**Chile Day, Opening Lecture**

**"Economic Outlook in Chile: Overview and Future Challenges"[1]**

**Rosanna Costa, Governor Central Bank of Chile**

New York City, Monday July 18th, 2022

Good afternoon and thank you for inviting me to talk to you today about the current economic developments and challenges of my country, Chile.

In this talk today, I will start by briefly reviewing how the Covid shock hit Chile, what was the policy response and what did they achieve. This will not only include the monetary policy reaction, but also fiscal policy and other measures implemented during the crisis.

I will then continue to describe the strong and positive reaction of the economy to this policy package, and discuss its unintended consequences, including the important increase in inflation and its evolution. I will conclude by reviewing the challenges I see for Chile's future.

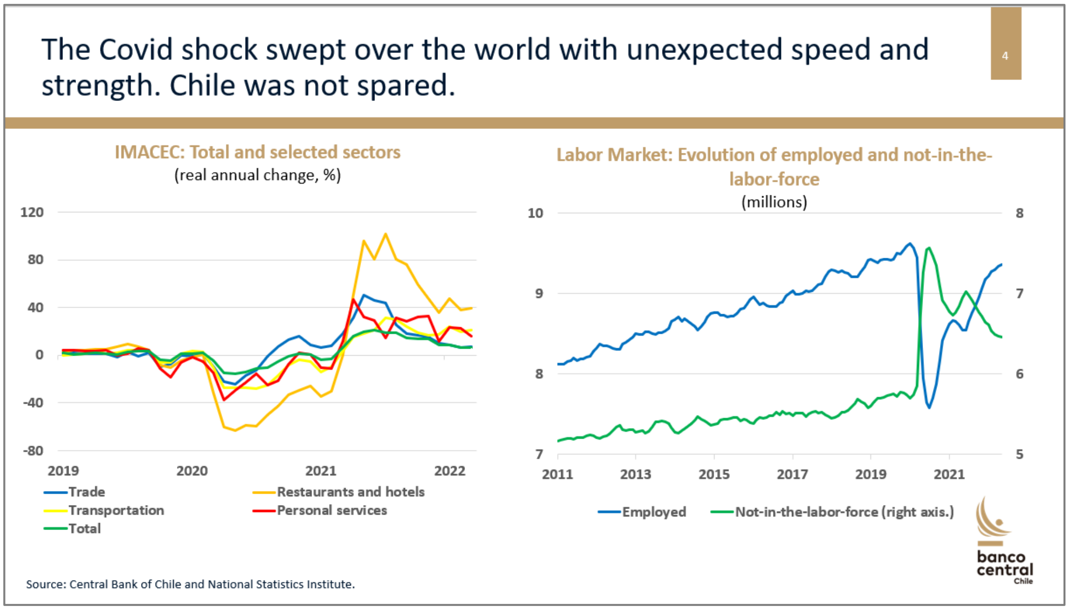
***The Covid-19 Shock: Initial Impact and Policy Responses***

The Covid-19 shock, as we all painfully know, took the world by surprise in March 2020. The pandemic, which started as an unknown disease in China, quickly took hold around the globe causing governments to undertake unprecedented measures, imposing restrictions to limit the spread of the virus.

Chile was no exception. The Covid-19 found our economy emerging from the October 2019 episodes of social unrest that had culminated in a political agreement to change the Constitution. The government reacted swiftly: non-essential businesses were not allowed to operate face-to-face, lockdowns were imposed, and many workers were sent home to telework. These measures, though necessary to control infections, brought economic activity to a halt, which fell 15% in annual terms in April of 2020. Services sectors were among the most affected, with month-on-month economic downturns of around 25% (left figure of slide 4).

Many firms ceased activity and employment plummeted: around 1 million people ceased to work only during April, which is more than 10% of the total employed (right figure of slide 4). The reason behind this change was either because they were permanently or temporarily laid-off, or because they had to quit the labor force to care for family members. This latter case was especially strong among women and older workers.

[1] I thank Erika Arraño, Sofía Bauducco, Mariana García and Gabriela Gurovich for their assistance in preparing this presentation.



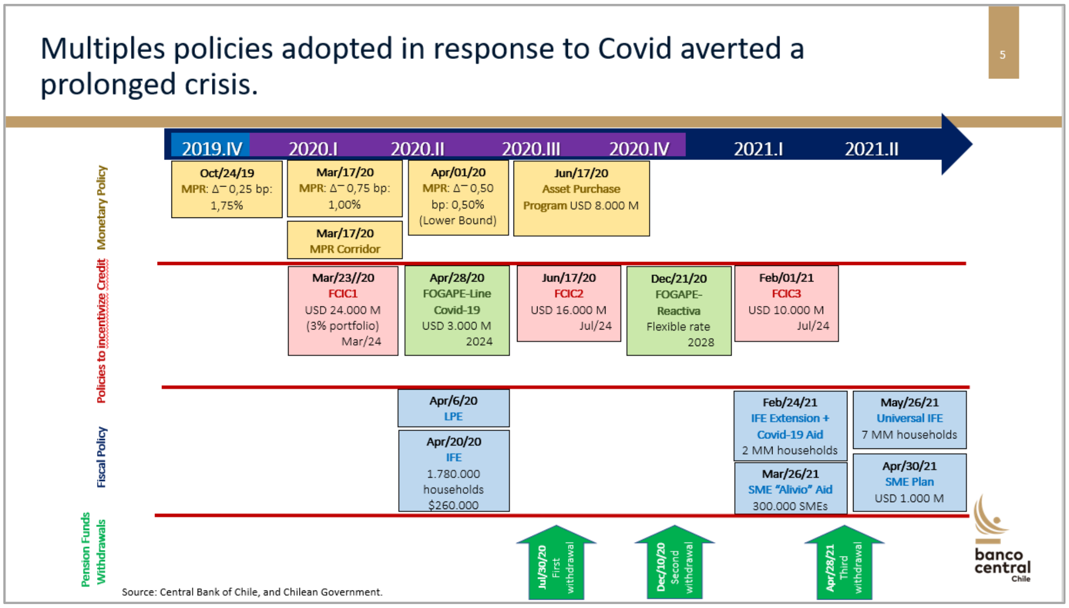

Due to the severity of the crisis that was breeding, a battery of policy measures was swiftly implemented, making use of the ample fiscal and monetary policy space available thanks to previous fiscal discipline and hard-won monetary credibility.

