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THE DEBAUCHERY OF CURRENCY AND INFLATION: CHILE, 1970-1973

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ABSTRACT

In this essay, I analyze Salvador Allende's economic policies in Chile during the early 1970s. I argue that the explosion of inflation during his administration (above 1,500% on a six-month annualized measure) was predictable, and that the government's response to it, through massive and strict price controls, generated acute macroeconomic imbalances. I postulate that the combination of runaway inflation, shortages, and black markets generated major disaffection among the middle class and that that unhappiness reduced the support for the Unidad Popular government.

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1. <u>Introduction</u>

In April 1919, Vladimir I. Lenin made the following statement about fiat money, inflation, and capitalism:[1]

> "[T]he simplest way to exterminate the very spirit of capitalism is to flood the country with [bank]notes of high face value without financial guarantees of any sort…[T]his simple process must, like all measures of Bolchevism, be applied all over the world in order to render it effective. Fortunately, the frantic financial debauch in which all Governments have indulged during the war has paved the way everywhere for its application."

A few months later, John Maynard Keynes wrote in *The Economic Consequences of the Peace*: "Lenin is said to have declared that the best way to destroy the Capitalist System was to debauch its currency."[2] Keynes's quip became famous and has often been repeated in policy circles.

What Lenin and Keynes missed was that the "debauchery of currency" erodes the political support of <u>*any regime*</u> – capitalist, socialist, or hybrid. Very high inflation often results in political turmoil, and many times in the government (or regime) demise. This corrosive effect is particularly acute in episodes where the flooding of paper money is accompanied by massive and strict price controls enforced by government functionaries. In this case, inflation will be accompanied by shortages, lines of irate consumers in front of empty shops, black markets, corruption, and rationing. This was the case, for example, of the *assignats*, the paper money issued massively in the early 1790s to finance government expenditures in revolutionary France. The government tried to fight inflation – which accumulated to 13,000% between 1790 and 1795 -- by strictly controlling prices. This resulted in black markets and political chaos. Heightened instability led to the fall of the Jacobins on July 27, 1794 (9th Thermidor) and in the execution of Robespierre the next day. (Hawtrey, 1918).

In this essay, I analyze the experience of Salvador Allende's *Unidad Popular* with inflation in 1970-1973, in Chile. This is one of the most extreme and traumatic inflationary episodes in Latin America, a region that has historically been prone to macroeconomic crises. I argue that the very rapid surge in the price level – an annualized rate of almost 1,600% in mid-1973; see Figure 1 --, contributed to the erosion of popular support for the Allende government and its socialist program. It also helps explain the initial backing– especially among the middle class – for the coup d'état led by General Augusto Pinochet on September 11, 1973.

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[1] The New York Times, April 23, 1919, p. 1. In the article the Soviet leader's last name is spelled Lenine.
[2] Keynes (1919), p. 220.

One of the contributions of this paper is that I analyze, deconstruct, and evaluate a little-known document nicknamed “The Puppet’ (*El Muñeco*), which contained the short term “recovery program” of the *Unidad Popular*. Originally, only six copies of the document were printed; it was not made public during the government’s three years, and only resurfaced two decades after the coup d’état that deposed President Salvador Allende. I show that the program was built on very simple assumptions and did not consider the possibility that an overly expansive fiscal policy financed with money creation could result in runaway inflation, a balance of payments crisis, shortages, and generalized black markets. I argue that the plan was affected by the inability of the government to control the “revolution from below,” including the massive seizure of manufacturing firms and farms by far-left activists. The rest of the paper is organized as follows: In Section 2 I provide some background information on the *Unidad Popular* coalition. In Section 3 I discuss structuralist views on economic policy and inflation. In Section 4 I summarize the economic platform of the socialist government and analyze its two components: “Recovery” and “revolutionary reforms.” An important point is that the two modules were to be implemented simultaneously. In Section 5 I analyze in detail the recovery program. I note that the 1970 document had only one equation. In this Section I “translate” the prose in the document into math used by modern economists. Section 6 deals with 1971, a period when inflation was kept under (relative) control and GDP growth increased significantly to 9%. I argue that these achievements were unsustainable. In Section 7 I discuss the first half of 1972, when inflation increased rapidly, and shortages and black markets became acute and generalized. In Section 8 I analyze the explosion of inflation in August 1972 and the government’s efforts to make price controls effective. In this Section I document the collapse of real wages during the last six months of the Allende administration. In Section 9 I analyze the role of external factors – and, in particular, of US policy – in the unleashing of the crisis. Finally, in Section 10 I offer some concluding remarks.

2. Salvador Allende’s election

On September 6, 1970, the *Washington Post* reported, in a front-page article, the results of Chile’s presidential election. The story was titled “Chilean Voters Pick Marxist President.” (Diuguid, 1970). The reporter explained that Salvador Allende was “short of the absolute majority need[ed] for election [as president], but a pro-Socialist majority is partially reflected in the congress that must choose between the first two vote getter in joint session Oct. 24.” During the next few days, similar stories were printed around the world. According to the *New York Times* “[Allende] would like to see Chile follow the road of revolutionary Cuba.” (De Onis, 1970). Allende’s coalition, *Unidad Popular* (UP) included the two largest Marxist parties in the country—the Communist Party and the Socialist Party—as well as smaller parties that followed the social teachings of the Catholic church. The fact that Allende was a member of the Socialist Party (SP) has generated some confusion among uninformed observers who believe that the SP embraced social democratic principles and policies. That was not the case. During the period under study, the Socialist Party was pro-Cuban and pro-North Korea, and its views and tactics were considerably to the left of the pro-Soviet and more disciplined Communist Party of Chile (CP). In the late 1960s, just before Allende's election, the two parties differed regarding strategy. While the CP favored electoral politics, the SP believed that an armed struggle was unavoidable if socialism was to be achieved.

On September 15, President Richard Nixon met with CIA Director Richard Helms, National Security Adviser Henry Kissinger, and Attorney General John Mitchell. It was decided to launch a plan to impede Allende's accession to power.[3] Helms wrote in his notes that the goal was to "make the [Chilean] economy scream."[4] As part of its strategy, the CIA contemplated supporting a coup led by retired general Roberto Viaux. After interviewing scores of retired and active armed forces' officers, the agency concluded that "a Viaux coup attempt carried out by him alone with the forces at his disposal would fail." Despite rejecting Viaux's plot, the CIA provided arms—submachine guns and pistols—to a group of civilians that, on October 22, tried to kidnap General René Schneider, the commander in chief of the Chilean Army.[5] The attempt failed, and the general was seriously wounded as he tried to repeal the kidnappers.

Two days later the Chilean Congress elected Salvador Allende as president by a 153–35 vote. General Schneider died on October 25, becoming an instant hero of the Left. The *New York Times* carried the news of Congress's vote on its front page: [6]

> "The president elect and his coalition have promised to nationalize Chile's mines and basic industry, its banking and insurance system, and foreign trade. They have also pledged to plan the country's economic and social development and to expropriate privately owned farmland ..."

