

Timor-Leste and the Pandemic
– Economic Resilience and
the Global Challenges

Annual Report **2020**



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Chapter 1

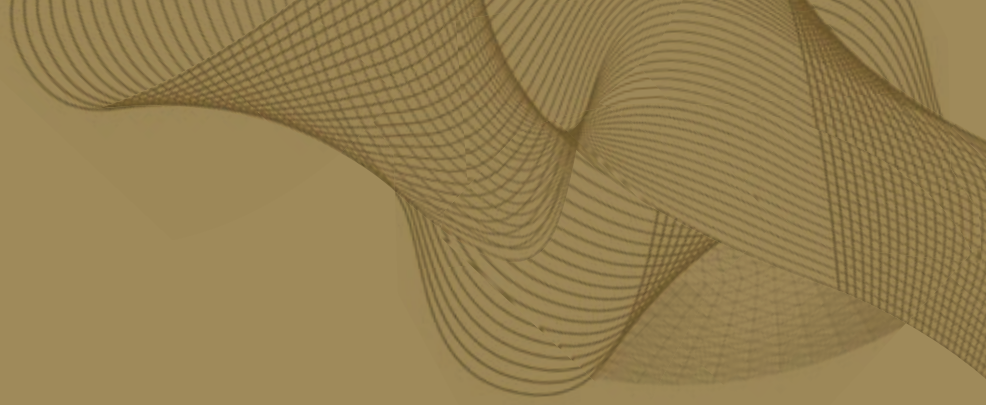
International Economic Developments

This chapter describes and assesses the major global economic developments in 2020, 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 2020 and the prospects expected from 2021 to 2022. This analysis is based mainly on the most recent IMF's estimates and perspectives, presented in its "World Economic Outlook Update", released in January of 2021.

In terms of the more worthy developments described in this chapter, we highlight the following:

- 2020 was undeniably and naturally impacted by the global pandemic crisis and its highly negative disruptions, which forced the widespread adoption of public health protection measures and highly restrictive constraints on social and economic activity worldwide.
- The world economy thus experienced a recession in 2020 for the first time since the 2008/2009 crisis, with world GDP falling -3%, according to the latest estimates. This was the most pronounced annual drop in the past 30 years, which naturally reflects the devastating, global and synchronized impact of the pandemic crisis.
- However, the substantial and broad economic policy efforts, at the monetary and budgetary levels, actively contributed to stabilize the respective impacts and to sustain a marked recovery of the world economy in the second half of the year, as the pandemic was reasonably contained in global terms.
- At the end of 2020, despite a further increase in infection levels in many countries, but especially in Europe and the Americas, the economic outlook was already much more optimistic, due to the approval of effective vaccines and the stabilization of the global commercial and financial markets, due to the large scale of economic support packages.
- In terms of prospects for 2021 and 2022, a substantial recovery is expected for the world economy and virtually all regional and national economies. The IMF specifically predicts that the world economy will grow 5.5% in 2021 and 4.2% in 2022.
- This optimism relies on the expectation of gradual and extensive implementation of vaccination programs in the main global economies, which, benefiting from the current huge monetary and budgetary stimulus, and the return to “normality” and the opening of a set of economic sectors, should bring about a remarkable recovery in historical terms.
- In terms of prices trends, 2020 was marked by the easing of inflationary pressures worldwide, in line with the general fall in economic activity. For 2021 and 2022, it is generally expected a pickup and recovery towards moderate inflation levels, for most world economies.

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- In the Asian economic space, in line with the global trajectory, the macroeconomic background also deteriorated. Despite the declines in activity, the Asian economies were still able to present a relatively robust performance, when compared to the rest of the world economies, which was due to the generic regional success in containing the virus and to the rapid and synchronized recovery of the productive processes and activity in the region.
 - In terms of prospects, in line with global optimism, the IMF expects a substantial and widespread recovery in economic activity in Asian countries in 2021 and 2022, predicting that the region will continue to lead the world in terms of economic growth.
 - In the global monetary and bond markets, there was a significant reduction in interest rates across practically all geographies and maturities, in line with the substantial expansion of the monetary stimulus of major central banks.
 - In the foreign exchange markets, the dollar ended up registering a slight depreciation against the main international currencies in 2020, resulting also from the reduction of the dollar's interest rate premium. Asian currencies also recorded mixed changes versus the dollar, which underpinned foreign exchange market stability and contributed to continue to anchor and stabilize inflation pressures in Timor-Leste.
 - Despite the high volatility and pessimism prevailing in the first half of the year, the global equity and commodity markets ended up accumulating substantial gains in 2020, benefiting from the success of macroeconomic stabilization policies, the substantial reduction in investor pessimism and the beginning of worldwide vaccination programs.
 - The solid performance of Petroleum Fund's investments in shares and bonds continued to benefit from the renewed rise in global share prices and the generalized fall in interest rates in 2020. However, the materialization and reinforcement of a historically high valuation scenario, both in global stock and bond markets in 2020, will naturally limit the Fund's future performance over the coming years.

1.1. Major World Economies

1.1.1. Economic Growth in Major World Economies

In 2020, the world economy experienced a recession for the first time since the 2008/2009 crisis, with the world's gross domestic product (GDP) falling -3%, an estimate still subject to revision. This appears to be the most pronounced annual decline in the world economy in the past 30 years, which naturally reflects the devastating, global and synchronized impact of the pandemic crisis in 2020.

As is widely known, the imposition of stringent public health controls and generally very strict lockdowns, together with the materialization of several waves of virus propagation in 2020, has led to a brutal paralysis of most productive sectors in the vast majority of economies for a significant period in 2020. However, the substantial and broad economic policy efforts, at the monetary and budgetary levels, actively contributed to stabilize the respective impacts and to sustain a conspicuous global economic recovery in the second half of the year, as the pandemic was reasonably contained around the world.

At the end of 2020, despite a further increase in infection levels in most countries, but especially in Europe and the Americas, the economic outlook was already much more optimistic than in the first half of the year, due to the approval of vaccines for the virus and the stabilization of the global commercial and financial markets, on the back of the large-scale economic support programs.

The world economy has experienced a recession in 2020 for the first time since the 2008/2009 crisis, due to the global pandemic.

Despite the pessimism of the first half, the strong economic recovery in the second semester stabilized global commercial and financial markets, on the back of extraordinary policy support.



Chart 1.1

GDP Growth - 3 Major Blocs

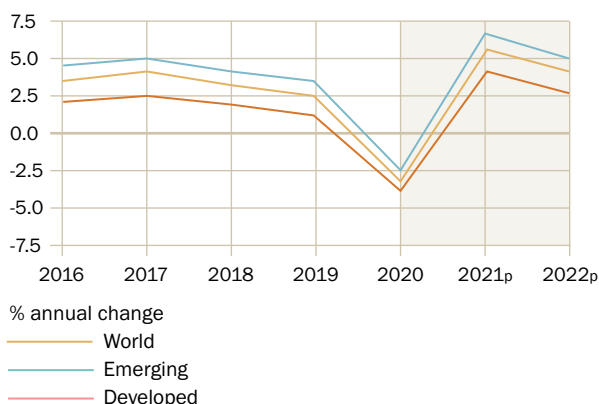
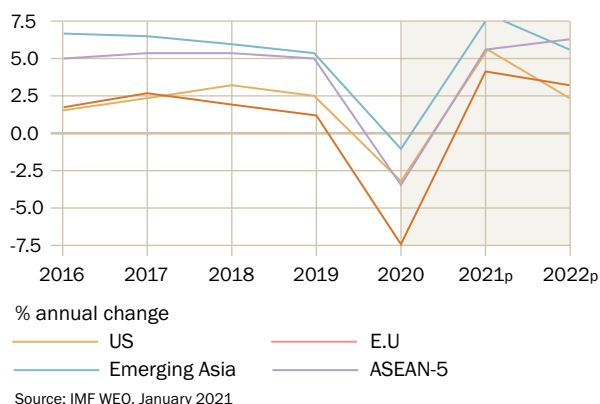


Chart 1.2

GDP Growth - Selected Regions





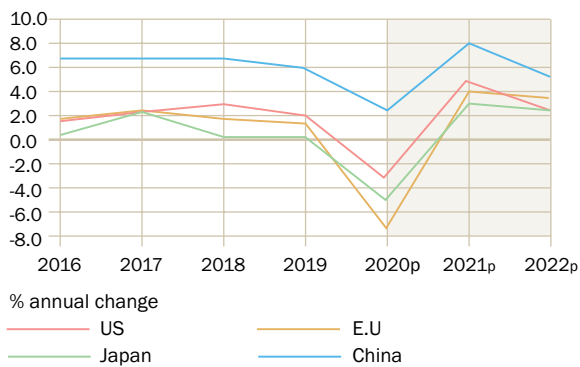
In terms of economic blocs, it should be noted that, according to IMF estimates, the developed economies bloc is expected to experience a recession in 2020 (-4.9%) worse than what is expected for the developing economies bloc (-2.4%). This performance seems to be due not only to the greater capacity to “freeze” the developed economies, with access to greater financial resources, but also to the difficulties of these countries in sustainably and permanently containing infection cases’ growth throughout the year. According to the IMF forecasts, it should also be noted that the aggregate GDP value of the developed bloc should only return to its 2019 levels in 2022, but developing countries’ GDP should recover fully already in 2021.

