

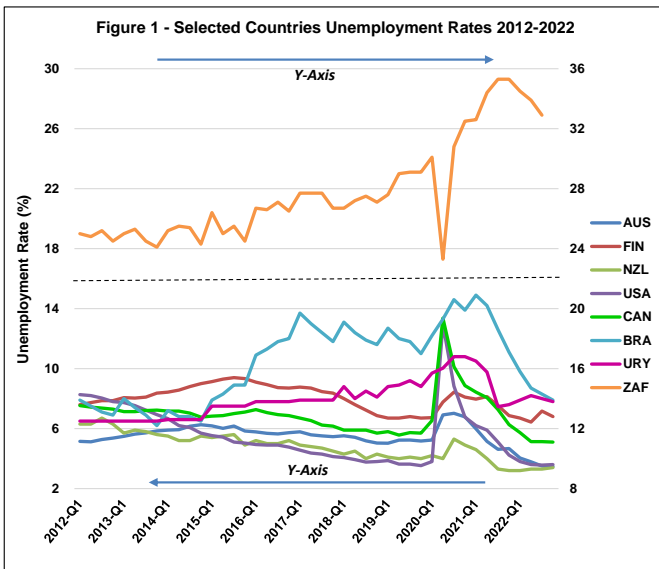
Forest Sector Outlook

Global Consulting Alliance

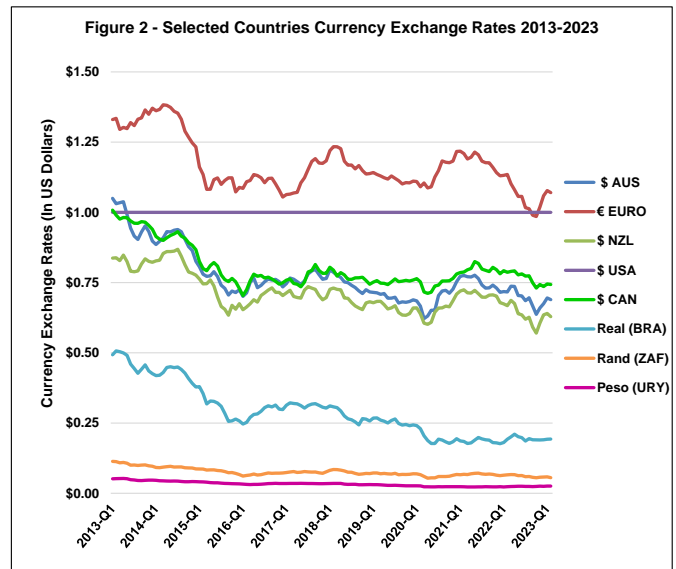
Quarterly Edition 2023-Q1

ECONOMIC DASHBOARD

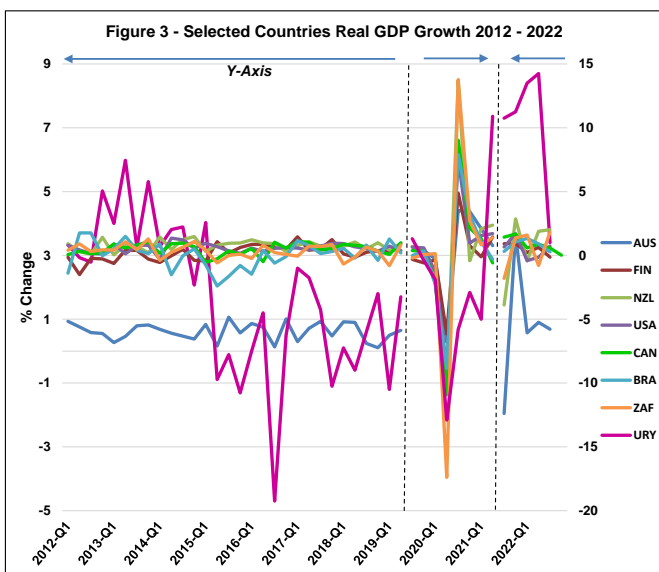
Figures 1 to 4 illustrate four key macroeconomic indicators as observed over the past decade, on a quarterly basis. These can be useful particularly to monitor the aftermath of the COVID-19 pandemic and the market implications of the ongoing Russia-Ukraine war. Figure 4 rates are nominal.



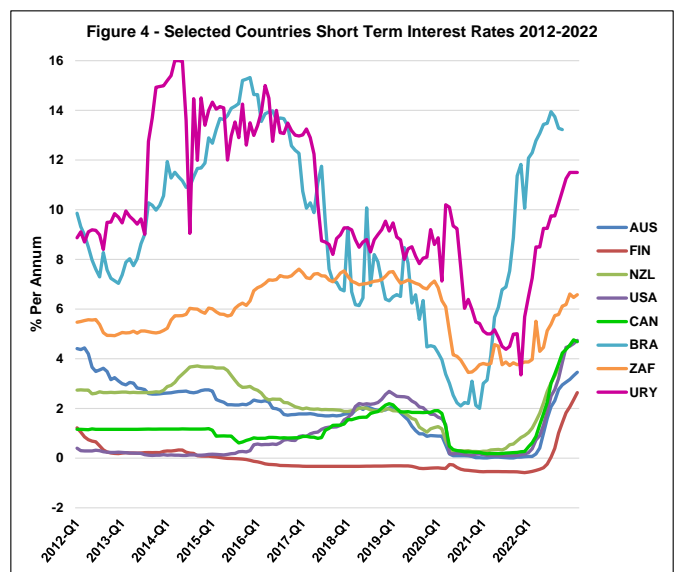
Sources: OEDC, Brazilian Institute of Geography and Statistics, macrorends.net (World Bank), Statistics South Africa