On November 3, 1970, Salvador Allende was inaugurated as president. His cabinet included communists, socialists, union leaders, and members of smaller parties. Five days after Allende's inauguration, on November 9, 1970, Henry Kissinger sent a top-secret memorandum to U.S. government officials stating that "the public posture of the United States will be correct but cool… [We will] seek to maximize pressures on the Allende government to prevent its

[3] See U.S. Senate (1975). See Section 9, below for details on the US plans to destabilize Chile.
[4] Richard Helms, "Meeting with the President on Chile," September 15, 1970, NSA.
[5] Central Intelligence Agency, "Classified Message: Immediate Santiago," October 16, 1970, NSA.
[6] Novitski (1970).

consolidation and limit its ability to implement policies contrary to U.S. and hemisphere interests."[7]

3. The structuralist school and the Unidad Popular economic team

President Allende's economic team was led by former members of the U.N. Economic Commission for Latin America, ECLA. Pedro Vuskovic was appointed Minister of Economics, Max Nolff led the Copper Corporation (Codelco), and Gonzalo Martner took over the Planning Office, which in late 1970 was elevated to ministerial status. The three economists were key figures of the "structuralist school," and had supported Allende in his three previous runs for president (1952, 1964 and 1970). The economic team was rounded out by Américo Zorrilla, a linotype union leader who was a member of the Communist Party.

The "structuralist" school was developed in the mid-1950s by economists Juan Noyola from Mexico, Jorge Ahumada, Osvaldo Sunkel and Aníbal Pinto from Chile, and Celso Furtado from Brazil.[8] Structuralism was, to a large extent, a reaction against the austerity and free market policies of the International Monetary Fund (IMF). For structuralists, orthodox stabilization programs based on fiscal retrenchment and monetary restraint stifled growth and generated suffering among the poor, without impacting the underlying causes of inflation.[9] Structuralists believed that inflation was the result of rigid economic structures, including an inefficient agricultural sector dominated by latifundia, an export sector almost exclusively based on natural resources, a monopolistic industrial sector, and an extremely unequal distribution of income. Structuralists postulated that monetary policy and fiscal imbalances were mere "propagation factors" of inflation. Contrary to orthodox doctrine – and, in particular, contrary to monetarists such as Milton Friedman --, structuralists posited that public sector deficits financed with money creation were not necessarily inflationary. They also believed that the exchange rate was an ineffective policy tool for addressing external imbalances. In their view, devaluations propagated inflation and made food more expensive for the working class. In his influential book "Instead of Misery" (*En Vez de la Miseria*), Chilean economist Jorge Ahumada, one of the fathers of structuralism, wrote that "deficits – either public or private – don't necessarily result in inflation… [F]iscal deficits in Chile are the result of structural causes…"[10]

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[7] Henry A. Kissinger, "National Security Decision Memorandum 93: Policy towards Chile," November 9, 1970, NSA. For more details on US involvement, see the last Section of this paper.

[8] At ECLA structuralists worked under famed economist Raul Prebisch, a charming Argentinian economist who had been governor of his country's central bank and whose views had evolved from orthodoxy to protectionism, Keynesianism, and planning.

[9] Structuralism was also a reaction against the policies of the Klein-Saks Mission in Chile. See Edwards (2007).

[10] In the mid-1960s, Argentine economist Julio Olivera formalized the early structuralists' narratives, which seldom included formal equations. Olivera postulated that in most Latin American countries' money was "passive," in the

At first glance, structuralists' views appeared to be like those of the Alliance for Progress, the U.S. program developed during the Kennedy Administration to aid Latin American countries and to reduce the influence of the Cuban Revolution among the younger generations. However, once one scratched the surface, the similarities between ECLA and the Alliance for Progress were superficial. For structuralists, protectionism, planning, and government intervention were much more important than for supporters of the Alliance for Progress. In terms of macroeconomic policy, Vuskovic and Martner were followers of Michal Kalecki, the Polish economist who had spent some time in Cambridge (U.K.) in the 1930s and who, according to his admirers, had anticipated many of the theories in John Maynard Keynes's *The General Theory of Employment, Interest, and Money*.

4. Allende's economic program: An overview

The *Unidad Popular*'s economic strategy had two interrelated components: a short-term macroeconomic program designed to generate immediate economic recovery and improved income distribution, and an extensive plan for structural (or "revolutionary") reforms to lay the groundwork for transitioning towards socialism. In a document handled to the president elect on October 24, 1970, and presented to the cabinet at its inaugural meeting on November 4, 1970, Pedro Vuskovic wrote: (Vuskovic, 1993, [1970], p. 198; emphasis added).

> "The configuration of the short run economic program… is not strictly based on economic considerations, and should be placed within the context of the Unidad Popular's Basic [Political] Program… There needs to be a coincidence between a political commitment and an economics exigency…. We cannot think of a first stage of purely conventional measures aimed at economic "recovery," and a second stage where the basic [revolutionary] policies would be taken up; on the contrary, from the beginning it is necessary to tackle both aspects *simultaneously*…"

In this Section I provide a brief overview of the *Unidad Popular*'s economic strategy. In Section 5 I discuss in detail the recovery program and I present an evaluation, with special emphasis on inflation.

4.1 The recovery program

In an article published in September 1970, Pedro Vuskovic wrote that the main goal of the *Unidad Popular's* short-run economic policy was to generate a massive increase in aggregate

sense that it was printed by central banks to validate inflationary pressures stemming from the country's political and economic structures. See Olivera (1970).

demand and to create "a drastic change in the concentration of property and income distribution." Inflation, which was running at 35% per year, was to be reduced significantly. Achieving these objectives was considered a key first step in the effort to build a socialist society.[11]

In January 1971, the respected economics magazine *Panorama Económico* described, in its editorial, the government's short-term strategy as "advanced Keynesianism." The article pointed out that the program was rooted in four key ideas: [12]

- Due to the monopolistic structure of the economy, there was ample unutilized capacity in (almost) every sector.
- Aggregate demand would respond to massive fiscal *and* monetary stimuli. Both policies would be directed towards increasing the disposable incomes of lower-income workers. Fiscal stimulus would be financed by the central bank. To satisfy this boost in demand it was key to redirect production and imports away from luxuries and towards basic goods.
- The most efficient way to deal with inflationary pressures was through generalized and strict price controls, including control of the exchange rate.
- The existence of ample international reserves – which had been accumulated during the previous administration -- would allow the government to maintain a fixed exchange rate, without generating a balance of payments crisis.

In discussing the short run strategy, minister of finance Américo Zorrilla argued that inflation was the consequence of the country's economic structure, including the monopolistic nature of industry and the dominance of large latifundia in the agricultural sector. He said, "the general orientation of the anti-inflationary fight, is based on immediate change [in the structure] of the Chilean economy." To him inflation had little to do with a large public sector deficit, excessive money creation, accelerating velocity of circulation, a large money multiplier or other variables of concern to orthodox economists.[13] Zorrilla and his colleagues believed that most large firms had a "liquidity cushion," made up of monopolistic profits, which would allow them to absorb a substantial increase in wages while prices were fixed/controlled.

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[11] Vuskovic (1970, 58-59).
[12] *Panorama Económico* (1970-1971, p. 3-10). See, also, García (1972). See, also, Inostroza (1971), Vuskovic (1973), Larrain and Meller (1991), and Edwards (2023).
[13] Zorrilla (1971), p. 31-32.

*4.2 **Structural and "revolutionary" reforms***

The *Unidad Popular's* structural/revolutionary reforms strategy was based on the nationalization of copper mines and other mineral resources (iron ore, coal, nitrate), the nationalization of the banking sector, large trading companies, insurance companies, and several large manufacturing firms with monopolistic power. In addition, millions of hectares of farmland were to be expropriated and transformed into cooperatives or state-owned farms.