In regional terms, the resilient economic performance of Asian and Pacific economies, relative to global peers, is also noteworthy, with Emerging Asia’s and the 5 largest ASEAN economies’ GDP decreasing only -1.1% and -3.7% in 2020. In the Atlantic axis, it should be noted that the impact of the pandemic is expected to be much more profound in the Euro-area than in the US economy, with the first’s GDP falling -7.2% in 2020, compared to the -3.4% contraction expected for the US.

Charts 1.3.1 and 1.3.2 further compare the 4 largest world economies’ economic performance, which also allows us to confirm the outperformance of Asian economies - Japan and China - and the highest impact on the Eurozone economy.

Chart 1.3.1

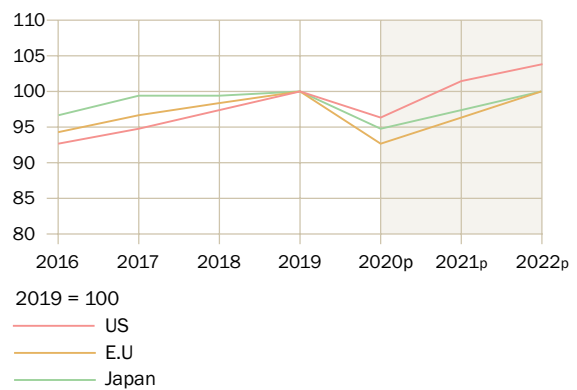
GDP Growth - 4 Major Blocs



Source: IMF WEO, January 2021

Chart 1.3.2

GDP Levels - 4 Major Economies



Source: IMF WEO, January 2021

In terms of prospects for 2021 and 2022, the IMF generally expects a substantial recovery in the world economy and in virtually all regional and national economies. In particular, the IMF forecasts that the world economy will grow 5.5% in 2021 and 4.2% in 2022, so that the world GDP should already exceed its level of 2019 by the end of 2021. In addition, the Fund also expects the recovery in developing economies to be more robust than that of the developed country bloc.

The IMF global prospects for 2021 and 2022 are now quite optimistic, consisting in a widespread and synchronized recovery for practically all economies worldwide.

This optimism is naturally based on the expectation of a gradual and extensive implementation of vaccination programs in the main world economies, which, benefiting from the current highly stimulative stance in monetary and budgetary policies worldwide, the return to “normality” and the reopening of a number economic sectors will all lend support to a remarkable recovery, in historical terms.

However, despite the optimism regarding the next 2 years, it is worth noting that the world economy will continue to face remarkable uncertainties during the period, due not only to the degree of success achieved by vaccination programs in eliminating the risk of the virus, but also to the challenges inherent to higher public and private debts and budget deficits in most economies and the gradual need to adjust the fiscal and monetary policy stimulus, without compromising the respective economic recovery process.

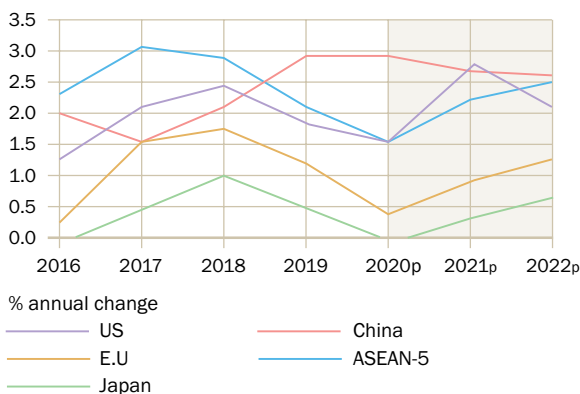
The control of the virus and the success of the global vaccination programs are crucial to support the materialization of IMF’s recovery anticipated for 2021 and 2022.

1.1.2. Inflation in Major World Economies

Due to the sharp declines in economic activity, inflationary pressures fell in most of the world’s economies.

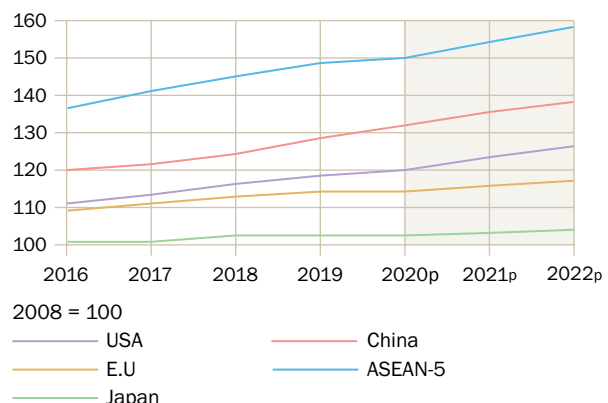
Inflationary pressures eased again in 2020

Chart 1.4.1
Inflation Rates - 5 Selected Economies



Source: IMF WEO, January 2021

Chart 1.4.2
Price Levels - 5 Selected Economies



Source: IMF WEO, January 2021



With the exception of China, the main world economies registered average inflation rates below 2% in 2020, which extended the disinflation already registered in 2019. It should also be noted that the US closed the year with an average inflation rate of 1.5%, compared to 1.8% in 2019, below the FED's inflation target of 2%. On their side, the Eurozone and Japan registered Inflation rates of 0.9% and -0.1% in 2020, values well below the objectives of respective monetary authorities.

.... due to the substantial declines in economic activity levels, recorded in practically all economies.

Naturally, the renewed easing of inflationary pressures stemmed from the economic impact of recessions caused by the pandemic crisis, which led to an increase in unemployment in most economies and a fall in activity levels below their respective potential levels. The need to inject substantial monetary stimulus to stabilize their economies, also allowed by the fall in inflationary pressures below policy objectives, has led most central banks to revisit a cycle of lower interest rates in economies with interest rates still in positive ground, and also (re)implement extraordinary and large-scale financial assets purchase programs.

However, inflationary pressures are expected to accelerate moderately into 2021/2022, in line with the global economic recovery.

For 2021 and 2022, the IMF foresees a gradual rise in average inflation rates, supported by the aforementioned economic recovery expected for most world economies. However, forecasts for 2021/2022 point only to a gradual and slow-paced rise in inflation to levels close to the 2% benchmark, relevantly targeted by the majority of central banks.

It should also be noted that the IMF continues to expect that the Eurozone and Japanese economies will continue to experience lower inflation rates than those of the USA in the next biennium, which should continue to undershoot the mentioned 2% level.

This is due to the existence of greater availability in terms of resources (un) employed in these economies, which will continue to operate below their potential employment levels. It will therefore be necessary for both economies to continue to grow robustly for several consecutive years in order to effectively close these gaps in the use of economic resources and substantial inflationary pressures are again materialized.

1.1.3. Global Commodity Markets

With the exception of oil, the prices of the most relevant commodities recorded widespread increases in 2020. Despite the high volatility registered during the year and the sharp simultaneous drop in prices in the first half, the prices of these goods rose significantly in the second semester, sustained by the stabilization and strong recovery of economies, especially in Asian economies, which are today, marginally, the most relevant economies in defining price trends in these markets.

