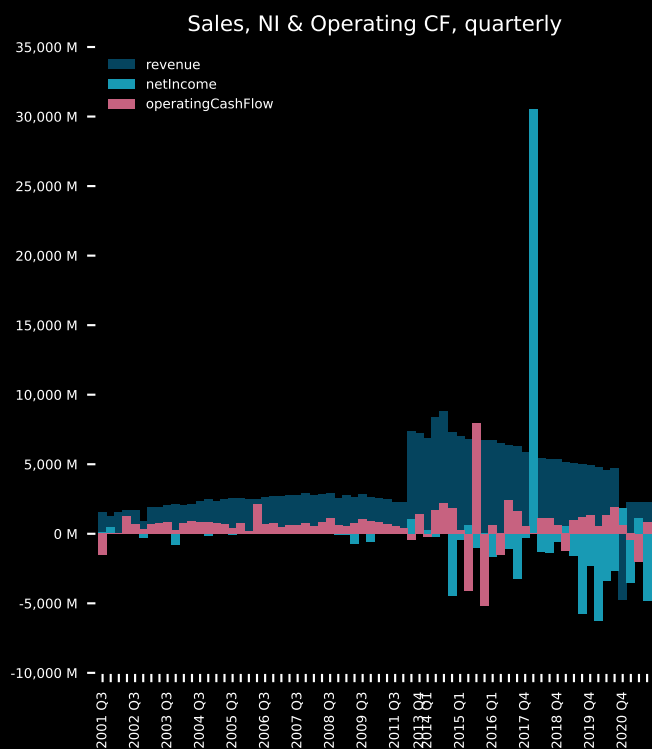




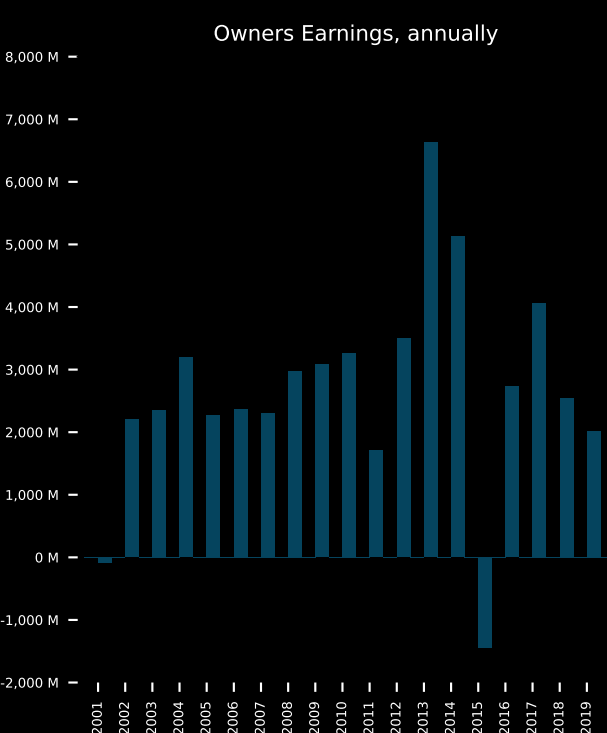
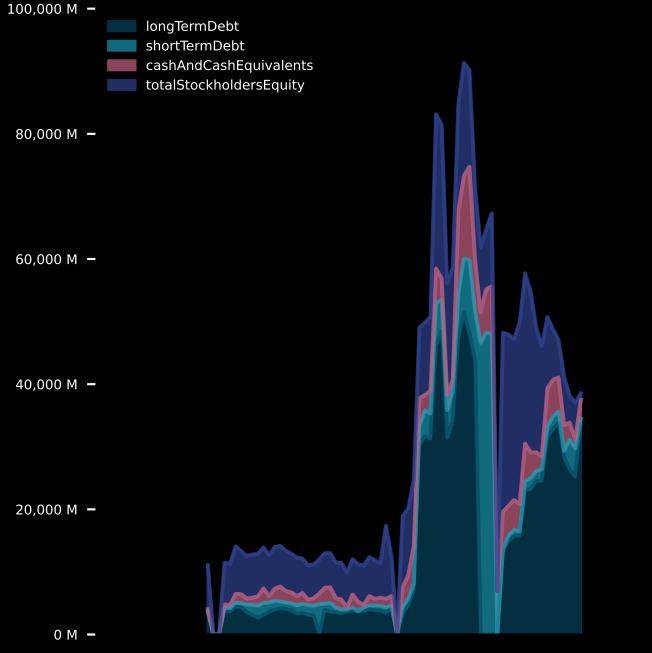
As of December 9, 2020, PhoneBrasil International, Inc. (OTCPK : PHBR) operates as a subsidiary of DR Shell LLC.



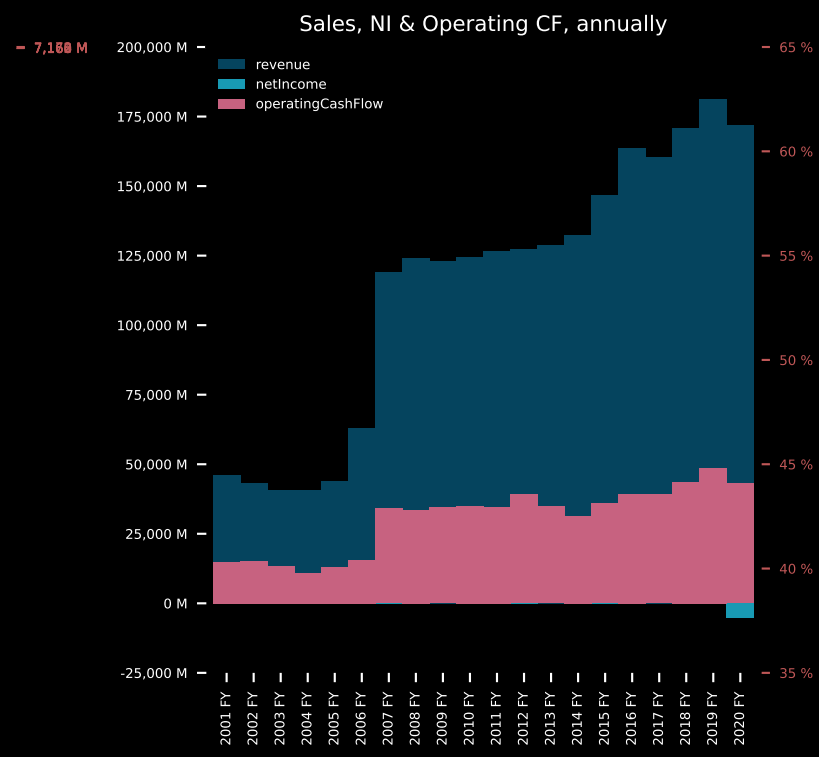
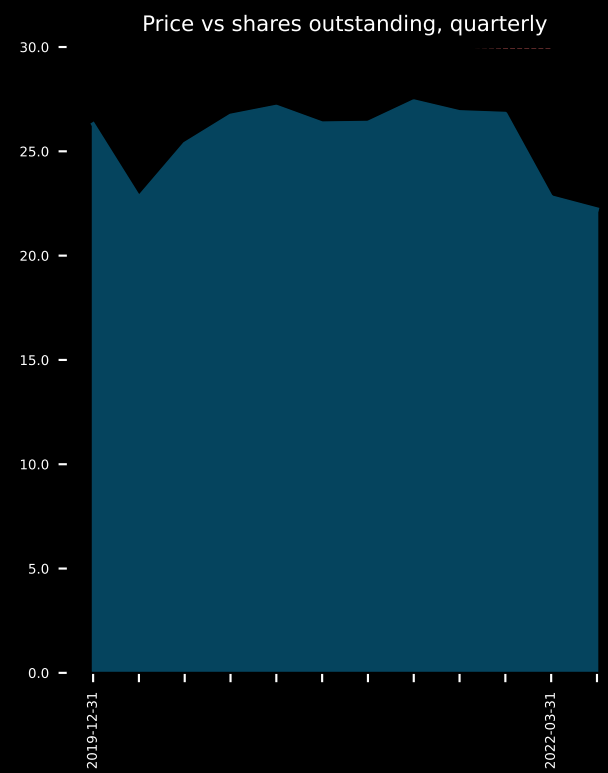
GZ6G Technologies Corp. provides enterprise smart technology solutions worldwide. It offers enterprise level IT and wireless network technology consulting, and business technology infrastructure strategy and planning services, as well as IT networking hardware and security cloud software products and services. The company also provides data center and IOT software development services, as well as digital marketing, advertising, and sponsorship services. Its customers include federal government, stadiums, airports, universities, smart cities, and the entertainment industry. The company is headquartered in Las Vegas, Nevada.



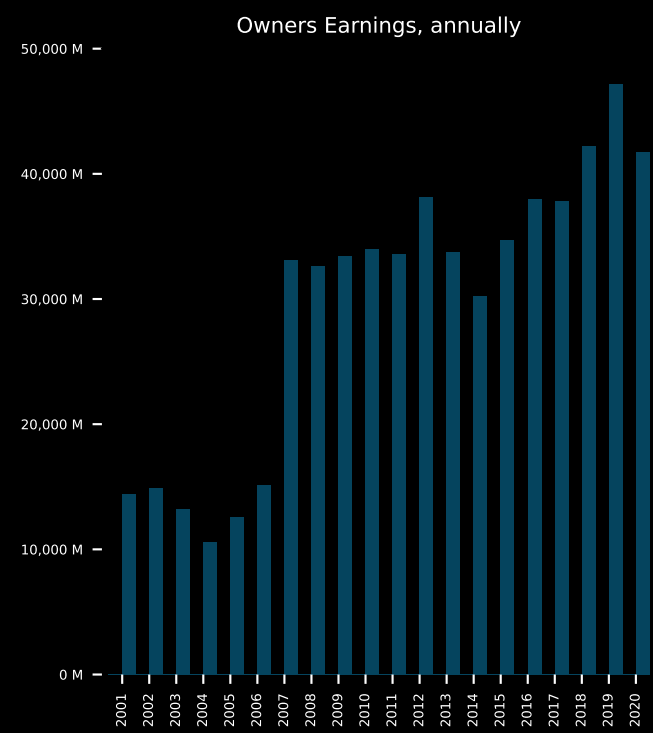
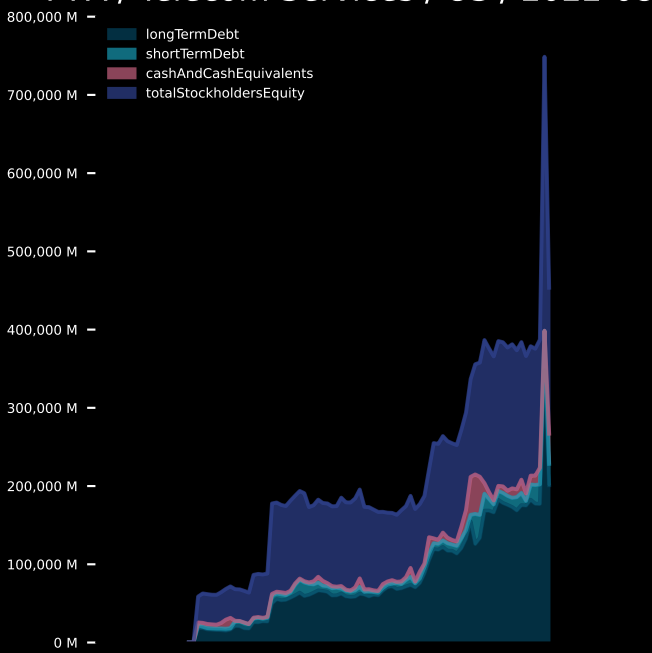
## OIBRQ / Telecom Services / BR / 2022-08-22



*Oi S.A., a switched fixed-line telephony services concessionaire, provides telecommunication services in Brazil. The company offers fixed telephony services, including voice, data communication, and pay TV services; local and intraregional long-distance carrier services; domestic and international long-distance services; mobile telecommunications and corporate solutions; and maintenance, and repair services. It also provides call center and telemarketing, Internet, network, and Wi-Fi Internet services; and financial, and payment and credit system services. In addition, the company engages in the investment management activities, as well as raising funds in the international market. It serves residential, subscription and prepaid, mobile broadband, small, medium-sized, and large corporate customers. The company was formerly known as Brasil Telecom S.A. and changed its name to Oi S.A. in February 2012. Oi S.A. was founded in 1998 and is headquartered in Rio de Janeiro, Brazil. On June 20, 2016, Oi S.A. along with its subsidiaries filed for bankruptcy protection.*

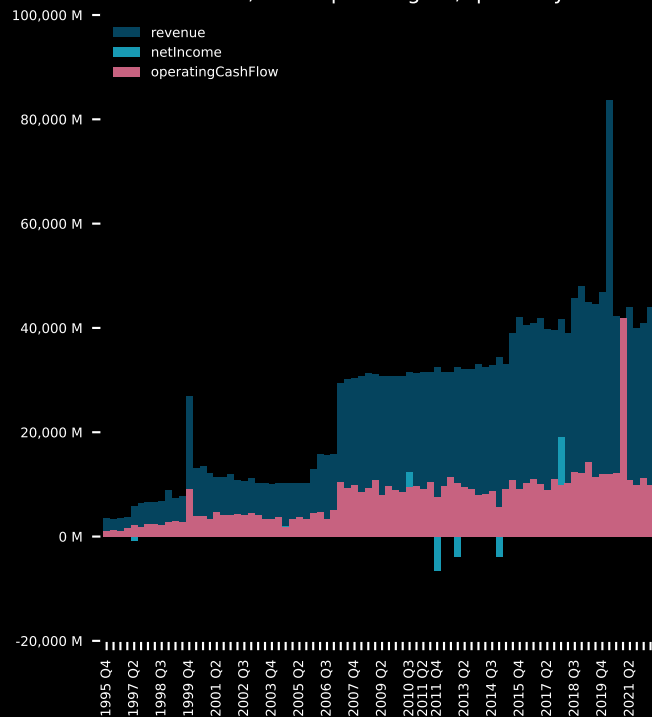


## T-PA / Telecom Services / US / 2022-08-22

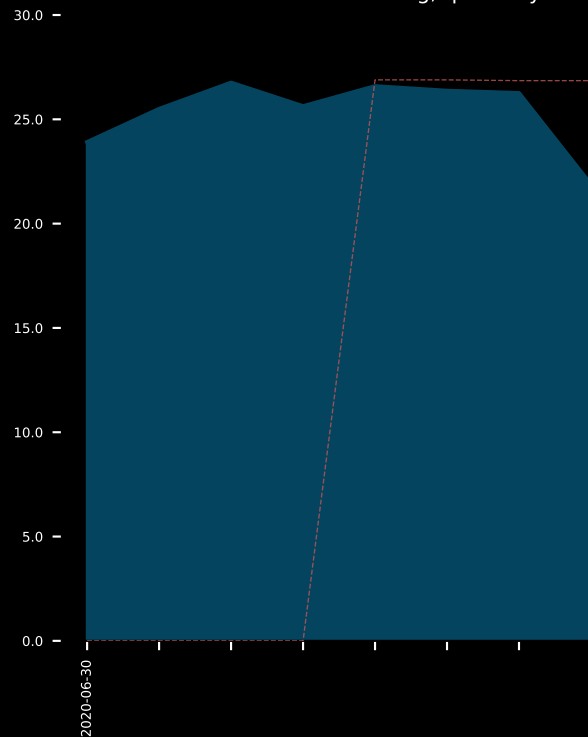


AT&T Inc. provides telecommunications, media, and technology services worldwide. Its Communications segment offers wireless voice and data communications services; and sells handsets, wireless data cards, wireless computing devices, and carrying cases and hands-free devices through its own company-owned stores, agents, and third-party retail stores. It also provides data, voice, security, cloud solutions, outsourcing, and managed and professional services, as well as customer premises equipment for multinational corporations, small and mid-sized businesses, governmental, and wholesale customers. In addition, this segment offers broadband fiber and legacy telephony voice communication services to residential customers. It markets its communications services and products under the AT&T, Cricket, AT&T PREPAID, and AT&T Fiber brand names. The company's Latin America segment provides wireless services in Mexico; and video services in Latin America. This segment markets its services and products under the AT&T and Unefon brand names. The company was formerly known as SBC Communications Inc. and was acquired by AT&T in 2005. AT&T Inc.

