International Economic Developments

Chapter 1

This chapter describes and assesses the major global economic developments in 2021, covering also the economies of Timor-Leste's main trading partners, together with the more relevant international trends in global financial markets for our economy.

Based on this assessment, the chapter further looks into external developments' spillovers to our domestic economy, detailing the influences observed in 2021 and the prospects expected from 2022 to 2023. This analysis is based mainly on the most recent IMF's estimates and perspectives, presented in its "World Economic Outlook Updates", released in January of 2022 and October of 2021.

In terms of the most relevant developments described in this chapter, we highlight the following:

- 2021 was marked by the remarkable recovery of the world economy, after the pandemic crisis and the respective global recession of 2020. The world economy's GDP grew 5.9% in 2021, after having retreated -3.1% in 2020. Similar to the crisis, the economic recovery was transversal and synchronized across practically all geographies.

- According to the IMF, GDP in developed countries has already reached pre-pandemic levels in 2021, but developing countries' aggregate GDP's 2021 is already 4% above 2019's pre-pandemic level.

- In terms of projections for 2022 and 2023, the IMF expects a continued recovery of the world economy and across practically all regional and national economies. The IMF specifically forecasts that the world economy will grow 4.9% in 2022 and 3.6% in 2023. This optimism is based on the perpetuation of the success of vaccination programs and containment of the degree of severity of the virus, as well as the gradual elimination of restrictions on economic and social activity over the next years. This assumption, together with the robustness of the economic recovery recorded in 2021, supported by ample economic policy stimulus programs, underpin the IMF's optimistic perspectives.

- Even so, the Fund and most international institutions have repeatedly warned that the world's economy continues to face substantial downside risks, having highlighted the resurgence of global inflationary pressures to their highest levels of the last 30 years and the difficulty of adjusting and withdrawing the extraordinary monetary and fiscal stimulus programs implemented over the last two years. Additionally, despite the fact that the pandemic risks have already been partially mitigated by the vaccination programs, the future mutation of the virus and its variants continues to represent a material risk to the envisioned global economic recovery.

- Inflationary pressures registered a notable increase in 2021, especially evident in the US, Euro-Zone and ASEAN economies, to record levels in recent decades. In these 3 blocs, annual inflation reached values well above 2%, which tends to be the benchmark for most central banks, with average inflation in the US and Eurozone standing at 4.3% and 2.2% in 2021 .

- However, the IMF foresees a gradual convergence of average inflation rates in 2022 and 2023 towards 2%, in practically all world economies, admitting that the current inflationary episode will tend to be “temporary”. This scenario is based on the understanding that the current inflationary pressures result, above all, from the still persistent productive and logistical constraints and that the economic policy authorities worldwide will be able to successfully reverse the respective stimulus programs in 2022 and 2023, moderating and adapting the expansion of aggregate demand to the productive capacity of the various economies.

- Asian economies once again performed above average in 2021, which was due to the general success in containing the virus and the rapid and synchronized recovery of production processes and economic activity in the region. In line with its global optimism, the IMF expects the continued substantial and widespread recovery of economic activity in the region in 2022 and 2023, predicting that the bloc will continue to lead the world in terms of economic growth.

- In the monetary and bond markets, 2021 was marked by the general rise in interest rates in practically all geographies and maturities, especially in the USA, in line with the worsening of inflationary pressures and the strength of the economic recovery.

- In the foreign exchange markets, the dollar ended up registering a slight appreciation against the main international currencies in 2021, driven by the upward trend in the dollar interest differential. However, in the Asian context, there was a general appreciation of Asian currencies against the dollar, within a background of regional exchange market stability.

- Global equity and commodity markets ended up accumulating substantial gains again in 2021, benefiting from the strength of the economic recovery, supported by the success of macroeconomic stabilization policies, the substantial reduction in investor pessimism and the success of global vaccination programs.

- The performance of the Petroleum Fund’s equity investments continued to benefit from the renewed rise in world share prices, but was penalized by the rise in interest rates in 2021, which yielded a global loss for the Fund’s bond investment portfolio. However, the materialization and reinforcement of a scenario of historically high valuations, especially in the global equity markets in 2021, will naturally limit the upward future returns of the Fund over the coming years.

1.1 Major World Economies

1.1.1. Economic Growth in Major World Economies

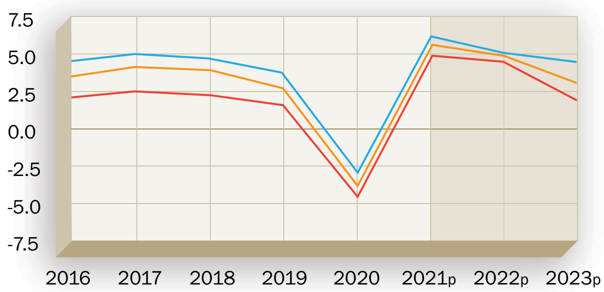
2021 was marked by a notable recovery from the global recession recorded in 2020, following the pandemic and its respective economic and social impacts.

The world economy recorded a strong recovery in 2021, after the 2020 pandemic crisis.

Due to the increasing normalization of production processes and the success of global vaccination programs, supported by substantial budgetary and monetary stimulus programs implemented in practically all geographies, the world economy grew by 5.9% in 2021. Consequently, the global level of gross domestic product (GDP) has already exceeded the value recorded in 2019, which confirms that the -3.1% drop in output in 2020, the most pronounced annual fall in the last 30 years, was completely recovered.

Despite the substantial increase in inflationary pressures in 2021, which have already led to the reversal of part of the extraordinary monetary stimulus programs by many of the world's central banks, the economic outlook for 2022 and 2023 remains quite optimistic. Despite a slight natural slowdown compared to the growth experienced in 2021, the world economy, including the bloc of developed and emerging countries, is expected to continue to grow at very robust rates in 2022 and 2023, slightly above the trend recorded until 2019.

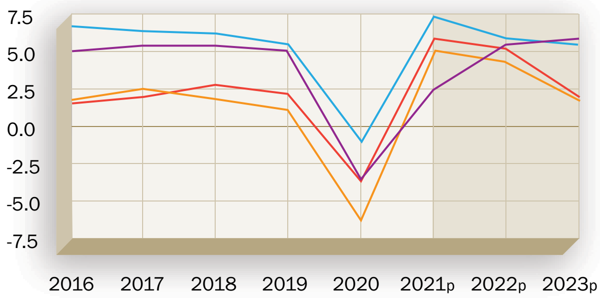
Chart 1.1
GDP Growth - 3 Major Blocs



% annual change
World
Emerging
Developed

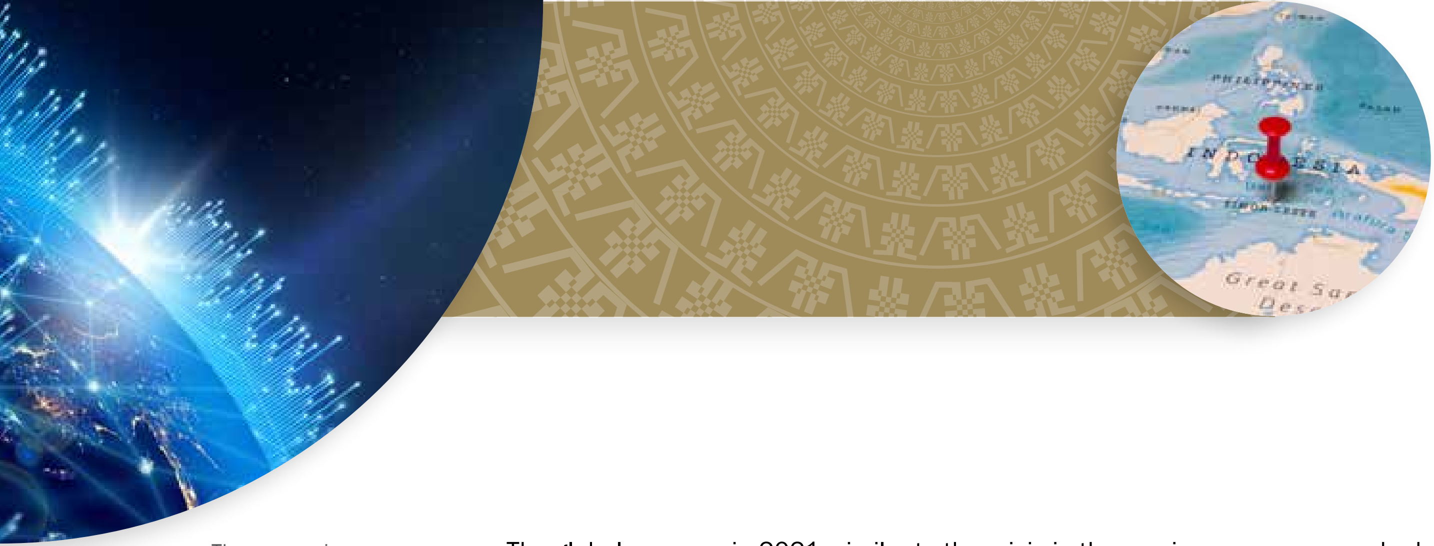
Source: FMI WEO

Chart 1.2
GDP Growth - Selected Regions



% annual change
US
E.U
Emerging Asia
ASEAN-5

Source: FMI WEO



The economic recovery was transversal and synchronized, with many world economies recovering in 2021 the levels of activity of 2019.