On July 15, 1971, Congress unanimously approved a constitutional amendment that nationalized large copper mines.[14] The novelty of this amendment was that compensation to the American companies was calculated as book value minus "excessive profits" accrued since 1955. The Office of the President determined that excessive profits corresponded to income above 12 percent of book value. According to government estimates, Chile would not have to pay any compensation; in fact, the mining companies owed Chile some US$400 million. The decision not to compensate the American firms generated a major rift between the Chilean government and the United States that lasted until the end of the Allende administration. In part, this dispute was behind the Nixon administration's decision to cutoff of loans to Chile by the multilateral institutions controlled by the US, including the World Bank and the International Monetary Fund.[15] Within the Unidad Popular's government there were disagreements on whether some compensation should be paid. Max Nolff, who favored paying even a small amount, resigned his position as head of Codelco over this matter. Orlando Letelier, then the Chilean ambassador to the US, who was assassinated by agents of the military Junta in 1976, also favored the payment of compensation. President Allende and the leaders of his political party believed that the formula in the amendment was the best way forward. (Fortín, 1975).

Banks were nationalized through massive tender offers, where the state holding company, *Corfo,* paid a large premium for shares. On December 31, 1970, the Communist Party newspaper *El Siglo* noted that once banks were nationalized, interest rates would be reduced by 25%, transforming "credit from an instrument that created wealth for the oligarchy into a true lever for national development." By mid-1973, the government owned majority stakes in all but one of the banks. Purchases of banks' shares were financed by loans from the Central Bank to the government, or money printing. Expropriated farmland was paid for with long-term government bonds issued in nominal local currency.

The original plan called for the nationalization of 91 large companies with "monopolistic power." The firms in "the list of 91" operated in 14 industrial sectors: telecommunications;

[14] Chile already owned 51 percent of some mining companies. Fortín (1975).

[15] Book value was estimated at US$414 million, and "excessive profits" added up to US$774 million. Fortín (1975).

energy and petroleum; maritime logistics and transportation; forestry, timber, cellulose and paper; agribusiness and food processing; textile and garments; building materials; copper-based manufactured goods; electronics; food distribution (logistics); metal-mechanic; chemicals; fisheries; and leather and shoes. Most of these companies were to have 100% state property and would form the Area of Social Production (*Area de Propiedad Social*). In a small number of cases the state would own a majority stake (51% and up). These firms would make up the Area of Mixed Property (*Area de Propiedad Mixta*). The rest of the manufacturing firms – most of them small and medium enterprises – were supposed to remain in private hands and formed the so-called Area of Private Property (*Area de Propiedad Privada*). As noted below, however, many small and mid-size firms were taken over by the government.

The legal bases for the nationalization of manufacturing firms emanated from an executive order dating from the Great Depression. According to the 1932 executive order (Number 520), if certain goods became in short supply due to a factory stoppage, the government could "requisition" the company for an undetermined period. Frequently, unions seized the facilities and stopped work to create shortages and force the government to take over the company. In some cases, a negotiation between the government and the shareholders ensued. If an agreement was reached, the firm would be officially purchased by the state. Owners were compensated using Central Bank credits. A second mechanism for taking control of manufacturing firms was related to labor conflicts. The Ministry of Labor could decide that a labor dispute was generating shortages and take over the firm in question through a procedure known as "intervention." Government appointed functionaries would then run the firm for an undetermined time.

5. <u>The short-run program in detail</u>

Immediately after the presidential election, Pedro Vuskovic and his team began to work on a short-term "economic recovery" program for 1971. As noted, its goal was to generate an aggregate demand jolt and a substantial increase in economic activity, employment, and wages, and at the same time unleash a major redistributive process. The plan was rooted in a very simple premise: Chile's industry was dominated by monopolistic firms that kept output below optimal and charged excessive prices. Thus, it was argued, there was ample unutilized capacity that could be used to expand production and employment. The increase in demand was to be initially generated through expansive fiscal policy financed by the central bank. Price controls would ensure that the increase in demand would not put undue pressure on inflation, which in 1970 had been 35%. In addition to price controls the program called for negotiations between the government and the private sector to keep prices in check or to lower some of them.

The short-term program had an important political goal. If it worked as planned, real incomes would increase dramatically while inflation would be cut (approximately) in half. This would generate a major increase in wages, which were adjusted by past inflation, and a leap in political support for the government; in the Leninist language of those times, this would greatly improve the "correlation of forces." This, in turn, would allow the *Unidad Popular* to move forward in the implementation of the revolutionary/structural reforms presented in its program.[16]

5.1 "The Puppet"

The short-term recovery program was summarized in a document titled "Basic guidelines of the short-term economic program, 1970" ("*Orientaciones basicas del programa economico de corto plazo, 1970*"), which its authors nicknamed "The Puppet" (*El Muñeco*).

The document was co-written by Pedro Vuskovic, Gonzalo Martner, Alberto Martínez, and Sergio Ramos. Originally, only six copies were printed, and it was circulated in great secrecy. For many years, the document has remained underground and even today it is difficult to find it.[17] On November 4, 1970, the plan was presented to the cabinet during its first meeting, which took place in President Allende's modest house in the *Providencia* neighborhood. After a short discussion it was approved, and Pedro Vuskovic and his team were given a free hand to implement it.

Although the program was not laid out in a formal fashion – there was only one equation in the document –, its core and logic may be summarized using simple mathematics. In providing this summary I have tried to be as faithful as possible to the original text. Indeed, I consider what follows to be an exercise in "translation," an effort to rewrite the program presented in words into the language of modern economics.

Before proceeding it is important to clarify that the model presented here is not supposed to be "solved" in a traditional way. That was not the authors' intention – remember that there is only one equation in the document --, and, thus, "solving" the model is not the purpose of this section. Equations (1) through (13) provide a summary and "translation" of the main aspects of the plan. The subindex -1 means that that variable is lagged one period (one year).

(1) $$Y = C + I + G + X - M$$

[16] A major political goal was to enact a new constitution that would replace the historical bicameral congress with an Assembly of the People and a Chamber of Workers and would introduce major changes to the judiciary.
[17] The complete text of The Puppet can be found in Vuskovic (1993 [1970]), p. 168-197.

(2) $$C = C^W + C^K$$

(3) $$I = I^C + I^R$$

(4) $$G = \sigma G_{-1}$$

(5) $$W = (1 + \varepsilon \pi_{-1})W_{-1}$$

(6) $$\pi = \theta \pi_{-1}$$

(7) $$\pi = \alpha_0 + \alpha_1 \widehat{W} + \alpha_2 \hat{r} - \alpha_3 \hat{\rho}$$

(8) $$C^W = (1 + (\widehat{W} - \pi)) C^W_{-1}$$

(9) $$\delta = \gamma \delta_{-1}$$

(10) $$D \leq \overline{D}$$

(11) $$\mu = (\beta D + z) \leq \bar{\mu}$$

(12) $$X = X^C + X^R$$

(13) $$M = \vartheta M_{-1}$$

Equation (1) is the basic macroeconomic equilibrium condition, where standard notation has been used and all variables are in real terms. Equation (2) captures the spirit of Polish economist Michal Kalecki and decomposes consumption (C) into consumption by workers (C^W) and consumption by capitalists (C^K). An important goal of short-run policies was to increase C^W at a much faster pace than C^K. This, in fact, was the most salient redistributive feature of the program. Equation (3) decomposes investment into two parts: investment in construction, housing, and infrastructure, largely undertaken by the government (I^C), and investment in the rest of the economy (I^R). The authors of the plan recognized that given the "revolutionary" nature of the government, it was likely that during 1971 private investment I^R would decline. Equation (4) relates current government expenditure to its level the previous year ($\sigma \geq 1$). Equation (5) establishes that nominal wages in the current period (1971) will be adjusted by a multiple $\varepsilon \geq 1$ of past inflation. Equation (6) is the inflation target; $\theta < 1$, indicating that the government's goal was to achieve a reduction in inflation. Notice that in this model inflation is a goal, and thus an exogenous variable.