Source: Federal Reserve, Uruguay Statistics National Institute



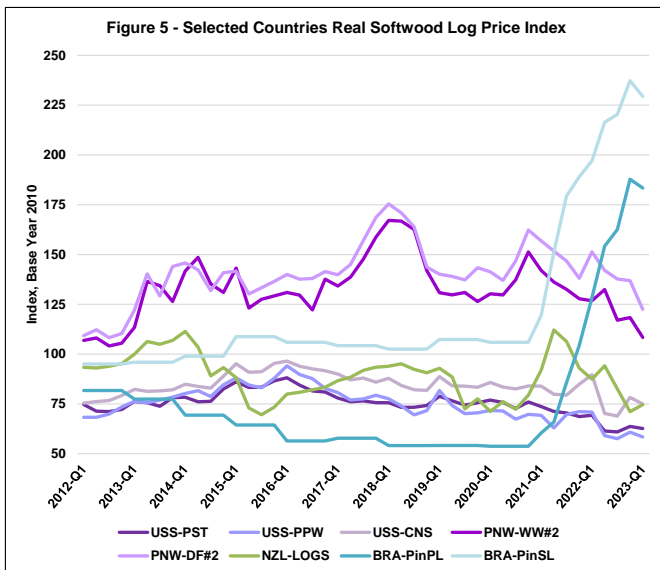
Source: OEDC, Chamber of Commerce and Services of Uruguay



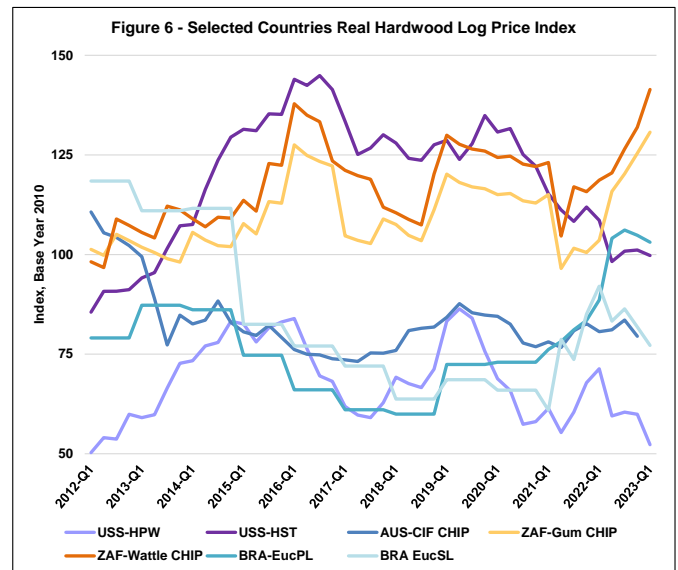
Source: OEDC, FRED - St. Louis Fed, Banco Central Del Uruguay, CEIC Data

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Figures 5 and 6 show indexed real pricing for select softwoods and hardwoods – with Q1 2010 the base quarter-year.



Source: Timber-Mart South, RISI Log Lines, AgriHQ; USS = US South, PNW = US Pacific Northwest



Source: Timber-Mart South, RISI Log Lines, NCT; USS = US South

Legend:

USS-PST = US South Pine Sawtimber, USS PPW = US South Pine Pulpwood, USS-CNS = US South Chip n’ Saw, PNW-WW#2 = US Pacific Northwest Whitewood #2 Saw Avg. Columbia River, PNW-DF#2 = US Pacific Northwest #2 Saw Avg. Columbia River, NZL-LOGS = New Zealand Softwood Logs Composite, BRA-PinPL = Brazil Pine Pulplogs, BRA-PinSL = Brazil Pine Sawlogs.

USS-HPW = US South Hardwood Pulpwood, USS-HST = US South Hardwood Sawtimber, AUS-CIF CHIP = Australia Hardwood CIF Chip, ZAF Gum CHIP = South Africa Gum CHIP, ZAF Wattle CHIP = South Africa Wattle Chip, BRA-EucPL = Brazil Eucalyptus Pulplogs, BRA-EucSL = Brazil Eucalyptus Sawlogs.

ECONOMIC HIGHLIGHTS

Global

- The International Monetary Fund in its April 2023 World Economic Outlook report (WEO) projects global economic growth to slow to 2.8% in CY 2023, down 0.6% from its 2022 forecast. It forecasts US growth to slow to 1.6%, down from its 2022 projection of 2.1%. China is forecast to grow at 5.2% (3.0% in 2022), Japan 1.3% (1.1%), Europe 0.8% (3.5%) and emerging and developing Asia 5.3% (4.4%). This outlook marks the third weakest pace of growth in nearly three decades, overshadowed only by the global recessions caused by the COVID pandemic and the 2008/9 global financial crisis. The World Bank Group warns that risks to the outlook are to the downside, particularly post the recent financial sector instability; any additional adverse shocks could push the global economy into recession with third world and small states being especially vulnerable.
- US GDP – The Bureau of Economic Analysis revised Q4 2022 GDP growth down from 2.9% to 2.7% in their estimate in February 2023. However, forecasters have been revising projections for Q1 and Q2 2023 upward based on slightly improved economic prospects. The Federal Reserve Bank of Philadelphia released the First Quarter 2023 Survey of Professional Forecasters on February 10. The panel of 37 forecasters increased the 2023 prediction from 0.7% in the Q4 survey to 1.2% in the Q1 survey. However, GDP growth for Q3 2023 was reduced from 0.9% to -0.1% and for Q4 2023 from 2.1% to 1.2% as a shallow recession projection was pushed

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to the second half of 2023. This is primarily due to monetary policy designed to halt high inflation slowing the economy.