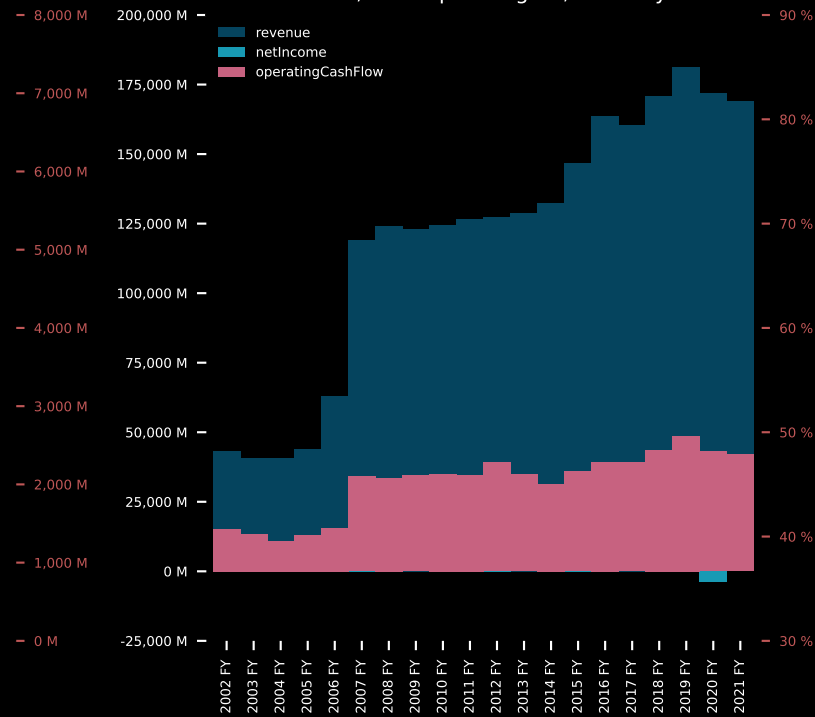
Sales, NI &amp; Operating CF, quarterly



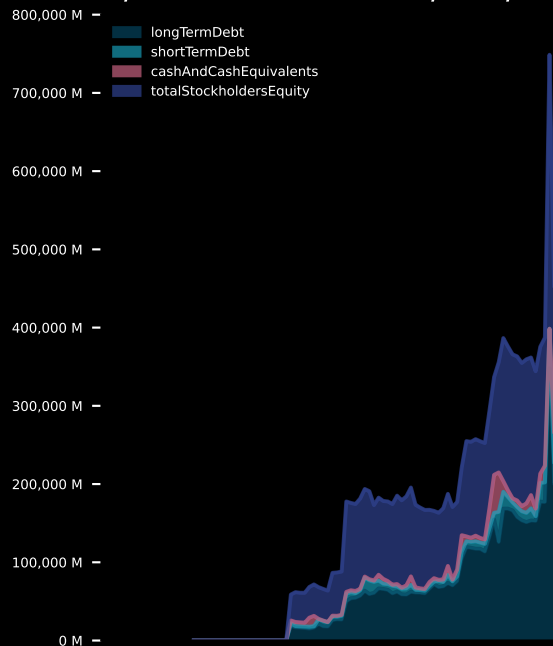
Price vs shares outstanding, quarterly



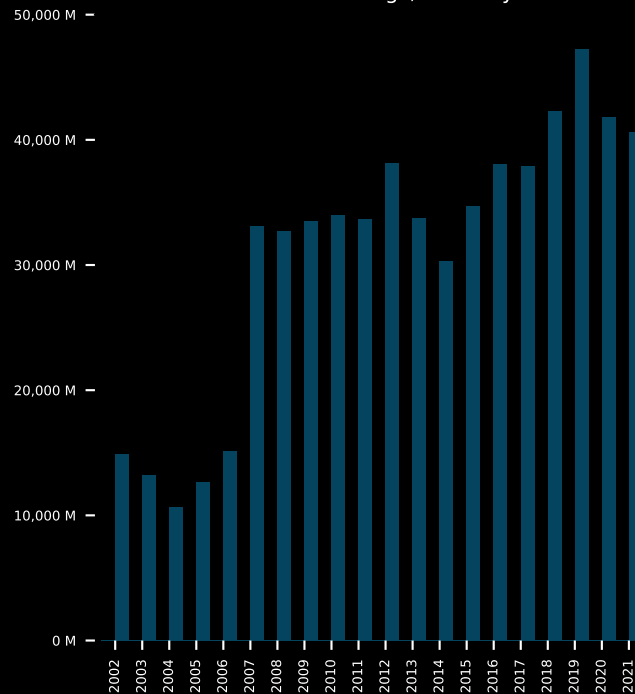
Sales, NI &amp; Operating CF, annually



T-PC / Telecom Services / US / 2022-08-23

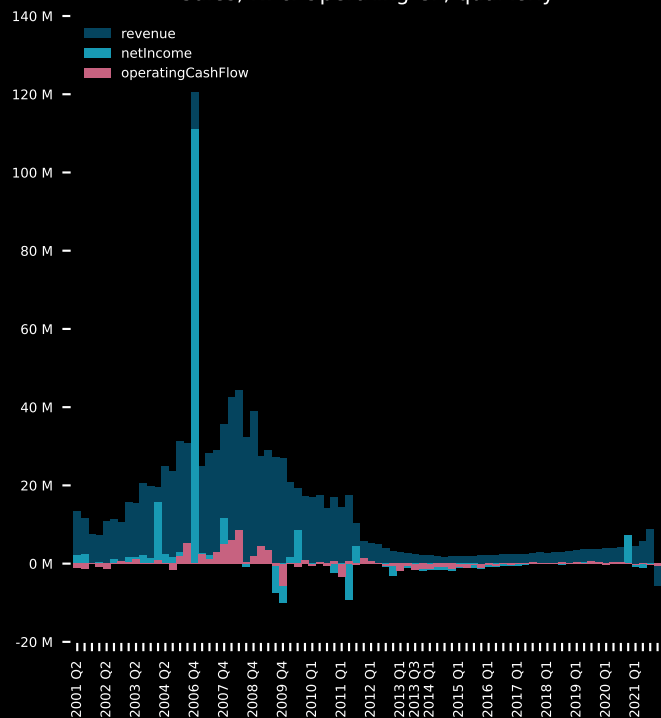


Owners Earnings, annually

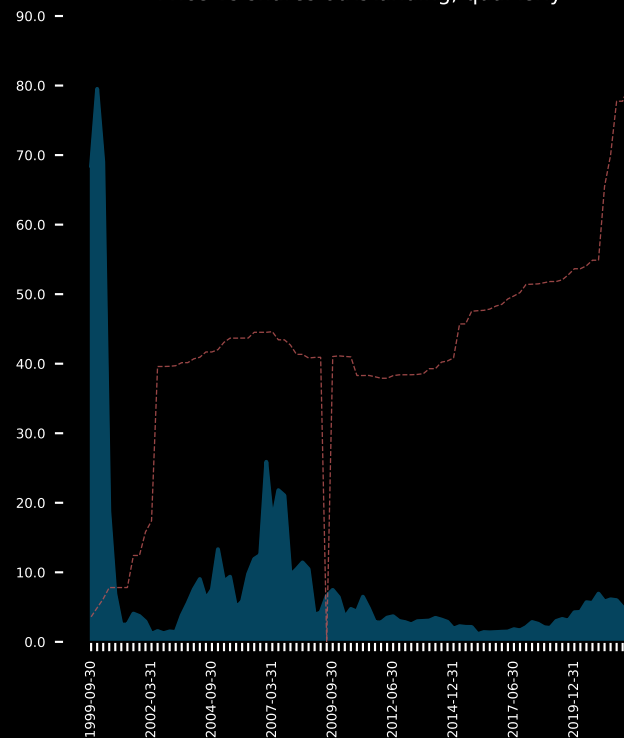


AT&T Inc. provides telecommunications, media, and technology services worldwide. Its Communications segment offers wireless voice and data communications services; and sells handsets, wireless data cards, wireless computing devices, and carrying cases and hands-free devices through its own company-owned stores, agents, and third-party retail stores. It also provides data, voice, security, cloud solutions, outsourcing, and managed and professional services, as well as customer premises equipment for multinational corporations, small and mid-sized businesses, governmental, and wholesale customers. In addition, this segment offers broadband fiber and legacy telephony voice communication services to residential customers. It markets its communications services and products under the AT&T, Cricket, AT&T PREPAID, and AT&T Fiber brand names. The company's Latin America segment provides wireless services in Mexico; and video services in Latin America. This segment markets its services and products under the AT&T and Unefon brand names. The company was formerly known as SBC Communications Inc. and was acquired by AT&T in 2005. AT&T Inc.

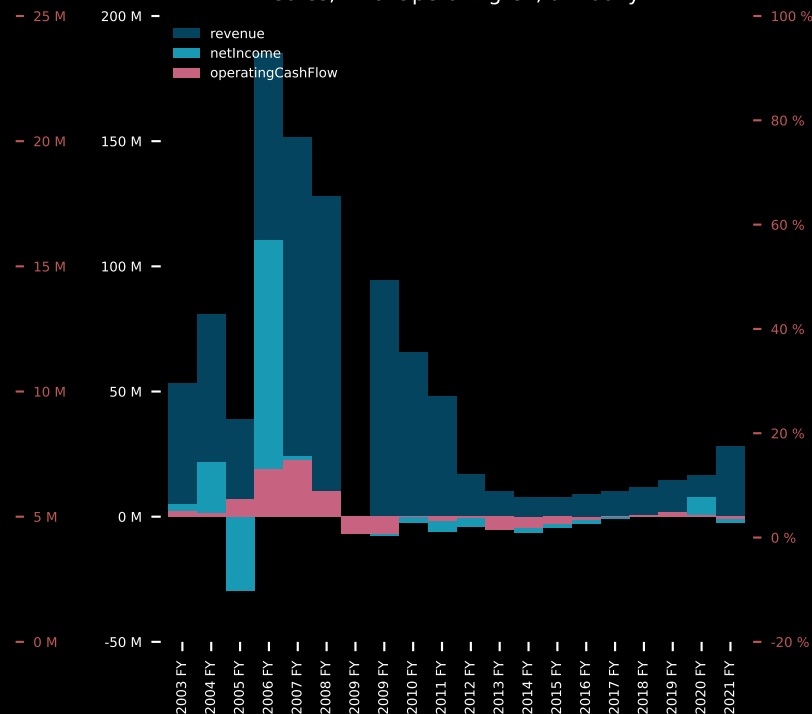
Sales, NI &amp; Operating CF, quarterly



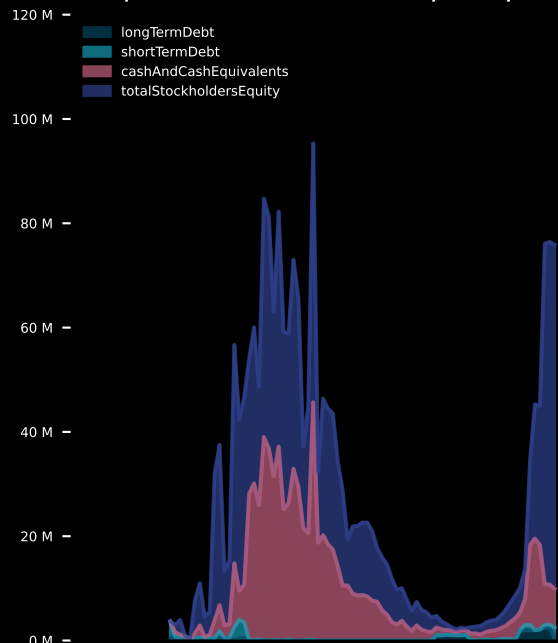
Price vs shares outstanding, quarterly



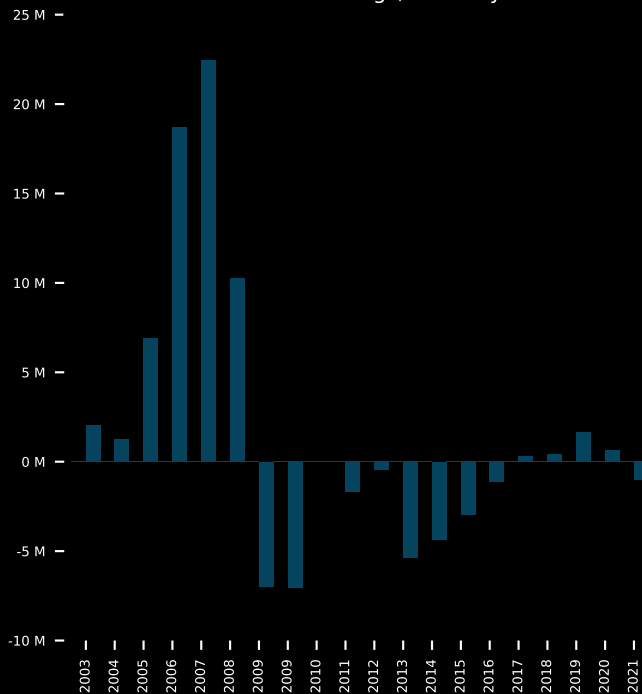
Sales, NI &amp; Operating CF, annually



CXDO / Telecom Services / US / 2022-08-23



Owners Earnings, annually

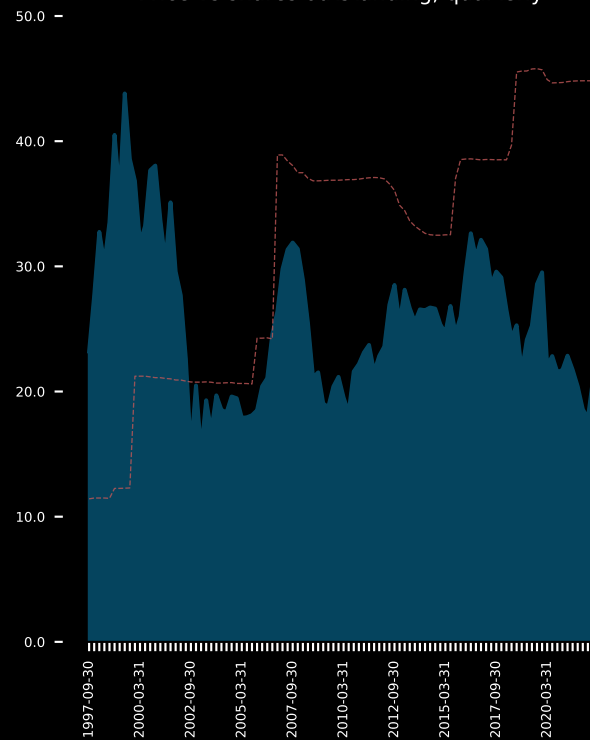


Crexendo, Inc. provides cloud communication, unified communications as a service, call center, collaboration, and other cloud business services for businesses in the United States, Canada, and internationally. It operates through two segments, Cloud Telecommunications and Web Services. The Cloud Telecommunications segment provides telecommunications services that transmit calls using Internet protocol (IP) or cloud technology, which converts voice signals into digital data packets for transmission over the Internet or cloud; and resells broadband Internet services. This segment is also involved in the sale and lease of cloud telecommunications equipment. In addition, it offers hardware, software, and unified communication solutions for businesses using IP or cloud technology over high-speed internet connection through various devices and user interfaces, such as desktop phones and/or mobile, and desktop applications under the Crexendo brand name. The Web Services segment provides website hosting and other professional services. The company was formerly known as iMergent, Inc. in May 2011. Crexendo, Inc. was founded in 1995.

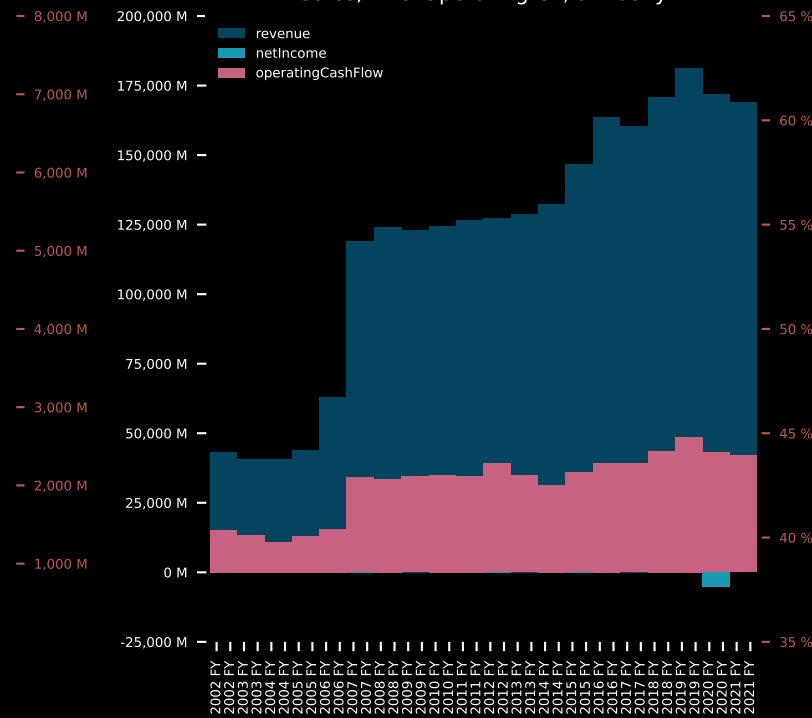
Sales, NI &amp; Operating CF, quarterly



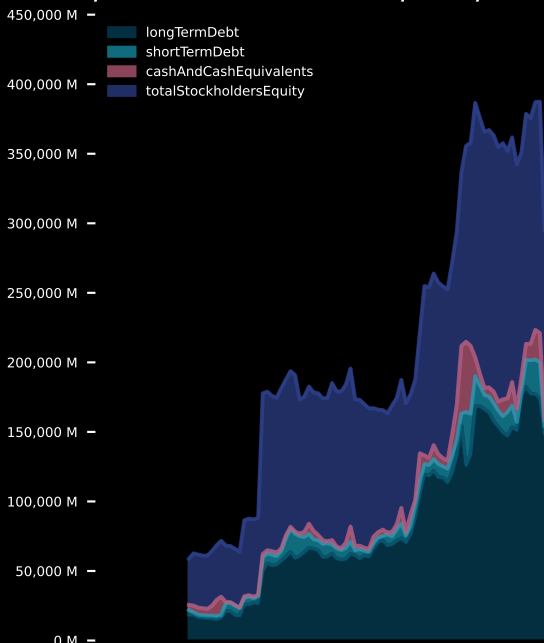
Price vs shares outstanding, quarterly



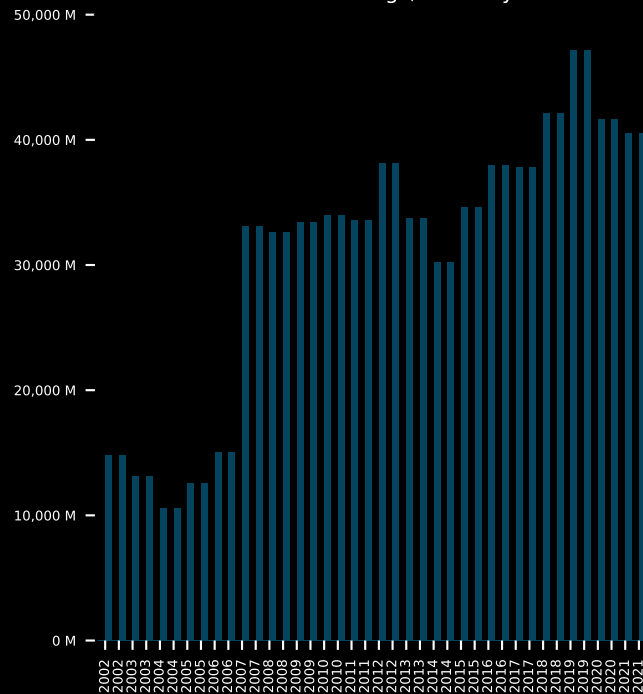
Sales, NI &amp; Operating CF, annually



T / Telecom Services / US / 2022-08-23



Owners Earnings, annually

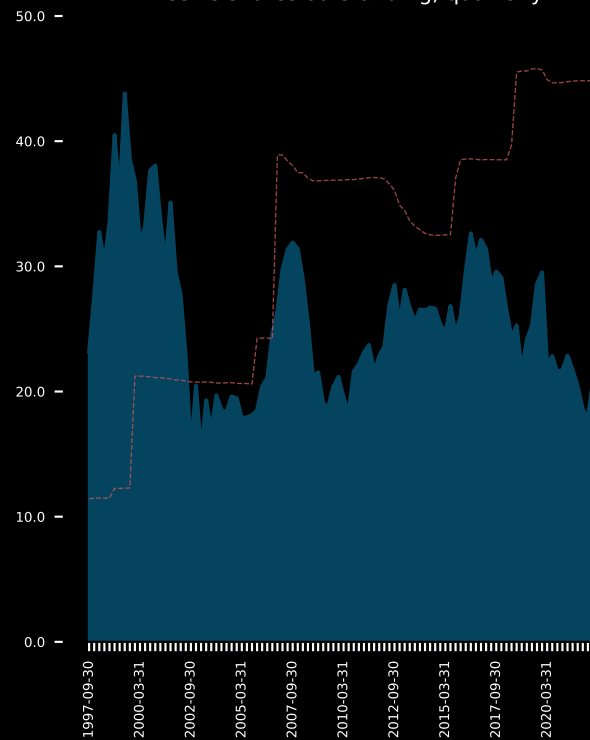


AT&T Inc. provides telecommunications, media, and technology services worldwide. Its Communications segment offers wireless voice and data communications services; and sells handsets, wireless data cards, wireless computing devices, and carrying cases and hands-free devices through its own company-owned stores, agents, and third-party retail stores. It also provides data, voice, security, cloud solutions, outsourcing, and managed and professional services, as well as customer premises equipment for multinational corporations, small and mid-sized businesses, governmental, and wholesale customers. In addition, this segment offers broadband fiber and legacy telephony voice communication services to residential customers. It markets its communications services and products under the AT&T, Cricket, AT&T PREPAID, and AT&T Fiber brand names. The company's Latin America segment provides wireless services in Mexico; and video services in Latin America. This segment markets its services and products under the AT&T and Unefon brand names. The company was formerly known as SBC Communications Inc. and changed its name to AT&T in 2005. AT&T