The first line of action was through monetary policy. The monetary policy rate was lowered by 75 basis points to a level of 1% on mid-March of 2020. On the next scheduled meeting at the end of March, the monetary policy rate was lowered to 0.5%, the effective lower bound rate for Chile.

At the same time, the Central Bank implemented additional measures to incentivize credit and provide liquidity. During March of that year, we announced a liquidity facility for commercial banks consisting of a collateralized fixed credit line of up to 3% of the commercial and retail portfolios and a variable credit line conditional on the increase in loans, FCIC by its initials in Spanish. As the pandemic continued, the Central Bank extended this program twice, lending in total 37 billion dollars to commercial banks, or about 15% of GDP.

Several fiscal or quasi-fiscal policies were also applied. Ones that directly affected firms were two government credit guarantee programs to small and medium-sized firms (FOGAPE Covid in 2020 and FOGAPE Reactiva in early 2021) and an employment protection program (LPE). The latter (LPE) allowed firms to freeze labor contracts for some months while employees could withdraw funds from their unemployment insurance accounts.

Several direct cash transfers by governments (IFEs) and three pension fund withdrawals, that took place in July 2020, December 2020, and April 2021 were among the policies that directly benefitted households (slide 5).




Many of these measures happened at the same time so it is difficult to attribute the economy's response to one policy in particular. However, a study conducted by economists at the Central Bank[2], shows that the credit guarantee programs (FOGAPE Covid and Reactiva) and the employment protection program (LPE) were highly successful in providing liquidity and relief to ailing firms.

There was widespread access and excellent coverage in the credit guarantee programs (FOGAPE). Close to 40% of all firms computed with respect to the number of firms with positive sales each month, around 250 thousand, obtained a FOGAPE credit at some point during the crisis (top-left panel on slide 6). Credit was allocated mostly to small firms that had experienced significant decreases in sales. Firms that accessed FOGAPE recovered faster than those that did not, two out of every three firms that ceased to report sales re-entered the market, with the median length of exit being about five months (top-right panel on slide 6).

Likewise, the employee protection program (LPE) had widespread coverage. Nearly 45% of firms with at least one employee access the program (bottom-left panel on slide 6 below) mostly from micro and small firms. Among firms that did access, close to 80% of payroll was enrolled in the program by mid-2020 and their sales dropped substantially. The recovery of sales to pre-pandemic levels has been steady but slow. Micro evidence shows that firms that accessed the employment protection program (LPE) had much better performance in the months following access to the program than similar firms that did not access the program.

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[2] Albagli, E., Fernández, A., Guerra-Salas, J and Huneeus, F. 2022. "Anatomy of Firms' Margins of Adjustment: Evidence from the COVID Pandemic", Mimeo.

## Publicly guaranteed credit to firms (FOGAPE) and the employment protection program ensured rapid recovery of firms

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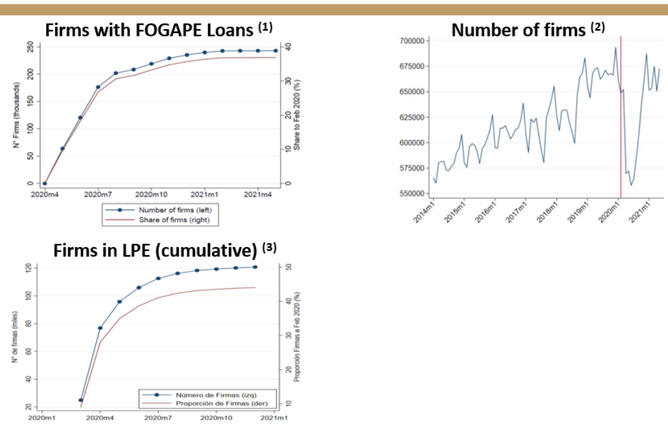



(1) The share of firms that accessed FOGAPE is computed with respect to the number of firms with positive sales each month. (2) A firm is a single tax ID with positive sales. Only firm that belong to the National Accounts directory of firms are considered. (3) The share of firms that accessed LPE is computed with respect to the number of firms with at least one employee each month.
Source: Albagli et al. (2022)

Without the combined effect of all policies implemented, output in 2020 would have fallen 4 to 7% more (left table on slide 7). Even though all policies had important positive contributions to avoid a further deterioration in output, credit policies were the most important ones. Liquidity provision, credit guarantees, and regulatory flexibility allowed credit to firms to react in a countercyclical fashion for the first time in the history of economic recessions in Chile (right-hand figure on slide 7).