- US Unemployment – In March 2023, the Bureau of Labor Statistics reported that nonfarm payroll increased by 311 000, unemployment increased slightly to 3.6%, and the number of unemployed persons increased to 5.9 million. The workforce participation rate remained around the same at 62.5%, which is below the pre-pandemic rate of 63.3%. The Philadelphia Federal Reserve Bank First Quarter 2023 Survey of Professional Forecasters projected that unemployment will average 3.8% in 2023. For 2024-2026, the projection is 4.1% to 4.2%, a slight downward revision.
- Brazil – Market expectations for the Brazilian economy remain pessimistic. According to the Central Bank's Focus bulletin (March 31), the market points to 2023 ending with an inflation of 5.96%, GDP growth of 0.9%, a base interest rate of 12.75% (6.4% actual), and an exchange rate of 5.25 USD/BRL.

REGIONAL MARKET UPDATES

Asia Pacific

Australia

- Consensus Economics' April 2023 edition estimates growth expectations for the Australian economy to slow from 3.9% in CY 2022 to 1.6% in CY 2023. It also forecasts growth to only marginally increase to 1.7% in CY 2024.
- Australia's unemployment rate is expected to remain low, estimated at 3.9% for CY 2023 (currently 3.5%), up 0.2% compared to CY 2022 (3.7%).
- Australia's inflation rate is forecasted to slightly decline from 6.6% in CY 2022 to 5.5% in CY 2023, still well above the Reserve Bank of Australia's (RBA) average target rate of 2-3%.
- Housing approvals are expected to remain around current levels, 184 000 units in CY 2022 versus a forecast of 187 000 units in CY 2023. The housing market softened from its peak of 229 000 units in CY 2021 on the back of the Federal Government's pandemic induced market stimulus. It remains to be seen if higher interest rates and a recent wave of construction company collapses will further impact new construction starts.
- The RBA implemented a series of eight interest rate hikes in CY 2022, lifting the target cash rate from 0.1% at the start of the year to 3.1% by December 2022. CY 2023 has seen a further 0.5 bps increase bringing the current cash target rate to 3.6%. The bank paused further rate hikes in April to observe how the economy develops.
- The spot price for Australian Carbon Credit Units (ACCUs) is presently about AUD 38 and continues its increasing trend from Q1 2022 when the price dropped as a result of the Federal Government's announcement to allow project owners to exit their "fixed delivery" carbon abatement contracts under the Emissions Reduction Fund (ERF).
- Trade Tree Online (TTO) and Brian McClay & Associates (BMA) (TTOBMA) reported in March 2023 a pessimistic mood at the Shanghai Pulp Week conference as downstream demand does not appear to have rebounded as quickly as expected and end-use prices remain depressed. TTOBMA further reports that global pulp inventories are at their highest level since 2018. The Shanghai future prices continue to fall and have been well below most import prices for weeks.
- TTOBMA indicates that pulp buyers globally appear to be delaying purchases, only buying minimum volumes needed, knowing that more supply is expected to enter the market later in CY 2023. In 2018, pulp prices dropped about USD 300 from their peak as inventories increased and TTOBMA expects to see a similar market situation now developing as prices continue to decline from mid CY 2022.
- Softness in market pulp prices is contrasted with fiber supply availability constraints in the Asia Pacific. Vietnam in CY 2022 exported 16.073 million BDMt of hardwood woodchip and Australia 4.863 million BDMt. Hardwood woodchip trading conditions from Australia remained strong during Q1 2023 but it remains to be seen how the market will develop in the second half of CY 2023.

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- There appears to be optimism that Chinese trade restrictions on the export of Australian roundwood may ease or be lifted later this year as the diplomatic relations appear to recover from a four-year deep freeze.

New Zealand

- Cyclone Gabrielle, the most severe storm to hit New Zealand this century, struck many areas of the North Island in mid-February. This came on the heels of an earlier damaging storm in January. Northland, Auckland, Waikato, Tairāwhiti, and Hawke's Bay were severely impacted causing eleven deaths and dozens of homes either destroyed or uninhabitable.
- Damage to the forest industry from the cyclone has been severe in Tairāwhiti and Hawke's Bay with massive land slips in many planted forests and forest debris and silt strewn over the coastal farmlands and beaches. The cyclone destroyed many orchards and vineyards. Forests in the southern portion of the Central North Island also suffered from major wind damage. The full extent of the damage is yet to be fully assessed but infrastructure damage in Tairāwhiti and Hawke's Bay will limit forest production from these important supply regions.
- Pan Pac's Whirinaki processing site in Hawke's Bay was flooded by Cyclone Gabrielle, closing New Zealand's second largest sawmill and the BCTMP pulpmill. These remain closed at this time, but Pan Pac has announced their intention to rebuild on the same site.
- Consensus Economics (April 2023) are forecasting a December 2023 consumer price index (CPI) of 5.7% indicating a slow decline from the peak of 7.3% in June 2022 with 2.9% expected for 2024. The latter is just within the Reserve Bank of New Zealand's (RBNZ) 1-3% target range. The March quarter 2023 CPI has just been released and indicated a somewhat encouraging slight fall in inflation from the June 2022 peak to an annual rate of 6.7%.
- Despite the destruction and economic impacts of the recent storm and cyclone, the RBNZ increased the Official Cash Rate (OCR) in two 50 bps steps on 22 February and 5 April, raising it to 5.25%. This represents the eleventh increase in this strengthening cycle and a 14-year high. Infometrics, a respected forecasting agency, is expecting the OCR to reach 5.75% by June 2023 which would likely see fixed home mortgage rates topping 7% with floating rates approaching or exceeding 8%.
- The high interest rates are leading to the largest decreases in house prices seen in New Zealand since before the Global Financial Crisis. The Real Estate Institute reported in mid-February that house prices had dropped by 16.2% from their peak in November 2021. A Reuters poll of property analysts suggests an 8.9% drop in CY 2023 which would bring the total drop to ~20%. This would represent half of the COVID-19 pandemic driven increase of 41% from June 2020 to November 2021. Despite the headwind of high interest rates and high material costs, Stats NZ figures indicate that building consents up to February 2023 are following a similar pattern to 2022 in value terms. The usual January dip and February start towards recovery is evident but it remains to be seen whether the March housing-starts numbers continue the trend given the disruption caused by the cyclone recovery.
- The RBNZ, through their interest rate policy, is seeking to engineer recessionary conditions to reduce the pressure on wages and costs. This along with resource constraints and high inflation are restricting economic growth. Although it is possible that a technical recession may occur in the first half of 2023, Consensus Economics forecasts that New Zealand's 2023 GDP will reach 0.4%. The 2024 GDP is expected to be slightly higher at 1.2%.
- Skilled labor shortages affecting healthcare, education, agriculture, transport and industry remain key limitations for the economy. In early April, the Government finally relented and removed all restrictions on entry for healthcare workers and provided them with an automatic path to residency. The number of workers allowed in to plug the critical industry and farming labor shortages has unfortunately not changed. It is doubtful whether the substantial number of healthcare workers required by the sector will be achieved due to the strong international demand for their skills.