Equation (7) is an explicit expression for the cost components of inflation and is the only equation that appears as such in The Puppet. It says that inflation (or more precisely its costs' elements) is a linear function of nominal wage increases $\widehat{W}$, increases in non-workers' income $\hat{r}$, and productivity improvements $\hat{\rho}$, with a minus sign. I analyze equation (7) in some detail below. Interestingly, this equation was taken from a study by Jorge Cauas (1970), the economist who four years later would become finance minister during the Pinochet regime and would implement a "shock treatment" stabilization program to tackle the inflationary spiral unleashed during the Unidad Popular. (See Edwards, 2023, for details).

Equation (8) states that the growth in real workers' consumption is determined by the rate of growth of real wages in the current period $(\widehat{W} - \pi)$.

Equations (9)-(13) are loose expressions that summarize constraints and considerations presented in an ad-hoc fashion in the paper. Although the authors attach (some) importance to them, they do not explain formally how they interact with the first part of the model.

Equation (9) is for the rate of devaluation, δ. Although the authors considered two options for 1971 – a crawling peg or a fixed rate --, the government decided that the best choice was to peg the exchange rate and set $\gamma = 0$. It was thought that by doing so, inflation would be lower (notice, however, that δ does not enter equation (7)). Equation (10) notes that there is an upper limit to the fiscal deficit $\bar{D}$. How that limit is connected to the rest of the model, or to money creation, is not singled out or discussed in any detail. Towards the end of The Puppet, it is noted that for 1971 the deficit should not exceed 5.3% of GDP. As may be seen in Table 3 below the actual deficit exceeded the target significantly. There is no discussion, however, on the connection between the deficit and the public sector debt. (More generally, in the document there is no connection between stocks and flows).

Equation (11) is for money creation. It states that a fraction $\beta \leq 1$ of the fiscal deficit will be financed by the central bank; z represents other sources of money printing. According to this expression money creation should not surpass an upper limit, $\bar{\mu}$. As in the case of the fiscal deficit, there is no formal discussion on how monetary policy is connected to the rest of the model, nor is there an indication that monetary expansion could become "passive," in the sense of Olivera's (1970) structuralist models of inflation.[18] Nothing is said about the demand for money or velocity of circulation.

Equations (12) and (13) provide a minimal framework for the external sector. According to equation (12) it is useful to decompose exports into copper and rest. Finally, equation (13) states that there is persistence through time in imports. Notice that no connection is posited between exports and imports and the (real) exchange rate. This is in line with the structuralist credo.

*5.2 **Putting the program together***

Based on this framework, the short-run program was put together by Vuskovic et.al. through the following steps:

- Historical data and estimates of capacity "underutilization" were used to forecast the evolution of GDP in each productive sector; see Table 1, which has been taken directly from The Puppet. These calculations of aggregate supply came from outside the model. As may be seen in Table 1 the recovery plan called for a major increase in output in the mining and construction sectors. Mining expansion would be a consequence of the nationalization of large mines, an event scheduled for the first half of 1971. The leap in construction would be a response to a major program in public works and housing. The plan also called for a substantial increase in industrial (manufacturing) output of 12%. At the heart of this enhanced performance was the nationalization of monopolies and the response of the private sector to higher aggregate demand; no magnitudes of elasticities, however, were provided. As Table 1 shows, the plan contemplated an overall growth in GDP of 10%, significantly higher than during the previous three decades. Between 1945 and 1970 Chile's GDP grew at an average rate of 4.1%, below Latin America's average of 5.6%. (Edwards 2023).

- The two components of investment in fixed capital – equation (3) – were forecasted from outside the model. While investment in housing and infrastructure, driven by the public sector, would grow by 24% in 1971, investment by the private sector in machinery and equipment would retract by 10%. No discussion was provided on whether this contraction in private investment would create bottlenecks and compromise growth in 1972 and the years to follow. Almost two decades later, Gonzalo Martner, Salvador

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[18] In discussing monetary policy, The Puppet makes a distinction between money in the hands of the private sector (*dinero privado*) and in hands of the public sector (*dinero público*).

Allende's minister of planning, pointed out that one of the key factors behind the slowdown of the economy in 1972 were, indeed, bottlenecks. (Martner, 1988).

- Based on the previous estimates, the components of aggregate demand were projected – see Table 2. Aggregate consumption for 1971 was expected to increase by 10% in real terms. Exports were assumed to grow at 25%, the same rate of mining output (see Table 1). Imports were forecasted to expand at the same pace as exports. In these projections, Allende's economic team did not anticipate a large external imbalance. As it turned out, this was a miscalculation.

- A fundamental question was how the 10% real increase in aggregate consumption would be distributed between workers and non-workers. The answer depended on the behavior of wages, inflation, and the evolution of non-workers' income. The latter was treated as one of the adjustment variables that made the program close in a consistent way. (See the discussion below).

- In this program, inflation was exogenously given as a policy goal. According to The Puppet: "[T]he inflation problem is not a purely financial issue, but rather it is considered as a problem related to the intensity of the redistributive process." The inflation target was set at 15% for 1971. Since, according to equation (5), nominal wages are adjusted by more than lagged inflation ($\varepsilon \geq 1$), the program implied an increase in *real wages* of approximately 20%, twice as fast as GDP. This was the major redistributive driver in the short run strategy.

- As noted, equation (7) is the only mathematical expression in the report. In the development of the model, it is used to calculate the rate of growth of non-workers income that is consistent with the inflation target of 15% and with an increase in nominal salaries of approximately 40% (35% of past inflation plus 5% additional adjustments in family income supplement; see the discussion in Section 6, below). The following specific parameterization of (7) is provided in the document:

$$\pi = 0.565 + 0.433\,\widehat{W} + 0.613\,\hat{r} - 1.613\,\hat{\rho}.$$

Consequently, if $\pi = 15\%, \widehat{W} = 40\%$, and $\hat{\rho} = 3.0\%$ (the very optimistic assumption on productivity growth in The Puppet), no-workers income $\hat{r}$ would merely increase, in *nominal terms*, by 3.2%. It is interesting to notice that the parameters in the equation are identical to the ones used by Cauas (1970).

- If the inflation goal of 15% is attained, equation (8) indicates that workers' real consumption will grow at approximately 25%. Given that $\left(C^W/_C\right) = 0.66$, this meant that under the base-case scenario non-workers real consumption would have to *decline* by 15%, to close the model in a consistent way. (See below for a discussion). However, Pedro Vuskovic and his colleagues understood that such an abrupt decline in capitalists' consumption could generate major political resistance. Thus, an option was to provide some tax relief, so that non-workers' consumption would not suffer so severely. (This option is discussed very briefly in the document; no details are given).

- Regarding the fiscal deficit and its financing by the central bank, The Puppet made a cryptic commentary: "Given the magnitude of the deficit [6,000 million escudos, or 5.3% of GDP] it should be appreciated that the increase in Central Bank's credit to the public sector should be compatible with an inflation [target] of 15%."

- The Puppet then provided some "rough estimates" for the monetary program. It observed that an expansion of money of at most 3,270 million escudos was compatible with the inflation target of 15%. It was then noted, in a premonitory fashion, that that amount was "notoriously lower" than the projected fiscal deficit of 6,000 million escudos.