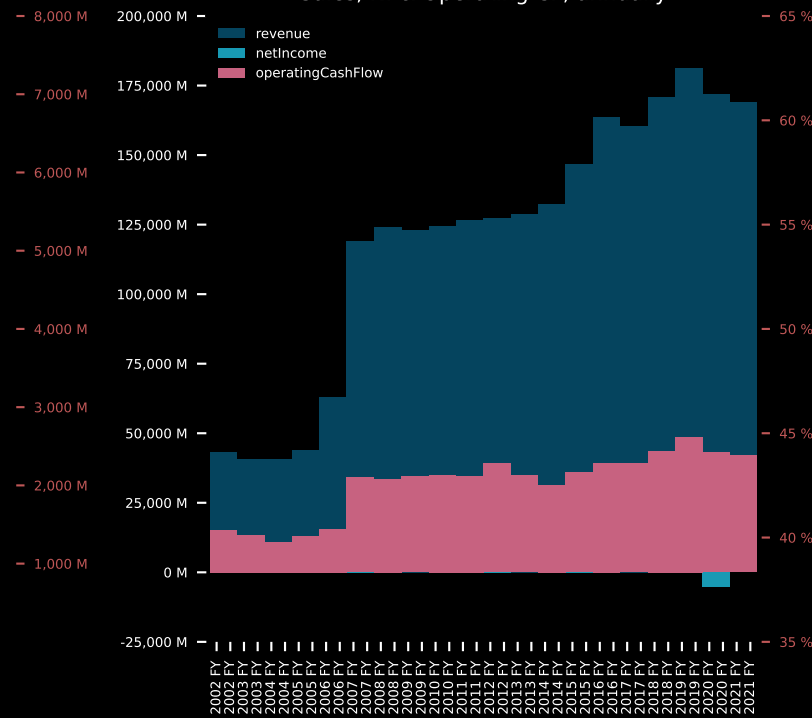
Sales, NI &amp; Operating CF, quarterly



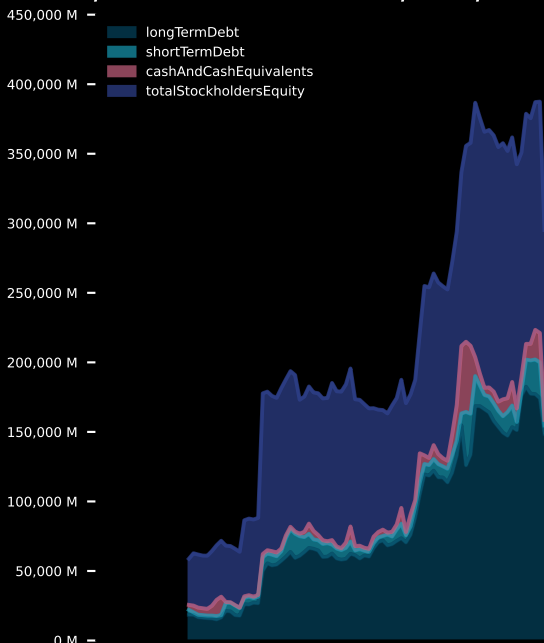
Price vs shares outstanding, quarterly



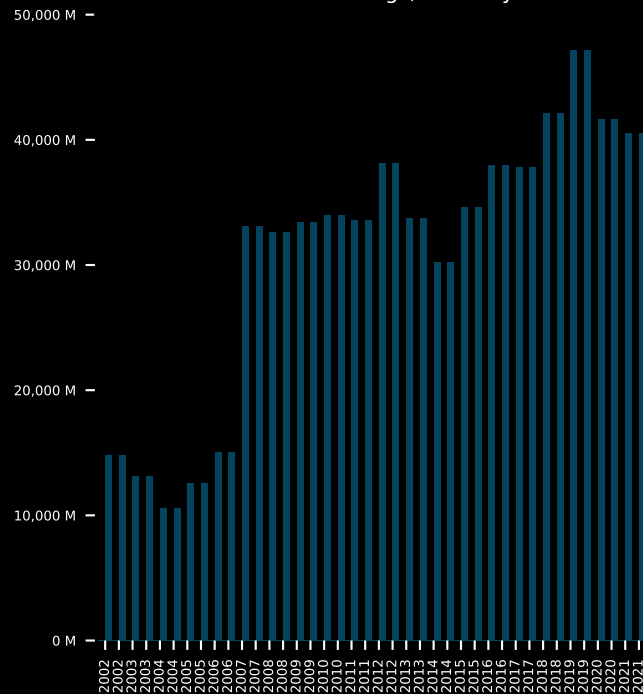
Sales, NI &amp; Operating CF, annually



T / Telecom Services / US / 2022-08-23

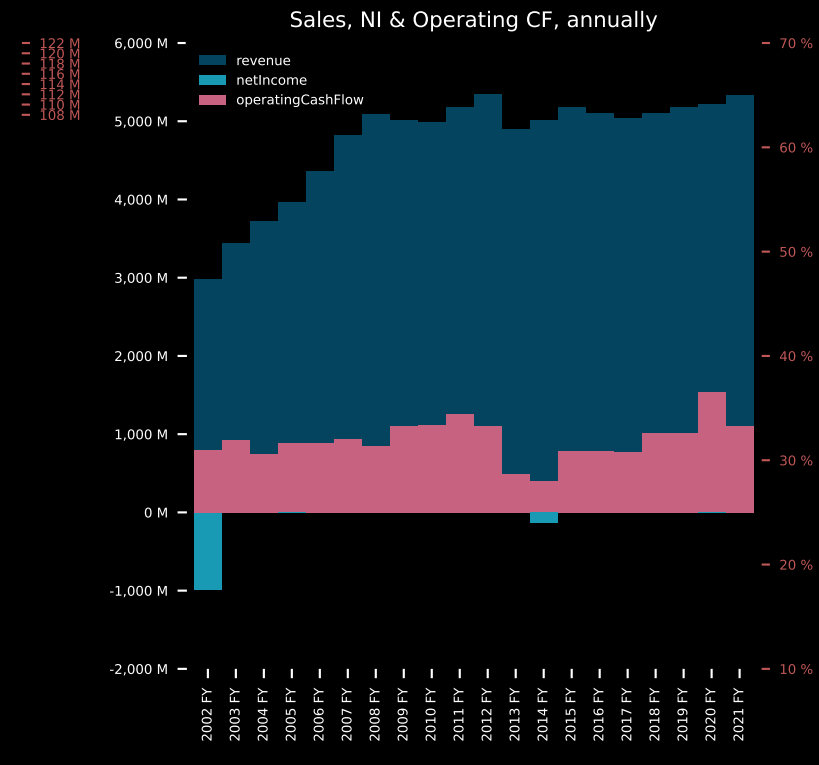
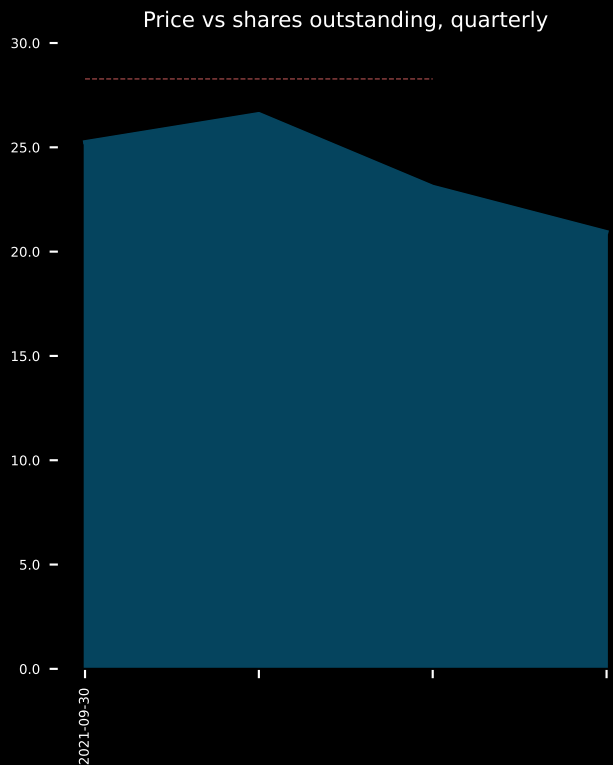


Owners Earnings, annually

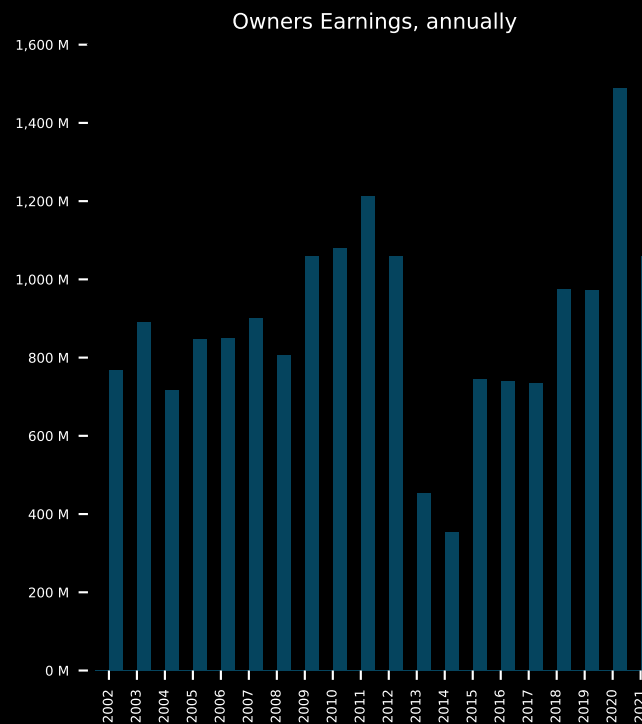
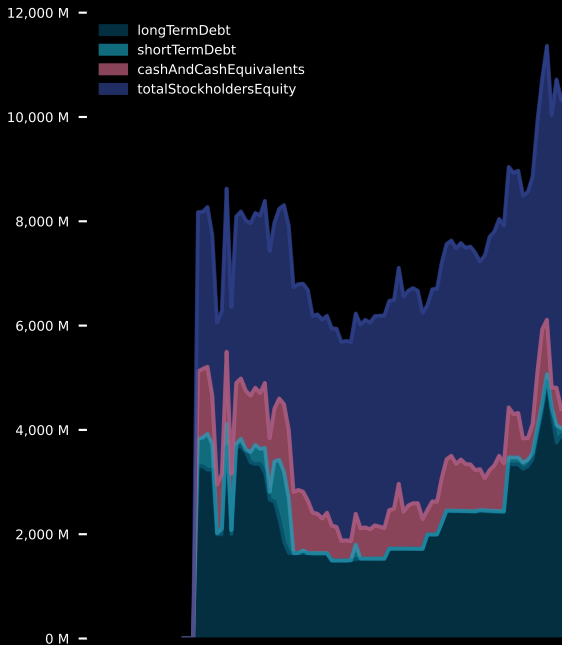


AT&T Inc. provides telecommunications, media, and technology services worldwide. Its Communications segment offers wireless voice and data communications services; and sells handsets, wireless data cards, wireless computing devices, and carrying cases and hands-free devices through its own company-owned stores, agents, and third-party retail stores. It also provides data, voice, security, cloud solutions, outsourcing, and managed and professional services, as well as customer premises equipment for multinational corporations, small and mid-sized businesses, governmental, and wholesale customers. In addition, this segment offers broadband fiber and legacy telephony voice communication services to residential customers. It markets its communications services and products under the AT&T, Cricket, AT&T PREPAID, and AT&T Fiber brand names. The company's Latin America segment provides wireless services in Mexico; and video services in Latin America. This segment markets its services and products under the AT&T and Unefon brand names. The company was formerly known as SBC Communications Inc. and changed its name to AT&T in 2005. AT&T

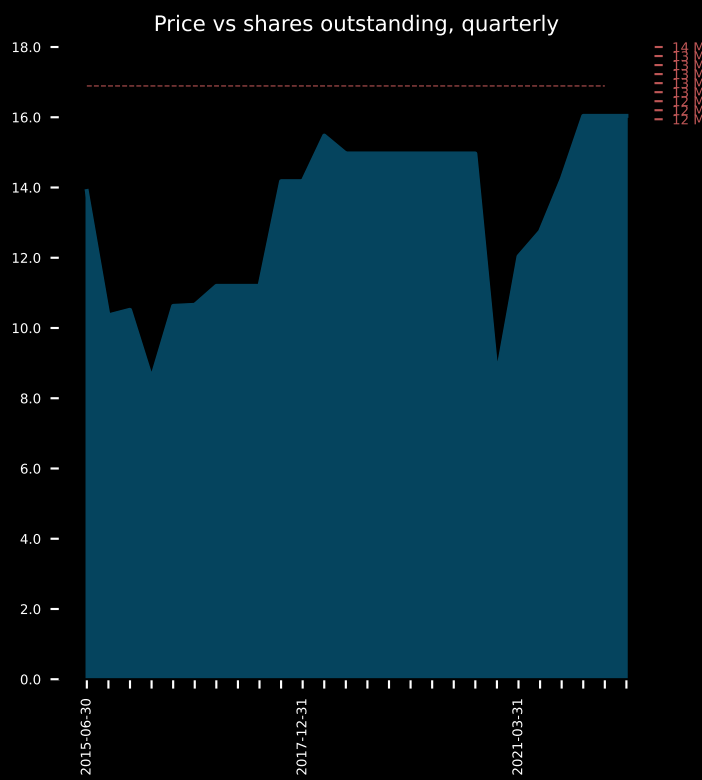




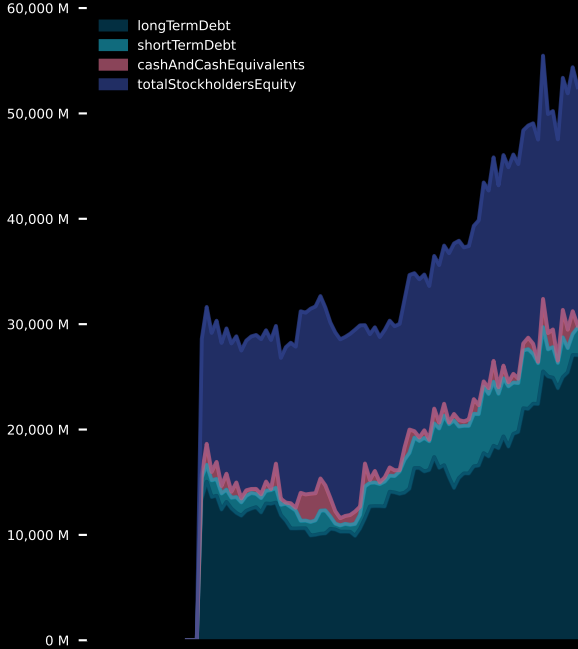
## TDS-PV / Telecom Services / US / 2022-08-23



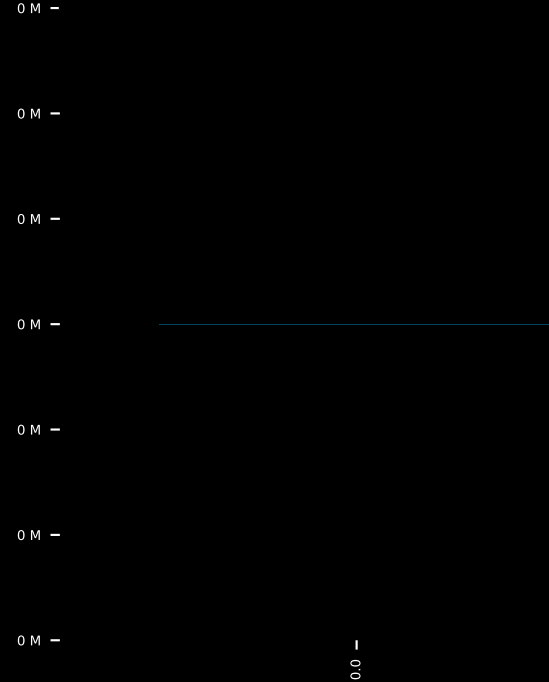
*Telephone and Data Systems, Inc., a telecommunications company, provides communications services in the United States. It operates through two segments: UScellular and TDS Telecom. The company offers wireless solutions to consumers and business and government customers, including a suite of connected Internet of things (IoT) solutions, and software applications for monitor and control, business automation/operations, communication, fleet and asset management, smart water solutions, private cellular networks and custom, and end-to-end IoT solutions; wireless priority services and quality priority and preemption options; smartphones and other handsets, tablets, wearables, mobile hotspots, routers, and IoT devices; and accessories, such as cases, screen protectors, chargers, and memory cards, as well as consumer electronics, including audio, home automation and networking products. It also provides replace and repair services; Trade-In program through which it buys customers' used equipment; internet connections and all-home Wi-Fi services; TDS TV+, an integrated cloud television service that offers content and*