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- Domestic sawmills are reducing production to avoid a build up in sawn timber stocks. Although housing starts are not yet exhibiting a significant decline, pandemic driven over ordering by construction companies impacted by logistics constraints had been responsible for the strong demands seen by the industry in 2022. This has now dissipated. There are signs of price discounting of sawn timber, particularly structural grades, some of which are being sold on the export market at a loss. Domestic log prices are yet to respond to these trends and remain unchanged as yet.
- As a consequence of Chinese Government liquidity support since November 2022, there are early signs of some improvement in the China construction sector. Despite this, property development and the China market remain fragile with some buyer hesitancy despite recent price increases. The March New Zealand A grade price increased to USD 141/JAS m³ CFR compared to USD 123/JAS m³ in December 2022. Market concerns that buyers would reduce demand to reduce supply chain stocks have been realized with a sharp price drop for April sales (at wharf receipts dropped to NZD 125/JAS m³ from NZD 147/JAS m³ in March). AgriHQ report that wharf stocks remained under 5 million m³ in March with offtakes around 75-80 thousand m³/day from China ports. Export volumes in February (the latest available) were 8% above February 2022 but 14% below the same month in 2021.
- On 22 March the Government commenced a review of the emission trading scheme (ETS). The primary aim of this review was to assess if stronger incentives or penalties were needed to transition industry to lower carbon emissions at source. That is in contrast to removal of carbon from the atmosphere by sequestration or carbon capture. Further, the Government has moved to bar international investors from purchasing land for permanent carbon forests. This move, along with the review of Tairāwhiti land use driven by the adverse publicity around cyclone generated forestry slash damage, has caused a sharp retreat in New Zealand carbon credit (NZU) prices. This has seen prices fall to NZD 59/NZU (CommTrade 13 April 2023), a more than 25% fall from the highs of mid-2022. The future path of NZU prices remains uncertain pending the outcome of the Climate Change Commission's recommendations on changes to the ETS.

Asia

- China's log imports were lower in 2022 by 37.5% at 31.1 million m³ compared to 2021. For the first two months of 2023, log imports were lower by 3.8% as compared to the same period one year ago.
- Lumber imports into China were also lower by 10.0% in 2022 compared to 2021 and were slightly lower by 2.9% for the first two months of 2023 as compared to the same period in 2022.
- The low-grade lumber market from British Columbia to China is almost finished (there is little mountain beetle-killed timber left), with Canada's export volumes to China having eroded from 5.6 million m³ in 2013 to well under 900 000 m³ in 2022 and -55% for the first two months of 2023.
- The China market is flooded with high lumber inventories, as the February 2023 levels were 33% higher than during any month in 2022. With the slow take-aways at ocean ports, this situation will likely cause Chinese prices to ease further. This is unwelcome news for some European countries, as lumber exports from Sweden and Germany to China had already increased 114% and 40%, respectively, over the first two months of 2023 (as reported by Timber-Online).

Europe

- The much-awaited EU decision on the Renewable Energy Directive III (RED III) classification of woody biomass was announced in March. Negotiations concluded with an agreement that woody biomass will continue to be recognized as a renewable energy source in the EU. The final text of the directive is still to be released but is expected not to place further restrictions on in-forest biomass.
- The EU Parliament passed a draft resolution in March to improve energy efficiency in residential and non-residential buildings. The resolution sets renovation targets for existing buildings to achieve a minimum

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energy efficiency score. The issue of energy-efficient buildings came into sharp focus with the recent energy crisis in Europe and the reduced reliance on Russian gas.