> "The balance (2,730 million escudos) would constitute a pressure factor that could bring inflation significantly higher than 15%. In addition to the fiscal measures that could be enacted, this balance would have to be covered by using accumulated international reserves…"

The document emphasized that aggregate supply had to respond adequately to the demand stimulus. For this to happen, the authors pointed out that it was crucial for the government to take control quickly of large monopolistic firms and the banking sector. Special emphasis was given to the nationalization of firms that produced goods consumed by the popular classes. Nationalized banks would direct credit to nationalized firms and to medium and small companies. The composition of imports was also a consideration in the short-term strategy; licenses for luxury goods would not be approved easily, or not at all.

5.3 A critical evaluation

From today's perspective, the short run program presented above has some important limitations. The different parts are connected to each other weakly, or not at all, and key variables such as interest rates, parallel market exchange rates, and velocity of circulation are not considered. There is no specific role for expectations. A particularly serious limitation was not to include devaluations and money growth in the inflation equation (7). It is possible to argue that this was consistent with the structuralist views of the time, according to which monetary factors were mere "propagators" of inflation. However, that role is not incorporated in a formal way. For instance, there is no role for a sophisticated dynamic of propagation. Another limitation is not specifying the evolution of international reserves or considering how their possible decline and depletion – as it abruptly happened in late 1971 – could generate bottlenecks, negatively affect the supply response to the stimulus, impact on expectations, and generate a major exchange rate crisis.

The model could have been improved by extensions that, at the time, were already used by macroeconomists, both in Chile and internationally.[19] Here are (just) a few examples of additions and improvements that could have alerted the authorities to the dangers behind the strategy, dangers that materialized in the second half of 1971, and that by 1973 had fueled hyperinflation. (I should emphasize that this is not an exhaustive list of amendments; it's a partial catalog that illustrates how fragile the model was):

(a) $$S_i = (1 + c_i \nu_i) S_{i,-1}; \qquad \nu_i \neq \nu_j$$

(b) $$I^R = (1 + \phi) I^R_{-1}$$

(c) $$\pi = (1 + \lambda)\left(\alpha_0 + \alpha_1 \widehat{W} + \alpha_2 \hat{r} - \alpha_3 \hat{\rho} + \alpha_4 (\delta + \pi^*)\right) + \gamma_1 (1 - \nu) + \gamma_2\, ESM$$

(d) $$\nu = g(ESM, \dots)$$

(e) $$ESM = h(\widehat{M},\ \ BMP \dots)$$

(f) $$\Delta R = R_{-1} - CAD;$$

Equation (a) relates output evolution in sector *i* to its sector-specific unutilized capacity, ν_i. The coefficient c_i embodies that sector's supply elasticity. Equation (b) is for the dynamics of "rest of investment," where ϕ is a paramenter that depends on expectations about future economic and political conditions. A rapid and unwieldly nationalization process would result in a lower (and,

[19] One could, of course, be even more critical and point out that from the perspective of 2023 there were several omissions. But such an analysis would be ahistorical and not very useful.

perhaps, smaller than one) ϕ. Equation (c) is for inflation, and it is a simple, and yet important revision to the model. This equation is a reduced form that combines cost and demand factors. On the cost side it adds international inflation pressures as devaluation plus imported inflation $(\delta + \pi^*)$, and explicitly considered a mark-up factor $(1 + \lambda)$, which will depend on elasticities of demand as well as on supply constraints. On the demand side it adds a capacity utilization component (higher utilization increases inflationary pressures resulting from a jolt in aggregate demand), and a term that considers the excess supply of money $(\gamma_2\ ESM)$. ESM is, of course affected, by changes in the velocity of circulation -- what some economists call the Cagan-effect, after Phil Cagan's work on hyperinflation --, and the black-market premium (*BMP*). In a dynamic setting this equation (e) may be considered as capturing long run inflation. Equation (f) is the law of motion of international reserves, where *CAD* is the current account deficit.

As noted, the extensions in (a)-(f) are quite simple, and by 1970-71 they had been considered, either implicitly or explicitly, by several economists who had studied inflation in Chile, including Hirschman (1963), Harberger (1963), García (1964), and Corbo (1971). As I argue in Sections 6 and 7, an important limitation of the model in The Puppet was ignoring the dynamics of salary increases and parallel exchange rates. Once these two forces are considered, it is apparent that there was a real danger that inflation could become explosive, as it did since mid-1972.

The Puppet is almost silent regarding tax revenue or the need for a major tax reform. In mid-November 1970, Minister Zorrilla dealt with the issue when he submitted the "Public Sector Budget for 1971," to Congress. He noted that relying on indirect taxes had negative distributive effects, and pointed out that a great effort would be made to reduce tax evasion and avoidance. But there is no detailed discussion on a major reform aimed at increasing tax revenues.[20]

It is important to recognize that the program, as presented in The Puppet and summarized above, doesn't look, on its own, like a particularly revolutionary text or as a strategy to transform Chile into Cuba or an Eastern European country in the then Soviet sphere. It rather looks like a run-of-the mill recovery-cum-stabilization program put together by a group of ECLA functionaries steeped in the structuralist credo. It is a simplistic plan, but if the policies were kept within the parameters considered in the document, it would not result in a combination of major output contraction and rapidly accelerated inflation. However, for several reasons explained in the Sections that follow, policies were not kept within the boundaries of The Puppet, and the

[20] A possible explanation for this is in two parts: First, the UP economists knew that, given the composition of Congress it would be virtually impossible to have a fiscal reform approved. Second, for them a large fiscal deficit was not a cause for alarm.

result was hyperinflation-cum-shortages and black markets. In many ways this was a repeat of the French *assignats* case from the late 18th century.

Although the program didn't say anything specific about dynamics, the mechanisms delineated in the report were consistent with a very simple autoregressive process of order one, where lagged inflation impacted current inflation through the backward-looking indexation system.

$$\pi_t = \alpha + \beta \pi_{t-1} + \varepsilon_t$$

However, there were reasons to believe that that would not be the dynamic structure going forward. More specifically, it was likely that, given the nature of the new government, economic agents would expect a change of regime, in the sense of Tom Sargent. This would result in changes in the parameters of the different equations that capture economic behavior and agents' reactions to policies. For example, one would have expected (or, at least, entertain) that there would be a fast decline in the demand for domestic money (Escudos) and a rapid increase in velocity of circulation. Along these lines, it is possible that until 1970 an acceleration variable $\Delta \pi_{t-1}$ had a zero coefficient in the dynamics of inflation equation, but a non-zero one after 1970. The importance of this remark has to do with the possibility that at some point – first quarter of 1972, for example --, the process governing inflation experienced a structural break and became explosive. In that case a more complex dynamic structure would operate. For instance:

$$\pi_t = \alpha + \beta \pi_{t-1} + \gamma \Delta\pi_{t-1} + \varepsilon_t$$

It is important to keep in mind that, as noted earlier, the recovery program was only one component of the *Unidad Popular*'s economic strategy. As discussed below, the second component – nationalization, expropriation, heightened regulation, price controls, deep agrarian reform –contributed significantly to the creation of major macroeconomic imbalances, runaway inflation, shortages, black markets, and a prolonged crisis.