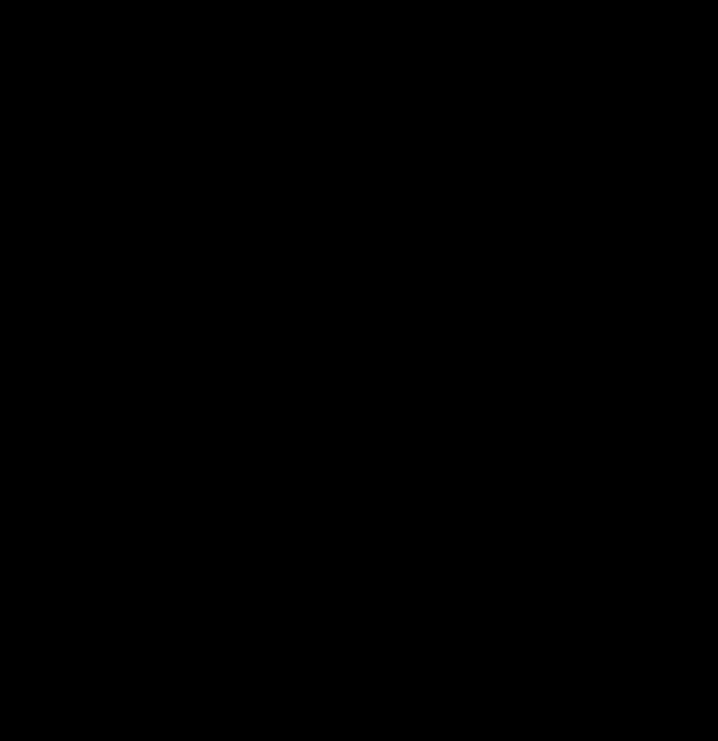
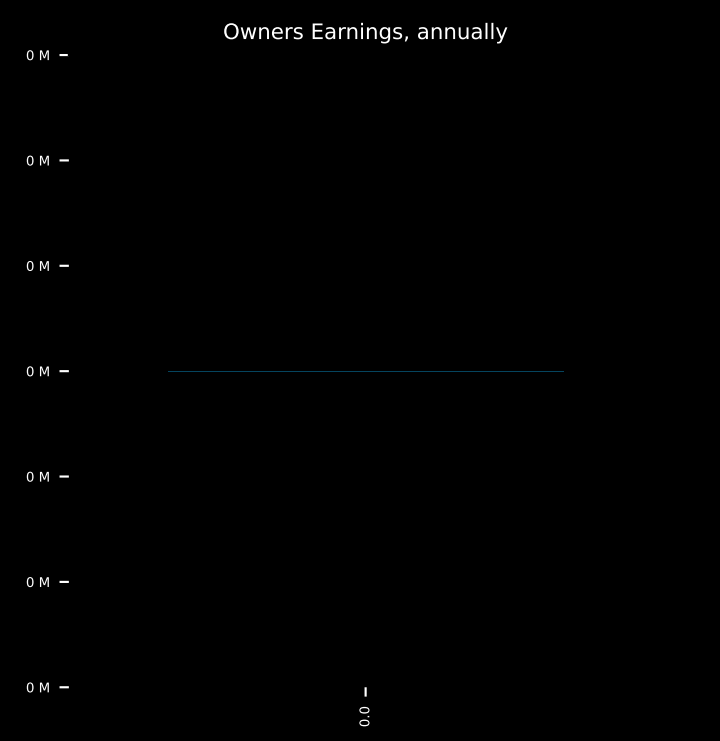
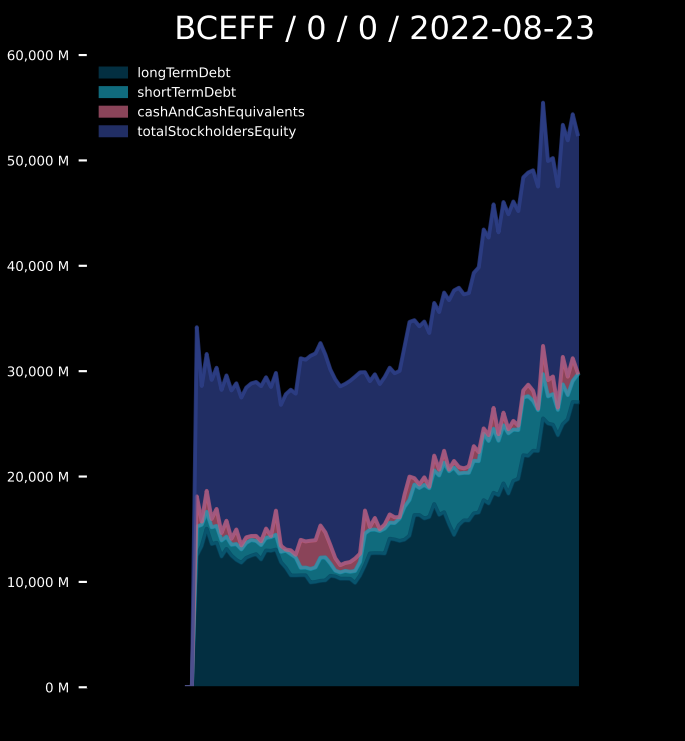
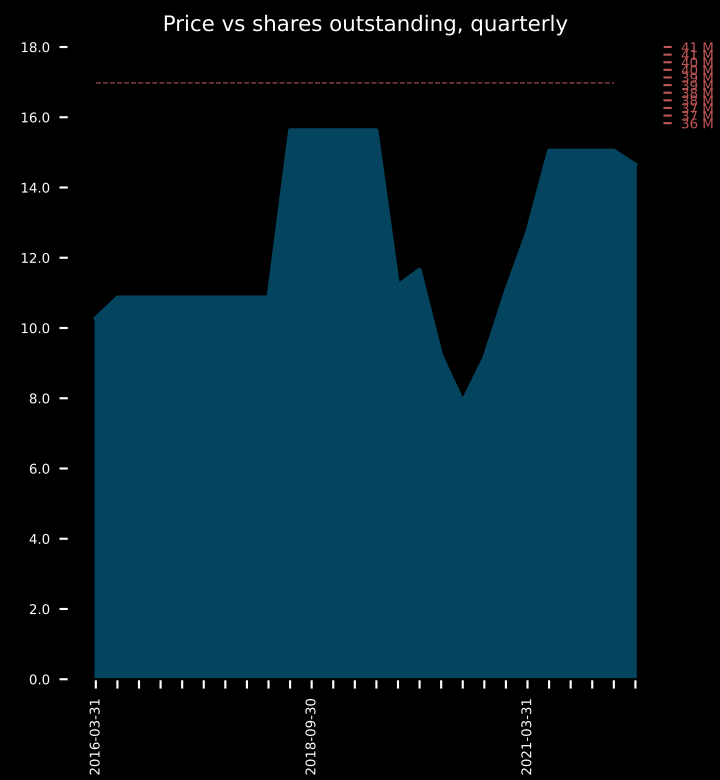
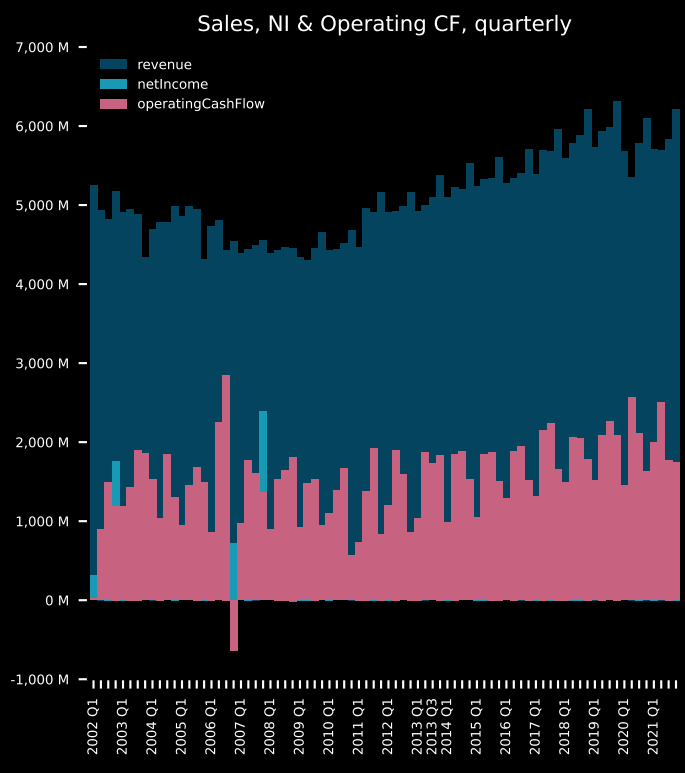


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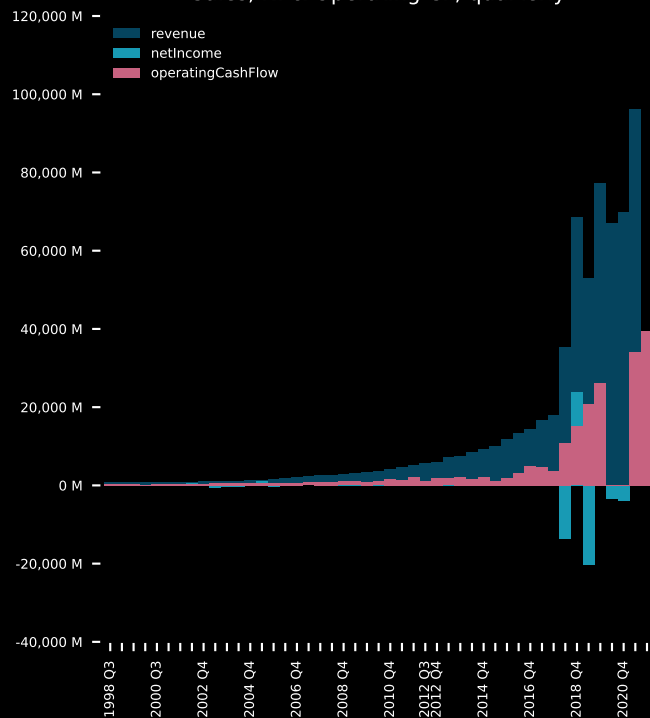


Owners Earnings, annually

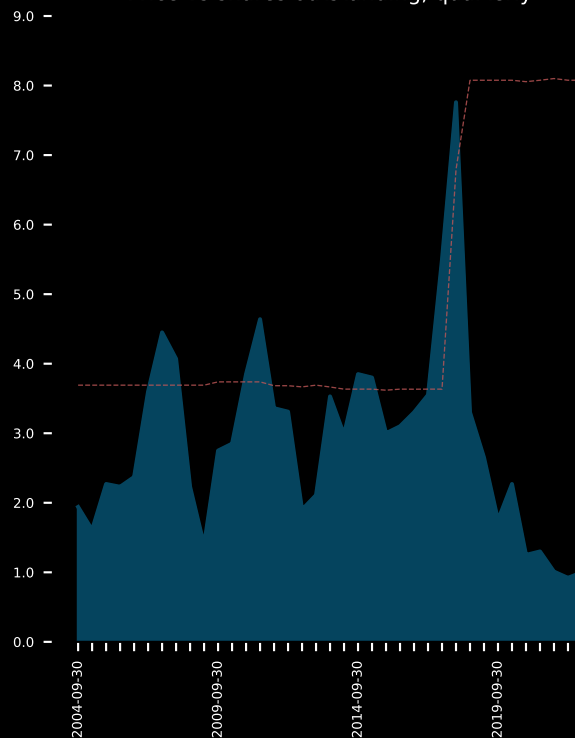




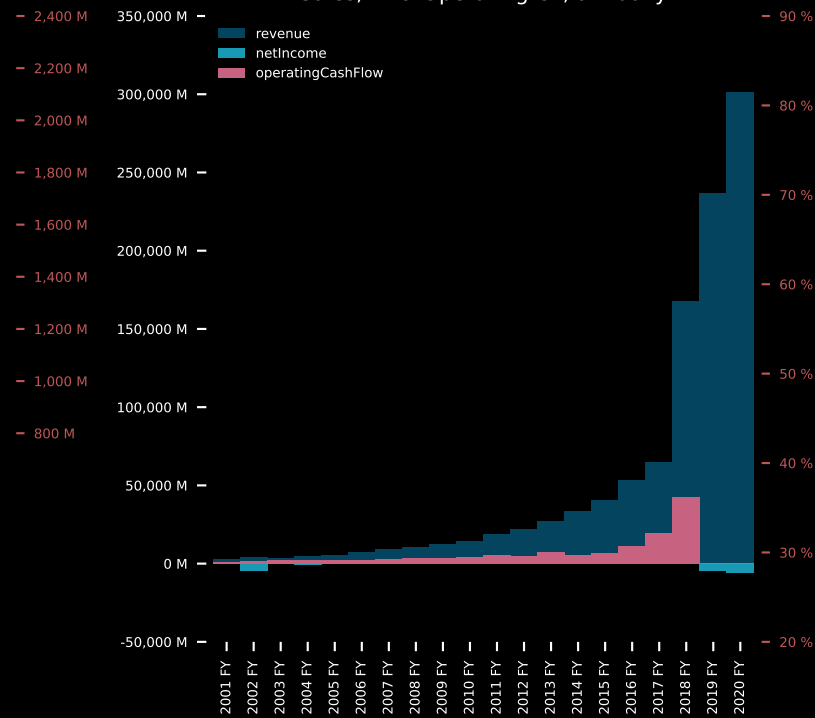
Sales, NI &amp; Operating CF, quarterly



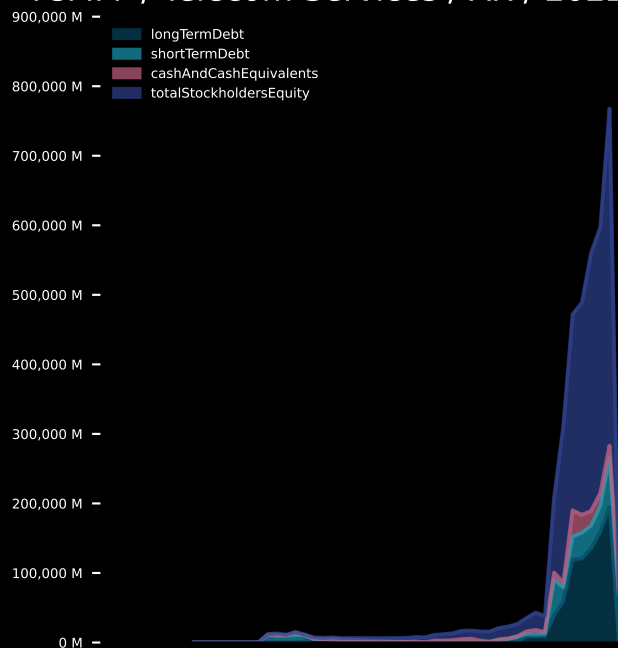
Price vs shares outstanding, quarterly



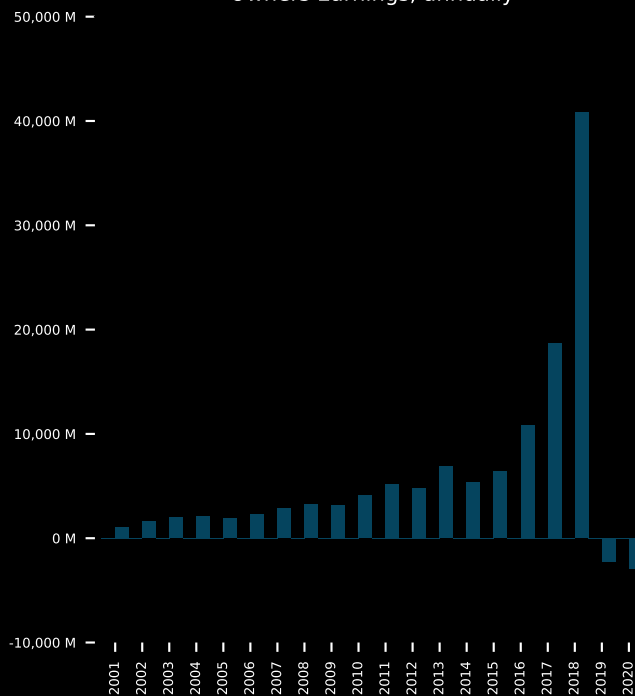
Sales, NI &amp; Operating CF, annually



TCMFF / Telecom Services / AR / 2022-08-23

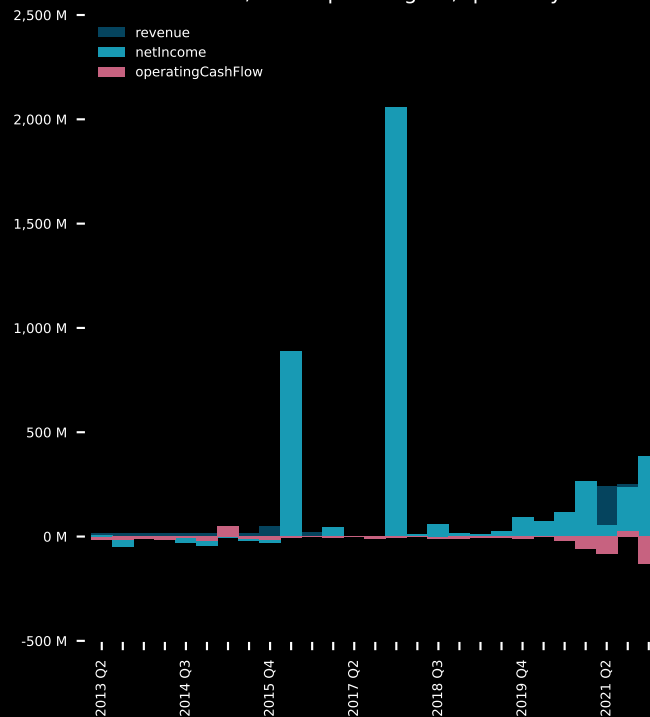


Owners Earnings, annually

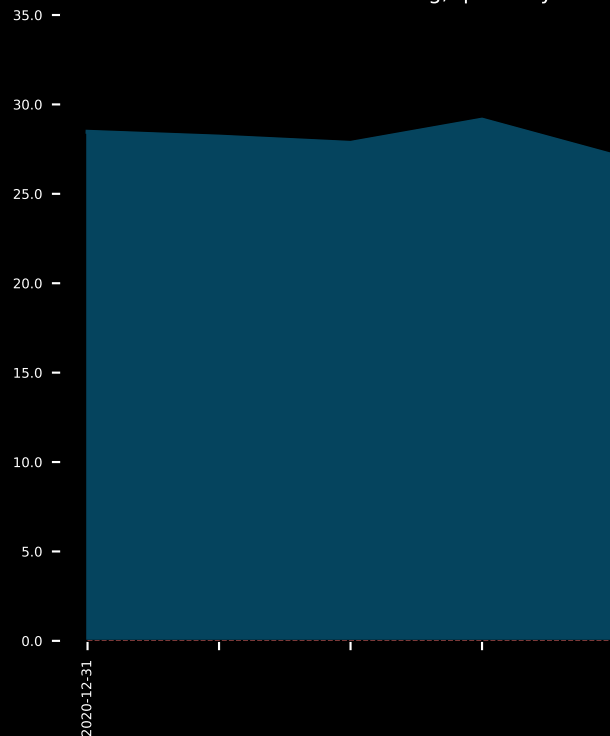


*Telecom Argentina S.A., together with its subsidiaries, provides telecommunications services in Argentina and internationally. The company offers telephone services, including local, domestic, and international long-distance telephone services, as well as public telephone services; interconnection services, such as traffic and interconnection resource, dedicated Internet access, video signals transportation in standard and high definitions, audio and video streaming, dedicated links, backhaul links for mobile operators, Internet protocol virtual private network, video links, value-added, data center hosting/housing, and other services; and call waiting, call forwarding, conference calls, caller ID, voice mail, itemized billing, and maintenance services. It also provides mobile telecommunications services, including voice communications, high-speed mobile Internet content and applications download, online streaming, and other services; and sells mobile communication devices, such as handsets, Modems mifi and wingles, and smart watches under the Personal brand. In addition, the company*