- The recently released UK Forest Market Review 2022 by John Clegg & Co shows that the UK market for forest investment properties remains strong with record sales in 2022. The average listed price exceeded GBP 18 500 per planted hectare for the first time while the selling price exceeded the listed price on average by 118%. Most sales (95%) occurred in Scotland.
- There are signs of a turnaround in the wood product market after autumn's sharp price drop. However, the price increases are small and are partly driven by reduced supply and partly by buyers' stocks which have started running very low. Globally, we can see an increasingly weak construction activity with lower demand, which normally does not lead to sustained price increases. We expect that the current weak demand for softwood lumber in Europe remains depressed in many markets with some products, especially pine, still oversupplied and with much uncertainty remaining for 2023. Higher lumber prices can still be achieved in the USA compared with Europe.
- The export volumes from the Nordics to China and Egypt has increased as normally occurs during low-price periods, partially to save volumes. But what really stands out in the recent period is the US market. EUWID reported a strong increase in lumber exports from Europe to the USA in January 2023. Countries with the largest increase in volume exports were Germany and Sweden. The average export price of lumber has however decreased much, from USD 411/m³ in early 2022 to USD 280/m³ at the beginning of 2023.
- In a global perspective, the most significant reason for the decrease in the supply of wood products is Russia's war in Ukraine. In 2021, Russia was the world's second largest exporter of wood products, just after Canada, with an export of about 30 million m³, of which approximately half went to China. Before the war, Europe also imported about 8-10 million m³ of wood products from Russia, Belarus, and Ukraine. Today, these volumes are completely absent from the European market. Russian exports to the North African market have also decreased and the Russian sawmills' capability to supply the Chinese market is insufficient, partly due to problems with both inbound and outbound logistics.
- Imports of birch plywood from Russia have been banned since 10 July 2022. This applies to both direct as well as indirect imports via third-party countries. According to several industry reports, statistics on trade obtained appears to show illegal Russian birch plywood continues to be imported into Europe from third-party countries including China, Turkey, and Kazakhstan.
- The increasing exports of sawn goods from the Nordics to the US is partially driven by the reduced supply of bark-beetle-damaged trees from Canada and Central Europe and high wood prices. In the Baltics, sawmills are under pressure from high wood prices driven by the increasing demand from the energy sector and large exports of pulpwood. This also applies to the Nordics where the fight for forest raw materials has intensified as the demand for energy wood has increased. The harvesting volumes have not increased sufficiently to compensate for the end of wood imports from Russia despite large forest industry investments both in Finland and Sweden. In some areas of Finland, even the availability of small-diameter sawlogs is tight because pulp mills are competing for the same volumes due to the lack of pulpwood and woodchip demand by energy producers. Low product prices combined with expensive wood raw material have resulted in most sawmills in the Nordics having operating margins in the red since the last quarter of 2022.

Russia

- Russian log exports reflected mainly birch logs to China in 2022 and totaled 3.5 million m³, down from 15.9 million m³ in 2021. A planned log export ban went into effect on January 1, 2022.
- With sanctions in place against Russia selling into Western markets and with a complete ban going into effect on July 10, 2022, Russian lumber mills and exporters were unable to redirect their production from European markets to Asian ones. As a result, Russian lumber exports dropped by 25% in 2022 to 22 million m³ as compared to 29.5 million m³ in 2021. This volume does not include exports to Kazakhstan, Kyrgyzstan, Belarus, and Armenia, which accounted for about 1 million m³ of lumber exports from Russia in 2021.



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- In 2022, more than 20 million m³ of lumber were exported from Russia to the following countries – all of which represented reduced volumes relative to 2021: China (-10%), Uzbekistan (-5%), Egypt, Japan (-30%), Azerbaijan (-36%), Estonia (-51%), Tajikistan (-2%), South Korea (-27%), Finland (-51%), and Germany (-64%). Russia was able to increase lumber exports to Turkey by 45% to 120 000 m³.
- In the first two months of 2023, the volume of Russia's production of lumber amounted to 4 million m³, or 14.6% less than a year earlier (Rosstat). Russia's plywood production totaled 448 000 m³ in January to February 2023, or 36.5% less than last year. Fiberboard production decreased by 21.2% to 93.2 million m³ and particleboard production fell by 13.3 % to 1.62 million m³.

North America

- At the start of the second quarter of 2023, the US as well as many global lumber markets were in disarray and seem to be sliding backwards as demand eases and prices disappoint.
- US housing starts eased in March 2023 to 1.420 million units (Seasonally Adjusted Annual Rate, SAAR), a decline of 0.8% from 1.432 million units in February, and down 17% from 1.716 million units year-over-year. Building permits for privately-owned housing units declined to 1.413 million units (SAAR) in March, down 8.8% from 1.55 million units in February and down 24.8% year-over-year. Housing completions decreased slightly by 0.6% to 1.542 million units (SAAR) in March from 1.552 million units in February and increased 12.9% above last year. The National Association of Home Builders Housing Market Index increased for the third consecutive month in March, up to 44. Builders reported offering fewer price discounts and improved prospective buyer traffic due to low existing home inventory and strong pent-up demand.
- According to one forecast by Fannie Mae, housing starts totaled 1.553 million units for 2022, but will drop sharply to 1.155 million units in 2023 and improve modestly to 1.191 million units in 2024. Other forecasts are not so pessimistic, where an average of four other major economic groups is 1.293 million units for 2023.
- While US housing starts moved steadily higher during the pandemic, mortgage rates rose to nearly 7%, making housing less affordable to many buyers. While it appears that rates are easing at this time, high mortgage rates continue to put pressure on home prices and sales. Median home prices had been on the rise and finally began to decline at 0.2% year-over-year in February 2023, according to data from the National Association of Realtors. Market evidence points toward continued slow home sales, with transaction volume down 22.5% and days-on-market up from 18 to 34 in February 2023 year-over-year. These trends would adversely impact lumber and panel markets in 2023, perhaps into 2024.
- Pulpwood prices vary by region and season. In the Lake States region, Q1 hardwood roundwood prices decreased but remained elevated by 18% year-over-year. Softwood roundwood prices also decreased in the Lake States but remained up 4% year-over-year. Fuel costs decreased and inventory was plentiful. In the South-Central region, average prices remained flat from last quarter, but decreased by USD 1 per green ton in the higher cost Eastside area, and hardwood roundwood prices were down 5% year-over-year. Mills were taking maintenance downtime, inventories were full and delivery quotas were tightening. South Atlantic region prices remained flat for hardwood and softwood roundwood from last quarter but were down 15% and 9% year-over-year respectively. Northeast region prices remained flat from last quarter but were up 15% for hardwood roundwood and 10% for softwood roundwood year-over-year. Lastly, Pacific Northwest softwood roundwood prices remained flat over last quarter but elevated 50% year-over-year at USD 60 per green ton.
- Pacific Northwest Douglas-fir log prices have declined since the middle of the fourth quarter of 2022 and in the first quarter of 2023 while whitewood prices have remained stable. With housing starts showing weakness, some further declines in log prices are expected. However, Douglas-fir supply continues to be somewhat tight.
- US Q1 2023 timberland transactions have been limited, with high demand and little available for sale resulting in serious competition for properties. Sonoco sold 55 000 acres in South Carolina to Manulife for USD 72 million, or USD 1 309 per acre, which was due to 80% natural hardwood inventory. Green Crow sold 48 164 acres of western Washington tree farm to Nuveen for USD 229.4 million, or USD 4 762 per acre. Rayonier sold 11 000 acres of much less operable property in western Washington, known as the Olive