## Because of liquidity provision and credit guarantees, credit reacted in a countercyclical fashion. Without the policies, output would have fallen 4%-7% more in 2020

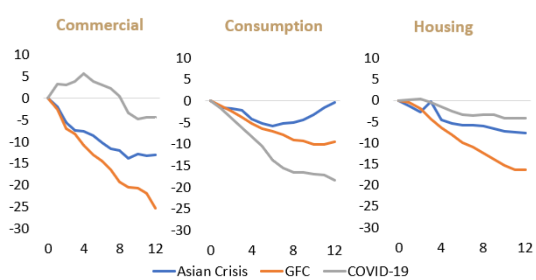
7

**Effect on GDP of measures during COVID-19**
(percentage)

| | 2020 | 2021S1 |
|---|---|---|
| Conventional Monetary Policy (1) | [0,2 - 0,8] | [0,6 - 2,1] |
| Non-conventional credit policies (2) | [2,2 - 4,8] | [2,7 - 4,4] |
| Fiscal Policy | 0,7 | 1,7 |
| **Total: Monetary and Fiscal Policies** | **[3,1 - 6,3]** | **[5,0 - 8,2]** |
| Pension fund withdrawals | 1,2 | 2,9 |
| **Total** | **[4,3 - 7,5]** | **[7,9 - 11,1]** |
| GDP | -5,8 | 8,7 |
| Counterfactual GDP | [-10,1 ; -13,3] | [0,8 ; -2,4] |

Source: Monetary Policy Report Sept. 21, Central Bank of Chile.

**Commercial banks' loans in recessions (3)**
(difference in annual change from period 0, percentage)



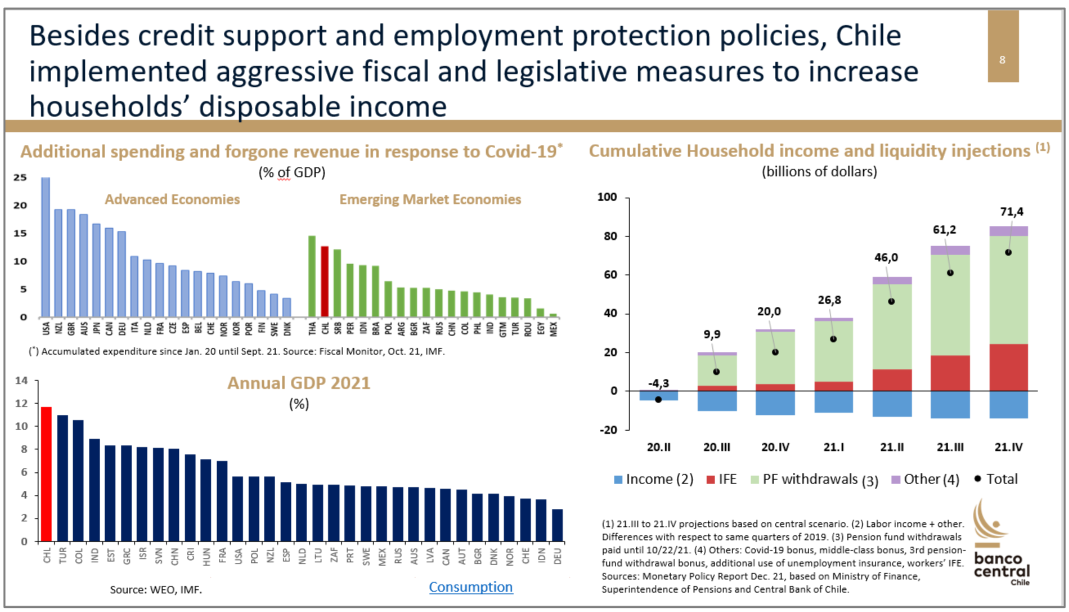

Source: Central Bank of Chile.

(1) Conventional monetary policy is associated with the counterfactual of having maintained the MPR at 2%. (2) Unconventional credit policies are associated with the counterfactual without the implementation of monetary and sovereign guarantee policies that sought to stabilize financial markets, including the FCIC-FOGAPE program, the purchase of bonds, and liquidity programs in local and foreign currencies. The range presented in these two policies is associated with two counterfactual exercises: one where, in the absence of credit policies, the financial shock would have been of the same size as that observed in the financial crisis of 2008-2009, and another where it would have been greater and proportional to the observed fall in the product in 2020. Counterfactual GDP subtracts from the effective GDP the cushioning effect of fiscal and monetary policy and pension withdrawals presented in the first lines of the table. (3) Months are in horizontal axis. Period 1 is the first month with negative Imacec (monthly activity index).

During 2021 fiscal policies and pension fund withdrawals became more important. The fiscal effort in Chile, in terms of additional spending and forgone revenue, was particularly important amounting to almost 13% of GDP. This is among the highest of emerging economies and well above the average of advanced economies (top-left figure in slide 8).

All in all, households' liquidity was increased significantly. The sum of the different sources of household liquidity — regular income plus the resources provided by the State and pension fund withdrawals— yields cumulative resources of close to 71 billion dollars between 2020 and 2021, equivalent to 28% of GDP (right figure in slide 8).

In sum, policies were highly effective in dampening the economic effects of the Covid-19 shock and avoided a major and long recession. All these measures led to an unprecedented consumption boom, which drove a record recovery of almost 12% GDP growth in 2021 –one of the highest in the world (bottom-left figure in slide 8).