6. Controlled inflation in 1971

On November 27, 1970, before Salvador Allende completed his first month in office, minister of finance Américo Zorrilla submitted to congress the "State of Public Finances." In addition to unveiling the budget for 1971, the minister explained that the government's anti-inflationary program was rooted in price and exchange rate controls (emphasis added):

> "We have initiated the *strictest policy of price controls*, which will be maintained in the future in an effort to centralize control over major producers and wholesale

> distributors, and drastically sanction those who violate legal norms [regarding price caps]. Any unauthorized price increase will be immediately annulled…"

Concerning the exchange rate policy, Minister Zorrilla stated:

> "One of the main elements of firms' costs is foreign exchange. Thus, we will not continue with the periodic [mini] devaluations policy, since they would generate, as in the past, autonomous inflationary pressures and [higher] inflationary expectations."

6.1 <u>Wage adjustments and income redistribution</u>

In his speech, minister Zorrilla announced that at the center of the government's redistributive program was a generous wage adjustment policy. The minimum wage was increased from 12 to 20 escudos – that is an increase of 67%. Workers at the lower end of the income scale – those earning less than one *sueldo vital* – would receive a wage increase equal to 105% of past inflation. Those earning between one and two *sueldos vitales* got 103% of past inflation, while those earning more than two *sueldos vitales* were to obtain an adjustment equal to past inflation. Since inflation was expected to decline from 35% to 15%, workers at every level of the income scale would obtain substantial real wage increases. In addition, the government mandated an upward adjustment of family and other allowances -- lunch, public transportation and other.[21] These wage adjustments were mandated by Law 17,416 and represented a floor for wage increases for the public and private sectors. The minister emphasized that private companies and their unions could negotiate higher wage adjustments.

The wage adjustment policy resulted in an immediate and very substantial jump in real incomes across the board, and an important increase in labor income's share in national accounts; I discuss the evolution of real wages in Section 8 and in Figure 4. Politically, the rapid improvement in wages was translated in a major rise in voters' support for the *Unidad Popular* in the municipal elections of April 1971, when Allende's coalition garnered 50.2% of the votes, a significant improvement from the 36.5% obtained in the presidential contest only six months earlier.

During most of 1971, the macroeconomic strategy appeared to work. As noted, real wages increased significantly, real gross domestic product (GDP) growth shot up to almost 9% – the highest in several decades --, and inflation was contained at 22 percent (as observed, it had

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[21] The *sueldo vital* was a metric used to benchmark pay to public-sector white-collar workers. In 1970, the *sueldo vital* was 71% higher than the minimum wage. In 1970 family allowances for blue-collar workers were 39% of the family allowances for white-collar workers. The government's goal was to slowly make both equal. That goal was not achieved during the UP administration.

been 35% in 1970). However, behind these positive figures substantial imbalances were rapidly mounting. Investment in equipment and machinery by the private sector declined by more than the 10% anticipated in The Puppet, and agricultural output stagnated because of an acceleration of expropriations and massive land invasions by peasants. In addition, a substantial trade deficit developed, and international reserves declined rapidly. Also, the United States and the international financial organizations that it controlled – the World Bank and the IMF – cut loans to Chile, making things even more difficult.

6.2 The nationalization of Manufacturas Yarur

During the second half of 1971 there was a fast acceleration of firms' nationalization. The procedure used for (most) nationalizations had three components: (a) A labor conflict between the union and the company was started. (b) When (and if) the labor conflict was not solved, workers seized the company and took control of the facilities. And (c), given that a seized company was unable to produce any goods, the government had a legal excuse, based on Executive Order 520 discussed previously, to requisition it. As Peter Winn (2020) has pointed out, one of the most important early nationalizations based on this process took place in April 1971, when the Yarur textile company was taken over by its workers, who demanded immediate requisition.[22] President Allende was, initially, reluctant to move forward with nationalization. Jorge Yarur, the patriarch of the Yarur family, had been his friend, and he had promised the family that his government would treat them well. However, the union mobilized more than one thousand workers, staged massive rallies, and its demands were supported by minister Pedro Vuskovic and undersecretary Óscar Guillermo Garretón. At the end, Allende relented, and in May 1971 Yarur was requisitioned by the government. One week later, the workers' representatives were added to the management council. This was a first that would soon be emulated in other nationalized firms.

What makes the Yarur episode particularly important is that it created a "domino effect." As soon as the government gave in to workers' pressures, unions in other factories demanded that the government requisition their firms. In most cases the authorities acquiesced, and a new company was added to the state-owned enterprises area. Out of the 137 manufacturing firms nationalized by late 1971, only 49 were in the original "list of 91." (Martínez, 1978, p. 268). This rapid expansion of the scope of the nationalization process had two important consequences:

- Most nationalized firms faced serious management problems. In most cases technical personnel (engineers, accountants, managers, logistics experts) were either fired or

[22] This was not the first company nationalized, but it was the largest one and the one that became the clearest symbol of "revolution from below."

resigned. Government appointed managers ("*interventores*") were usually very young individuals without practical experience. In fact, many were last year university students, who played the double role of managers and political commissars. Because of the lack of experienced executives and technicians, productivity declined abruptly. Also, inventories dwindled, spare parts were unavailable (forex required to import them was scarce, due to the macroeconomic policies and the cutoff of foreign loans by the US), and the number of workers hired increased significantly. This combination of factors contributed to the dislocations in production processes, shortages and eventually to the generalization of black markets.

- Most nationalized companies had significant losses due to a combination of higher costs (mostly related to higher wages), low productivity, and work stoppages. These losses were financed by the central bank through money printing and contributed to the acceleration of inflation.

In the national budget, money printing and central bank loans to the government were euphemistically called "Revenues from Capital." The 1971 budget, presented to Congress in late November 1970, contemplated that 17% of all government expenditures would be financed with money creation. A year later the actual deficit financed by "monetary flooding" amounted to almost 50% of expenditures. In 1971 the supply of money increased by 136%, significantly faster than the government's original plan for an expansion of 47%.[23]

On November 16, 1971, with inflation still under control – it was 19%, in 6-months annualized terms – minister Américo Zorrilla delivered his second "State of the Public Finances" report. The first part of the speech focused on economic performance during 1971. The minister noted that in some sectors there were signs of supply shortages: (Zorrilla 1971, p. 12. Emphasis added):

> "Despite all the efforts deployed, the increase in purchasing power for the majority of the population beyond the limits set by the economic policy of the Popular Government, combined with accidental factors such as the earthquake and weather events, as well as deficiencies in the state apparatus itself, resulted in varying degrees of *insufficiency in the supply of some everyday consumer products*. Some of these supply problems are purely circumstantial, and their solution will be addressed in the short term. Others, such as the beef issue, require a longer-term effort, and initial measures have already been taken. It should not

[23] Inostroza (1971).

> be forgotten that developed countries have a lower consumption of beef compared to other protein sources, proportionally, than what characterizes the Chilean diet."

In late 1971, Fernando Flores, who would eventually become minister of finance and very close to President Allende, convinced British management scholar Stafford Beer to develop a computer-based planning system to detect bottlenecks and supply constraints, and to help determine the right prices for consumer goods. During his first trip to Santiago in November 1971-- a trip that coincided with Fidel Castro's long visit to Chile --, Beer inquired about the methods used by the government to control prices. A senior member of the price controls bureau, DIRINCO explained the modus operandi: companies provided information on all their costs and added a "profit margin" that ranged from 7 percent to 15 percent. An army of accountants reviewed the figures, and in most cases slashed the cost estimates and halved the margin. Company executives, of course, knew that this was going to happen, and systematically inflated the cost figures. Stafford Beer asked for spillover effects of price controls. He was told that there was a computer program that estimated cross-sector supply requirements and generated "true accounting or shadow prices as the dual of the optimization process." Beer asked how many industries and goods were included in the analysis. The answer was that that Chile's input-output matrix had fifteen sectors. Stafford Beer was incredulous and pointed out that it was impossible to control thousands of prices using a fifteen-sector mathematical model.[24] During this first visit Stafford Beer assembled a team of (mostly) engineers that for the next 22 months would work incessantly in the development of the *Cybersyn* project, a program that with the passage of time has become mythical. (Medina 2001; Edwards 2023).