The global recovery in 2021, similar to the crisis in the previous year, was marked by great synchronism in practically all the world economic blocs. According to the IMF projections, developed countries grew 5.2% in the aggregate in 2021, while emerging economies grew 6.4%. It is interesting to note that the developed countries expansion was very close to the growth pace in developing countries, which was also due to the fact that the 2020 crisis was more salient in developed economies, with the bloc's GDP falling -4.5 %, compared to the -2.1% drop recorded in emerging economies.

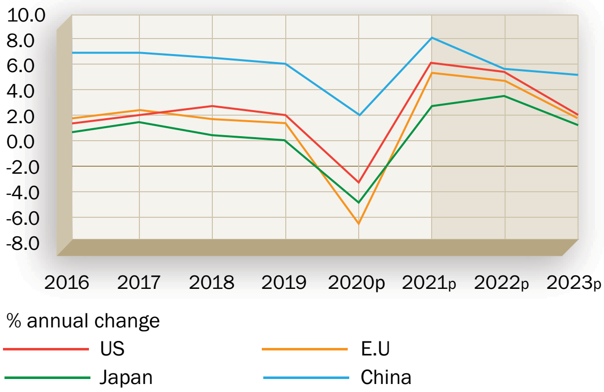
According to IMF forecasts, the developed bloc's aggregate GDP has already managed to reach pre-pandemic levels in 2021, but developing countries GDP in 2021 was already 4% above its pre-pandemic level of 2019.

In regional terms, it is also worth mentioning the noticeable economic performance of the Asia-Pacific economies, relative to global peers. The GDP of Emerging Asia and the 5 largest ASEAN economies grew 7.2% and 2.9% in 2021, after having demonstrated great resilience in 2020. With regard to the developed world, it should also be noted that the US economy has performed more robustly than the Euro-Zone, growing 2% since 2019, while the economy of the largest European bloc is still -2% below its 2019's level.

Charts 1.3.1 and 1.3.2 depict the comparative economic performance of the 4 largest world economies, which allows us to confirm the above-average performance of the Chinese and US economy during the pandemic and the decline and subsequent less expressive recovery in Japan. and the Euro-Zone.

Chart **1.3.1**

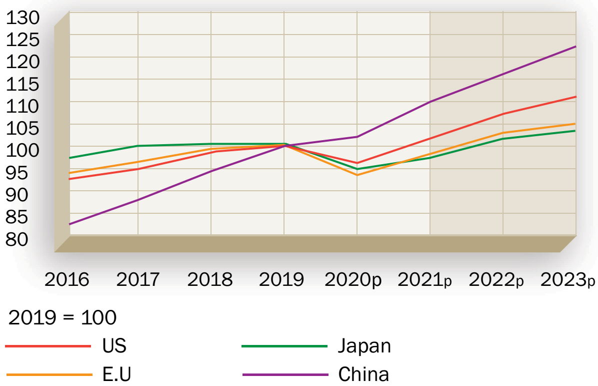
GDP Growth - 4 Major Economies



Source: FMI WEO

Chart **1.3.2**

GDP Levels - 4 Major Economiess



Source: FMI WEO

In terms of growth prospects for 2022 and 2023, the IMF generally expects the continued recovery of the world economy and across virtually all regional and national economies. The IMF specifically forecasts that the world economy will grow by 4.9% in 2022 and 3.6% in 2023, values which are slightly higher compared to the average growth recorded from 2012 to 2019.

The IMF's global outlook for 2022 and 2023 remains quite optimistic for almost all World economies.

This optimism is naturally based on the perpetuation of the success of vaccination programs and containment of the degree of severity of the virus, as well as the gradual elimination of restrictions on economic and social activity over the next years. This assumption, together with the robustness of the economic recovery seen in 2021, based on the ample economic policy stimulus programs, underpin the IMF's optimistic perspectives for the coming years.

Even so, the Fund and most international institutions have repeatedly warned that the world economy continues to face substantial downside risks, having highlighted, above all, the resurgence of global inflationary pressures to their record levels of the last 30 years and the difficulty in adapting and properly withdrawing the monetary and budget stimulus programs implemented over the past 2 years. Additionally, despite the fact that the virus risks have already been partially mitigated by the vaccination programs, the evolution of the virus and its variants continues to represent a material risk to the expected extension of the global economic recovery.

These optimistic growth prospects face substantial risks, such as the possible worsening of inflationary pressures, reduced economic policy support and the future evolution of the virus.

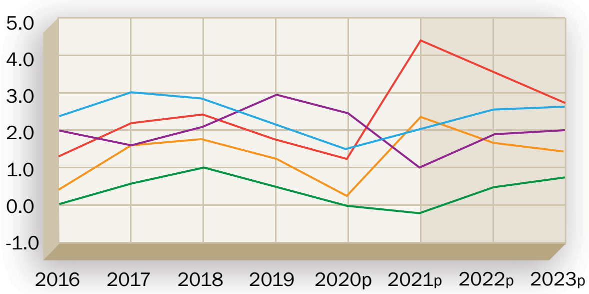
1.1.2. Inflation in Major World Economies

The following graphs show the evolution of average inflation rates and price levels in 5 of the main world economies.

Global inflationary pressures rose substantially in 2021....

Chart **1.4.1**

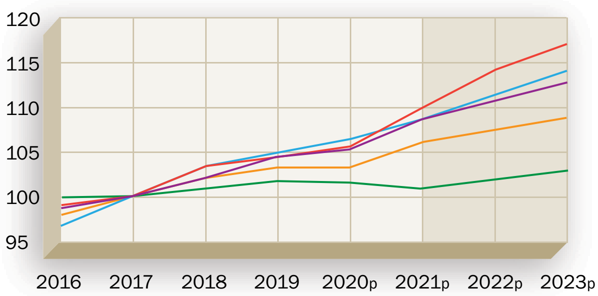
Inflation Rates - 5 Selected Economies



Source: FMI WEO

Chart **1.4.2**

Price Levels - 5 Selected Economies

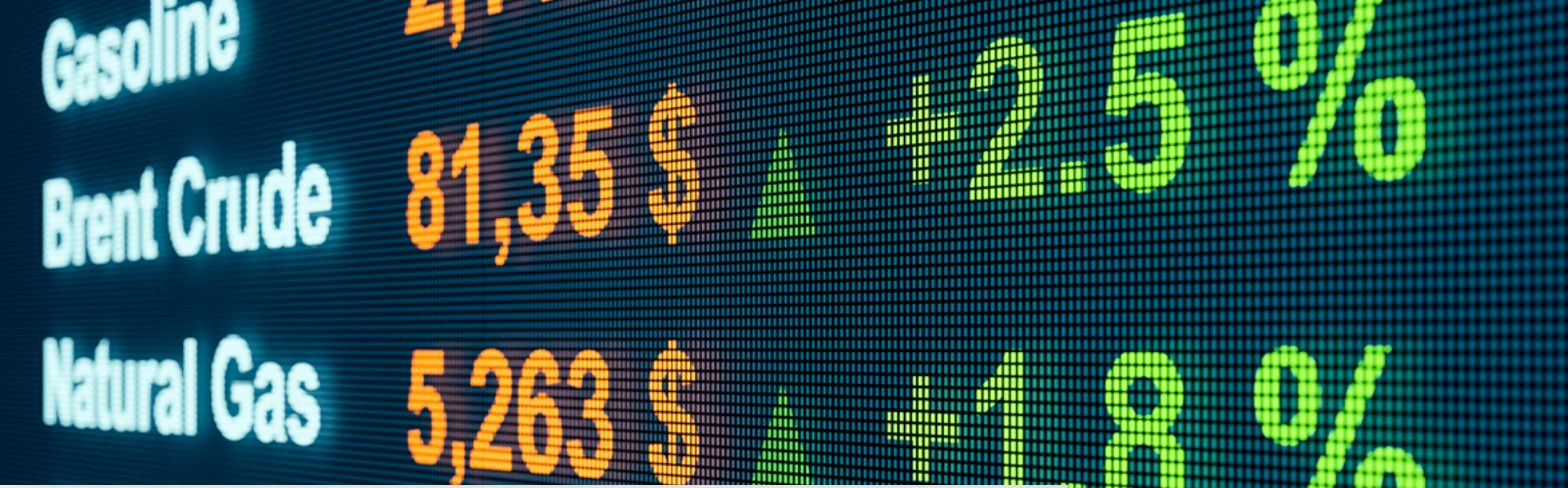


Source: FMI WEO

As can be seen, inflationary pressures registered a notable increase in 2021, especially evident in the US, Euro-Zone and ASEAN economies. In these 3 economies, annual inflation reached values well above 2%, which tend to be the benchmark for most central banks' monetary policy, with average inflation in the US and Eurozone standing at 4.3% and 2.2 % in 2021. However, it should be noted that these high average rates still obscure the sustained and worrying growth of inflationary pressures observed throughout 2021, with the year-on-year inflation rate in December 2021 being already above 7%. This value, which has not been observed since the 1980s, reveals the scale and dimension of the current inflationary episode. However, it should be noted that inflation levels in the Japanese and Chinese economies have been kept relatively low compared to their global peers, with their 2021's average inflation being -0.2% and 1.1%, respectively.