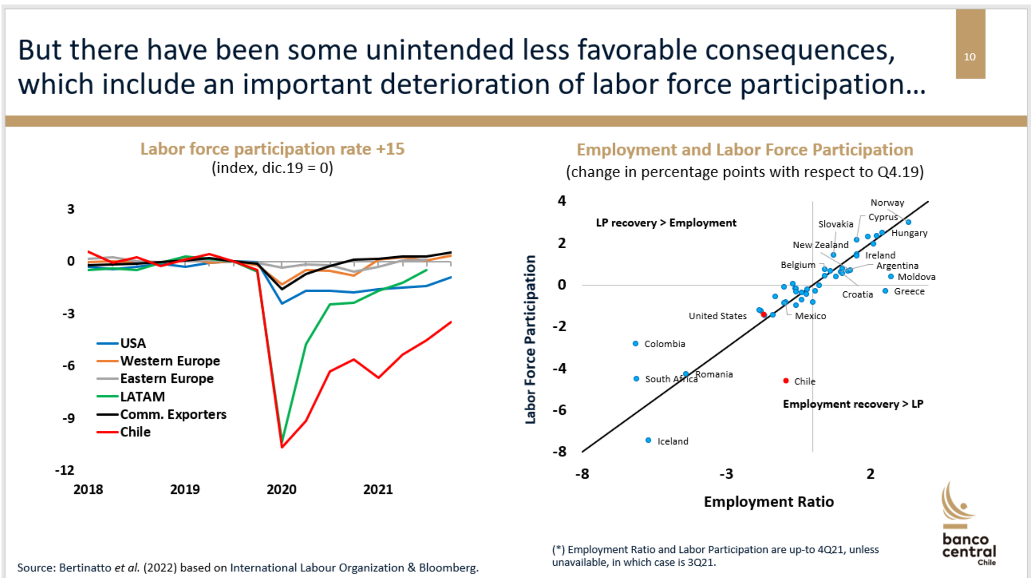



***The Recovery: Inflation and Monetary Policy***

While the policies implemented were very effective in dampening the economic downturn due to Covid-19, they also brought some unintended less favorable consequences, which are important to study.

One such consequence was an important and persistent reduction in labor force participation. The drop in the labor force was a worldwide phenomenon but was particularly large in Latam and Chile. While most countries have seen important recoveries in their labor force participation levels, current numbers show that Chile is still lagging (left figure of slide 10).

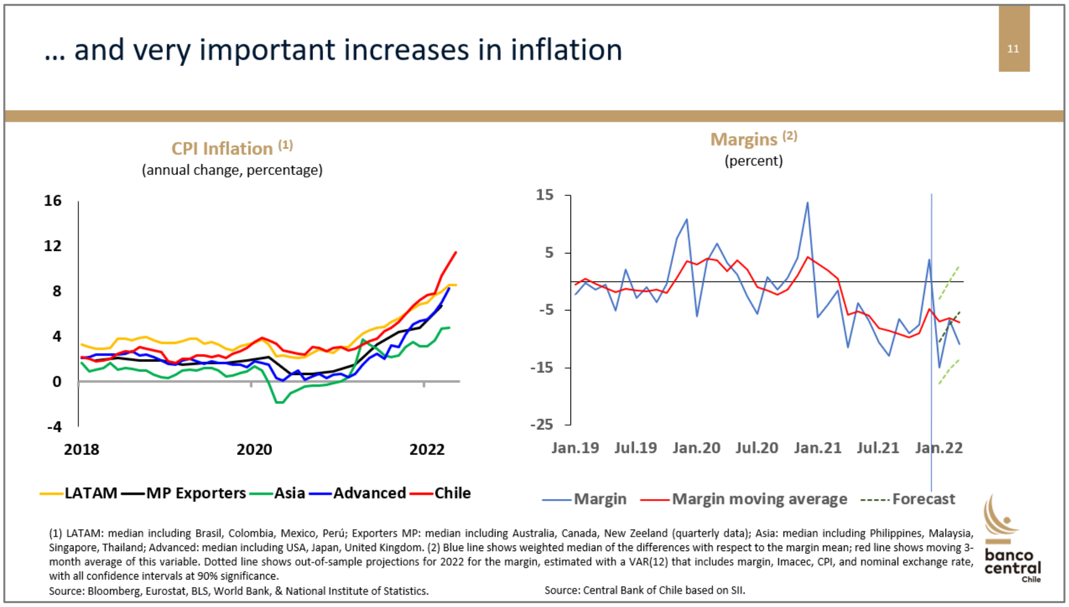
To understand the delay in the recovery of the labor force, a study conducted at the Central Bank of Chile[3] found that the recovery in the labor force is positively associated with the recovery in employment levels, except in Chile (right figure slide 10) where there is a decoupling between those two measures. The study goes further and econometrically suggests that the heterogeneity in the labor force recovery across countries can be explained mainly by differences in fiscal support, in programs to keep jobs and to a lesser extent, in the recovery of the economy.




Another unintended consequence that not only occurred in Chile, was that inflation accelerated, reaching levels well above the Central Bank target (left figure in slide 11). Part of this inflation has been explained by increases in commodity prices and in some specific goods, especially the ones for which supply-chain disruptions were more prevalent.

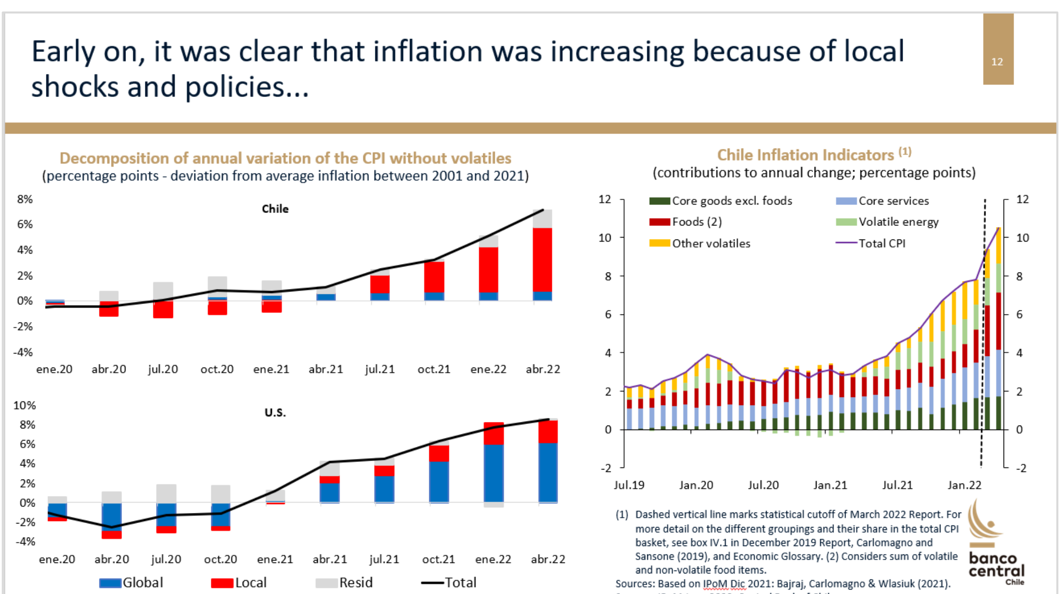
A study of firms' margins shown in our last Monetary Policy Report in June 2022 delved into some of the factors behind the elevated inflation. We found that margins are significantly tight, which typically occurs as a response to big demand increases, suggesting that prices still need to rise because if margin determinants have not changed, a process of margin normalization should ensue (right figure on slide 11).