With the exception of oil, and despite substantial volatility, commodity prices recorded substantial gains in 2020.

Alongside this effect, the injection of significant monetary stimulus, together with the depreciation of the dollar, especially at the end of 2020 - which usually moves inversely to commodities' prices - seems to have also reinforced the upward trend in raw materials' prices.

The continued upturn in commodities prices thus resulted in the extension of the recovery recorded since the prices of most of these inputs registered minimum levels in 2015/2016. For the economies that export them, typically developing countries, this upturn in international prices represented a positive development, which served to offset the substantial impact arising from the drop in global demand in the first half of the year.

Chart 1.5.1
Major Commodities Prices - levels

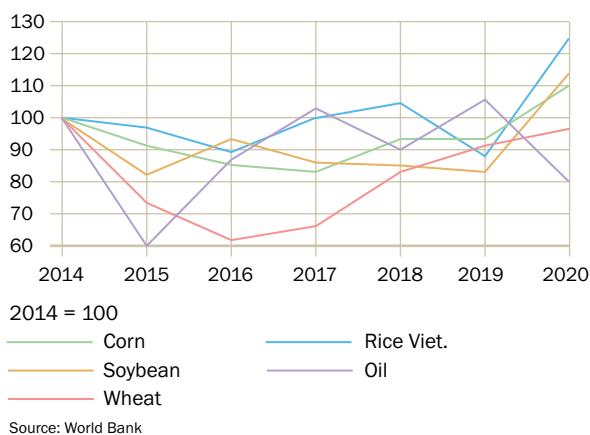
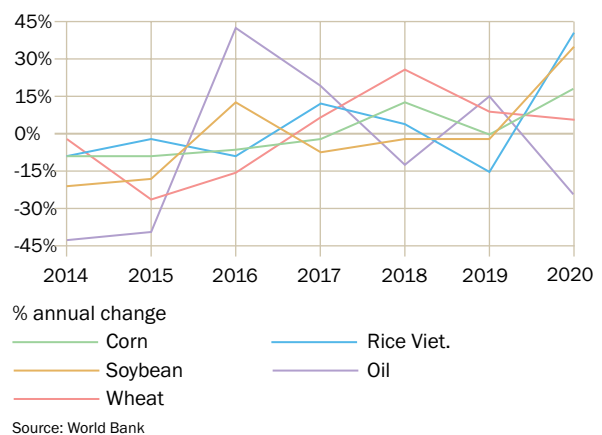


Chart 1.5.2
Major Commodities Prices - % change



It should also be noted that oil was the only relevant global commodity that registered a drop in price in 2020. Even so, despite the substantial falls recorded in the first half, its price managed to mitigate these losses, especially after the recovery observed in the last quarter of the year.

The fall in oil prices was mostly due to the decline in global demand, but also to the continued materialization of the global energetic model transition process.

The fall in oil prices was mainly due to the sharp decline in global economic activity, but it also resulted from the continued reinforcement of trends and policies adopted within the global energy transition process, towards the development of renewable energy sources and reduction of CO2 emission levels. This medium-term development gained new momentum in 2020 and will be a major constraint in terms of future demand for oil and refined products over the next coming years.

1.1.4. Major Global Financial Markets

In terms of financial markets, we begin by analyzing 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.

Due to the mentioned implementation of highly stimulative monetary programs to stabilize world economies, interest rates in practically all markets and maturities registered a wide and generalized decline throughout 2020.

2-year interest rates have fallen significantly in the US, in line with the Fed's substantial monetary stimulus

Naturally, 2-year interest rates, more sensitive to changes in monetary policy stances recorded significant decreases in 2020, especially in the US market. In economies where the level of short-term interest rates was already close to the null threshold (0%), this decline was not so evident, as central banks continue to avoid implementing negative interest rates.

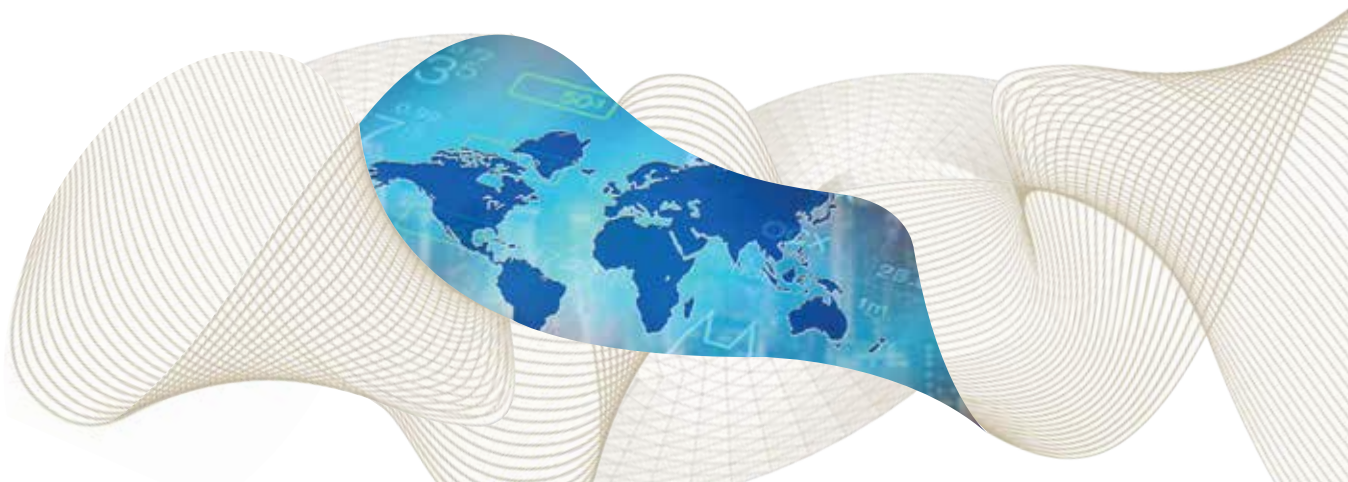


Chart 1.6

2-Years Interest Rates %

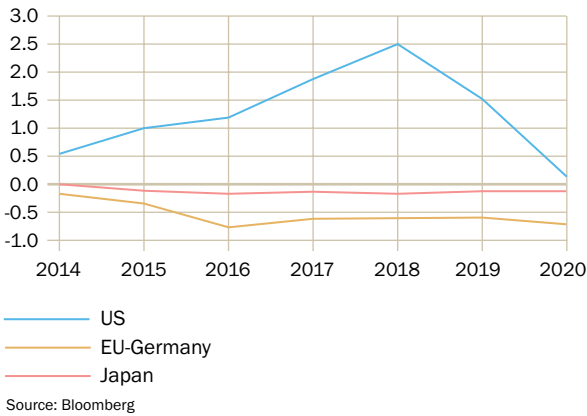
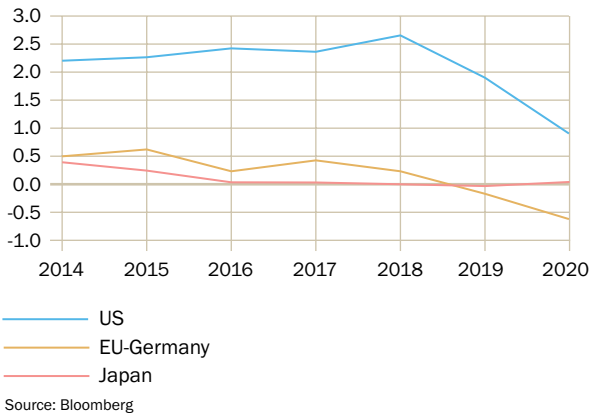


Chart 1.7

10-Years Interest Rates %



In the case of the US, the fall in 2 years interest rates was substantial, from 1.57% at the end of 2019, to just 0.12% at the end of 2020. The amplitude of this movement reflects the degree and extent of the FED's intervention program. However, we note that this movement, in fact, reinforced the process of falling interest rates that began earlier in 2019, with the FED implementing multiple interest rate cuts in that year, following the growing concerns over the unfavourable economic impacts from increasing trade tensions with China.