.... due to the strength of the economic recovery, the maintenance of highly stimulating policies and the perpetuation of productive and logistical constraints worldwide.

Naturally, the worsening of global inflationary pressures in 2021 resulted from the robustness of the global economic recovery and the highly stimulating degree of the implemented monetary and fiscal stimulus policies, particularly in the major developed economies. Alongside the material recovery in global demand, the persistence of social and economic restrictions, together with the worsening of constraints and failures in global logistics and production chains, also contributed to aggravate inflationary risks in most economies.



The growing concerns amongst monetary authorities, especially in a context of tighter labour markets and rising wage pressures, have already led many central banks to announce in 2021 the end of part of their extraordinary monetary stimulus programs and begin their interest rate hiking cycles, with the aim of moderating the demand expansion and curbing inflationary pressures.

However, the IMF anticipates that inflationary pressures should gradually ease in 2022/2023, along with the adjustment of economic policies and the resolution of productive and logistical constraints.

In terms of perspectives, the IMF foresees a gradual convergence of average inflation rates in 2022 and 2023 towards 2% in practically all world economies, which constitutes the policy reference of many central banks. This means that the Fund admits that the current inflationary episode will tend to be “temporary”, with annual inflation in the US and in the Eurozone expected to slow down to 3.5% and 1.7% in 2022 and to 2.7% and 1.4% in 2023. On the contrary, inflationary projections in the Chinese and Japanese economy admit a slight acceleration in annual inflation to 1.8% and 0.5% in 2022 and 1.9% and 0.7% in 2023.

This scenario is therefore based on the understanding that the current inflationary pressures result, above all, from the productive and logistical constraints that are still evident and that the economic policy authorities worldwide will be able to successfully reverse the respective stimulus programs in 2022 and 2023, moderating and adjusting the expansion of aggregate demand to the productive capacity of the various economies.

It should also be noted that the IMF continues to expect that the Euro-Zone and Japanese economies will continue to register inflation rates below those of the US in the next biennium, which should continue to register average inflation rates below the mentioned 2% reference..

1.1.3. Global Commodity Markets

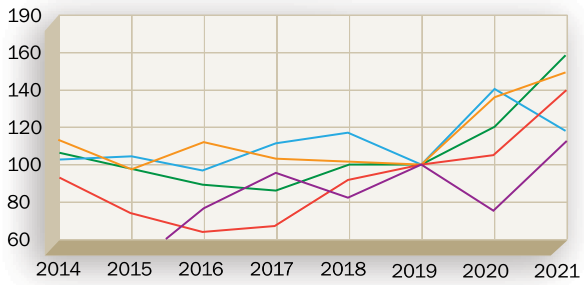
Commodity prices recorded broad-based gains in 2021.

With a few exceptions, the year 2021 was marked by the general rise in market prices of the main traded commodities.

This price rise occurred naturally in the global context of a substantial pickup in inflationary pressures, as mentioned in the previous point. The upward trend in raw material prices, in line with what had already happened in 2020, especially from April 2020 onwards, thus resulted in the extension of the recovery observed since the prices of most of these items recorded their lowest values, in 2015 /2016. For economies exporting these goods, typically developing countries, the continued rise of international prices represented a positive development.

Chart **1.5.1**

Major Commodities Prices - levels



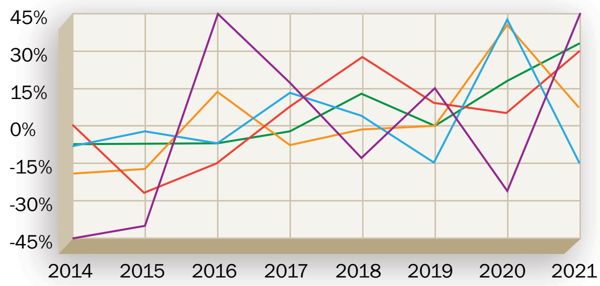
2019 = 100

Corn
Soybean
Wheat
Rice Viet.
Oil

Source: World Bank

Chart **1.5.2**

Major Commodities Prices - % change



% annual change

Corn
Soybean
Wheat
Rice Viet.
Oil

Source: World Bank

The recovery in oil prices was due to the recovery in global demand in 2021, but also to the indirect impact of the global energy transition.

The oil price staged a remarkable recovery in 2021 (49%), in line with the strong recovery in world economic activity, after being one of the few commodities that recorded a price fall in 2020 (-24%). With this advance, oil price has already risen to its highest level since 2016.

It should also be noted that the recovery in oil prices over the last few years and, in particular in 2021, has clearly highlighted the structural difficulties in the transition of the world's energic model. In fact, the recent reinforcement of the measures adopted towards the development of renewable energy sources and the reduction of CO_2 emission levels, as well as the growing difficulty in financing companies and projects that invest in fossil energy sources, has limited the production and supply of fossil fuels worldwide. This greater rigidity of supply and the inability to accommodate a global demand that has proved to be relatively stable, means that the world energy markets are increasingly impacted by greater price volatility and an increasing cost of supplying oil, gas, coal and liquid fuels. This trend, which was particularly evident in 2021 is also expected to be persistent in the medium term, while the necessary technology is developed and the necessary investments are made to underpin the effective energy transition and decarbonization of the world economy.

1.1.4. Major Global Financial Markets

In terms of financial markets, we begin by analysing trends across major bond markets, particularly those for Treasury bonds, which allows us to assess trends and changes, as well as expectations, of monetary policies, economic growth and inflationary pressures of the various world economies.

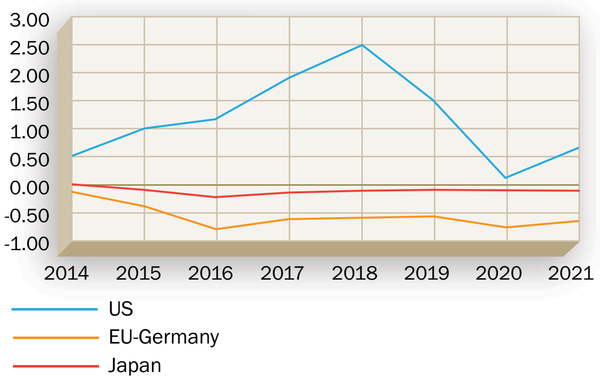
In 2021, there was an increase in 2-year and 10-year interest rates, especially in the US market, as a result of growing inflationary pressures and the strengthening of expectations of a reversal of the monetary policy cycle in the major economies. This trend counteracted the widespread and broad fall in interest rates recorded in 2020, following the implementation of highly stimulating monetary programs to stabilize the world's economies.

Naturally, 2-year interest rates, which are more sensitive to changes in monetary policy, rose in 2021, especially in the case of the US. In economies where the level of short-term interest rates was below the zero threshold (0%), this rise was not yet so evident, with the respective central banks preferring to maintain their accommodative position for longer.

Two-year interest rates rose in the US, in line with worsening inflationary pressures and the strength of the economic recovery....