[3] Bertinatto, L., Cheyre D., Fuentes M. y Rodriguez D. (2022), "The Recovery of Labor Force Participation after the Pandemic: an Analysis of the Heterogeneity between Countries", Mimeo.

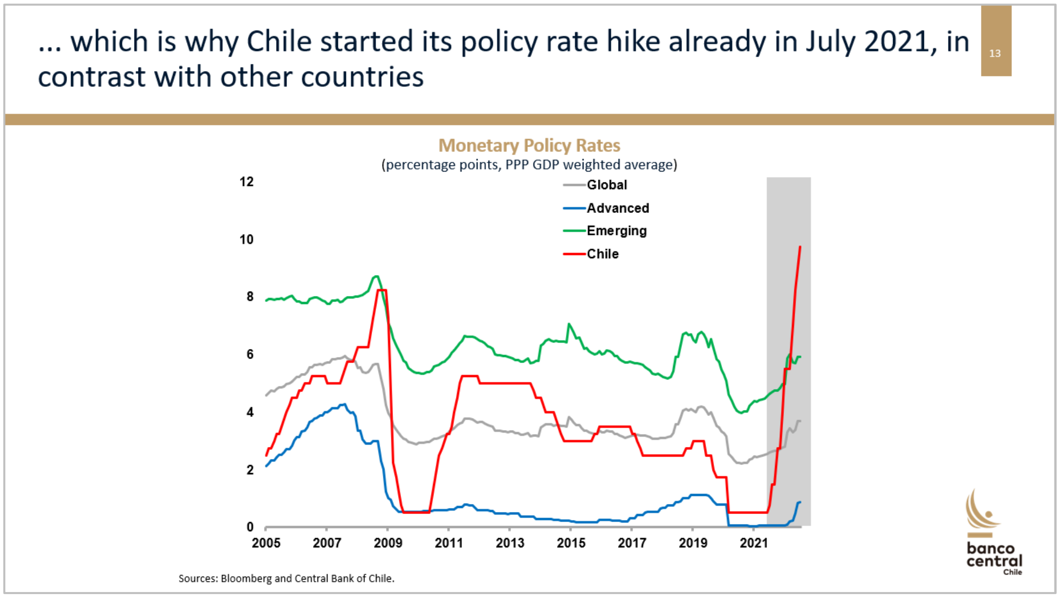



The inflationary process in Chile started earlier than in most countries. During the first half of 2021 it was clear that inflation was rising because of local shocks and policies that boosted demand like universal fiscal transfers and pension fund withdrawals. This was the case for some other countries like the U.S. where local factors were also at play as inflation picked up by the end of 2021 (left figure slide 12). One possible global factor is the opening of the economies that happened around the same time for most countries.

Over this period, Chilean inflation was mostly driven by foods and core goods and services, consistent with a high dynamism of consumption and normal price adjustments (right figure in slide 12).



As the high dynamism of consumption supported the inflationary process, the Central Bank of Chile started its monetary policy tightening cycle early on, in July 2021. The tightening cycle started before most emerging and advanced economies (slide 13).




The local inflationary process was reinforced by the end of 2021 by factors that were affecting economies globally. Supply-side bottlenecks left as an aftermath of the pandemic and the effect of the Russian invasion of Ukraine in energy and commodities prices compounded into the local economy and hit Chile in an already high-inflation environment.

As in many other economies around the world, inflation has surprised over the past months. These surprises have been driven mostly by volatiles and foods. Another important fraction of the surprises has come from energy prices. In contrast, core-services inflation has shown bounded surprises and core goods have been in line with projections (left figure on slide 14).

It is important to point out that even though external factors have been the most important factors supporting the latest inflation surprises, most of the current Chilean inflation figures is still explained mostly by local factors. From now on and in the near future, we expect a relatively lower impulse from local factors, since expectations of firms and households show important deterioration.

External factors are usually considered as transitory shocks and its persistence usually fades within Chile's monetary policy time framework. In today's scenario, due to both the inflation level, that adds some persistency to the inflation dynamics, and the nature of the shocks, the effect is more prolonged. From a monetary policy standpoint, it is important then to distinguish each shocks' nature to assess the impact on expected inflation within the Central's Bank timeframe. When they are persistent, as they are now, constitute an additional source of domestic inflation magnification because of the second-round effects on domestic prices and add persistence to the inflationary process. For this reason, it is important that monetary policy react accordingly.

After years of living in a one-digit inflation environment, inflation soared and so did the concern of households and firms about its future path. According to a study conducted in September 2021 by a market and public opinion research firm, CADEM, and corroborated by surveys conducted by the Central Bank this last March, households feel that the increase in prices is the main problem currently faced by the country.