In the case of 10-year interest rates, there was also a significant decrease compared to 2019 levels, simultaneously explained by the pandemic crisis and the respective monetary intervention. Although long-term interest rates are, in general, more stable than short-term interest rates, they also registered significant declines. Specifically, the US 10-year rate fell -1% to 0.92% at the end of 2020, while the German benchmark sank to an even more negative level of -0.57%, compared to -0.19% in 2019.

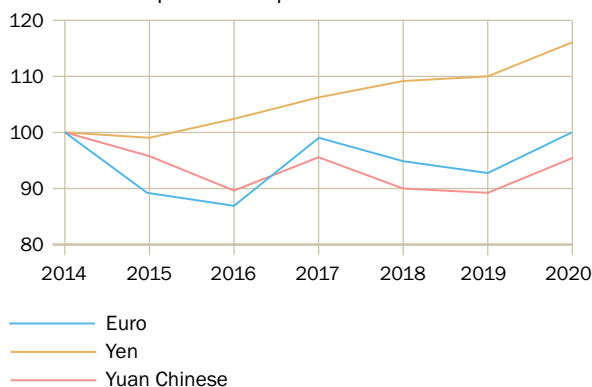
... as well as longer interest rates, which also dropped substantially in 2020.

Even so, in both 2 and 10 years, interest rates in the USA remained at levels higher than those observed in the Eurozone and Japan, similarly to what has been observed since 2018, which seems to result from the perpetuation of the perspective that the US economy is expected to continue to outperform its peers over the next few years.

Naturally, developments in bond markets, together with the economic trends discussed above, also determined a large part of the developments registered in major and global foreign exchange and equity markets worldwide.

Chart 1.8

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

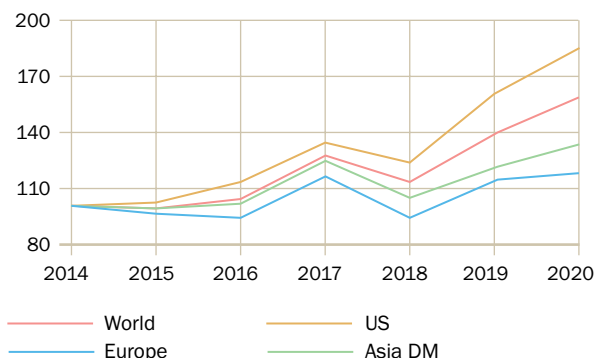


Source: Google Finance

The decline in interest rates contributed to the depreciation of the dollar against the main global currencies.

Chart 1.9

Mercados Accionistas, Preços em USD
2014=100



Source: Google Finance

Global equity markets again registered notable gains in 2020, extending the upward trend recorded since 2009.

In foreign exchange markets, the dollar depreciated against most foreign exchange currencies in 2020. This movement, despite the substantial appreciation recorded in the first semester, resulted mainly from the significant fall in FED's interest rates in 2020, which substantially reduced the dollar's positive interest rate premium to other global currencies. The stabilization of global economies in the second half of 2020, the widespread return of global investors' risk appetite and rising political instability in the US have also helped to consolidate the depreciation of the dollar in the later part of the year, as the USD is typically considered a safe/reserve asset in international terms.

In equity markets, after the sharp falls recorded until April, triggered by the initial stage of the global economic crisis and widespread pessimism, share prices worldwide staged a remarkable and extraordinary recovery from April onwards. As shown in chart 1.9, global equity markets continued to accumulate gains in 2020, with the US market once again outperforming its global peers.

The US equity market - represented here by the ETF (Exchange Traded Fund) which replicates the S&P 500 index - registered gains of 16% in 2020, which is notable given the disturbances and serious impacts of the pandemic crisis throughout the year. These gains have been supported by the optimism regarding the IT and revolutionary technologies sectors, which represents a growing and more significant portion of this market, when compared to other global equity markets peers. However, the substantive contribution of expansionary fiscal policy and extraordinary liquidity injections in the US and worldwide, were also crucial in driving the robust gains accumulated in 2020.

The vitality of equity markets in 2020 thus extended the long and rising share prices trajectory observed since 2009, resulting in a general increase in the degree of overvaluation of share prices versus the respective corporate earnings, to levels well above their historical averages.

In addition to the US, the global equity market recorded gains of 14% in 2020, with the Asian market - including developed countries only - adding 10%. The European market, as has been typical in recent years, underperformed its peers, having risen only 3% in the year.

In summary, the US equity market has thus continued to far outperform the rest of global markets over the past 8 years, having continued to benefit from the superior dynamism of its economy, despite the recent chaotic and disturbing political episodes.

Taking into account the remarkable performance of this market over the last 11 years, which resulted in the substantial appreciation of share prices in relation to corporate earnings, it should be noted that the uncertainty regarding the substantial recovery of the American economy in 2021/2022, or of the respective corporate profits, represents today, more than ever, given the challenges of overcoming the global pandemic, a significant risk for this stock market.

Many equity markets, and specifically the US, today register record valuation levels, with the ratio of prices to corporate earnings being well above its historical average.



1.2. Asian Economic Developments

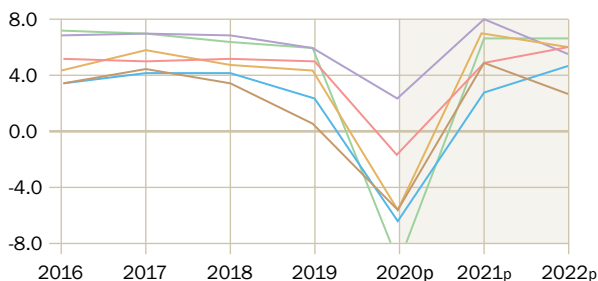
After summarizing the broad global macroeconomic panorama in 2020, it is important to detail the assessment of developments across the Asian space, in particular ASEAN, as the main economic partners of Timor-Leste are located in this region. Our analysis focuses on ASEAN's five major economies and China, whose economy has increasingly 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.

With the exception of China, the largest Asian economies also recorded recessions in 2020, in line with the global trend.

With the exception of China, all these economies registered declines in their respective levels of economic activity in 2020, due to the global pandemic crisis. Despite these falls, Asian economies displayed great resiliency and robustness, especially when compared to other global economies, which was due to the general success in containing the virus and the rapid and synchronized recovery of production processes and economic activity across the region and countries.

Chart 1.10.a

GDP Growth Rates



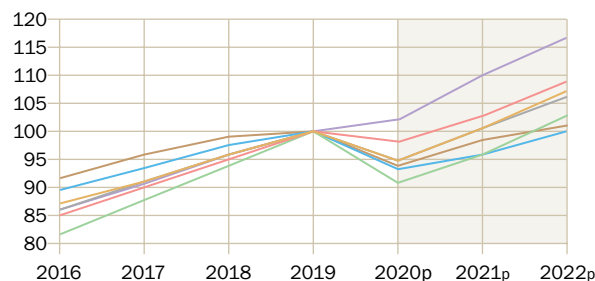
% Annual Change



Source: IMF January 2021 WEO

Chart 1.10.b

GDP Levels



2019 = 100



Source: IMF January 2021 WEO

However, economic activity recovery was more robust and faster in Asia than in the rest of the world, supported also by the general success in containing the virus in most countries across the region.

Extraordinarily, the Chinese economy still managed to record a 2.3% growth in 2020, without resorting to the implementation of large fiscal and monetary stimulus packages, and after having successfully suppressed the first wave of the virus in the country. Even so, this 2% expansion represents a substantial slowdown compared to the Chinese experience of the past 20 years. Of the ASEAN economies, Indonesia was the country whose GDP contracted to a lesser extent (-1.9%) and the Philippines the country that experienced the greatest recession (-9.6%).