Chart 1.6

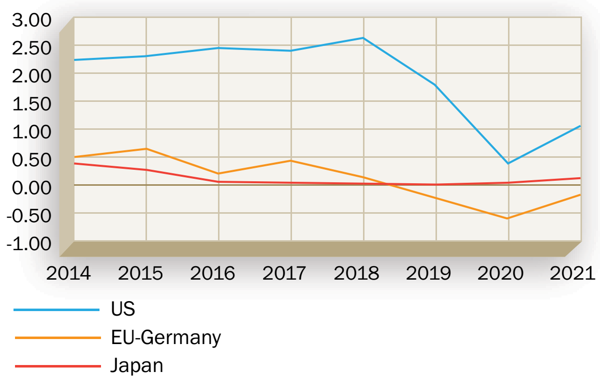
2-Years Interest Rates %



Source: Bloomberg

Chart 1.7

10-Years Interest Rates %



Source: Bloomberg

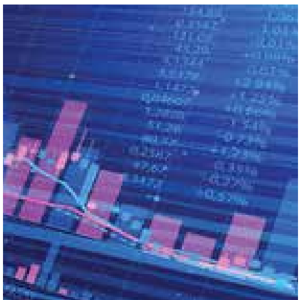
In the case of the US, the rise in 2-year interest rates was substantial, having increased from 0.12% at the end of 2020 to 0.73% at the end of 2021. Despite this recovery, 2-year interest rates in the US are still well below their pre-pandemic levels, which were 1.57% at the end of 2019. This development, especially considering that the rates of 2021 are still well below those of 2019, clearly shows that the monetary stimulus program of the FED (Federal Reserve Bank), including its key rates, is still at very stimulating levels for the US economy. Given the high level of inflationary pressures in the US at the end of 2021, the Fed should be forced to implement a continued and notable reduction in monetary stimulus throughout 2022, in order to stabilize inflationary expectations without compromising the respective economic recovery.

.... as well as longer interest rates, which also partially offset the declines recorded in 2020.

In the case of 10-year interest rates, there was also an increase in 2021 compared to 2020, thus reversing part of the fall recorded in the previous year. Even so, like the 2-year rates, the 10-year interest rates in the US market, valued at 1.52% at the end of 2021, are still well below pre-pandemic levels, as this interest rate was 2.68% and 1.92%, at the end of 2018 and 2019, respectively. It should also be noted that the reference for German 10-year bonds remained at negative levels at the end of 2021 (-0.17%), but recovered substantially, compared to -0.57% in 2020. However, the 10-year interest rate in Germany was already, at the end of 2021, slightly above its pre-pandemic level of 2019 (-0.19%).

In both 2 and 10 years, interest rates in the US remained at levels well above those observed for the Euro-Zone and Japan, similarly to what has happened since 2013, which seems to result from the perpetuation of the perspective that the US economy should continue to register a better relative performance over the next few years.

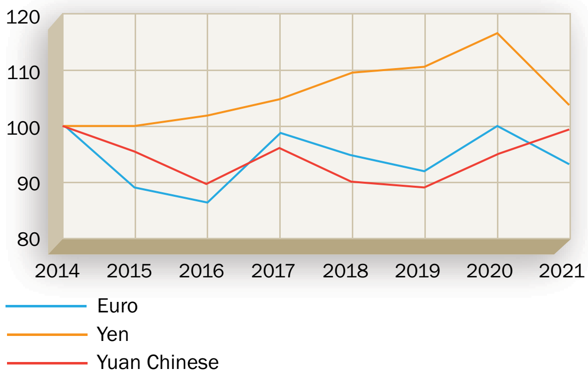
Naturally, bond markets developments, together with the economic developments already analysed, also determined a large part of the changes registered in the main foreign exchange and equity markets worldwide.



The rise in interest rates in the US market contributed to the appreciation of the dollar against the major world currencies.

Chart **1.8**

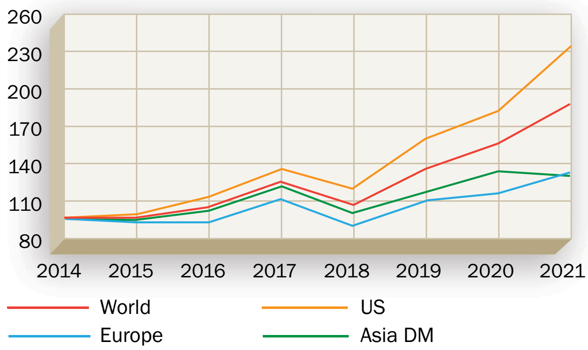
Major Currencies vs USD: 2014=100;
Decline corresponds to depreciation



Source: Google Finance

Chart **1.9**

Stock Markets Benchmarks, USD prices
2014=100



Source: Google Finance

In the foreign exchange markets, the dollar appreciated against the euro and the yen, but lost value against the Chinese yuan, contrary to the generalized depreciation seen in 2020. This change resulted, above all, from the growing inflationary pressures and FED's concerns, together with rising expectations of the immediate end of the monetary stimulus cycle in the North American economy. This fact, evidenced by the rise in US interest rates compared to other blocs, tended to reinforce the demand for dollars in the foreign exchange markets, which currently offer higher rates of return than most debts from other developed countries. Additionally, Euro-Zone and Japanese central banks have shown less concern with their economies' inflationary pressures, having indicated that will extend their respective monetary stimulus programs.

In equity markets, most world markets continued to record a strong performance, thus extending the huge recovery seen since April 2020. As shown in chart 1.9 above, the main world equity markets accumulated gains in 2021, with the US market once again outperforming its global peers.

The major world equity markets recorded remarkable gains again in 2021, extending the upward trend observed since 2009.

The US equity market - represented here by the ETF (Exchange Traded Fund) that replicates the “S&P 500” index - recorded gains of 27% in 2021, after having risen 16% in 2020. These returns have been supported by the optimism regarding IT sectors and revolutionary technologies, which represents a growing and more significant portion of this market, when compared to other world’s equity markets. Additionally, the role of the expansionary fiscal policy and the extraordinary liquidity injections in the US and worldwide should not be overlooked as a driving factor of the equity markets’ robust performance in 2021 and 2020.

The dynamism of the equity markets in 2021 and 2020 thus again extended the long rising trend recorded since 2009, only partially interrupted in 2018, resulting in a generalized increase in the valuation ratio of shares’ prices relative to corporate earnings, to historically record levels.

In addition to the US, the global equity market recorded gains of 17% in 2021 (14% in 2020), with the Asian market – including developed countries only – falling -1%. The European market, as has been the habit in recent years, recorded gains below its global peers, having risen only 13% in the year.

In summary, the US stock market thus continued to far outperform the other world markets in the last 12 years, having continued to benefit from the greater dynamism of its economy, despite the global pandemic and recent confusing and disturbing political episodes.

Many equity markets, and specifically the US, are now considered to be broadly overvalued, when considering the ratio of stock prices to corporate earnings.

Taking into account the remarkable performance of this market in the last 12 years, which resulted in the substantial appreciation of stock prices in relation to corporate earnings, it should be noted that the downside risks to the substantial recovery of the American economy in 2022/2023, or to the record corporate profits today, more than ever, represents a significant risk to the future performance of this stock market.

1.2 Asian Economic Developments

After summarizing the broad global macroeconomic background in 2021, it is important to detail the assessment of developments across the Asian space, in particular ASEAN, as the main economic partners of Timor-Leste are located in this region.

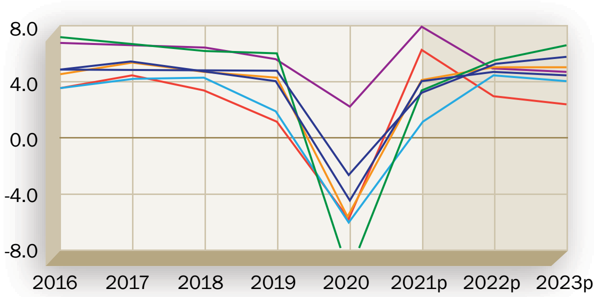
Our analysis focuses on ASEAN's five major economies and China, whose economy has increasingly taken a more global and regional relevance and clout. In turn, from these six economies, Indonesia continues to be Timor-Leste's main commercial partner, which justifies some further specific comments on its economic developments.

In terms of relevant developments for these economies, the 6 countries' GDP registered a generalized recovery, with average economic growth estimated at 4.2% in 2021, compared to a -4.4% fall in 2020.

The largest Asian economies staged a remarkable economic recovery in 2021, after the pandemic crisis and its impacts in 2020.

Chart **1.10a**

GDP Growth rates



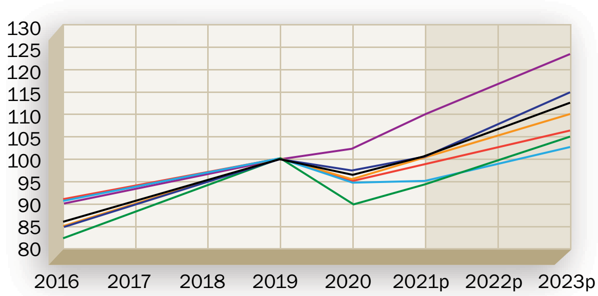
% Annual change

China, Malaysia, Philippines, Singapore, Thailand, Indonesia, Average

Source: FMI WEO

Chart **1.10b**

GDP Levels



2019 = 100

China, Malaysia, Philippines, Singapore, Thailand, Indonesia, Average

Source: FMI WEO

The Asian economies thus continued to record a relatively robust performance in 2021, when compared to the other world economies, which was due to the general success in containing the virus and the rapid and synchronized recovery of production processes and economic activity in the region and its countries.