Inflation expectations are very important because they directly affect decisions made by agents and with that, inflation persistence. Because the main decisionmakers are firms and households, the Central Bank has made efforts to monitor expectations beyond those of professional forecasters (left tables in slide 15) and include firms and households' expectations.

The Central Bank has started to conduct a new price-determinants survey on firms, called *Encuesta de Determinantes de Precios* (EDEP by its initials in Spanish), to inquire about not only inflation expectations but also determinants of individual price changes for firms (right-hand figure in slide 14), and is planning on conducting household expectation surveys soon.

All the measures monitored by the Central Bank for inflation expectations one and two years ahead have shown important increases. This is a great concern for the Central Bank, it is being monitored very closely and has also contributed to the speed of the monetary policy rate hikes. Lately, there have been some signs that, although one-year ahead expectations continue to rise in reaction to economic news, two-year ahead expectations of Professional Forecasters are more stable.

**Given the importance of inflation expectations on its persistence, the Bank has made efforts to monitor expectations beyond those of professional forecasters, to include also households and firms.** 14

**Professionals Surveys**

***Economic Expectations Survey***

| | Jan.21 | Jul.21 | Jan.22 | Jul.22 |
|---|---|---|---|---|
| 1 yr | 3 | 3.2 | 4.8 | 7.1 |
| 2 yrs | 3 | 3 | 3.5 | 4 |
| 3 yrs | 3 | 3 | 3 | 3 |

***Financial Traders Survey(*)***

| | Jan.21 | Jul.21 | Jan.22 | Jul.22 |
|---|---|---|---|---|
| 1 yr | 3 | 3.4 | 5 | 7.9 |
| 2 yrs | 3 | 3.1 | 4.1 | 4.6 |

(*) When 2 in the same month, the first was chosen.

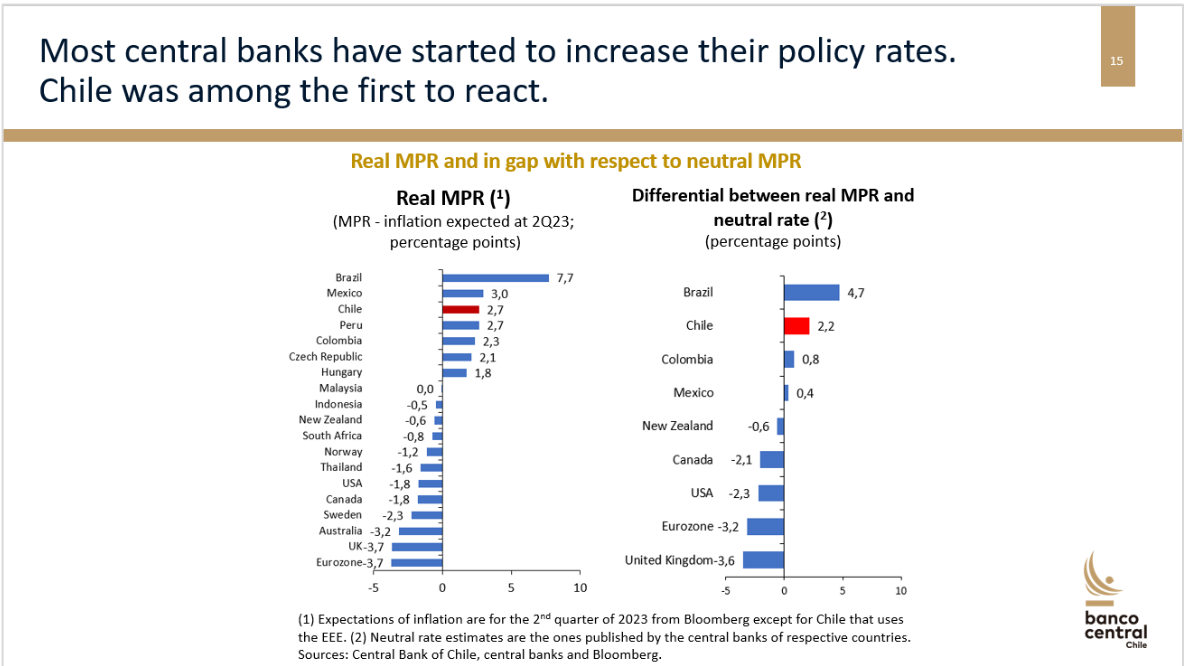

Source: Central Bank of Chile.

Given the increases in inflation around the globe, most central banks have started to raise their policy rates to stop inflationary pressures, but their velocity and intensity varies considerably across countries. In many emerging economies, particularly in Latin-America, the raises started in mid-2021 and have advanced rapidly, reaching rates above or around their own estimated neutral rates.

In developed countries, the pace of increases has been slower and less intense. Central banks of commodity-exporting countries have tended to respond faster than the U.S. Federal Reserve or the

European Central Bank. In these two economies, short-term real rates are still negative and significantly below their neutral rate estimates (left figure in slide 15).