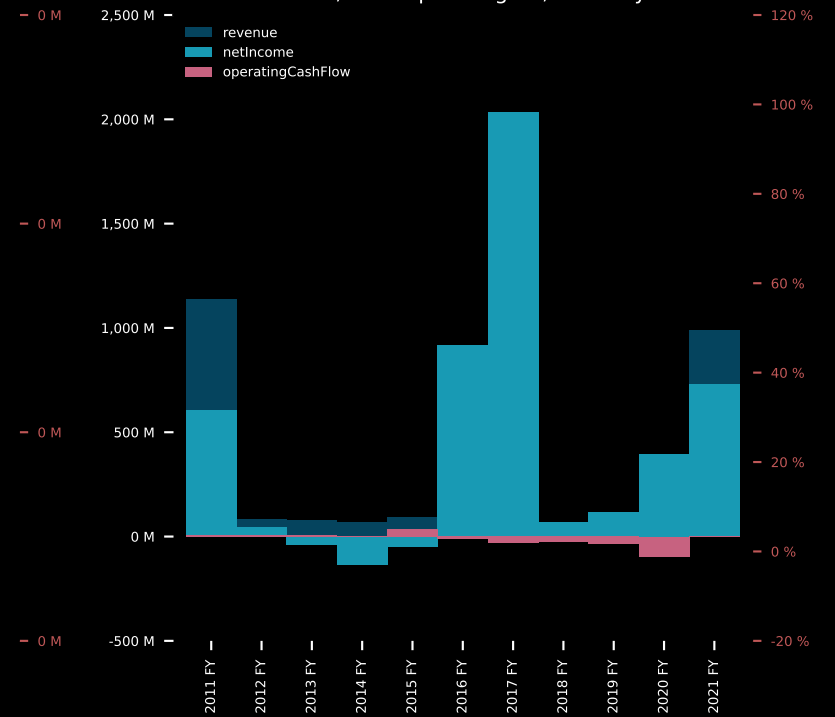
Sales, NI &amp; Operating CF, quarterly



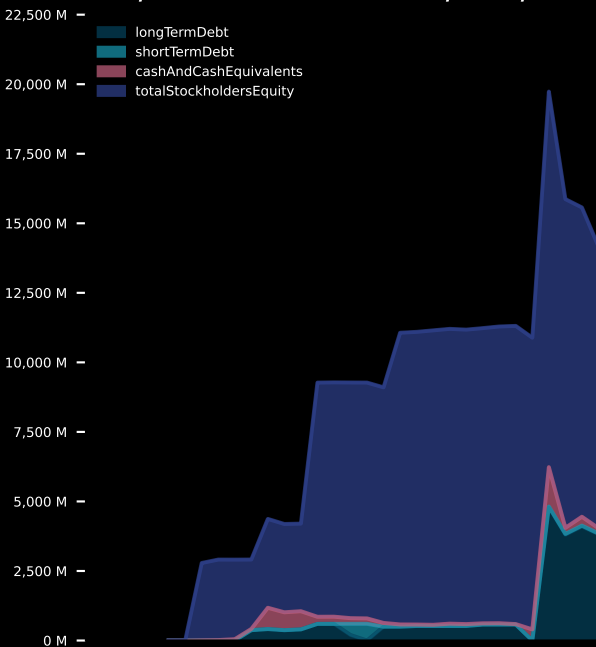
Price vs shares outstanding, quarterly



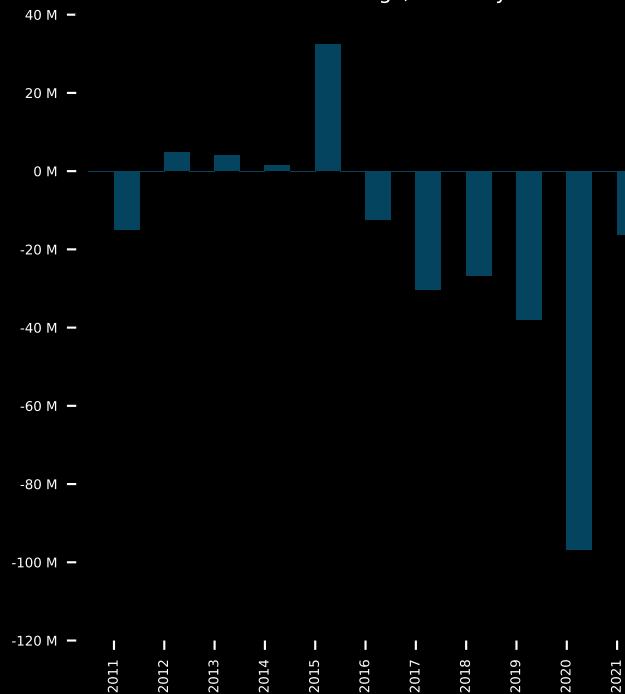
Sales, NI &amp; Operating CF, annually



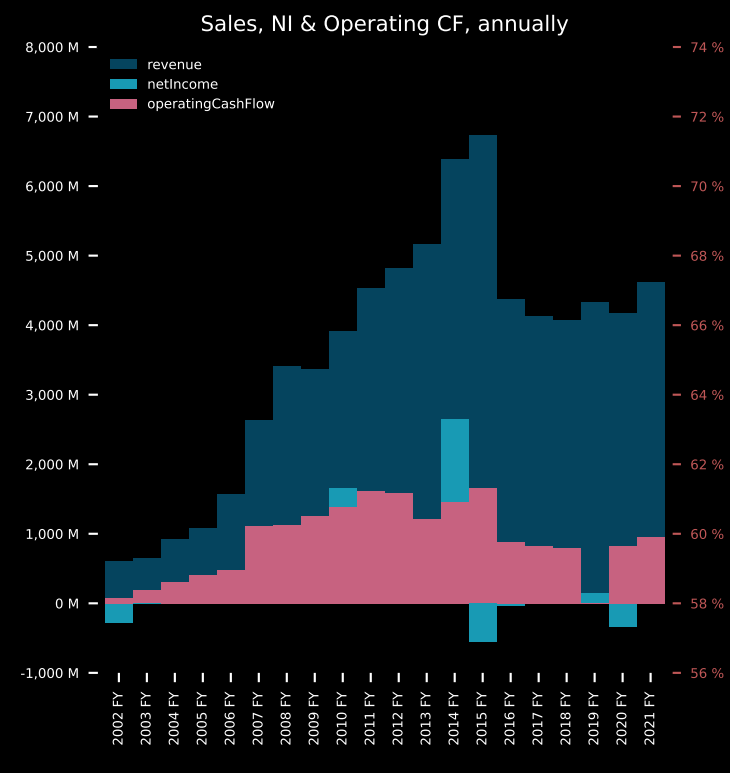
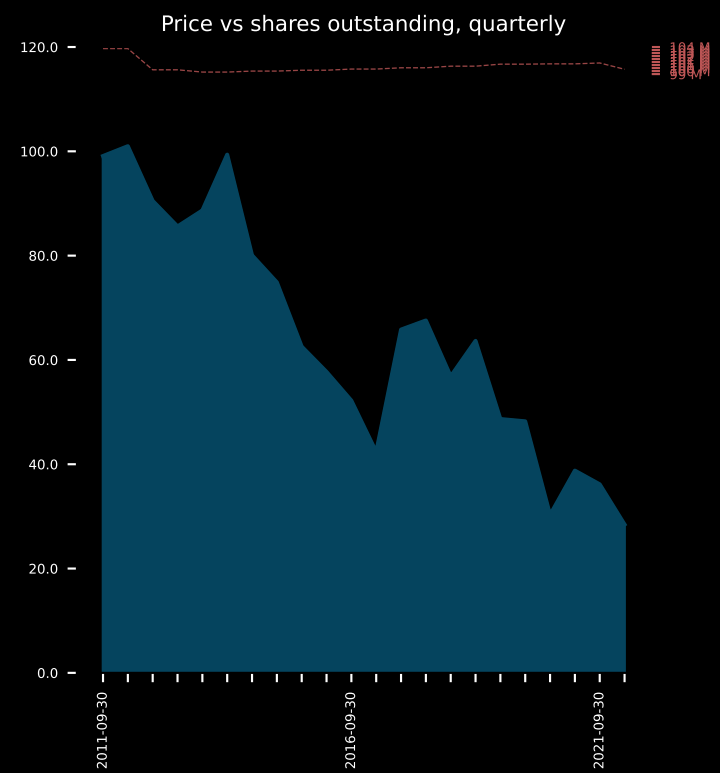
LBRDP / Telecom Services / US / 2022-08-23



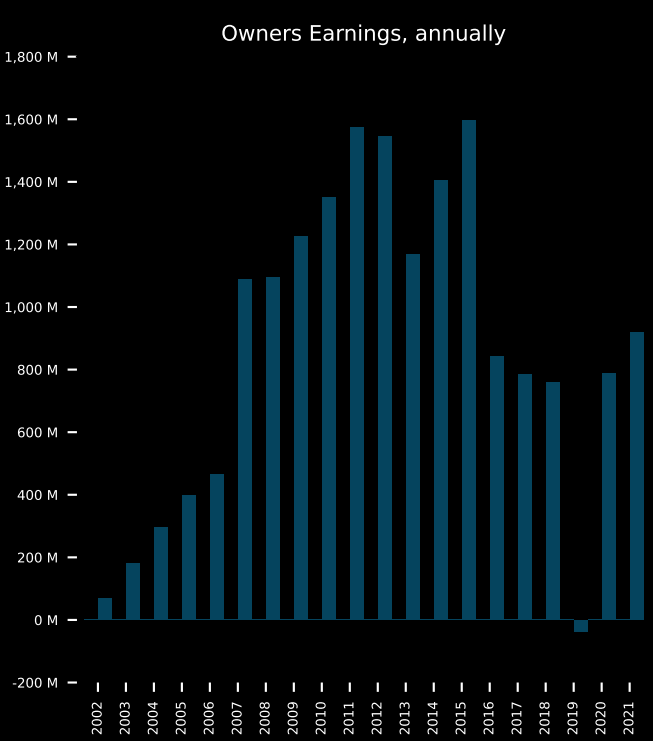
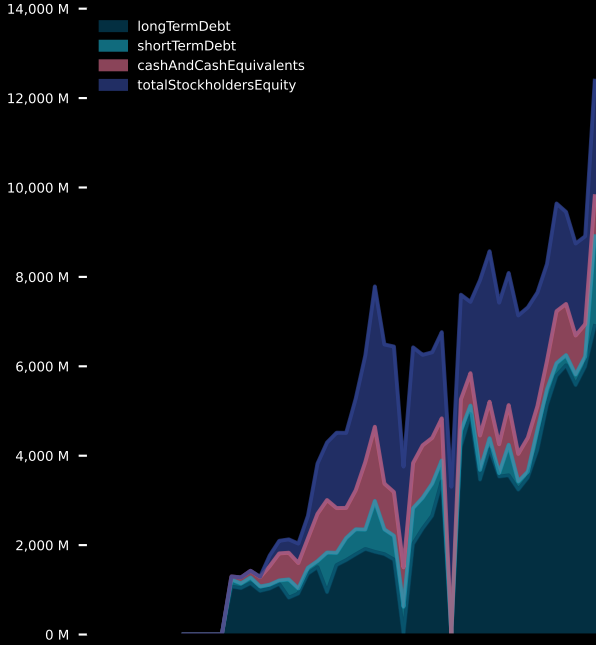
Owners Earnings, annually



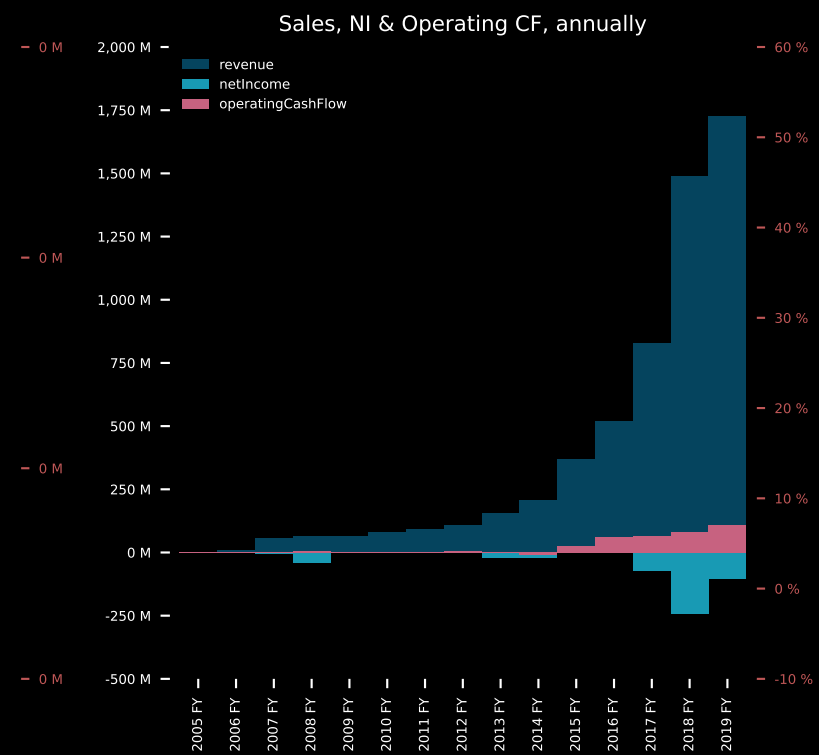
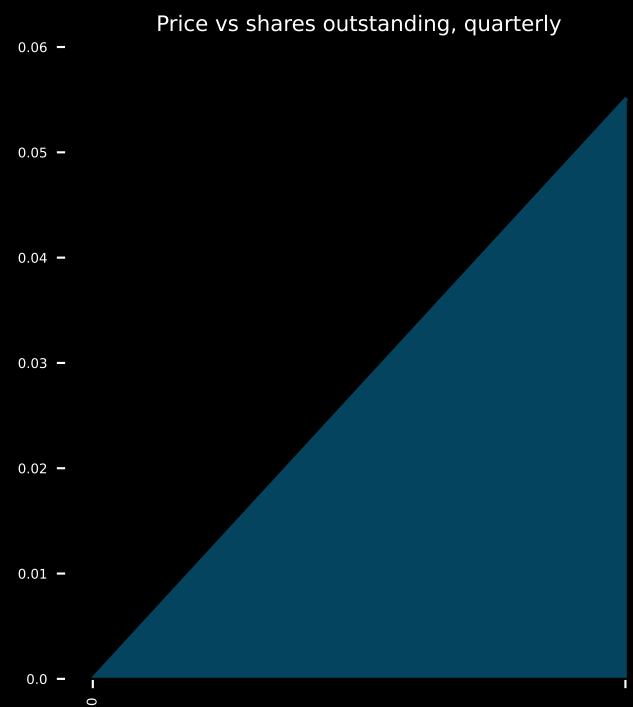
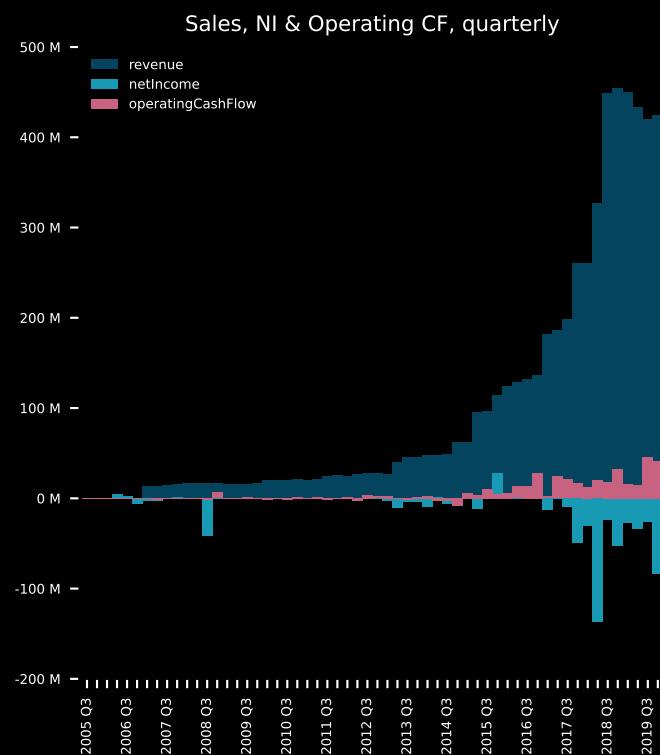
Liberty Broadband Corporation engages in the communications businesses. It operates through GCI Holdings and Charter segments. The GCI Holdings segment provides a range of wireless, data, video, voice, and managed services to residential customers, businesses, governmental entities, and educational and medical institutions primarily in Alaska under the GCI brand. The Charter segment offers subscription-based video services comprising video on demand, high-definition television, and digital video recorder service; local and long-distance calling, voicemail, call waiting, caller ID, call forwarding, and other voice services, as well as international calling services; and Spectrum TV. It also provides internet services, including an in-home Wi-Fi product that provides customers with high-performance wireless routers and managed Wi-Fi services; advanced community Wi-Fi; mobile internet; and a security suite that offers protection against computer viruses and spyware. In addition, this segment offers internet access, data networking, fiber connectivity to cellular towers and office buildings, video entertainment, and business telephone services.