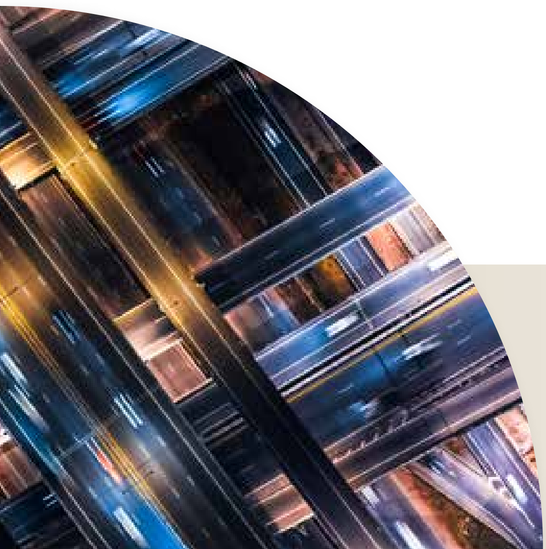
Of this group of countries, in 2021, only 3 - Philippines, Thailand and Malaysia - had an annual GDP level lower than that of 2019 (pre-pandemic), with Indonesia, China and Singapore having already recovered their pre-pandemic levels in 2021, with special emphasis on China, whose GDP in 2021 is already 11% above that of 2019.

The prospects for economic growth in the region remain very optimistic for 2022 and 2023.

In terms of prospects, in line with its global optimism, the IMF expects the continued substantial and broad-based recovery of economic activity in the region in 2022 and 2023, predicting that the region will continue to lead the world in terms of economic growth. It should be noted in this regard that the IMF now expects that all the 6 economies will regain their 2019's GDP levels in 2022, predicting an average growth rate in the 6 economies of 5.3% in 2022 and 5.2% in 2023.

According to the same forecasts, at the end of 2023, the IMF expects China and Indonesia's GDP to be 23% and 14% above the value of 2019, which are the economies with the highest growth rates. On the contrary, Thailand and the Philippines are expected to be the lowest growth economies by 2023 in the region, as their output will only be 3% and 6% above their respective 2019 level.

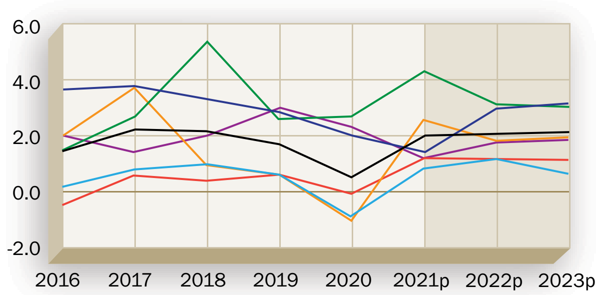
Also in line with the global trend, inflation accelerated in 2021 in the region, contradicting the slowdown seen in 2020. The average inflation rate of the 6 Asian countries rose to 2% in 2021, compared to 0.8% in 2020 and 1.7% 2019. It is also worth noting that only 2 economies – the Philippines and Malaysia – recorded above-average inflation rates, valued at 4.3% and 2.5%, respectively.



Inflation in the region also accelerated in 2021, in line with the global trend.

Chart **1.11a**

Inflation Rates



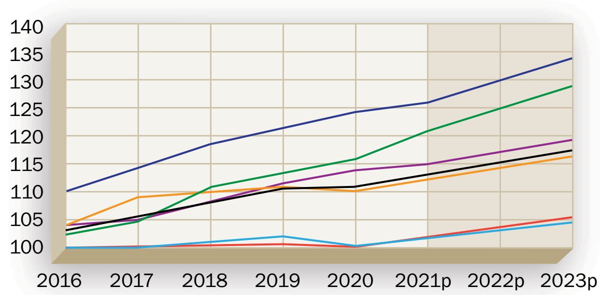
% Annual Change

China
Malaysia
Philippines
Singapore
Thailand
Indonesia
Average

Source: FMI WEO

Chart **1.11b**

Price Levels



2014 = 100

China
Malaysia
Philippines
Singapore
Thailand
Indonesia
Average

Source: FMI WEO

The IMF's outlook for 2022 and 2023 expects the materialization of a scenario of general inflation stability in the region, with average annual inflation remaining close to 2%, annually. Despite the expected extension of a robust economic recovery and growth in the region and rising global inflationary pressures, the Fund believes that Asian economies and their monetary authorities will be able to ensure that price stability is maintained and inflation remains close to policy-reference levels, during the next 2 years.

The rise in inflation rates in the various economies and the average depreciation of the dollar against the 6 Asian currencies, amounting to -3% in 2021 (appreciation of 0.4% in 2020) explained, in turn, the increase in regional inflationary pressures, when measured in US dollar terms.

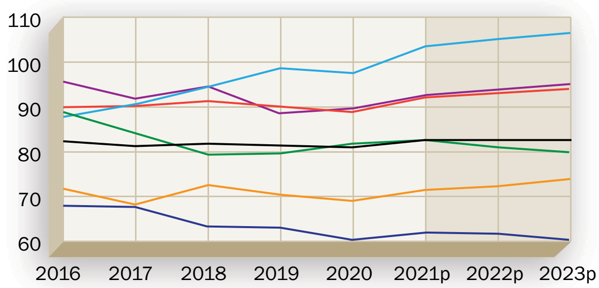
These relevant developments of terms of the main macroeconomic indicators - economic activity and inflation - help to explain, as are also explained, by the developments registered in the 2 main financial markets, the regional foreign exchange and bond markets.

In exchange markets, despite the high volatility recorded throughout the year, 2021 ended up being marked by the 3% average appreciation of regional currencies against the dollar, with the Philippines and Indonesia currencies being the only with annual appreciation rates below 3%, at 0.6% and 1.8%, respectively.

Regional currencies appreciated, on average, against the dollar in 2021....

Chart **1.12**

Exchange Rates vs USD



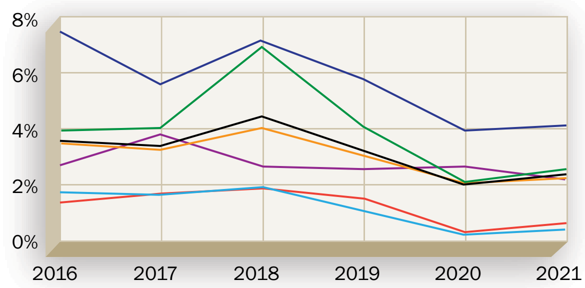
2012 = 100

China, Malaysia, Philippines, Singapore, Thailand, Indonesia, Average

Source: FMI WEO

Chart **1.13**

2-Years Interest Rates



% Year

China, Malaysia, Philippines, Singapore, Thailand, Indonesia, Average

Source: BAD

The IMF expects that most regional currencies will remain relatively stable against the dollar between 2022 and 2023, which, if this scenario materializes, will contribute to stabilizing inflationary pressures in the region and, above all, to stabilizing the prices of goods imported by Timor-Leste. It should be noted, however, that this scenario of exchange rate stability may be materially affected by the risks related to the economic recovery, the evolution of the pandemic and inflationary pressures worldwide.

.... with 2-year interest rates rising, in line with the change recorded in the dollar market.

Bond market interest rates, represented here by 2-year bonds, registered a general increase in 2021, in line with world markets, thus cancelling out part of the decline recorded in 2020.

The average 2-year interest rate of the 6 economies rose from 1.8% in 2020 to 2.2% at the end of 2021, but continued to trade below the level observed at end of 2019 (3%). The rise in 2-year interest rates in the various economies resulted from the rise in reference rates by some central banks and also from their economic performance and prospects. Despite having followed the dollar market changes, interest rates in the region are still above the rates observed in most developed markets, which reflects their better relative economic performance of the region, but also the lesser room for manoeuvre in terms of monetary and exchange rate policy.

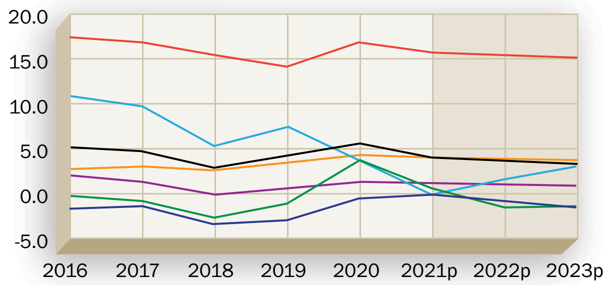
Regarding their external accounts balances, we can conclude that most partners continued to maintain substantial external surpluses in 2021, with the exception of Indonesia and Thailand, which recorded a current external account deficit of -0.3% and -0.4 % of GDP in 2021. It should also be noted that, although there was a reduction in the region's average external surplus in 2021, compared to 2020, the various economies managed to maintain positive external balances, despite the strong disruptions to economic activity and trade worldwide.