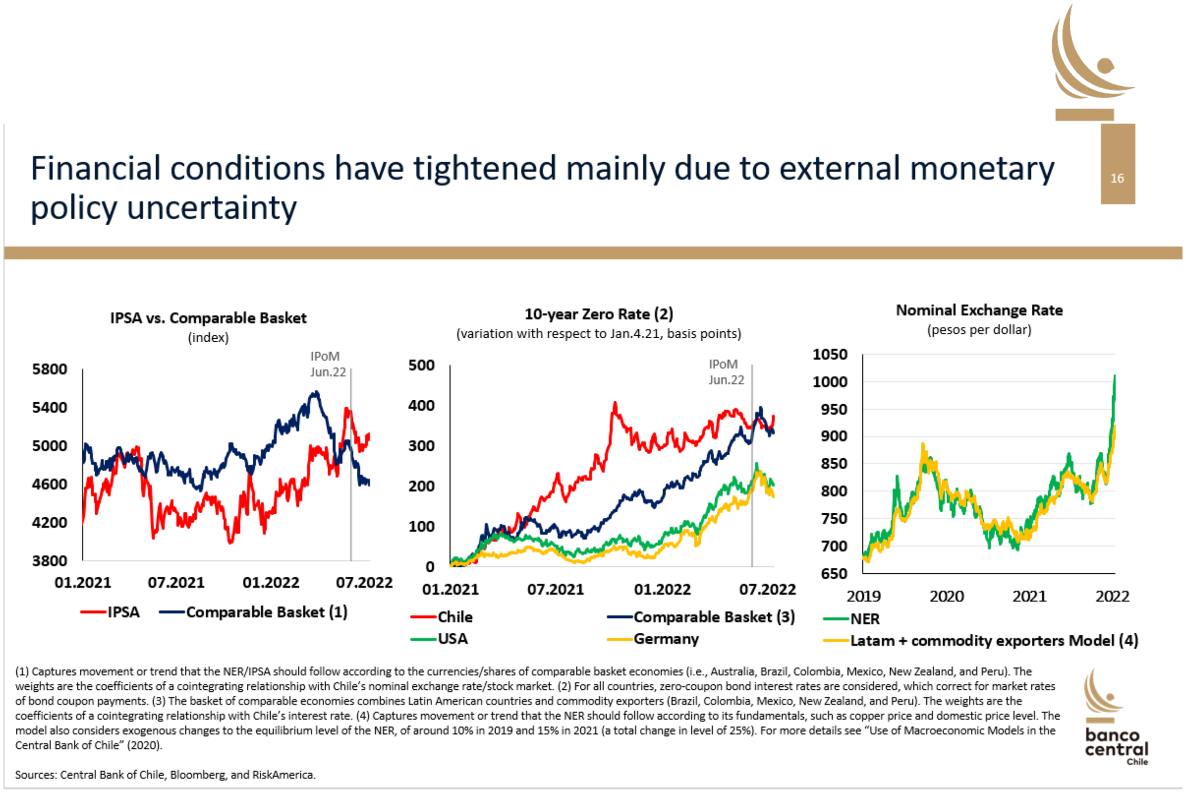
At the Central Bank of Chile, inflation is our main concern. We have the tools and the determination to react to the many inflationary pressures that the Chilean economy faces and will ensure to restore inflation back to its 3% target in a 2-year time horizon.




Over the last month, as the Fed signaled a more aggressive tightening cycle, the financial markets have been highly volatile, and fears of a global recession have sparked. These conditions are particularly challenging for emerging countries like Chile as a strengthening of the U.S. dollar, tighter financial conditions, and lower copper prices are headwinds to growth.

Given this backdrop, as local currency fundamentals have continued to deteriorate, in a local context were volatility remains high, the Chilean peso has depreciated further (right figure slide 16). Over the last few days, this depreciation had shown unusual intensity and volatility, which had stressed price formation in the currency market. The persistence of this scenario increased the probability of significant distortions to the financial market's functioning.

For these reasons, the Board at the Central Bank of Chile, with the objective of easing the adjustment of the Chilean economy to the uncertain and changing local and external conditions, has decided to implement a program of currency intervention and a preventive U.S. dollar liquidity provision, for an amount of up to 25 billion dollars between this day and the end of September.




In the short run, these developments will cause further increases in local prices, in a context where inflation and its persistence are already high. The Board estimates that new increases in the Monetary Policy Rate will be necessary to ensure the convergence of inflation to 3% in two years. The magnitude of said increases will hinge on the implications of the evolution of the scenario for the achievement of the inflation target.

***Future Challenges:***

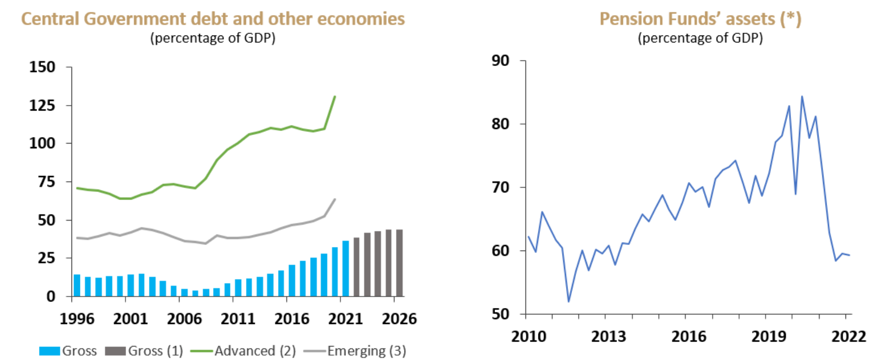
Let me close this presentation by listing some challenges we are facing today in economic area. The first and foremost for the Central Bank is to return inflation to its 3% target. We at the Central Bank understand the hardships that high inflation imposes to Chileans, particularly to lower income families, and are committed to taking all available measures to ensure that inflation converges to its target. The good news is that the prompt monetary policy response over the last year has facilitated the economic adjustment to a more balanced economy. This healthier starting point will be crucial to overcome the external scenario on the coming years.

A second challenge is the replenishment of the hard-earned buffers used to confront the pandemic. As a result of the stimulus policies to overcome the Covid crisis, government debt has increased to about 36% of GDP at the end of 2021 (left figure in slide 18), while the effective fiscal deficit was 8% of GDP. According to forecasts from the Budget Office, the effective fiscal deficit should converge to -1% of GDP in 2025, which would push government debt to reach 44% of GDP. The events in the recent past have shown that adequate levels of fiscal deficit and debt provide space to conduct much-needed countercyclical policies when a crisis hits. Preserving this space is paramount. This year's fiscal budget and the government's fiscal medium-term guidelines clearly move in that direction.