By the end of 1971, government officials declared that the first year of the *Unidad Popular* had been a great success. These evaluations relied as much on politics as on economic results. Gonzalo Martner, the Minister of National Planning said: [25]

> "1971 will be inscribed in the history of Chile as the year of its second independence and of the beginning of the revolutionary process conducted within the framework of what has been called 'the Chilean Way.' The goal is to implement a popular revolution that is nationalistic, democratic, pluralistic..."

In his speech, Martner did not refer to inflation as a threat for the future development of the economy. Jorge Arrate, a Harvard-educated economic adviser to President Allende, who later became minister of mining and head of the copper company Codelco, said: "[T]he criteria used to build the *Area de Propiedad Social* [state-owned enterprises] should be political. And among

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[24] Medina (2011) provides a fascinating discussion on Cybersyn. See, also, Edwards (2023).
[25] *Panorama Económico* (1972, p. 17).

these criteria, the most important should be to break the center of economic power of the bourgeoisie…"[26]

7. Price Controls, repressed inflation, and shortages in 1971-1972

The combination of severe price controls, increasingly large fiscal deficits financed by money creation, work stoppages and "requisitions," and foreign exchange shortages, exacerbated macroeconomic imbalances. On January 20, 1972, the Communist Party newspaper *El Siglo* informed that the office of price controls DIRINCO was making a major effort to have cigarettes supplied through official channels at controlled prices. On February 21, 1972, the conservative newspaper *El Mercurio* noted that several industries were facing problems because foreign exchange rationing made the importation of spare parts difficult and, in some cases, almost impossible. A day later (February 22, 2022) pro-Unidad Popular paper *Clarín* noted that the government was redoubling the efforts to have all companies in the "list of 91" requisitioned, intervened, or nationalized in short order. According to the story, that step would help reduce the "shortages problem."

7.1 The Arrayán Conclave

On February 7, 1972, and because of growing economic imbalances, President Allende called for a meeting of the heads of the political parties in the *Unidad Popular* coalition to discuss economic policy and political strategies. The gathering became known as the "*Arrayán Conclave*," after the Santiago neighborhood where it took place. The issues discussed included: drafting a new constitution that would replace the two-chambers system with an Assembly of the People, the nationalization of industry, shortages, the pace of agrarian reform, the takeover of firms by workers, farms invasions by peasants, and inflation. During the conclave the disagreements between the Socialist and Communist parties became palpably clear. The former wanted to speed up the process and move decisively towards socialism, while the latter sought to slow it down and consolidate the progress made util then. No major agreements were reached, no significant changes to economic policy were made, and Pedro Vuskovic continued at the helm. At the end of the Conclave, the parties in the coalition issued a communiqué that identified three major economic challenges for 1972:

- There was a need for more robust central planning and greater consistency and coordination of actions across industries and sectors. Some believed that the incipient project *Cybersyn* would help achieve this goal.
- Workers had to take an active role in the running of nationalized firms and farms.

[26] *Panorama Económico* (1971, p. 16-17).

The experience of the Yarur textile firm had to become generalized to most industrial companies.

- Small and medium-sized companies had to be supported by the government. Although the document stopped short of saying it clearly, it was intimated that workers should not take over these smaller entities, since that would alienate the middle class and reduce the support for the government.

The Socialist Party issued its own communiqué where it argued that it was "not the time to slow down and consolidate what had been obtained in the process." On the contrary, for Socialists the correct strategy called for leading the masses towards the complete "seizure of power" and the replacement of capitalist and bourgeoise institutions (including the judiciary) with new revolutionary and socialist ones. (Farias, 2000, p. 1994).

*7.2 **Neighborhood price controls committees (JAPs)***

On April 5, 1972, the government issued an Executive Order creating "neighborhood committees" to help with price controls and food distribution. Members of the committees were supposed to denounce shopkeepers that charged prices above official ones or sold them in the black market. These committees were called *Juntas de Abastecimiento y Control de Precios (JAP)*, and their members were allowed to purchase a basket of basic goods at official prices. From the beginning the JAPs were extremely controversial. Even before the Executive Order was approved by the national Comptroller's Office, newspaper *El Mercurio* referred to them as a "instruments of [citizens'] control by the Communist Party." In contrast, *El Siglo* said that the JAP's role was to "protect the interests of workers and their families, and of small shopkeepers, through the use of official supply channels, the denunciation of hoarding, and the enforcement of price controls." The fact that deliveries of the "basic basket" and other necessities were written down in cards that looked like "rationing cards" like those used in Cuba and the Eastern bloc republics added to the controversy.[27]

During early 1972 inflation accelerated rapidly. In January, the 6-month annualized inflation metric climbed to almost 30%, and in February it increased further to 43%. This was more than double its December 1971 reading (21%) and much higher than at the end of Eduardo Frei's administration. In January, minimum wages were raised by 50%, a figure that was more than twice accumulated inflation in the previous year. This was consistent with the *Unidad Popular's* program and had a ratchet effect over the complete structure of wages in the private and public sectors. Higher wages, coupled with controlled prices, meant higher costs, and

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[27] El Mercurio, March 6, 1972. *El Siglo*, April 6, 1972.

increased losses for nationalized firms. To survive, they required additional credit, which was promptly provided by the central bank. A "*prices-wages-money creation*" vicious circle developed. A decline in the demand for money (or increase in the velocity of circulation) added to the inflationary pressures. The government tried to combat inflation by using even more severe price controls.

7.3 Multiple exchange rates

In November 1970, minister of finance Américo Zorrilla announced that the government would put an end to six years of mini devaluations. The value of the U.S. dollar would be fixed at 12.21 escudos.[28] Because of the acceleration of inflation and the increase in imports, this was a short-lived policy. On December 13, 1971, the escudo was devalued and a new official parity of 15.80 escudos per USD was established. That same day a multiple exchange rate system was adopted and four "import lists" were created. Goods in Lists A and B were subject to the official exchange rate of 15.80 escudos per USD. Those lists included food stuff, clothing, shoes, and petroleum. List C applied to spare parts and capital goods, with an exchange rate of 19 escudos per dollar. List D included "luxury" goods, as defined by the government, and was subject to a 25 escudos per dollar rate. Exports were subject to the lowest exchange rate (15.80). In addition to these rates, there was a black or parallel market with premia of around 50% over the highest official rate.

On August 7, 1972, the escudo was devalued again, and four additional import lists were established.[29] During the next 12 months the currency was devalued several times and an spiral of devaluation and inflation ensued. In September 1973, Chile had ten different official exchange rates. This created serious economic distortions and encouraged corruption, as importers and exporters tried to have their goods reclassified into the most convenient list. In early September 1973, the black-market rate stood at 3,150 escudos per dollar, implying a premium of 142% with respect to the highest official rate of 1,300 escudos per dollar. Because of foreign exchange shortages the importation of spare parts became increasingly difficult, further hurting the production process.

8. Stagnation and Runaway Inflation in 1972 and 1973

By mid-1972 the nationalization process had spun out of control, with many small and medium sized firms being seized by workers who demanded their immediate requisition and

[28] See Zorrilla (1971).