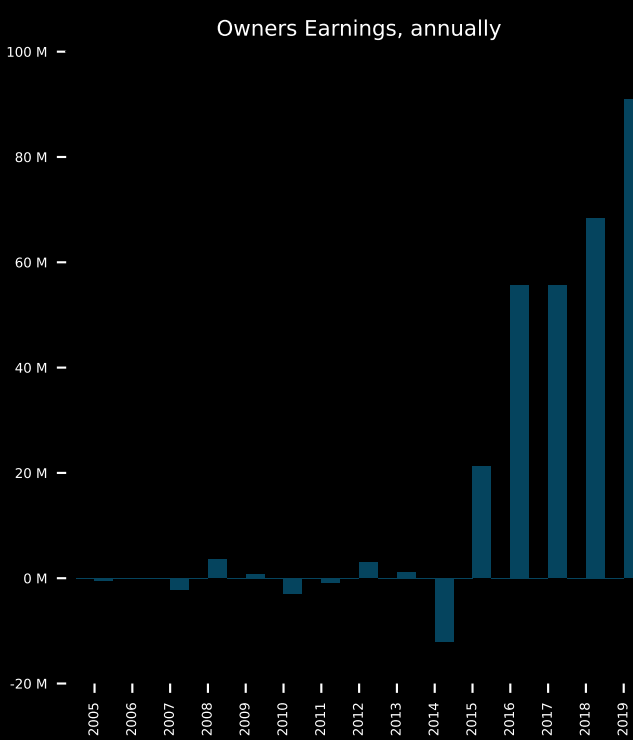
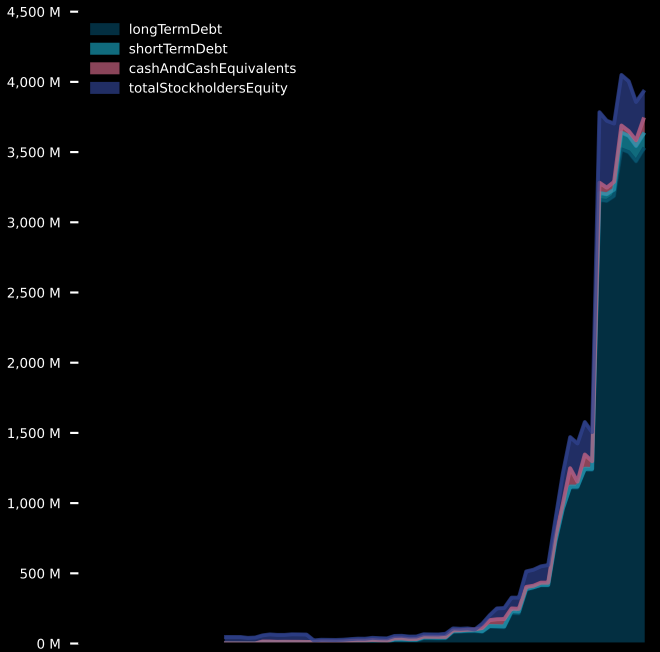
## TIGO / Telecom Services / LU / 2022-08-23



*Millicom International Cellular S.A. provides cable and mobile services in Latin America and Africa. The company offers mobile services, including mobile data and voice; short message service; and mobile financial services, such as payments, money transfers, international remittances, savings, real-time loans, and micro-insurance. It also provides cable and other fixed services, including broadband, content, fixed voice, and pay-TV to residential consumers; and fixed, managed services, cloud and security solutions, and value-added services to small, medium, and large businesses, as well as governmental entities. As of December 31, 2021, the company served 44.9 million mobile customers; and 12.7 million cable homes. It markets its products and services under Tigo and Tigo Business brands. The company was founded in 1990 and is headquartered in Luxembourg.*

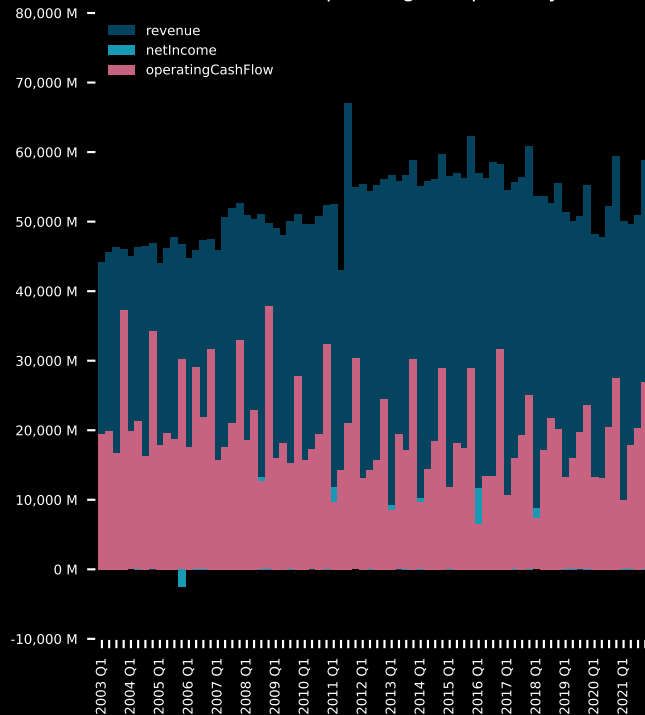


## GTTN / Telecom Services / US / 2022-08-23

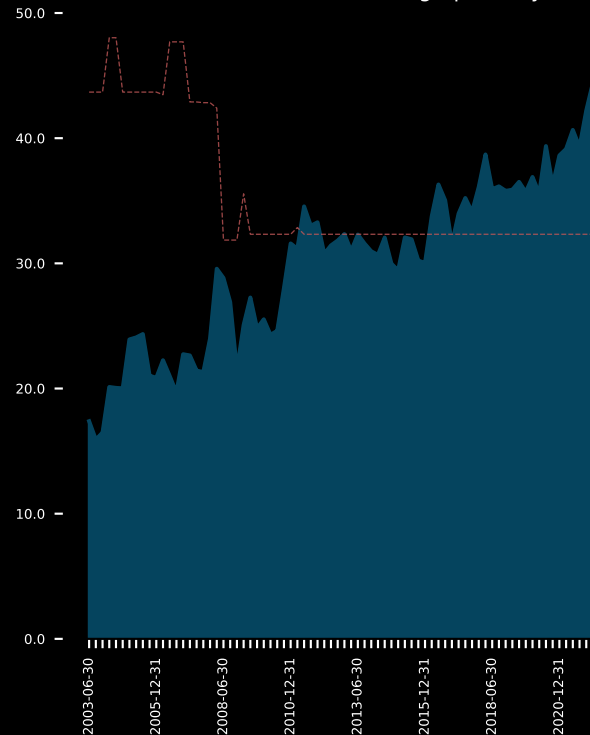


GTT Communications, Inc. provides cloud networking services to multinational enterprises, carriers, and government customers in the United States, Europe, and internationally. The company offers wide area networking, such as software-defined wide area networking, multiprotocol label switching, and virtual private LAN service; high bandwidth-Internet connectivity and IP transit, as well as broadband and wireless Internet access services; managed equipment and security services; and unified communication services consisting of session initiation protocol trunking, cloud unified communication service, and traditional analog voice. It also provides transport services, such as Ethernet services that enable to design network equipment; and video transport services to support broadcast quality transmission of live events, sports entertainment, and news to media and entertainment industry. In addition, the company offers infrastructure services enabling transport of high volume data between data centers, enterprise office locations, and media hubs; wavelength services to deliver scalable high-performance optical connectivity; colocation, and other services to support the needs of its customers.

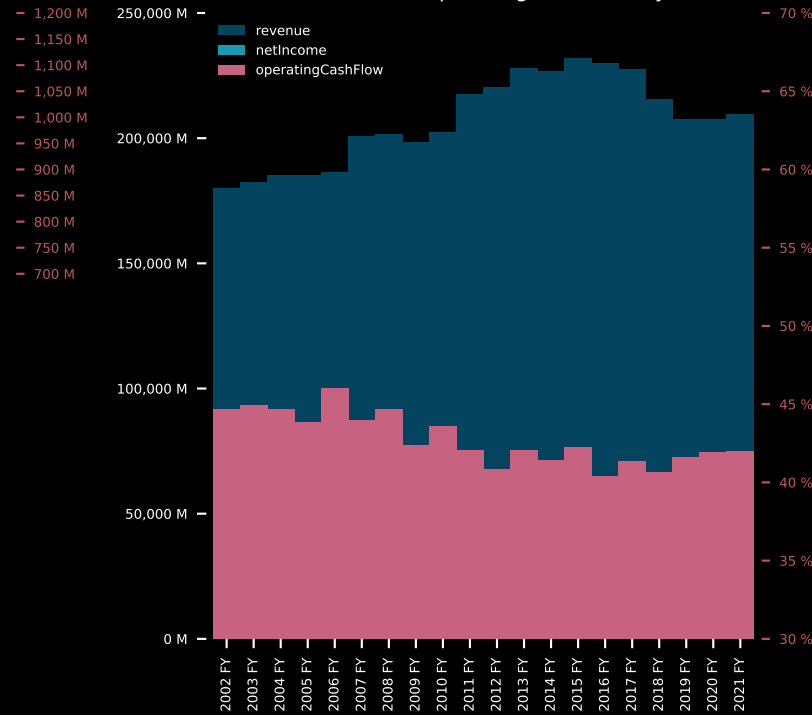
Sales, NI &amp; Operating CF, quarterly



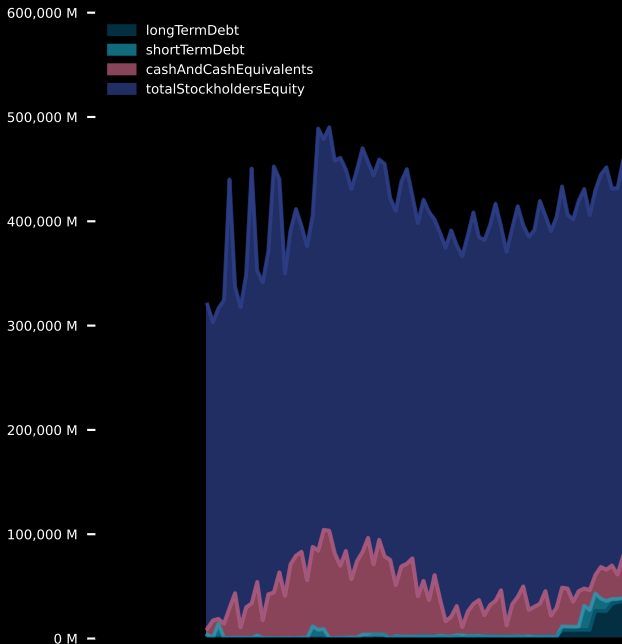
Price vs shares outstanding, quarterly



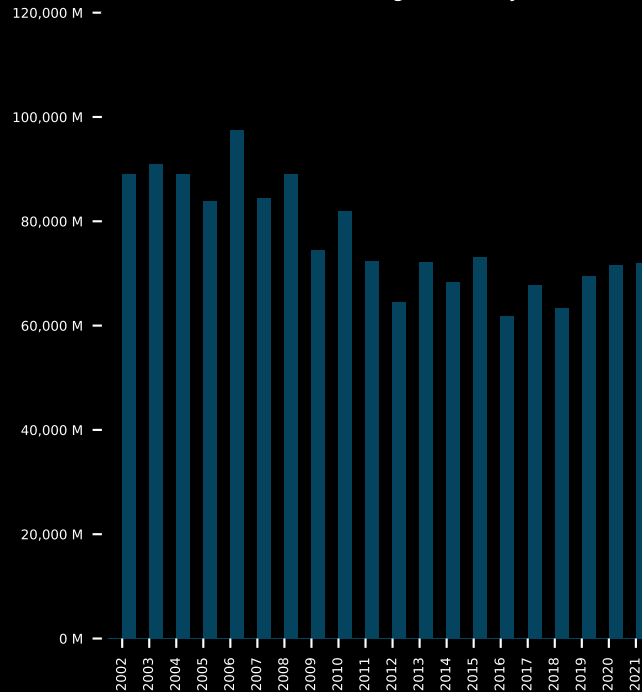
Sales, NI &amp; Operating CF, annually



CHT / Telecom Services / TW / 2022-08-23

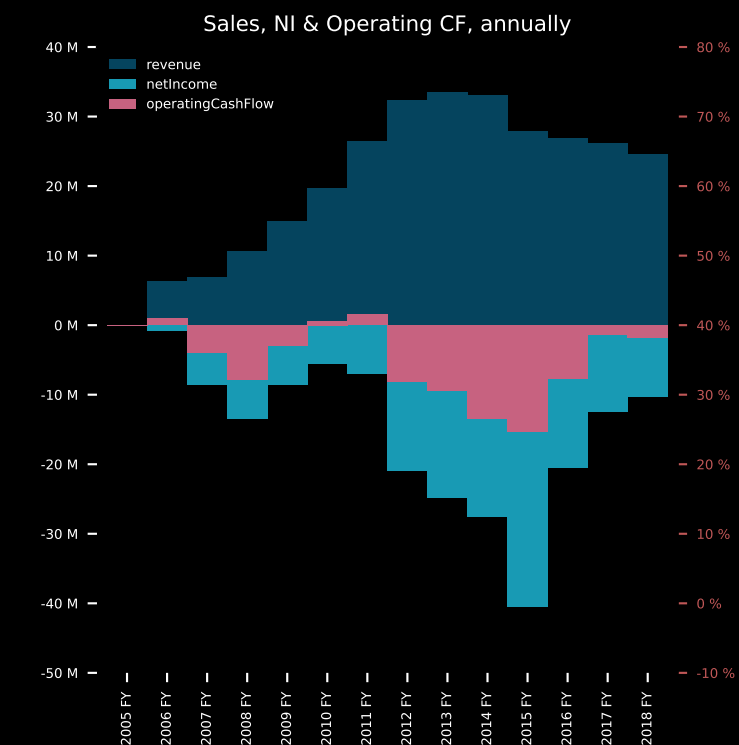
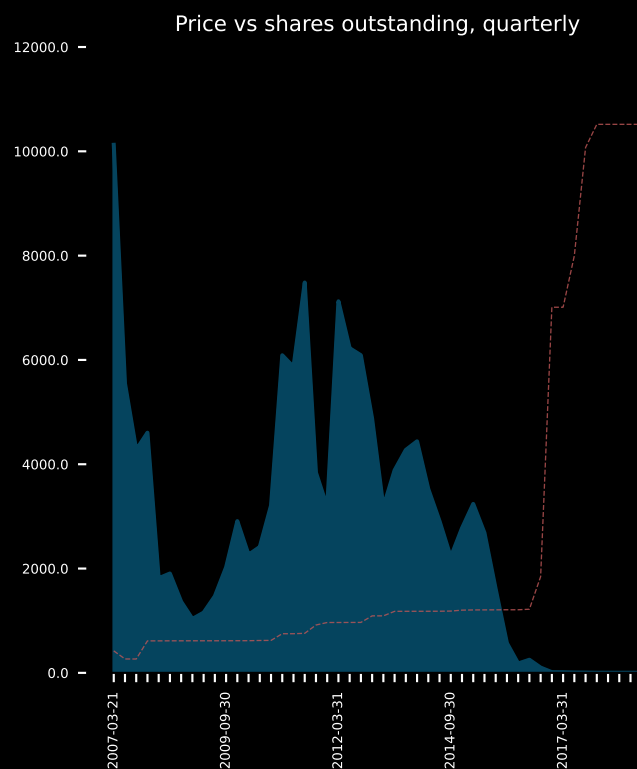
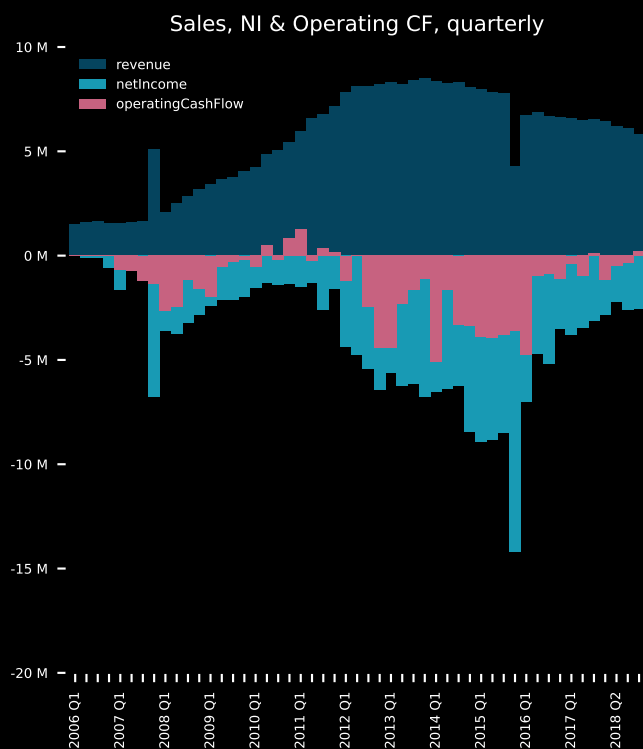