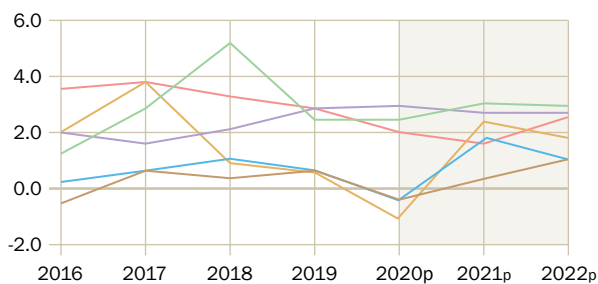
In terms of prospects, in line with its global optimism, the IMF expects a substantial and widespread recovery in economic activity in the region in 2021 and 2022, predicting that the region will continue to lead the world in terms of economic growth. It should be noted in this regard that the IMF expects the Indonesian and Malaysian economies to regain the GDP levels registered in 2019 as early as 2021, but the rest of the economies should only completely recover from the pandemic crisis in 2022.

According to the same forecasts, at the end of 2022, if the expected growth trajectories are materialized, Singapore and Thailand will be the countries that will have registered the lowest growth in the biennium, which seems to be due to their greater dependence on international trade and greater current level of development, in the case of Singapore, and the importance and less rapid recovery of the tourism sector, in the case of Thailand.

Also in line with the global trend, inflation slowed in 2020 in the region. The average inflation rate of the 6 Asian countries considered fell to 0.9% in 2020, from 1.7% in 2019, with 3 economies - Singapore, Malaysia and Thailand - registering negative inflation rates in the year.

Chart 1.11.a

Inflation Rates

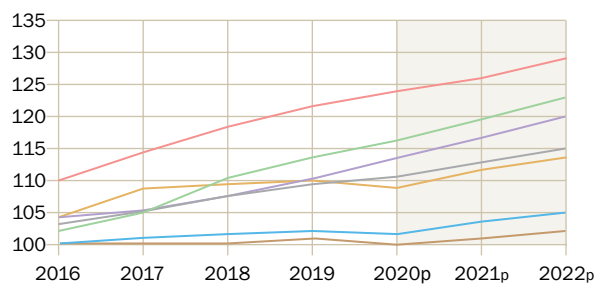


% annual change
 — China — Singapore
 — Malaysia — Thailand
 — Philippines — Indonesia

Source: IMF January 2021 WEO

Chart 1.11.b

Price Levels



2014 = 100
 — China — Singapore — Malaysia
 — Thailand — Philippines — Indonesia
 — Average

Source: IMF January 2021 WEO

In terms of prospects for 2021 and 2022, the IMF expects a generic pickup in inflation in the region, consistent with the expected economic upturn. However, inflation forecasts for the next biennium only anticipate a return to average rates recorded in recent years, which corresponds to a moderate inflation pressures scenario.

Regional currencies remained, on average, stable against the dollar in 2020

The slowdown in inflation across these economies and the general stability of regional currencies values against the dollar, explained, in turn, the reduction in regional inflationary pressures, when measured in US dollars.

The developments recorded for these relevant macroeconomic indicators - economic activity and inflation - helps to explain, as is also explained, by movements registered in the 2 main financial markets, the foreign exchange and bond markets.

In foreign exchange markets, despite the high volatility recorded during the year, 2020 ended up being characterized by an 'average' stability of regional exchange rates against the US dollar, with the slight depreciations of Indonesia, Singapore and Malaysia's currencies being offset by the appreciation of the Chinese, Thai and Filipino currencies.

Chart 1.12
Exchange Rates vs USD

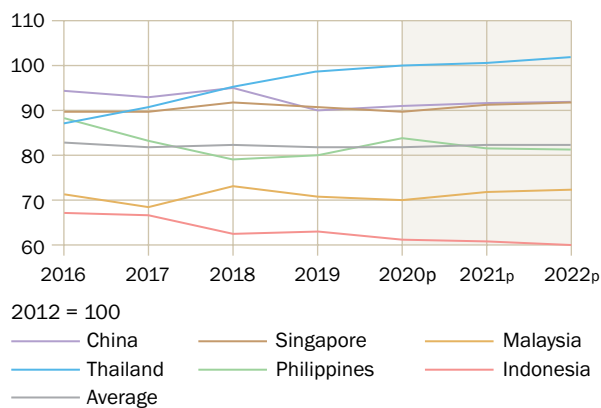
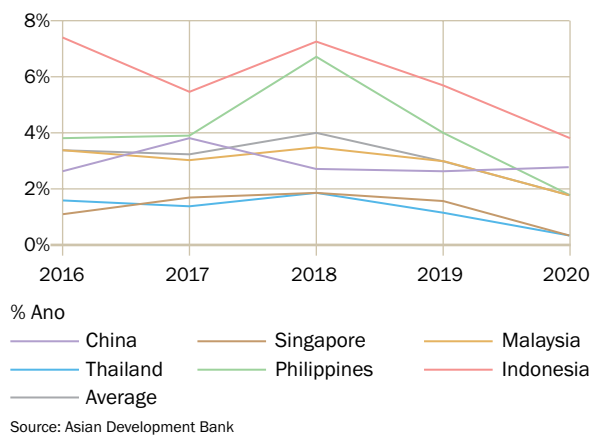


Chart 1.13
2-Years Interest Rates



The IMF further expects that most regional currencies will remain relatively stable against the dollar between 2021 and 2022, which will contribute, if this scenario materializes, to stabilize inflationary pressures in the region and, above all, to stabilize the prices of goods imported by Timor-Leste. It should be noted, however, that this scenario of exchange rate stability may be materially affected within the course of the current pandemic process, especially if its economic impacts come to be more profound and lasting than those predicted by the IMF.

Regional interest rates, represented here by 2-year bond yields, registered notable decreases in 2020, in line with developments in the main world bond markets, and extending the downward trend started in 2019.

.... with regional 2-year interest rates declining, in line with the movement registered in the dollar market.

Average 2-year interest rates across the 6 economies dropped from 3% in 2019 to 1.8% at the end of 2020. With the exception of Chinese interest rates, which ended up rising in 2020 compared to the previous year, the fall in 2-year interest rates in these economies tracked the cuts in reference rates implemented by the various central banks as well as lower economic performance prospects. However, despite having tracked dollar market movements, regional interest rates remain well above those recorded in most developed markets, which reflects the region's better relative economic performance, but also their lower room for manoeuvre in terms of monetary and exchange rate policies.

With regard to external accounts, we can conclude that most of our trading-partners continued to maintain substantial external surpluses in 2020, with the exception of Indonesia, which recorded a deficit in its current account, amounting to -1.3% of GDP in 2020. It should also be noted that, although the region's average external surplus was reduced in 2020, the various economies managed to maintain positive external surpluses, despite the deep disruptions to economic activity and trade worldwide.

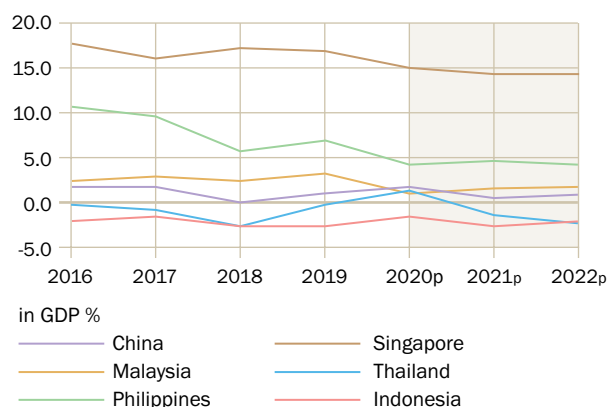
The external accounts remained in surplus, with the exception of Indonesia, despite the global economic turmoil.

For 2021 and 2022, the IMF continues to foresee a slight and gradual decline in net external surpluses for most countries in the region, but for the Philippines and Indonesia, the IMF expects them to continue to record external deficits in the same period.



Chart 1.14

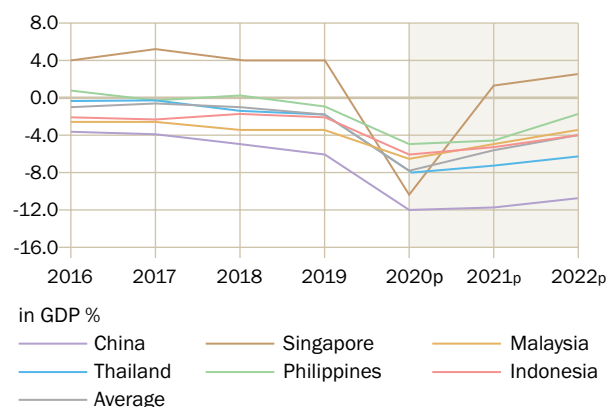
External Current Account Balances



Source: IMF January 2021 WEO

Chart 1.15

Fiscal Balances



Source: IMF January 2021 WEO

In 2020 there was a sharp deterioration in Asian fiscal deficits, due to the fall in economic activity and implementation of substantial policy support packages.