The regional external accounts remained in surplus, with the exception of Indonesia and Thailand.

For 2022 and 2023, the IMF continues to predict stability in net external balances in the region, although it is also worth noting that the Philippines and Indonesian economies should continue to record increasing external deficits in this next biennium.

Chart **1.14**

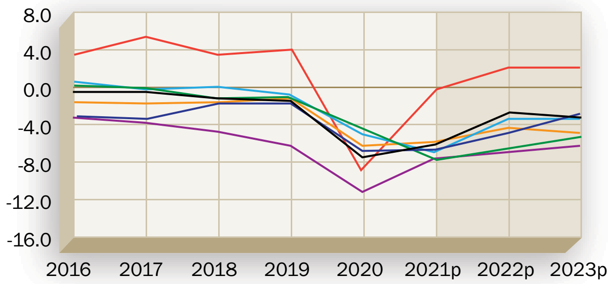
External Current Account Balances



Source: FMI WEO

Chart **1.15**

Fiscal Balances



Source: FMI WEO

In terms of budgetary balances, 2021 was marked by a slight reduction in public deficits in the region, with the average deficit falling from -6.9% in 2020 to -5.7% of GDP in 2021. This slight improvement in fiscal deficits cancelled out only part of the substantial deterioration of the public deficits of the various Asian economies in 2020, due to the drops in economic activity and the mobilization of substantial amounts to support the respective populations and economic sectors affected by the pandemic. Consequently, at the end of 2021, public deficits materially exceeded the respective average value of -1.6% of GDP, recorded in 2019. It should also be noted that Singapore recorded the largest deficit reduction in 2021, which fell from -8.9% in 2020 to -0.2% of GDP in 2021, which reveals the end of many public health support programs and economic activity in the country.

In 2021, public sector deficits continued to remain high in the region, which only partially offset the fiscal deterioration seen in 2020.

For 2022 and 2023, the IMF expects a gradual reduction in budget deficits in the region, anticipating an average deficit of -3.9% and -3.2% of GDP in 2022 and 2023. As a result, most economies should maintain a stimulative fiscal policy stance over the next 2 years, which will certainly help to explain the strength of economic growth in the next biennium. With the exception of Singapore, which should register a budget surplus as early as 2022 (+2% of GDP), the remaining 5 economies should continue to record deficits above -3% of GDP over the next few years. It should also be noted that the fiscal policies in China and the Philippines will continue to be the most accommodative in the region, with their respective public deficits amounting to -6.8% and -6.2% of GDP in 2022.

In short, in line with the global trends, there was a notable improvement in the macroeconomic background across the Asian region in 2021, which made it possible to recover completely the 2020's fall in economic activity and cancel part of the deterioration of macroeconomic fundamentals in the various economies.

It is also worth noting the relative stability of regional currencies against the dollar and the maintenance of external surpluses in most economies, although in tandem with the maintenance of moderate public deficits in the region, will continue to provide a substantial scope for macroeconomic adjustment and policy flexibility in these Asian economies.

Note, however, that this general background does not fully apply to the Indonesian economy, Timor-Leste's largest trading partner. On the one hand, we highlight the vigorous recovery of its economy, which has already managed to recover in 2021 its pre-pandemic GDP level of 2019, as well as its price and foreign exchange rate stability. On the other hand, the country continues to record a high deficit in public accounts (-6.1% in 2021) and a slight external deficit of -0.3% of GDP.

In terms of outlook, the Fund continues to expect a strong performance for the Indonesian economy over the next 2 years, with an average annual growth rate of 5.2%, as well as the central bank's success in maintaining a stable and moderate inflation rate (3% year) and stabilizing the rupiah's external value (annual depreciation of -0.7%). Although public and external deficits are expected to continue, the IMF forecasts clearly assume that the country will manage to avoid the macroeconomic volatility registered until 2018, visible above all in the depreciation of the rupiah, the increase in inflationary pressures and the fall in external revenues, resulting from the tumble in international prices of many commodities exported by the country.

Naturally, the pluriannual recovery in the price of these raw materials, particularly visible in 2020 and 2021, has also supported, and is expected to continue to underpin, the recovery of economic activity and the country's export earnings. In any case, the continued economic dependence on the export of these products implies that the macroeconomic and financial performance of our neighbouring country will continue to be strongly determined by the evolution of the global "commodity" markets and the world economy.

The importance of this partner for our country and economy implies the maintenance of adequate monitoring of these developments, with the expectation that the continuity of the policy measures introduced by its government and the stricter vigilance by its central bank will continue to gradually reduce the respective macroeconomic risks.

1.3 Timor-Leste Economic Transmission Channels

The above review of major international economic and financial developments as well as of Asian economic developments, which are much more relevant for Timor-Leste, would not be complete without understanding the respective repercussions on our economy.

This point tries to identify the main channels of transmission of the international developments to our economy. At present, it is reasonable to accept that these effects are still small and limited to certain sectorial aspects of our economy. This chapter seeks to illustrate the mechanism of operation of the main channels, specifically: the impact on domestic inflation levels, influence over oil revenues and effects on the Petroleum Fund's investments valuations. Foreign Direct Investment is certainly one of the variables most influenced by the external context, but the scarcity of effective investments and reliable data in Timor-Leste does not allow us to analyse this relationship properly.

Naturally, as our economy develops and effectively deepens interdependence relations with its regional economic partners, we expect that external developments will increasingly shape developments in our domestic economy, expanding the number and influence of the various transmission channels.

1.3.1. Imported Inflation

One of the main transmission channels for our economy is in fact the impact of international prices on domestic inflation developments and respective expectations. Since Timor-Leste is an economy with great import intensity - imports of goods and services accounted for 47% of non-oil GDP in 2020 - it is natural to expect that international prices of imported goods and services will continue to substantially influence domestic inflation developments.

BCTL's inflation model is based on two key drivers: domestic economic performance and average inflation rates across the Asian region.

BCTL's empirical research and economic modelling has confirmed the importance of this channel. One of the main issues of our work in this context stems from the difficulty in defining an appropriate variable to measure the level of "external inflation" for Timor-Leste, given the large variability of our import basket and of the geographical structure of our imports. After experimenting with several functional forms for this variable, we concluded that the most appropriate

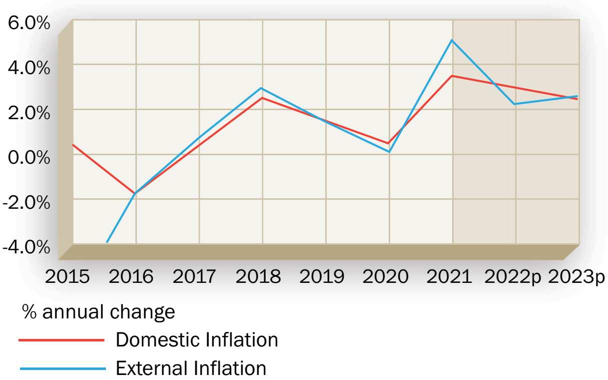
empirical variable seems to be an average of the inflation rates of the 5 largest economies of ASEAN and China converted into dollars. In practice, this measure corresponds to an average of the regional inflation rate measured in dollar terms, which at the same time captures the impact of regional exchange rate variations against the dollar and local currency inflation rates.

As can be seen below on the chart on the left, domestic inflation tends to reasonably track the movements of foreign inflation rates, albeit with lower volatility. To the extent that the external inflation rate is the average of six economies already mentioned, BCTL's inflation forecasting models use this variable and respective expectations to construct inflation forecasts.

Foreign inflation tends to drive Timor-Leste's inflation trajectory ....

Chart **1.16**

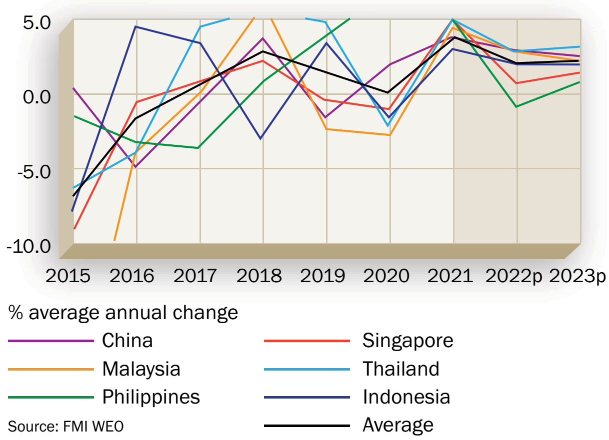
Domestic vs External Inflation



Source: DGE and BCTL Estimates

Chart **1.17**

Regional Inflation in USD terms



Source: FMI WEO

Additionally, as can be concluded from the 2 charts, the rise in the inflation rate in 2021, as well as in 2017 and 2018, was positively influenced by the rise in external inflation rates. Naturally, the relationship is not perfect, as Timor-Leste's non-oil economic developments, especially over the last few years, also strongly affect the domestic inflation rate trajectory.