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package, to Ecotrust for USD 30.6 million or USD 2 787 per acre. In Mississippi and Alabama, Weyerhaeuser's 12 600 acre Marion softwood property sold to Schulenburg for USD 25.4 million or USD 2 015 per acre.

- US lumber production revised 2022 figures – Revised data showed Western lumber production ended the year down 5.4% from 2021 levels. The Coast region declined by 5.3% while the smaller Inland market declined only 0.9% and the low-volume California Redwoods region declined by 11.2%. Southern yellow pine production was up 5.7% in 2022 from 2021 figures. US West softwood log exports in 2022 were down 20% over 2021 totals and US offshore softwood lumber exports were down 8.8% as compared to 2021 totals.
- North American lumber output in 2022 was not as brisk as in 2021, as overall North American production totaled 58.98 billion board feet (BBF), a decline of 3.3% or 1.98 BBF. Production rose by only 0.17% in the US and in Canada declined by 8.6% or 2.05 BBF, 1.12 BBF of the decrease in production was from British Columbia (BC). Increased production in the US South was not enough to offset declines in all other major producing regions. In January 2023, BC output was down by another 30% (-223 million bf) – a poor start to the year as BC mills were curtailing due to excessive costs and low lumber prices.
- With weak demand drivers, North American lumber prices remain subdued through mid-April, with the benchmark W-SPF 2x4 #2&Better, random lengths (FOB BC mill) price just slightly above its exceptionally low levels achieved in early January – now at USD 345/thousand board feet (MBF) (USD 480/MBF delivered US East Coast; EUR 287/m³, net). These price levels are well below the breakeven levels of all BC sawmills, some Eastern Canada and US West mills, and many European mills!
- The only good news is that Southern Yellow Pine (West) #2&Better (FOB mill) lumber prices have been inching higher and were sitting at USD 525/MBF (USD 308/m³, net) in mid-April 2023, or USD 155/MBF higher than their early January low. Normally, there is a USD 50-70/MBF (EUR 35/m³, net) premium for SYP vs W-SPF on an FOB mill basis. Relative to the current SYP FOB mill premium of USD 180/MBF (EUR 107/m³, net) over W-SPF, this means that either W-SPF prices will rise, SYP prices will decline, or a combination of both, to narrow the current spread. It is anticipated that W-SPF prices will rise a lot more than SYP will drop. This is borne out by the current (mid-April) W-SPF Lumber Futures contracts, as they are factoring in a USD 80-90/MBF increase from current levels for the mid-May contract (although this is not normally dependable as a forecast).
- Lumber prices (per the Random Lengths Structural Lumber Composite) at the end of March were at USD 414 per thousand board feet (MBF), off 67% from the year prior of USD 1 260. Prices fell sharply from April to June 2022, sliding further until they bottomed out in early January 2023 then rose a bit from there before falling back to the January lows in early April.
- In March 2023, big box stores were buying in preparation for Spring DIY season while most other purchasers were buying cautiously due to poor weather, mixed economic signals and good availability of framing lumber.
- Following 20 months of elevated prices, US hardwood lumber prices started falling precipitously from their peak during the summer of 2022. Supply abruptly increased as domestic demand fell due to the softening housing market while production remained high. By September, nearly all of the price gains since 2020 had evaporated. US hardwood lumber exports tied 2021's three-year high of 1.41 billion board feet lumber utilization in 2022 with steady demand from Asia, Europe, Canada, and Mexico. While total consumption for 2022 was up 2.5%, the trend has been slower since mid-year 2022. Increasingly, lower-cost substitutes for American hardwoods continue to erode market share in an economy where housing costs are high and inflation outpaces wage growth.
- There are several key factors that have been negatively influencing the US lumber market since the middle of 2022, including high house prices coupled with a low housing inventory, low builder and consumer confidence, rising home builder cancellations, etc. Interest and mortgage rates in the US and Canada have been increased to fight inflation and are a major cause for a slowdown in lumber demand.
- Repair and remodeling (R&R) demand (40% of US lumber demand) grew slightly in 2022, but it is expected to have negative growth in 2023. Forecasters' R&R growth rates for lumber range between -5% and -10% for 2023, but RUSS TAYLOR GLOBAL forecasts that R&R growth could be more favorable with a smaller negative growth, especially with very low building material prices expected to be in effect for the year.