In terms of fiscal positions, 2020 was inevitably marked by the substantial deterioration in public deficits in the various Asian economies, due to the substantial declines in economic activity and mobilization of substantial amounts to support the respective populations and economic sectors affected by the pandemic. The case of Singapore is paradigmatic and illustrative, due to the strong deterioration of its fiscal balance in 2020, a fact that was also possible given the previous existence of substantial reserves and assets in this country.

For 2021 and 2022, the IMF expects a gradual reduction of budget deficits in the region, with the economy of Singapore expected to return to a surplus position in 2021. However, as is the case for most world economies, budgetary balances are expected to remain in negative territory over the next few years, given the need to continue supporting the economic recovery process and only gradually remove the current level of stimulus.

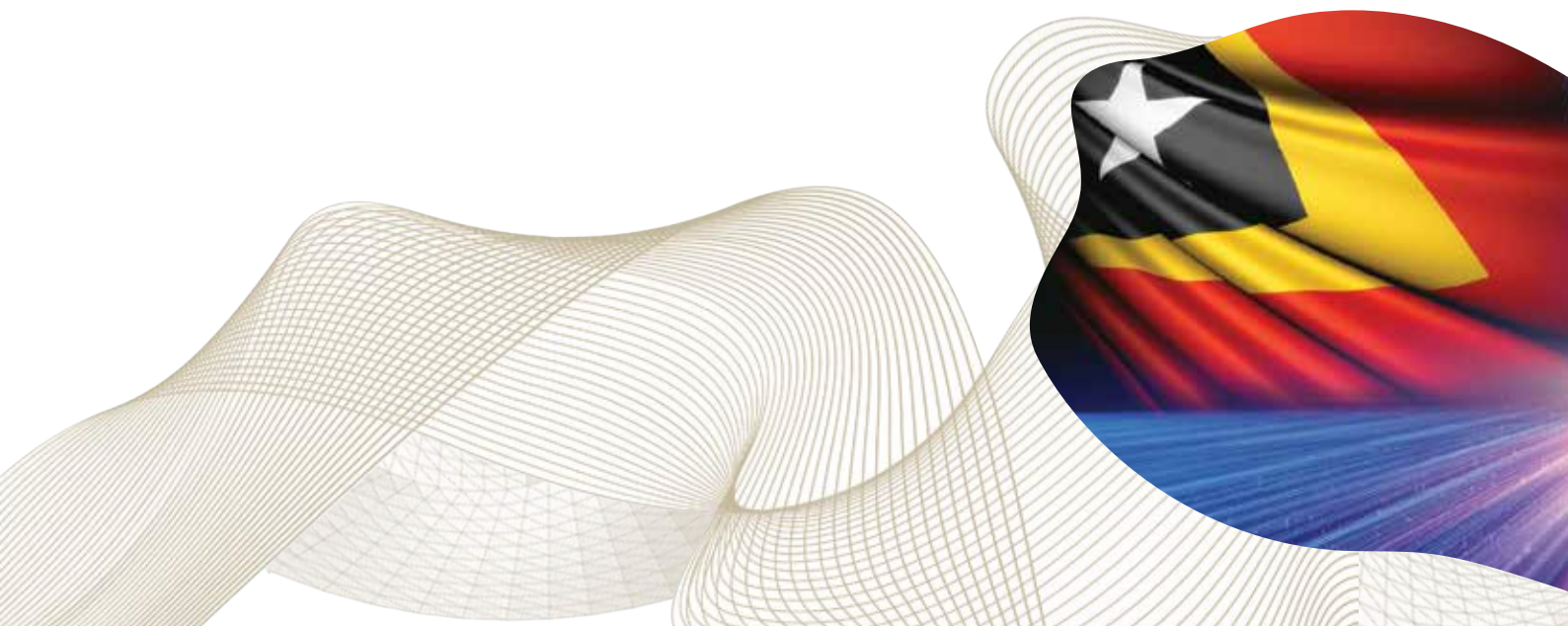
In short, in line with the global trend, the macroeconomic situation in Asia deteriorated in 2020, but, despite the substantial challenges faced during the year, the region managed to display great resiliency and robustness, especially when compared to the economic performance of its other global peers.

It is also worth highlighting the relative stability of regional currencies against the dollar and the maintenance of external surpluses in most economies, despite the simultaneous and significant deterioration in public deficits in the region, which continue to provide a substantial adjustment margin for Asian economies.

Note, however, that this general diagnostic does not fully apply to the Indonesian economy, Timor-Leste's largest trading partner. Despite experiencing remarkable levels of exchange rate volatility, alongside the mentioned above macroeconomic imbalances - the maintenance of the external deficit and deterioration of its budget deficit - the Indonesian economy managed to be the regional economy that lost less ground in 2020 after China, as its GDP declined only -1.9% this year.

Although inflationary pressures in local currency remained under control, the greater sensitivity of this economy to developments regarding the international demand and prices of many mineral and raw food materials, resulted in a slight depreciation of the rupiah in 2020 of -3.4%, thus returning to the falls recorded in 2018 and between 2013 and 2015. Naturally, the macroeconomic and financial performance of our neighbouring country will continue to be widely influenced by future developments across global commodity markets and the world economy. In parallel, the fact that Indonesia was one of the few Asian countries to fail to adequately contain the prevalence of the virus in its territory, also reinforces the susceptibilities of the respective economy relative to the developments in containing the pandemic in 2021.

The importance of this trading-partner to our economy naturally implies the need to adequately monitor these developments, hoping that the continuity of the policy measures introduced by its Government and a tighter surveillance by its central bank will continue to gradually reduce the respective macroeconomic risks. This concern will continue to be a relevant priority, given the negative impact of the global pandemic crisis.



1.3. Timor Leste Economic Transmission Channels

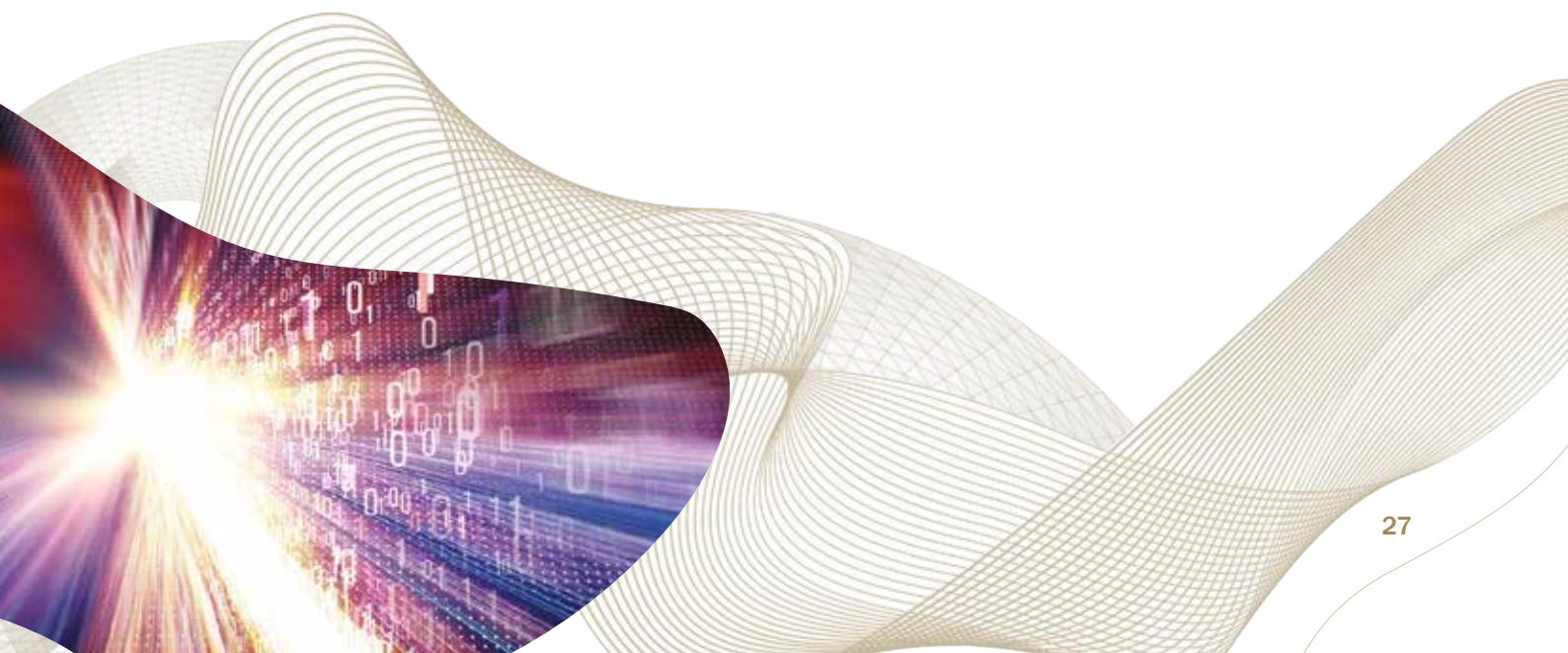
The above review of major international economic and financial developments as well as of Asian economic developments, which are much more relevant for Timor-Leste, would not be complete without understanding the respective repercussions on our economy.