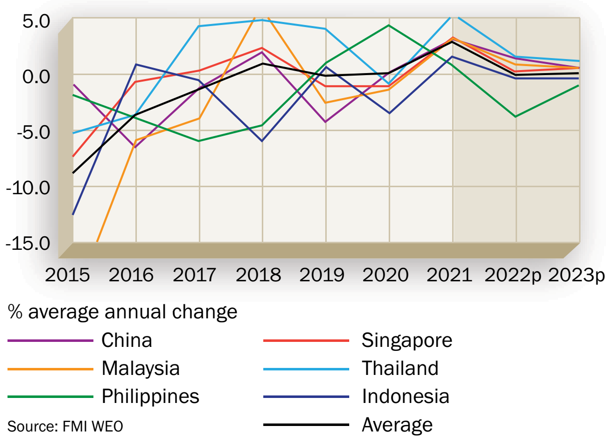
... so the acceleration of external inflation in 2021 supported the rise in inflation in Timor Leste.

In terms of trajectory, 2021 was naturally marked by the intensification of external inflationary pressures, which exerted upward pressures over domestic inflation, thus reversing the trend recorded in 2019 and 2020 towards lower inflationary pressures. In 2021, our external inflation metric ascended to 5%, which results from the combination of a 2% external inflation rate in local currency terms and a 3% average appreciation rate of regional currencies against the dollar in 2021.

As external inflation rates in local currency terms are relatively stable over time, it can be concluded that the movements of partners' currencies against the dollar are, in turn, a very important factor in determining domestic inflation.

Chart **1.18**

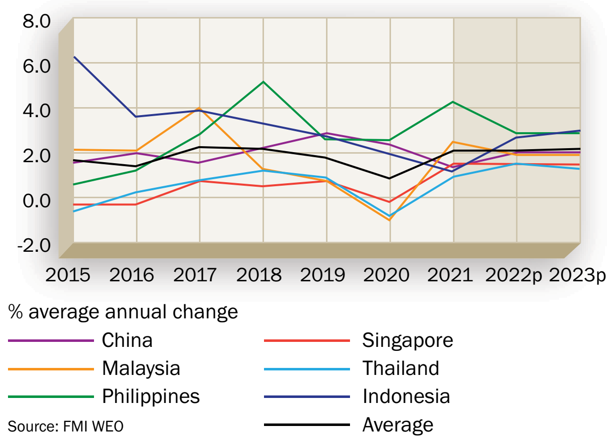
Asian Currencies vs USD



Source: FMI WEO

Chart **1.19**

Local Currency Inflation Rates



Source: FMI WEO

Bearing in mind the importance of this transmission channel, the future trajectory of external inflation, strongly driven by exchange rate developments, will continue to be one of the most influential factors in determining the evolution of domestic inflation.

The expected stability for regional currencies in 2022 and 2023 is a relevant assumption of BCTL's projected slowdown in domestic inflationary pressures.

In this context, the BCTL expects that, in line with the IMF, regional currencies will remain relatively stable against the dollar in 2022 and 2023 (appreciation of 0.2% per year), which, together with the maintenance of moderate trading-partners' inflation rates, around 2.1% per year, leads us to expect that imported inflation will remain stable over the same time horizon (2.3% year), helping to stabilize inflationary pressures in Timor-Leste in both 2022 and 2023. Therefore, BCTL expects that the average domestic inflation rate will slow down over the next 2 years, gradually decelerating from 3.4% in 2021 to 2.5% in 2023.

Insofar as the performance of the domestic economy also contributes to explaining inflationary trends, the BCTL's domestic growth forecasts will be discussed in the chapter covering domestic economic developments, which also provides greater detail regarding BCTL's inflation forecasts.

1.3.2. Energy Markets and Oil Revenues

Oil, natural gas and other energy resources' prices are highly volatile, having typically fluctuated widely between periods and regimes of high and low-price levels. The charts below depict these fluctuations and allow us to place the recent developments in energy prices on a longer time-frame perspective. It should be noted that it is not uncommon for energy prices to fall by 50% and rise by more than 50% within 1 year, as the 2020's pandemic crisis illustrates. In terms of levels, the sharp decline in oil prices from the end of 2014 cancelled all nominal price gains recorded since 2009.

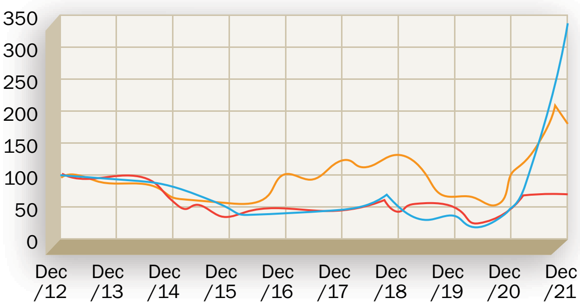
In 2021, there was a remarkable recovery of practically all energy resources, with particular emphasis on natural gas. Of the energy commodities considered in the charts below, gas and coal prices are now at their record highs of the last 10 years, which clearly confirms the difficulties of energy supply in adjusting and satisfying the global demand's recovery in 2021.

Oil and most commodities' prices recorded a notable recovery in 2021, after the sharp falls observed in 2020.

Oil price - brent reference - rose 49% in 2021, fully cancelling the pronounced fall in 2020, caused by the pandemic and rising to its highest level of the last 4 years. Even so, oil continues to be traded at lower prices than in 2014, having only partially recovered from the drop recorded in 2015.

Chart **1.20**

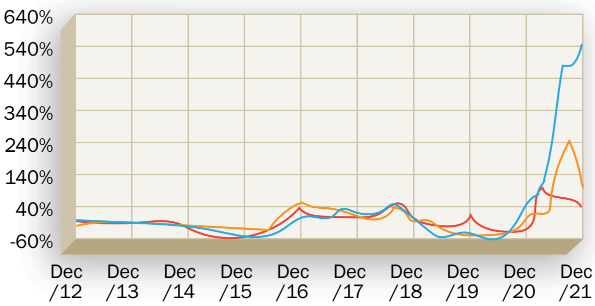
Energy Prices - spot levels



Source: World Bank

Chart **1.21**

Energy Prices - % change



Source: World Bank

However, it should be noted that the upward movement in the oil price in 2021 occurred in a context of relative stability throughout the year, after the significant volatility recorded in 2020, due to the disturbances caused by the pandemic crisis and its developments.

Future energy prices trends are, however, not easy to anticipate, as it results both from the interdependence between aggregate demand and supply in physical markets, and, increasingly, from the less measurable and unpredictable effects resulting from the financialization of these markets, evident in the expansion of the financial derivatives market and increasing participation of financial intermediaries and speculators. A clear proof of this prediction shortcoming is, clearly, the recent rise in oil prices in 2021, after the substantial fall in 2020's first half, whose speed and magnitude were in no way predicted by most market participants and analysts.

Timor Leste's future oil revenues are now practically marginal when compared to the revenues obtained in past years.

It should also be noted that the impact of energy price fluctuations on the country's oil wealth is now much lower than in previous years. This is due to the fact that future oil revenues, taking into account the fields in current exploration, are currently very small compared to what has already been extracted from the reserves of the Timor Sea, with the prospect that existing fields will cease to produce completely by 2023. Expected future revenues from 2022 to 2023 now amount to only around $150 million, which represents a renewed decrease from the 2020's expected value of $200 million.

Taking into account the now low estimates of expected future oil revenues from the Timor Sea, we do not detail in this report, as we did in previous years, the sensitivity analysis of domestic oil revenues in terms of oil prices' various projection scenarios.

1.3.3. Financial Markets and the Petroleum Fund

Finally, we consider another transmission channel of international developments to our economy, which relates to the Petroleum Fund (PF), established to efficiently manage the country's oil wealth. The working mechanism of this channel is similar to the price of oil, to the extent that the price changes of international financial assets drive the value of the Petroleum Fund and, in turn, the Fund's 'Estimated Sustainable Income' (ESI). Insofar as they drive changes in these two aggregates, financial asset prices end up influencing the amount of revenue available to finance the state budget and, consequently, the pace and scale of spending and public investment policies.

Financial asset prices influence the PF ESI and, in turn, overall funding of the State Budget.