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- Overall, RUSS TAYLOR GLOBAL forecasts that North America lumber demand should be lower by 6-7% in 2023, with the first half of the year being most troublesome.
- The growth in US South lumber capacity has been incredible. From 2018 to 2022, there were about 7 billion bf (11 million m³) of new capacity installations. However, there has only been a 50% increase in output, meaning that with delays in startup, coupled with COVID issues, there is a lot more production that is still going to come from existing projects. Based on data from Forisk, they indicate that 1.3 billion bf of sawmill capacity came on-line in 2022 via greenfield projects and capacity expansion projects. In 2023, Forisk anticipates an additional 1.8 billion bf of Southern sawmilling capacity to come on-line, with another 1.2 billion board feet of capacity to be completed by the end of 2024. Take-away message: there will be lots of incremental southern yellow pine lumber available over the next few years and this will put pressure on higher cost operating regions in North America like BC.
- In contrast, there has been at least 1.7 billion board feet of announced capacity curtailments in BC during 2022, mostly a result of increased log prices and falling lumber prices. BC mill curtailments and closures have continued in the first three months of 2023, with five pulp mills also curtailed from a lack of residual chips from sawmills. This is quite unprecedented. BC continues to be plagued by more ill-timed government policies, including old growth deferrals, landscape planning initiatives, caribou protection, and tenure transfers to First Nations from existing forest license holders. On top of these, there are continued beetle losses (mountain pine, spruce and Douglas-fir beetles) and wildfire impacts.
- BC mills accounted for about 70% of North America's 400+ million bf (640 000 m³) of curtailments in 2023-Q1 plus there was an additional 1 billion bf (1.6 million m³, net) of permanent BC mill closures announced in the quarter. The rest of Canada's production was flat in January (+38 million bf). Even with all the other curtailments and closures, there appears to be an excess of lumber mill capacity/production and European volumes in North America relative to market demand.
- In the US market, Canada represents only 83.0% of US imports, where Europe now has a 12.5% market share (led by Germany with 6.2%; Sweden with 2.6%, and Romania at 1.7%). Between 2010 and 2016, Canada averaged more than 96% of total US imports each year.
- Canadian lumber exports to Japan were lower in 2022 due to European competition but should be steadier in 2023 for Canadian lumber exporters.
- Total US lumber imports from Europe were higher by 64% (+171 million bf; +270 000 m³, net) in the first two months of 2023 vs 2022, but volumes were much lower in February 2023, or -43% (-120 million bf; -190 000 m³) as compared to January. The declines from Europe in the month of February 2023 were led by Germany (-36%), Sweden (-61%) and Latvia (-97%); these were most likely a result of eroding US lumber prices in February coupled with improving opportunities in other markets for Europeans. Current reports indicate that there are lower US port inventories of European lumber and reduced export volumes to the US are expected in the second quarter, or at least until prices improve.
- What does all this mean? Too much supply is again chasing too little demand, creating a loss position for high-cost regions in North America as well as some countries in Europe. It is going to be a tough second quarter in 2023, and probably a tough year.

South America

Brazil

Brazilian Forest Industry – Context and Trends

At the end of 2022, the perception of the forest-based industry was that 2023 would be a challenging year concerning the domestic and foreign markets. The Q1 2023 export indicators have confirmed these expectations.

The solid-wood products and composite panels markets have been the most affected by the international economic context of high-interest rates and high inflation, with significant drops in sales and revenues. The producers' perception is that the market has already reached rock bottom, and expectations are for growth to resume as of



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the second half of the year. However, the highest probability is that the recovery will only start from Q1 2024. The return of the markets to a functional context depends on reducing the surplus supply created throughout 2021 and 2022, reducing the surplus inventories formed in 2022, and lowering inflation and interest rates in the main consumer markets (USA, Europe, and Brazil).

As usual, the pulp and paper industries proved more resilient than the other forest-based segments in Q1 2023. However, expectations have worsened for the remainder of the year. Initially expected to occur later in 2023, international pulp prices have started falling sharply since January.

The context and the short-term scenario for the charcoal industry are also challenging since it depends on the international steel industry, specifically the green-pig-iron segment, whose performance has been falling since mid-2022.

Wood Prices – Context and Trends

Despite the challenging industrial context, wood prices remained practically stable in the main industrial clusters throughout Q1 2023, mainly due to the risk of wood balances oscillating between small surpluses and structural deficits in the coming years.

In the case of small logs to produce pulp or charcoal, whether pine or eucalyptus, the midterm trend is one of stability, with an upward bias due to recent industrial expansions (Klabin, in Paraná and Bracell, in São Paulo), projects in progress (Suzano, in Mato Grosso do Sul), and projects announced (Arauco, in Mato Grosso do Sul). The significant increase in forestry costs and the growing risk of adverse weather events reinforce this trend.

In the case of sawlogs for lumber, plywood, and moulding production, prices proved resilient over Q1 2023 despite the sharp demand drop (-35% to -45%) compared to Q4 2022. However, price reductions from 5% to 10% provided by small and medium suppliers were recently observed in the market. If the crisis extends, the tendency is for large suppliers to also reduce prices, probably in smaller percentages due to the increase in their cost of forestry, their supply guarantee, and the structural wood deficit.

Eucalypts Exports and Wood Prices

The performance of eucalyptus manufactured exports was buoyant in Q1 2023 compared to the same period in 2022, except for wood logs.

- Pulp: + 13% QTY and +18% USD
- Chips: +2% QTY and +19% USD
- Wood logs: -34% QTY and -35% USD
- Charcoal via green pig iron: +8% QTY and -4% USD.

Pulplog prices in the spot market remained stable compared to Q4 2022 but with a slight upside bias in Mato Grosso do Sul and São Paulo states and a slight downside in Minas Gerais and southern Brazil.

Pine Exports and Wood Prices

As for pine exports, the Q1 2023 performance was significantly lower than in the same quarter of the previous year:

- Lumber: -6% QTY and -24% USD
- Moulding: -12% QTY and -33% USD
- Plywood: -15% QTY and -38% USD
- Pulp: -87% QTY and -86% USD
- Wood logs: -79% QTY and -77% USD

Compared to Q1 2021, the decrease of Exports of Composite Panels (Pine and Eucalyptus) was significant in quantity (-47%) and revenues (-54% USD).