Owners Earnings, annually

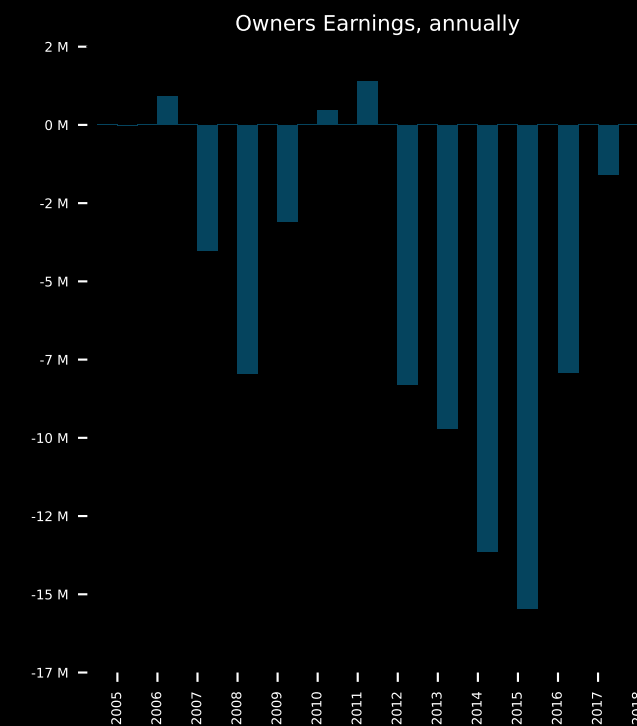
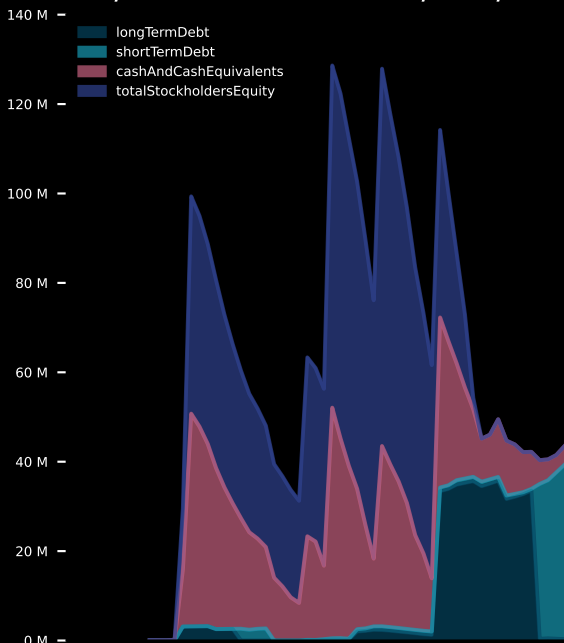


*Chunghwa Telecom Co., Ltd., together with its subsidiaries, provides telecommunication services in Taiwan and internationally. It operates through Domestic Fixed Communications Business, Mobile Communications Business, Internet Business, International Fixed Communications Business, and Others segments. The company offers local and domestic long-distance telephone, broadband access, and related services; information and communication technology and VAS services; and interconnection with its fixed-line network to other mobile and fixed-line operators. It also provides mobile; HiNet Internet, data communication, and cloud; Internet data center; and international long-distance telephone and data services. In addition, the company distributes and sells mobile handsets, data cards, electronic materials, and computing and business machinery equipment and software; designs, develops, manufactures, sells, and services semiconductor testing components, printed circuit boards, and electronic components and finished products, and automatic license plate recognition software and hardware products. Further, it offers real estate development and*

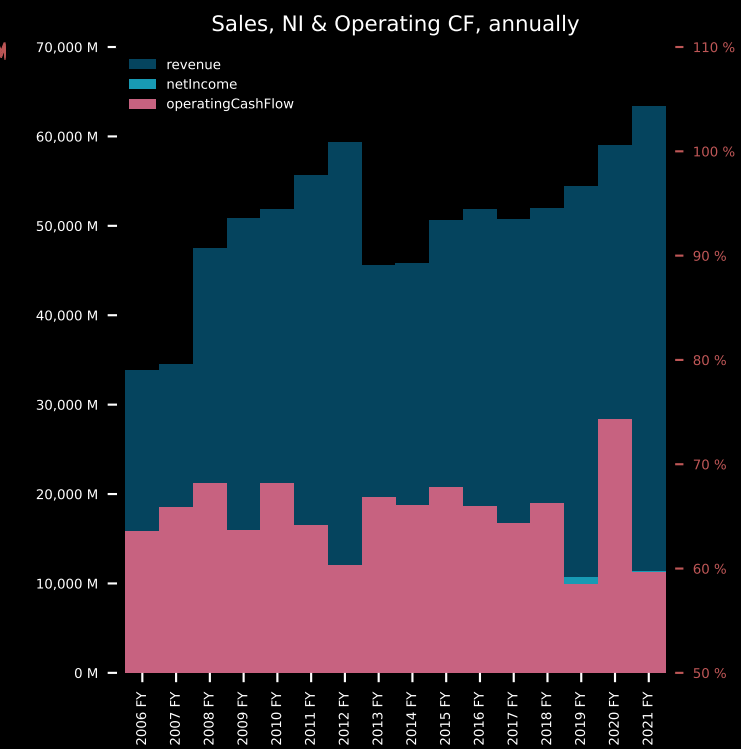
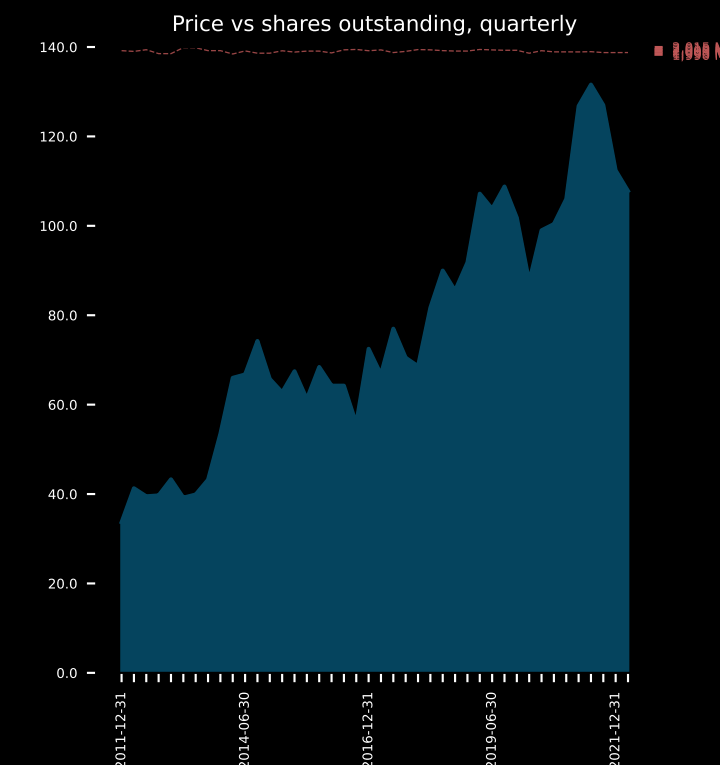
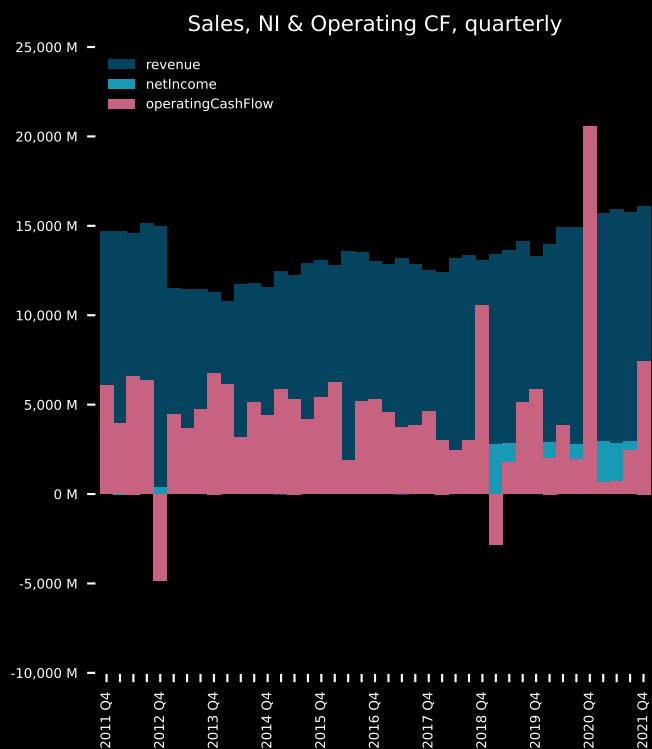




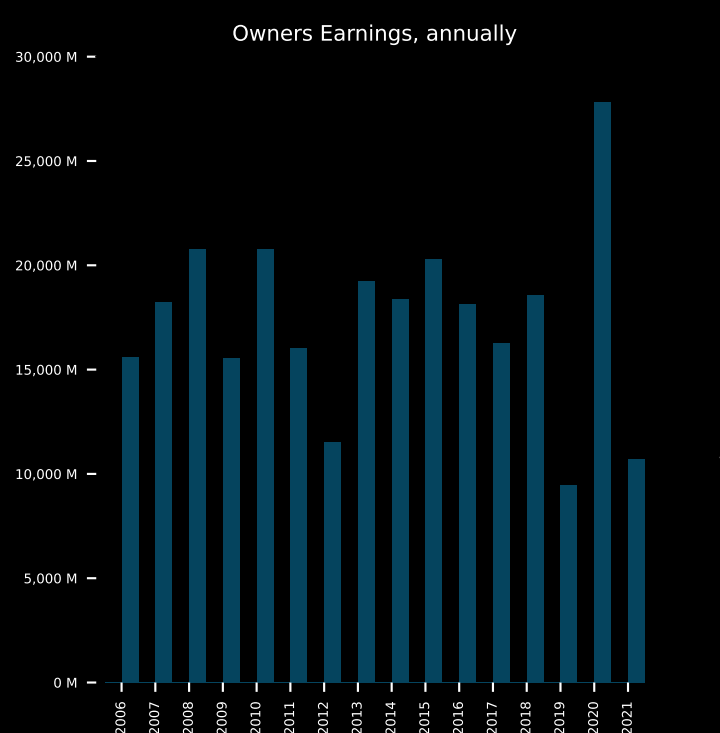
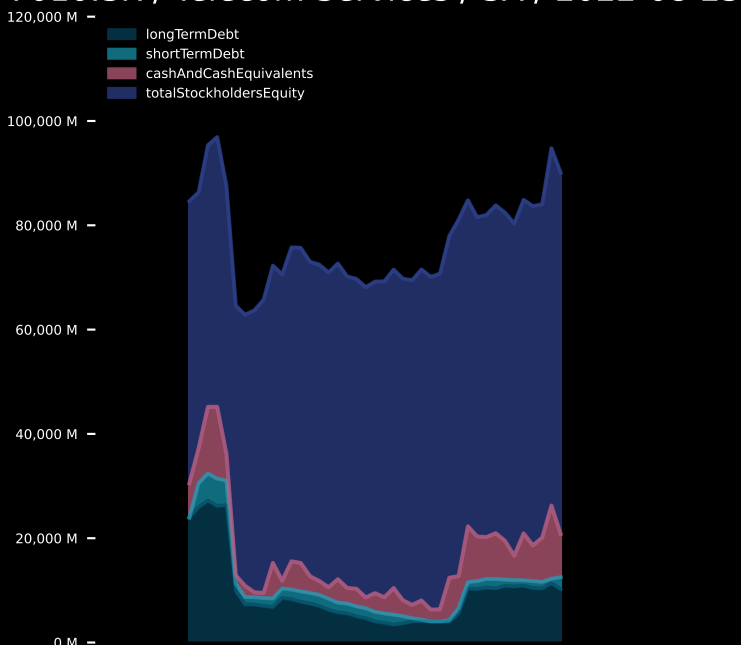
## TWER / Telecom Services / US / 2022-08-23



*Towerstream Corporation, together with its subsidiaries, provides fixed wireless broadband services over a wireless network transmitting over regulated and unregulated radio spectrum to commercial customers in the United States. Its wireless broadband service supports bandwidth on demand, wireless redundancy, virtual private networks, disaster recovery, bundled data, and video services. The company also offers business class Internet services, such as single tenant service that delivers fixed wireless broadband to a single client through a radio receiver/transmitter on the client's building dedicated solely to that client; and on-net services to connect building at once and at a cost similar for one high bandwidth customer requiring point-to-point equipment. In addition, it provides temporary Internet solutions to provide solutions for a client's short-term connection requirements in locations where fiber, copper, and cable infrastructure does not exist or is cost prohibitive. Further, the company offers wholesale Internet services to deliver dedicated Internet access and point-to-point transport solutions with bandwidth options from 5Mbps to 10Gbps, with service levels ranging from best effort to 99.999% uptime.*

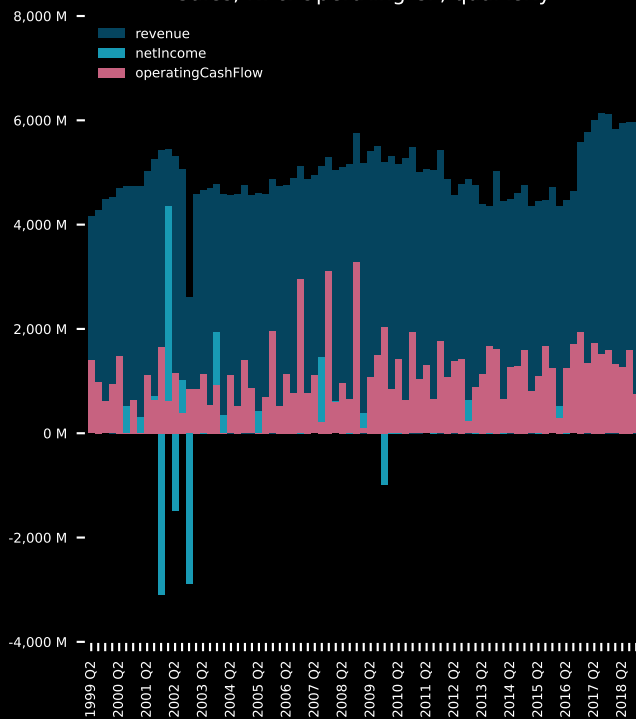


## 7010.SR / Telecom Services / SA / 2022-08-23

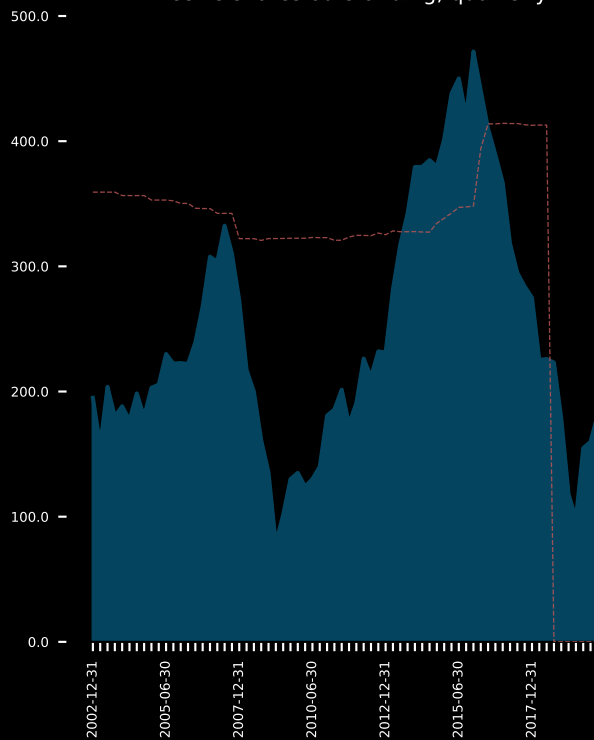


*Saudi Telecom Company, together with its subsidiaries, provides telecommunications, information, media, and digital payment services in the Kingdom of Saudi Arabia and internationally. The company offers mobile, landline, internet, and TV on demand services, as well as international telecommunication, broadband, and other related services; and operates communications projects. It is also involved in the electrical business and telecommunication networks; retail and wholesale trade of computer systems and devices, fixed and mobile telecommunication, internet equipment, advertising and publicity material, spare parts, electrical equipment, payment devices, point-of-sale devices, telecom operator services, telecom sales, and service centers; and wholesale and retail of telecommunications equipment and electrical appliances, and recharge card services. In addition, the company engages in importing, marketing, installing, and maintaining licensed telecommunications and information technology; owning, constructing, operating, leasing, and commercializing telecom towers; the content services and digital media activities; the provision of information and communication services; and the provision of information and communication services.*