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 analyze 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 52% of non-oil GDP in 2019 - it is natural to expect that international prices of imported goods and services will continue to substantially influence domestic inflation developments.





BCTL's empirical research and economic modeling 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.

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

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 has driven Timor-Leste's inflation trajectory

Chart 1.16

Domestic vs External Inflation

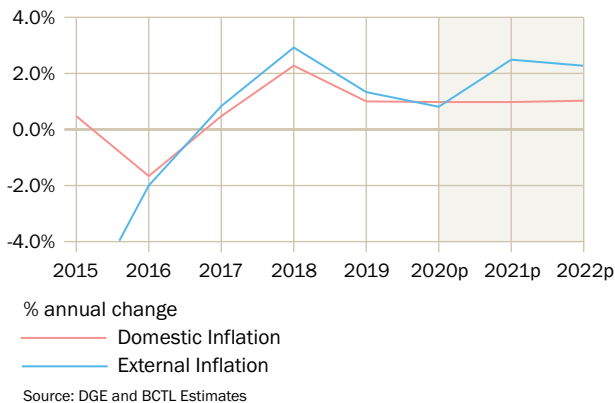
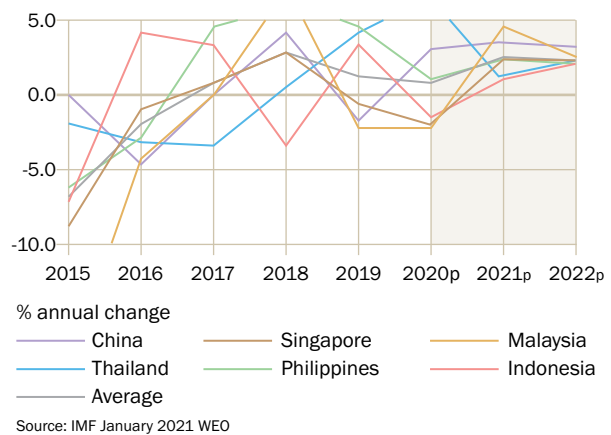


Chart 1.17

Regional Inflation Rates in USD Terms



Additionally, as can be seen from the 2 charts, the recent rise in the inflation rate in Timor-Leste (2017 and 2018) was positively influenced by the pickup in external inflation rates. Naturally, the relationship is not perfect, since changes in Timor-Leste's non-oil economy, especially over the last few years, also strongly influence the domestic inflation rate trajectory.



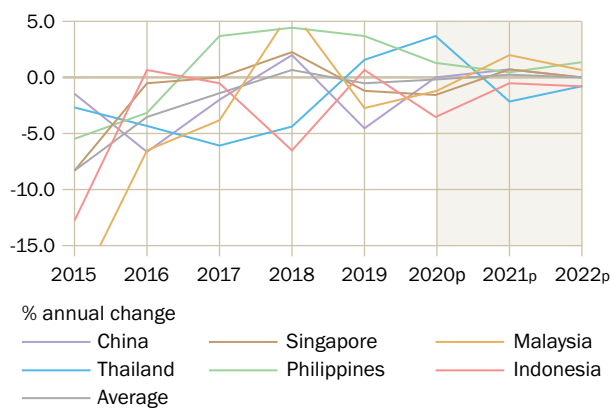
... as can be confirmed by the slight slowdown of domestic inflation in 2019 and 2020, in line with the downward trend in external inflation.

From 2019 to 2020, Timor Leste's inflation rate has trended downward from 2% to 1%, tracking the easing of external inflationary pressures, and providing further confirmation of the correlation between the 2 variables.

Since external inflation rates in local currency terms tend to be relatively stable over time, our Trading Partners' currencies developments against the dollar are fundamental in shaping developments in terms of our domestic inflation.

Chart 1.18

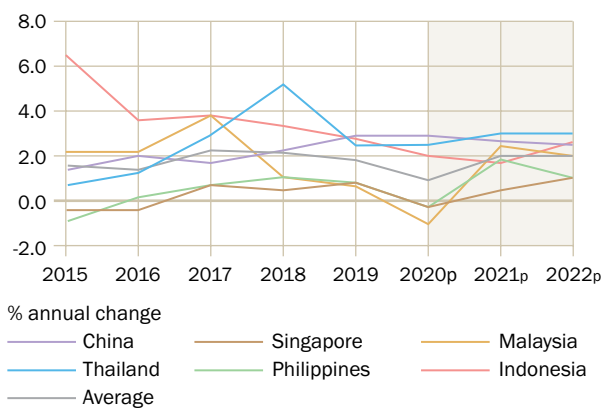
Asian Currencies vs USD



Source: IMF January 2021 WEO

Chart 1.19

Regional Inflation in Local Currency Terms



Source: IMF January 2021 WEO

Bearing in mind the importance of this transmission channel, external inflation's future developments, strongly determined by exchange rate developments, will be one of the most influential factors in driving the domestic inflation trajectory.

The expected stability for regional currencies in 2021 and 2022 is a crucial assumption of BCTL's forecast of stable and low inflation in Timor-Leste over the same horizon.

In this regard, the BCTL expects, in line with the IMF, regional currencies to remain stable against the dollar in 2021 and 2022, which, together with moderate Asian region's inflation rates in local currency, supports our view that imported inflation will remain stable over the next years, helping to steady inflation pressures in Timor Leste in 2021 and 2022, below 2% on a yearly basis.

Given that the domestic economy's performance also influences national inflation trends, BCTL's growth forecasts will be analysed in the report's chapter that addresses the domestic economy, which further details BCTL's inflation forecasts for the years ahead.

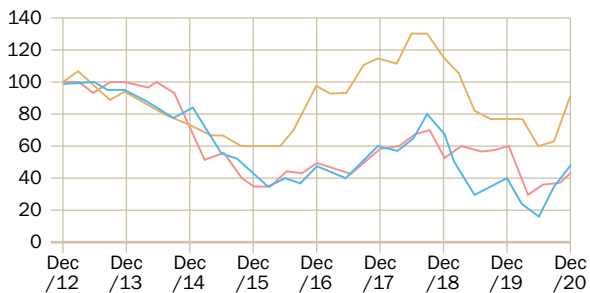
1.3.2. Energy Markets and Oil Revenues

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 2020, the oil's price (brent's benchmark) fell -24%, unlike gas and coal, fully offsetting the gains recorded in 2019 (+17%). With this new decline, the price of oil continued to remain well below the values recorded in 2012, which suffered substantial falls in 2015.

Oil was one of the few globally relevant commodities that recorded a drop in prices in 2020.