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Uruguay

- The new UPM Paso de los Toros pulp mill has reached technical readiness to start operations. UPM has also received the environmental authorities' acceptance of all the procedures, systems and technologies that are required to fulfil the environmental permit of the mill. The railroad connecting the UPM mill to the port of Montevideo is still under construction and will probably be finished by the end of 2023.
- Both UPM1 and the Montes del Plata (MdP) pulp mills operated at full capacity during 2022 and are doing so during Q1 2023. During Q1 2023, MdP "imported" 1.37 million m³ and UPM 1.25 million m³ of logs, 20% and 3% more than for the same period of 2022.
- During Q1 2023, eucalyptus woodchips exports were close to 400 000 m³, 30% more than for the same period of 2022. The first eight woodchip vessels exported during Q1 2023, showed an increase in FOB price close to USD 7/BDMt compared with 2022, reaching FOB values between USD 158/BDMt and USD 160/BDMt. During 2023, Uruguay's *Eucalyptus globulus* woodchips exports will increase compared with 2022, Portugal being the main destination.
- Pine log exports started at good pace during Q1 2023, with a total exported volume of 0.54 million JAS m³, representing 19 vessels (25% to China and 75% to India). Average FOB price for Q1 2023 is around USD 78/JAS m³.
- Uruguay's Q1 2023 eucalypt sawlog exports started at a slower pace than in the same period of 2022. The average FOB price for Q1 2023 is around USD 145/m³ for logs 30+ SED, showing values 8% higher than in the same period of 2022.
- Only one plywood company in Uruguay is still operational. As of Q1 2023, exported volume already reached 68 000 m³, 12% higher than the volume exported during Q1 2022. Average prices for Q1 2023 are around USD 320/m³, 30% lower than during 2021 and 23% lower than 2022.
- Carbon credits from Uruguay's forest projects have less demand than during 2022, with prices around USD 7/CCBvcu (CCBvcu= Climate, Community & Biodiversity Verified Carbon Unit).
- Lumin, a leading timberland and forest products company owned by BTG Pactual Timberland Investment Group (TIG) and British Columbia Investment Management Corporation (BCI), will invest USD 136 million to build its third industrial plant in Uruguay, which is expected to create more than 300 jobs and significantly increase the country's sustainable plywood production. The construction of the new plant will begin in the first quarter of 2023, with operations expected to commence the first quarter of 2026. The annual log consumption is expected to be between 300 000 m³/year and 400 000 m³/year.

Africa

- According to IMF estimates, economic growth in Sub-Saharan Africa will slow to 3.6% in 2023 and accelerate to 4.2% in 2024. Sub-Saharan Africa's fastest growing economy is expected to be Senegal, with an 8.3% growth rate in 2023 and 10.6% growth in 2024. Nigeria, the continent's largest economy, is expected to show 3.2% and 3% growth in 2023 and 2024 respectively. South Africa is expected to show growth of only 0.1% in 2023 and 1.8% in 2024 due to amongst other reasons its deepening electricity crisis. Low-income countries such as Ethiopia, Tanzania, the Democratic Republic of Congo, and Uganda are projected to have economic growth above 5% in 2023 and 2024.
- South Africa's ongoing electricity problems have a substantial effect on economic growth. The country's Reserve Bank estimated that nearly USD 3 million is lost every day due to electricity load shedding. The effect of load shedding is felt also in the sawmilling industry where a combination of higher costs of alternative electricity generation, a downturn in lumber demand, and timber supply constraints are having a serious impact on production.
- In a major step to address timber shortages in the Western and Southern Cape areas of South Africa, the Department of Environment, Forestry and Fisheries issued a call for proposals from private investors to develop 22 000 ha of Government-owned forestry land that was left dormant over the past 20 years.

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- Both Sappi and Mondi, the two largest pulp and paper manufacturers in Africa, reported strong financial returns for 2022. Sappi reported an EBITDA increase of 21% above the prior year, while Mondi reported an impressive 60% increase in EBITDA from 2021.
- The Government of Liberia and Blue Carbon, a newly created entity based in the United Arab Emirates, signed a Memorandum of Understanding in March 2023 to implement carbon removal projects in the forest sector. Blue Carbon has agreements with Liberia, Zambia, and Tanzania which aim to generate carbon credits by developing forestry-based carbon removal projects.
- A USD 25 million investment has been made by US International Development Finance Corporation in a new fund from Pan-African venture capital firm Novastar Ventures to support startups in the field of agriculture and climate change. Novastar will also invest in climate technology startups that use innovative business models “to deploy regenerative forestry, agriculture and aquaculture, biofuels, and biochar, that protect biodiversity, improves soil health and captures carbon.”
- The World Bank has supplied USD 30 million in finance to Benin to strengthen the sustainable management of classified forests. This will help to achieve the objectives of the Benin Classified Forest Management Project to restore 22 000 ha of forests. This is done to increase sustainably produced fuelwood for major cities and develop forest product value chains for rural communities whose livelihoods are dependent on forest resources.
- The European Union announced that it will provide EUR 40 million to Uganda’s Ministry of Water and Environment to support forestry in the country. The funding is part of the initial implementation of a Forestry Partnership signed between Uganda and the EU at COP27. The money will be used to support Uganda’s commitments to the Paris Agreement, fight deforestation, and support local economic development.
- Total woodchip exports through the ports of Richards Bay and Durban in South Africa, for March 2022 to February 2023, were 2.15 million Mt. This is a slight increase over the same 2021 to 2022 time period when ~2.03 million Mt were exported. Pulp exports have increased slightly from about 950 000 ADt to 972 000 ADt when comparing the period March 2021 to February 2022 with the same period in 2022 to 2023.

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