The PF concluded 2021 recording total net financial assets of $19,651 million, which represents a renewed increase of $660 million versus 2020's closing balance ($18,991 million). The Fund is mainly invested (69.43%) in developed countries' treasury bonds and in shares (30.57%) of thousands of developed markets' companies.

Presently, FP invests 69.4% of its value in bonds and 30.6% in equities...

In 2021, the Fund again recorded an overall (after fees and taxes) net profit of $1,104 million, which was below the $1,859 million and $2,100 million return achieved in 2020 and 2019. This continued and substantial performance was practically due to the renewed rise in equities investments, as the bond portfolio recorded a global loss in 2021, while exchange rate changes had only a marginal impact over the Fund's valuations.

Since its inception, the PF has been expanding its investment universe, starting, first, by only investing in US Treasury securities, then gradually investing in shares and, finally, extending investments to bonds issued by several global Treasuries. The gradual extension of its investment mandate was driven by the growing demand for a higher expected return for the Fund and search for greater diversification of its investments and relevant markets.

PF's performance is now crucially driven by price trends in global bonds and equities markets....

This institutional development exposes the Fund to new risks and markets, but which, by benefiting from the diversification of the prices of the various assets, allow a more solid portfolio to be built and whose risk-return profile is more efficient. At present, the Fund invests only in fixed interest rate bonds and equities, so that received interest and dividends on bonds and shares provide the Fund with a fixed and constant income, at least on 'a priori' basis. Naturally, by investing in bonds and stocks, the Fund benefits from increases in market values of these securities or, on the contrary, can be adversely affected by eventual negative price changes. Therefore, the Fund's main financial risks correspond to possible losses arising from the fall in the prices of the bonds or socks in which the Fund is invested.

.... but foreign exchange fluctuations also affect the PF, which has invested in currencies beyond the USD.

In addition, since the PF invests in several jurisdictions and markets, denominated in currencies other than the US dollar, the Fund is also exposed to exchange rate risks, understood as the possibility and impact arising from the depreciation of the various investment currencies against the dollar.

In short, the PF's financial risk includes 3 types of market risk: equity risk, or risk of falling global stock prices, interest rate risks, which translates to the risk of falling Treasury bond prices; and currency risk, which consists in the risk of depreciation of the investment currencies against the US dollar.

The price changes of PF's assets and the various investment currencies thus constitutes the true channel of transmission between international markets, the value of PF and its ESI and our country's economy.

In 2021, the Fund recorded another positive performance, practically due to the gains of its equities portfolio.

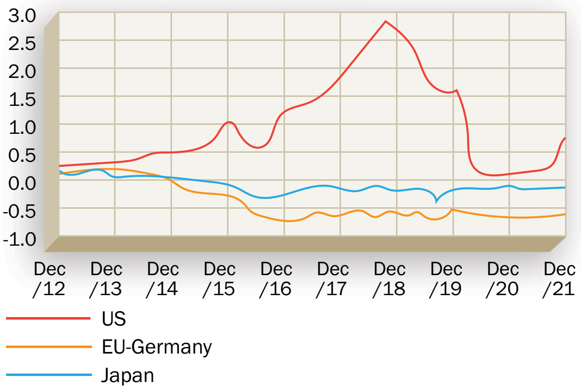
As noted, in terms of returns, 2021 was also very positive for the FP, which returned +5.7% in terms of its 2020's closing value, compounding the gains already recorded in 2020 (10.67%) and in 2019 (13.25%). However, in 2021, the loss in the Fund's bond portfolio cancelled part of the exceptional gains for its equity investments.

Bond investments recorded a net loss in 2021, cancelling part of the gains accumulated in 2020 and 2019. This loss was due to the generalized increase in interest rates during the year.

As previously mentioned, in 2021, global bonds and treasuries markets were impacted by a widespread increase in interest rates, especially in the US market, more marked in the case of 2-year maturities than in the 10-years. It should also be noted that these increases only partially cancelled out the interest rate falls recorded in 2019 and 2020.

Chart 1.22

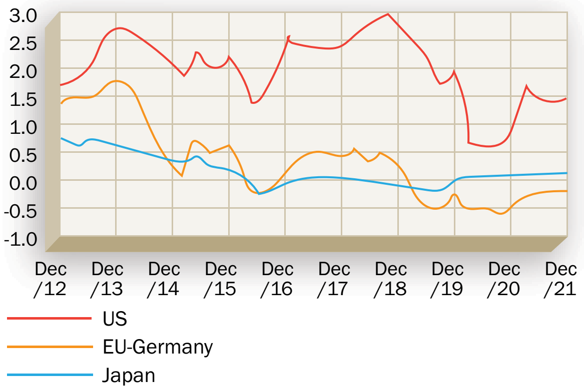
2 Year Interest Rates - % year



Source: Bloomberg

Chart 1.23

10 Year Interest Rates - % year



Source: Bloomberg

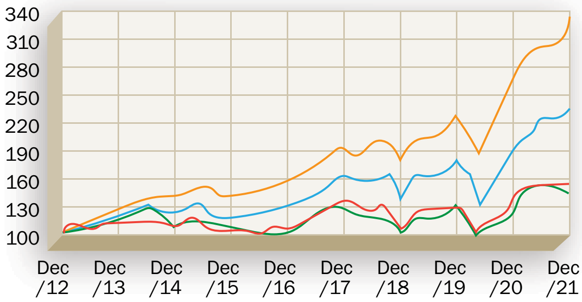
In the European and Japanese markets, long-term interest rates also rose slightly, but remained in negative territory, or close to the zero threshold, where they have been since 2019. This generalized rise in rates, which reversed the cycle of interest rate falls of 2019 and 2020, particularly in the US market, which represents the majority of the Fund's bond investments, negatively impacted the PF's return, despite the coupon income received from bonds. This development yielded a global loss for the Fund's bond portfolio of -2.25% in 2021, which cancelled part of its gains recorded in 2020 (5.04%) and in 2019 (5.16%).

In terms of equity markets, the Fund's equity benchmark (the black line in the chart below – "World") accumulated new gains in 2021. The gains in the FP's equity portfolio were due to the upward trend in the US market, but also in most global equity markets. PF's investments in equities recorded an exceptional gain of +22.71% in 2021, thus adding up to the substantial gains of 2020 (14.03%) and 2019 (27.67%). In terms of foreign exchange impacts, the PF was only marginally affected by a very slight appreciation of the USD against investment currencies.

PF investments in shares have again benefited from the robust performance of practically all global equity markets, led by the US market.

Chart **1.24**

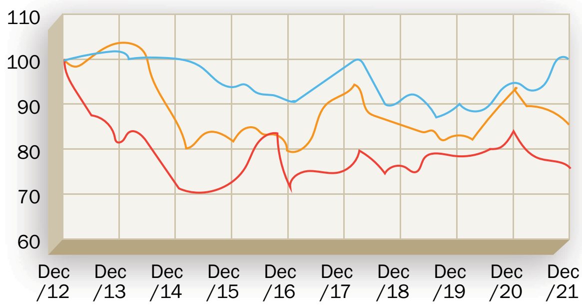
Equity Markets in USD – 2012 = 100



Source: Google Finance

Chart **1.25**

Currencies vs USD – 2012 = 100



Source: Google Finance

In short, the Petroleum Fund currently holds a portfolio of a vast and diverse set of securities and is invested in major global stock and bond markets, that efficiently optimizes its risk-return profile.

The PF's value and returns trajectory continues to largely depend on the price developments for these global financial assets, measured in USD terms.

However, given its substantial investments in global bonds and equities, the PF's future financial value and its returns trajectory continue to depend on price developments for these financial assets, which are naturally and also affected by the gyrations of the dollar against the respective investment currencies.

In a longer time horizon, we do think that the risk of a global stock or bond market correction is now significant, given the current and simultaneous high stock market valuations and the still historically low levels of global bond interest rates, despite the rate rises recorded in 2021. The trends evidenced in 2021 have further reinforced this historical overvaluation of securities in both investment markets, particularly for equity markets.

In this regard, it should be noted that the top US stock market index, the S&P 500, after its renewed ascent in 2021, reached a new peak price level that corresponds to more than three times its level of December 2009 and today registers historically record valuations, visible for example in its extraordinary ratio of price to companies historical earnings.

However, the long investment horizon of the Fund and its institutional framework should allow us to deal with the markets' short-term swings in a rational way and even to benefit from the occasional episodes of price declines across markets, by a rigorous implementation of the Fund's investment discipline and targeted asset allocation.

On the contrary, the absence of significant future oil revenues from ongoing exploration projects, together with the continued maintenance of a level of public expenditure that results in an active reduction of the Fund's capital, today represent significant risks to this strategy's success and respective temporal investment horizon. These risks, if not mitigated adequately over the coming years, should require a due reassessment of respective PF's objectives to ensure consistency and coordination with its investment strategy implementation.