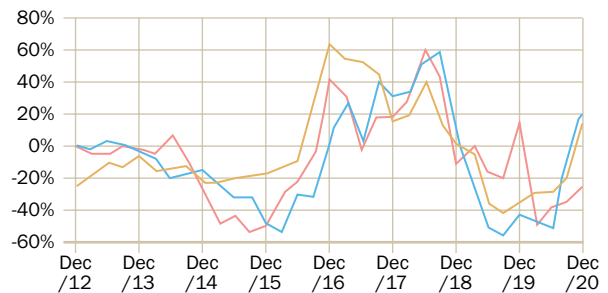
Chart 1.20
Energy Prices - spot levels



2012 = 100
 — Oil
 — Coal
 — Natural Gas

Source: World Bank

Chart 1.21
Energy Prices - % change



% annual change
 — Oil
 — Coal
 — Natural Gas

Source: World Bank



The price of oil exhibited significant volatility throughout 2020, due to the disturbances caused by the pandemic crisis and its developments. Even though it fell throughout the year, the reopening of economies in the second half and the gradual recovery in global energy demand supported the recovery in oil prices, particularly in the second half of the year.

However, changes in energy prices are not easy to anticipate, as they result both from the interdependence between demand and aggregate supply on physical markets and, increasingly, from the less measurable and unpredictable effects resulting from the financialization of these markets, yielded by the expansion of the financial derivatives market and increased participation of financial intermediaries and speculators. An obvious proof of this inability to predict is clearly the most recent drops in oil prices, whose speed and breadth were not effectively predicted by the majority of market players and analysts.

Future oil revenues are now much smaller than in the past, thus reducing the impact of oil price fluctuations on Timor Leste's oil wealth.

However, the impact of fluctuations in energy prices in our country's oil wealth is now much lower, compared to previous years. This follows from the fact that future oil revenues from ongoing activities are now much lower when compared to what has already been extracted from the Timor Sea reserves, with the prospect of existing fields exploration to cease completely by 2023. The expected future income from 2021 to 2023 amounts to \$200 million, which represents a renewed reduction compared to the expected value in 2019 of \$824 million.

Taking into account the now diminished estimate of expected future oil revenues expected, we do not develop in this report, as we did in previous years, the sensitivity analysis of oil revenue to changes in future oil prices.



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 2020 recording total financial assets of \$18,991 million, invested mainly (60%) in Fixed Income of the most developed countries and in Equity (35%) of thousands of companies based in these same countries and (5%) Private debt instrument for oil operation

At the moment, the FP invests 60% in Fixed income and 35% in Equity ...

In 2020, the Fund recorded an overall net profit after fees and taxes of \$1,859 million, which was still slightly less than the record \$2.1 billion return achieved in 2019. This continued and substantial performance was due to the renewed combination of gains from investments in bonds and shares, in a year in which exchange rate changes only had a marginal impact for the year as a whole.

Since its founding, the PF has been expanding its investment universe, starting, first, by only investing in USA 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.

Naturally, 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 stocks in which the Fund is invested.

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

.... 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.

In 2020, the Fund continued to record substantially positive returns, due to the positive investment performance in both equity and bond markets.

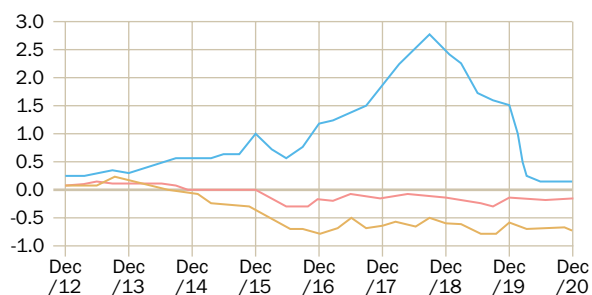
The price changes of PF's assets and the various investment currencies thus constitutes the true channel of transmission between international markets, the value of PF and its ESI and our country's economy. In terms of returns, 2020 was also very positive for the FP, which returned +10.67% for the year as a whole, compounding the gains already recorded in 2019 (13.25%), which was explained by the positive investment performance in bond markets, as well as in stock markets.

Bond investments continued to record gains in 2020, benefiting from the downward trend in global and US interest rates.

As previously mentioned for world bond markets, interest rates recorded substantial falls in 2020, especially in the US market, which were also more conspicuous in the case of 2-year terms than in 10-year terms years, in line with the cuts in FED's policy interest rates. These declines reinforced the interest rate declines already recorded in 2019.

Chart 1.22

2-Years Interest rates - % Year

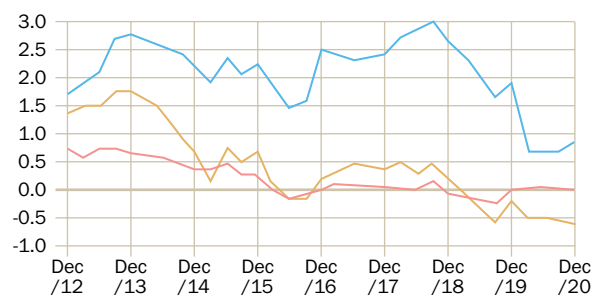


— US
— EU-Germany
— Japan

Source: Bloomberg

Chart 1.23

10-Years Interest rates - % Year



— US
— EU-Germany
— Japan

Source: Bloomberg

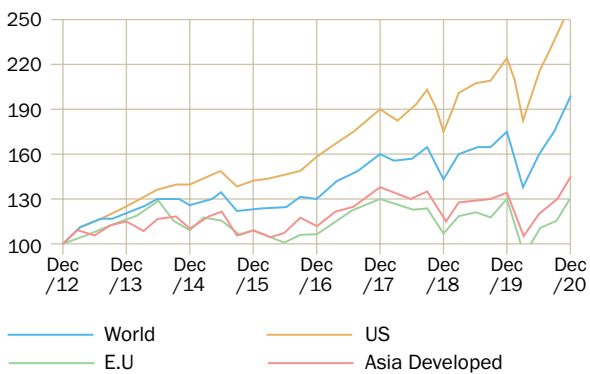
In the European and Japanese markets, long-term interest rates also registered further declines, although they were already and generally in negative territory at the end of 2019. These generalized rate declines, which reversed the upward interest rates' cycle recorded until 2018, particularly in the US market which represents the majority of the Fund's bond investments, further benefited the PF's bonds portfolio return, by adding to its accrued coupon returns. The PF's bond portfolio thus recorded an overall performance of 5.04%, extending the 5.16% gains registered in 2019.

In terms of its stock portfolio, the Fund's equity benchmark (the black line in the chart below - "World") accumulated new gains in 2020. The gains in PF equity portfolio stemmed from the rises in the US market, but also from most of global equity markets. PF investments in shares recorded a gain of 14.03% in 2020, after having accumulated a record return of 27.67% in 2019. In terms of foreign exchange impacts, the PF was only marginally affected by a very slight appreciation of the USD against investment currencies in 2020.

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

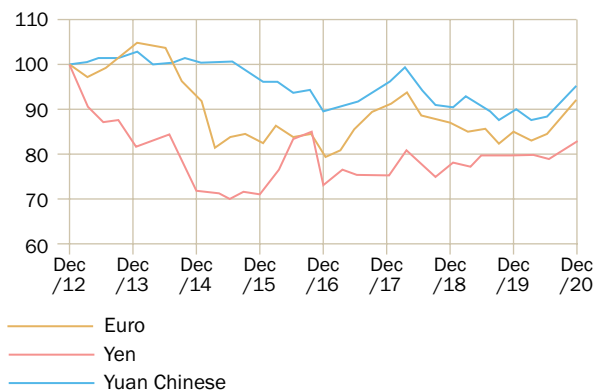
Stock Markets Indices in USD - 2012 = 100



Source: Google Finance

Chart 1.25

Currencies vs USD - 2012 = 100



Source: Google Finance

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

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.

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-frame, 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 historically low levels of global bond interest rates. The trends evidenced in 2020 have further reinforced this historical overvaluation of securities in both investment markets.

In this regard, it should be noted that the top US stock market index, the S&P 500, after its renewed ascent in 2020, reached a new peak price level that corresponds to three times its level of December 2009 and today registers historically record valuations, visible for example in its extraordinary ratio of price to companies 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.