A third challenge is the need to deepen Chile’s financial market. A developed, sound, and deep financial market has been a cornerstone of resilience for the Chilean economy to external shocks, and it has provided the foundations for investment and economic growth. Pension fund withdrawals significantly reduced the volume of resources available at the local financial market. The pension fund assets decreased from representing 84% of GDP at the end of 2020 to 59% in 2022 (right figure in slide 18). Long-term and stable saving pools provide a cushion to absorb shocks and provide funding to long term investments. Regaining financial depth is of utmost importance.

There are many challenges for the Chilean Economy in the medium-term. The replenishing of the buffers used to confront the Covid-19 crisis and ensuring a long-term savings pool are among them…

18




(1) Forecast from Report of Public Finance, 1Q 2022, DIPRES.
(2) Advanced economies includes Germany, USA, Japan, and UK.
(3) Emerging economies includes Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Russia, and Turkey.

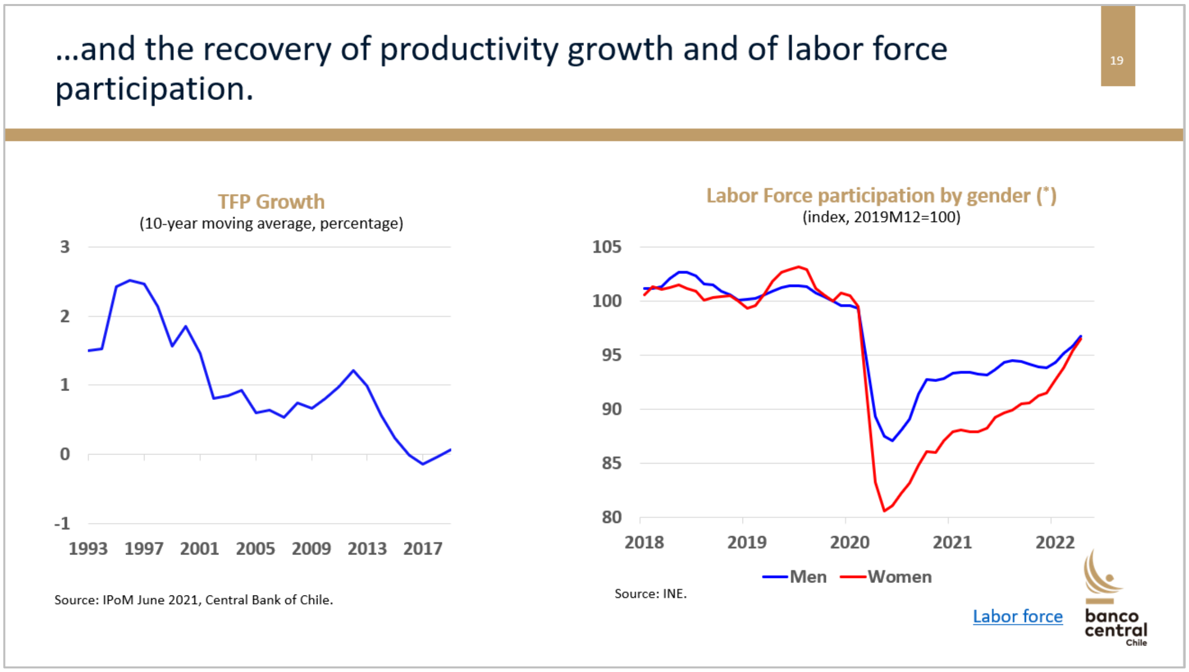
Source: IEF 1st Semester 2022, Central Bank of Chile based on data from DIPRES.

(*) 2022.Q1 estimated using growth rates from Survey of Economic Expectations.

Source: IEF 1st Semester 2022, Centeal Bank of Chile based on data from Chilean Pensions Supervisor.

From a broader point of view, a fourth challenge is to increase the growth of total factor productivity. This growth has been steadily decreasing in Chile. The latest forecast of total factor productivity growth, published in the Monetary Policy Report of June 2021, is 0.35% yearly for the period between 2021 and 2030. The recent evolution of productivity is uncertain, less investment and supply chain disruptions due to Covid and geopolitical unrest tend to drive productivity down, but automation related to Covid-19 drives productivity up. We are revising this forecast and will publish it in one of the coming monetary policy reports. In any case, low productivity growth is a source of concern as it is an important ingredient of economic growth, and we should make efforts to better understand it and, if possible, foster it.

Finally, recovering labor force participation is another challenge for my country. As I already mentioned, the labor force was very badly hit by the Covid-19 crisis and it has recovered slower than economic activity, especially among women (right figure on slide 19). As schools and day-care centers have opened and fiscal transfers are ending, over the past few months there have been an increase in participation, but it is still below pre-pandemic levels, for both men and women. This is a source of loss of human capital and worsened economic conditions may make re-entry to the labor force hard.




In sum, the Chilean economy has suffered several unprecedented shocks in the past few years: the social unrest of late 2019, the Covid-19 crisis and lately the ripple effects of the Ukrainian war, global supply chain disruptions and monetary policy tightening in advanced economies. Because we had fiscal and monetary policy space to face them, policy responses have also been unprecedented and, to a large extent, highly successful. Despite this, we did not leave completely unscathed, and a few wounds need tending in order to prevent permanent scars. Returning buffers to its pre-pandemic levels will allow to that our solid institutional framework to face the next crisis successfully, minimizing the cost for our people.

Thank you very much.