Sales, NI &amp; Operating CF, quarterly



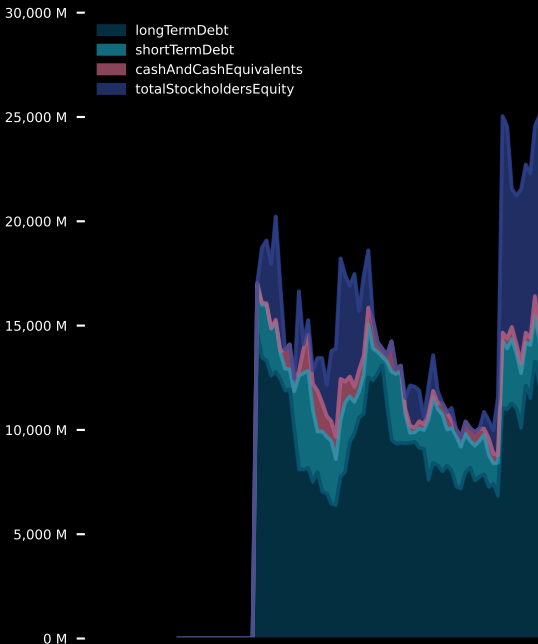
Price vs shares outstanding, quarterly



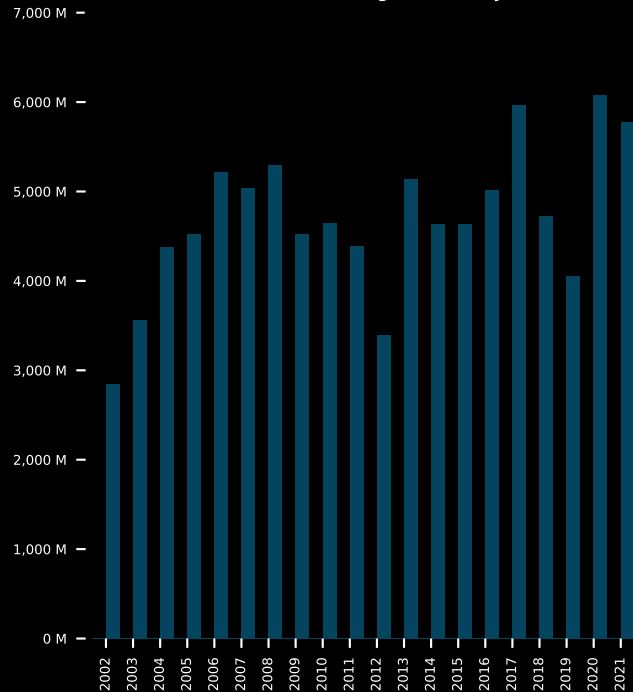
Sales, NI &amp; Operating CF, annually



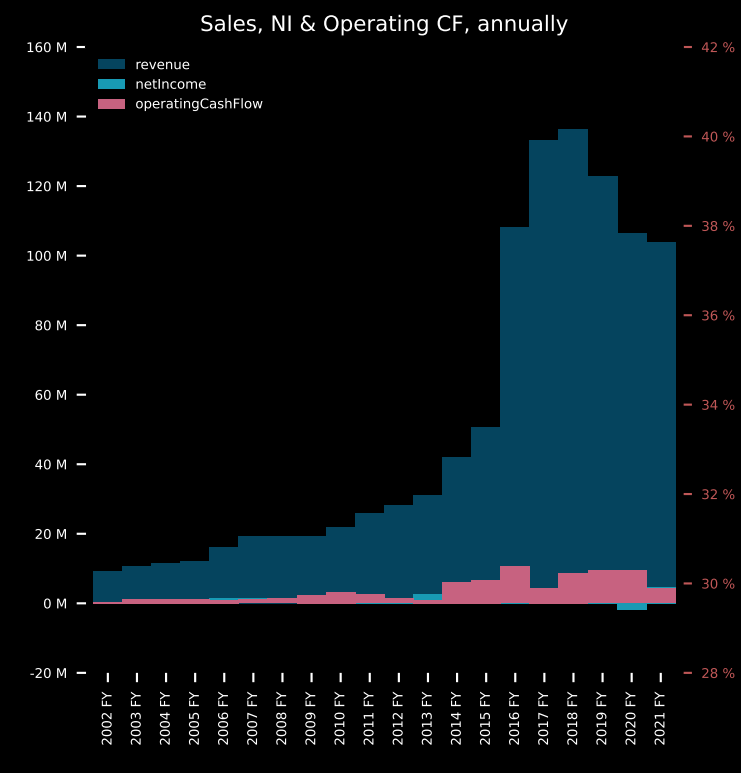
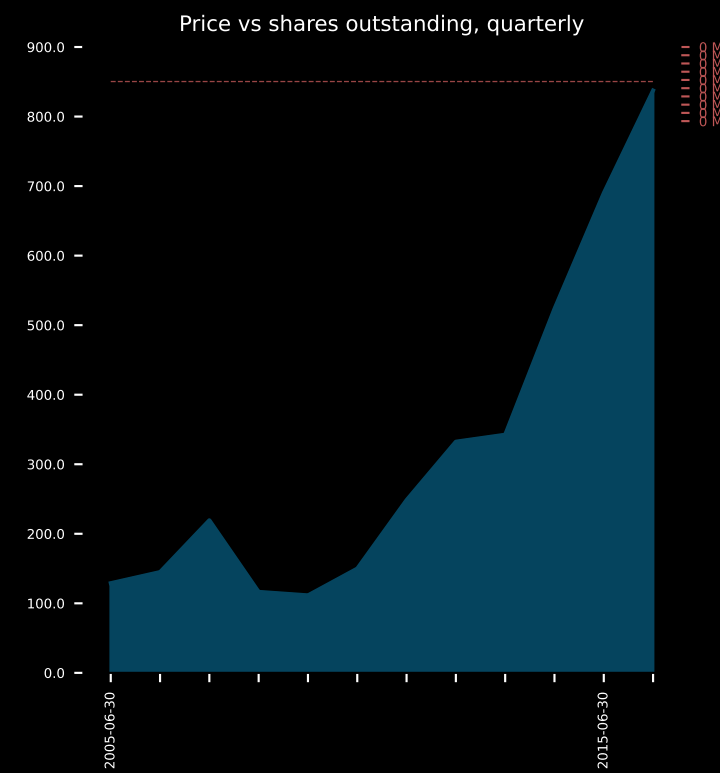
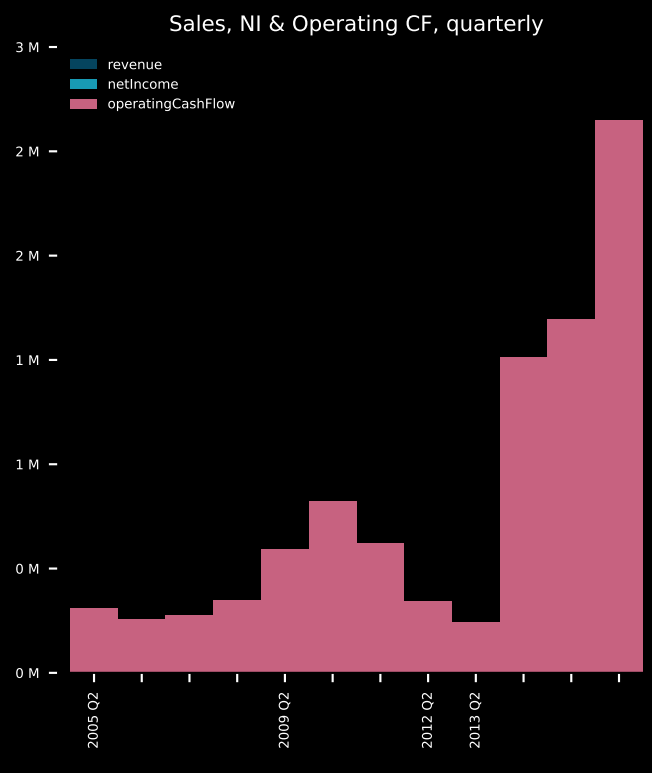
BT-A.L / Telecom Services / GB / 2022-08-23



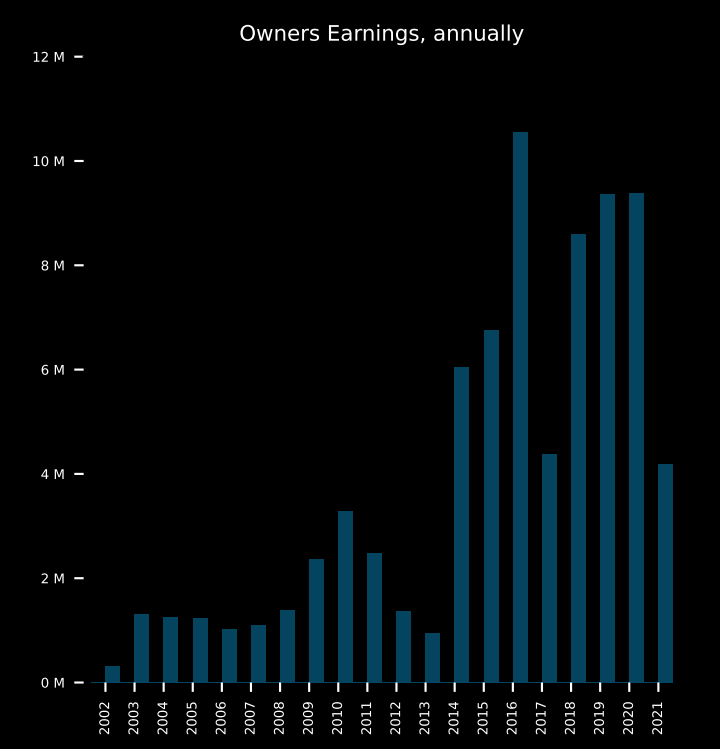
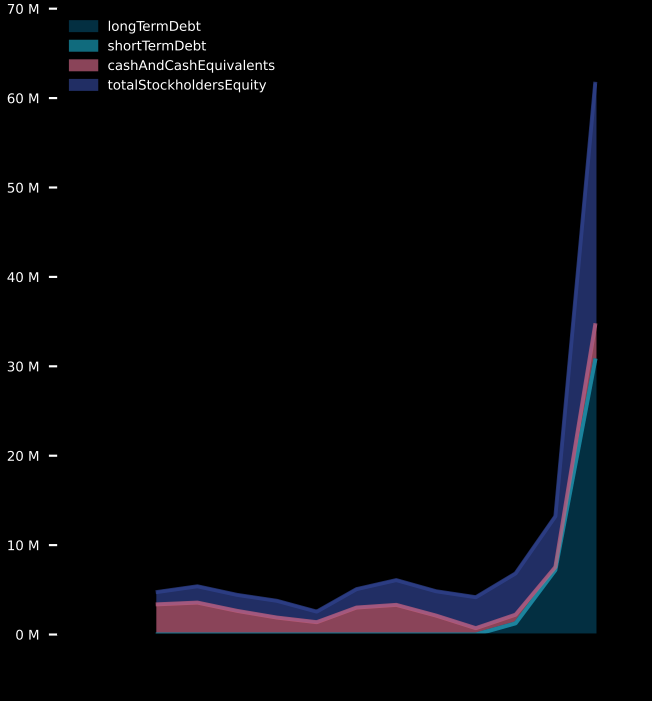
Owners Earnings, annually



*BT Group plc provides communications products and services in the United Kingdom, Europe, the Middle East, Africa, the Americas, and the Asia Pacific. It operates through Consumer, Enterprise, Global, and Openreach segments. The Consumer segment offers landline, mobile, broadband, and TV services under the BT, EE, and Plusnet brands. The Enterprise segment provides network solutions to communications providers; and sells communications and IT services to businesses and public sector organizations. Its services include fixed voice, mobile, fixed connectivity, and IT services. The Global segment secures and manages network and cloud infrastructure and services for multinational corporations. It also offers voice and data network services, such as managed, security and network, and IT infrastructure services. The Openreach segment provides fixed connectivity access network that connects homes, mobile phone masts, schools, shops, banks, hospitals, libraries, broadcasters, governments, and big and small businesses. This segment also offers last mile, a services over the local access network; and installs and maintains*

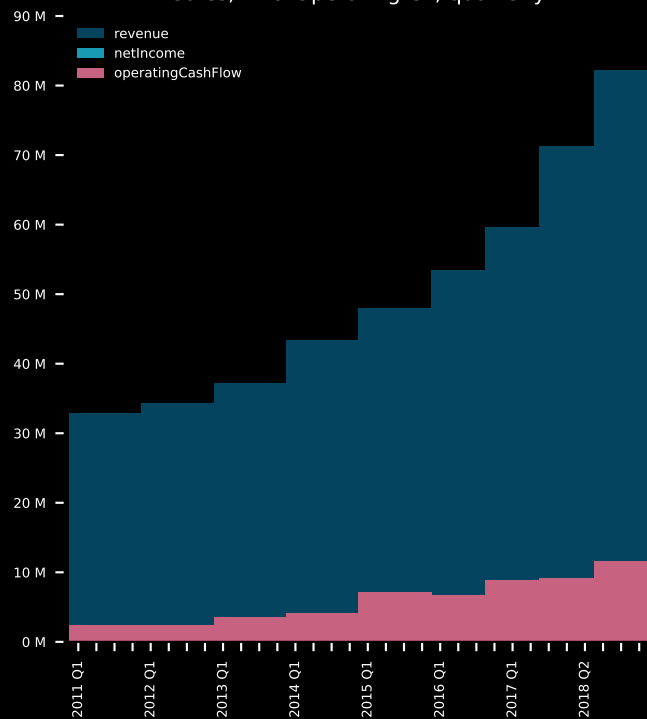


## MAI.L / Telecom Services / GB / 2022-08-23

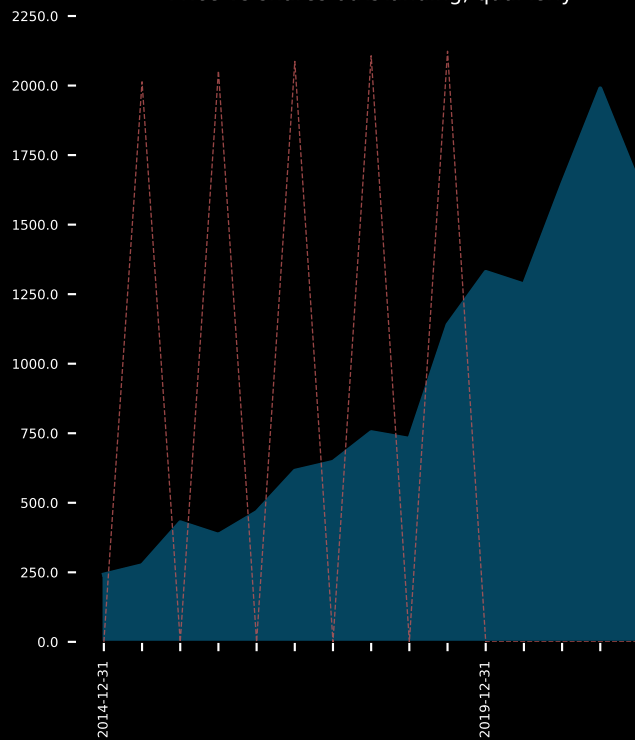


Maintel Holdings Plc, together with its subsidiaries, provides managed communications services for the public and private sectors in the United Kingdom and Ireland. It operates through three segments: Telecommunications Managed Service and Technology Sales, Telecommunications Network Services, and Mobile Services. The company provides the management, maintenance, service, and support of unified communications, contact centers, and local area networking technology on a contracted basis on customer premises and in the cloud; supplies and installs project-based technology, professional, and consultancy services to clients. It also offers a portfolio of connectivity and communications services, including managed MPLS networks, security as a service, internet access services, SIP telephony services, inbound and outbound telephone calls and hosted IP telephony solutions. In addition, the company provides value added services, such as mobile fleet management and mobile device management. It serves front line hospital trusts, police control rooms, fire services, care home operators, local authorities, government agencies, and social housing providers.

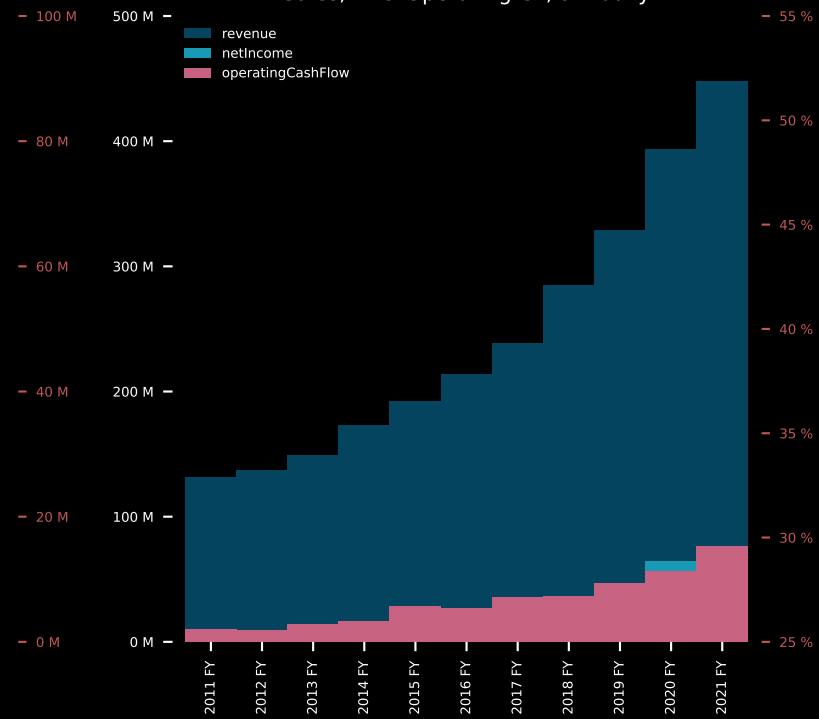
Sales, NI &amp; Operating CF, quarterly



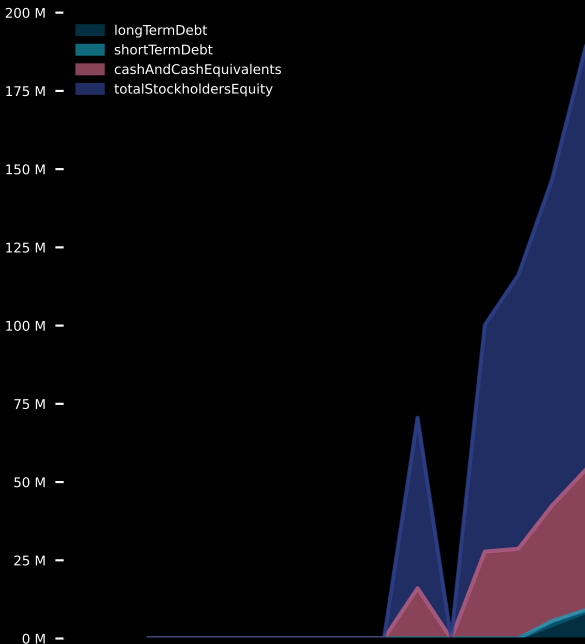
Price vs shares outstanding, quarterly



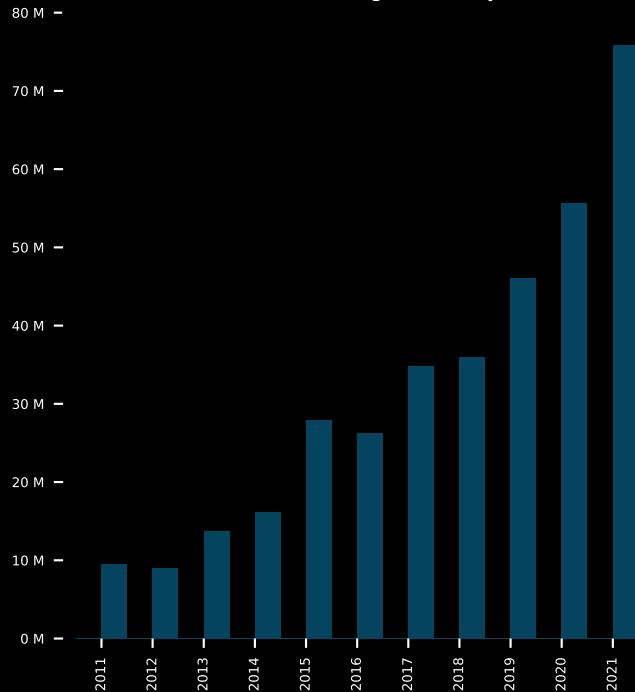
Sales, NI &amp; Operating CF, annually



GAMA.L / Telecom Services / GB / 2022-08-23



Owners Earnings, annually



*Gamma Communications plc provides communications and software services for small, medium, and large sized business. It offers strategic services, such as collaboration, cloud PBX, SIP trunking, and inbound call control services; enabling services, including ethernet, broadband, network, and mobile; and traditional call and line services. The company offers its services through a network of channel partners, as well as directly to end users. Gamma Communications plc was founded in 2001 and is headquartered in Newbury, the United Kingdom.*