[29] Multiple exchange rates were not new in Chile. They had been used between 1952 and 1955 as a way of dealing with a balance of payment crisis. The gap between the low and high rate was, however, significantly smaller that during the Unidad Popular.

expropriation. Instead of producing large surpluses, as expected by government economists, the new state-owned firms incurred very substantial losses. A succession of labor strikes in the nationalized copper mines further hampered the investment cycle. Wage increases to compensate for inflation were financed with even more money creation. And so, a whirlpool of money printing, inflation, currency devaluation, higher velocity of circulation, and wage adjustments took over. As inflation accelerated, the real value of tax collection declined; this is the so-called "Tanzi effect," which operates in countries with extremely high inflation. Housewives spent hours standing in line in front of shops and supermarkets, in the hope of buying sugar, tea, coffee, chicken, detergent, toilet paper, and other necessities. Political tension increased and the government blamed the opposition, shop owners, capitalists, the U.S., and speculators for the deterioration of economic conditions.

8.1 The "Millas Plan" and the October 1972 national strike

In June 1972, and after the government lost two congressional by-elections, Pedro Vuskovic was replaced in the Ministry of Economics by Harvard educated Carlos Matus. Communist lawyer Orlando Millas took over as Minister of Finance and became the de facto head of the economic team.[30] With the support of his party, Millas tried to engineer a vast stabilization program. On August 18, 1972, hundreds of prices controlled by the government were adjusted up, and the government declared that state-owned and nationalized firms would redouble the effort to increase output. The goal was to put an end to shortages and black markets, and to reduce inflation. By coordinating the needs of firms with the availability of inputs and fuel, the *Cybersyn* project developed by Fernando Flores and Stafford Beer would help achieve this goal. These policies, it was thought, would result in increased support for the government in the upcoming crucial March 1973 congressional elections.

The data in Figure 1, vividly capture the rapid acceleration of inflation in 1972. According to this gauge -- annualized six-month rate of change in the official price level --, annualized inflation doubled from 30% in January 1972 to 60% in April. It doubled again to 120% in August, immediately after the Millas adjustment plan. Because of the jump in inflation and in accordance with the *Unidad Popular's* program, in October the government decreed a doubling of wages, further fueling the vicious inflationary circle.

Instead of calming things down, the Millas adjustment program destabilized the government further. Labor unrest increased, land invasions in the rural sector intensified, the

[30] The decision to replace Vuskovic as minister of economics took place after the "*Lo Curro Conclave*," a meeting of the president and the heads of the UP political parties. The conclave was held at the home of Vicente Sota, in the Lo Curro neighborhood of Santiago.

seizure of manufacturing companies went on, and monetary largesse deepened. In addition, the interruption of credits and loans by the United States and international financial institutions (IMF, World Bank) further strangled the economy.

Things took a turn for the worse in early October, 1972, when several business and professional associations (truck owners, shopkeepers, medical doctors) staged a national strike aimed at paralyzing the country and destabilizing the government. This event became known as the "Truckers' Strike" (*Huelga de los Camioneros*). Street fights between government supporters and opposition demonstrators became commonplace. One of the most serious consequences of the strike was the severe rationing of fuel. Without it, it was not possible to distribute food and other basic goods to shops, supermarkets, or JAPs. Women staged massive demonstrations to protest supply problems; as they marched down Santiago's main boulevard, they banged empty pots and shouted anti *Unidad Popular* slogans. The government fought the strike using a combination of legal tools and police tactics. Workers in the "industrial belts" were asked to work overtime, and the data gathered for the *Cybersyn* project were used to battle supply disruptions. Government functionaries supported by the police opened shops and warehouses with hoarded goods and requisitioned them. Owners and managers were swiftly arrested. The crisis only abated when, on November 2, 1972, President Allende appointed the commanders in chief of the army, navy, and air force to the cabinet. According to a report prepared by the US Senate after the coup d'état, the strike was partially financed by the CIA.[31]

8.2 Two views on the economy

As inflation accelerated, the disagreements between the two camps within the government intensified. A question that divided the waters was the impact of money printing on inflation. On one side of the ledger there were technocrats and members of the Communist Party who believed that excessive money printing contributed to the jump in demand and was harmful; on the other side were members of the Socialist Party who believed that worrying about monetary issues was a "social democratic" deviation.[32] Both groups, however, thought that wages and salaries had to be raised periodically in response to accumulated inflation.

[31] See Edwards (2010) and Select Committee to Study Governmental Operations with Respect to Intelligence Activities (1975).

[32] The central bank staff sided with the more prudent view. A report published in early 1973 noted that when "the quantity of money increases faster than output and imports… there will be an increase in prices." (Banco Central de Chile, Boletin Mensual, May 1973, p. 466). Even in this group there was the belief that wages needed to be adjusted according to past inflation.

The Communist Party perspective on inflation, money and wages is clearly captured by an exchange between *El Siglo's* reporter Eduardo Labarca and the head of the Communist Party, Senator Luis Corvalán. (Labarca, 1972, p. 36-37. Emphasis added.):

> *Corvalán:* "[In August 1972 we] concluded that we really needed an adjustment of prices and remunerations… We gave [workers] two bonuses in September, and in October there was a [100%] wage adjustment. *We will now make a new effort to slow down inflation*."
>
> *Labarca:* "Do you really think that you will succeed, with all the shortages that have resulted because of the *excess liquidity in hands of the public*, which fuels speculation and inflation?"
>
> *Corvalán*: "We believe that an anti-inflationary policy is our obligation. We are taking several measures…Measures to reduce money supply, measures to restrict the economic level of our adversaries, measures aimed at allowing workers to voluntarily save part of their income… *All these measures are directed towards reducing as much as possible the inflationary pressures derived from the great mass of circulating money* …"
>
> *Labarca*: "Workers understand that the instantaneous wage adjustment decreed by the government meant a doubling of the wages and salaries. For the first time in Chile there is an inflation that doesn't generate [workers'] suffering and anguish."
>
> *Corvalán*: "I think that it is fundamental that all workers fully understand that the doubling of wages means that we must take very seriously all the anti-inflationary measures that I just mentioned."

However, many – in fact, possibly a majority – of *Unidad Popular* economists insisted that money creation was not the main driver of inflation. According to them, the root causes were political and had to do with opposition-led (and U.S. financed) boycotts and speculation. They argued that inflation would only be controlled when the revolutionary forces seized all power, and capitalist and western institutions were substituted with those of a true socialist state, including a People's Assembly.[33]

As the congressional elections of March 1973 got closer, the government decided to redouble price controls to slow down inflation (see Figure 1 for February-April 1973). Since neither the deficit nor money creation subsided, delaying price adjustments made shortages more

[33] Sergio Bitar, who was a Minister during the Allende government provides a summary of these debates. Bitar (2020).

acute and fed the black market, despite the government's efforts to increase the number and preponderance of the consumers' committees, JAPs. After the elections, where the government got 44% of the votes, inflation again picked up; in September 1973 (the month of the coup) it stood at an annualized rate of 1,570%.

8.3 Official vs "true" inflation

During the *Unidad Popular*, and despite the government's efforts through the "popular consumption basket," food prices increased at a faster pace than average prices. In Figure 2 I present the sub-index for food relative to the overall consumer basket. Between 1970 and mid-1972, this ratio hovered around 1.15; in September 1972, after the Millas adjustment program, it jumped to 1.50 and stayed at that level until the end of the Allende administration.

The data in Figure 1 refer to official inflation and are based on controlled prices. However, since many goods could not be bought at government-determined prices, this index underestimates true inflation. The World Bank computed an "adjusted" price index that used data collected by the Universidad de Chile and captured prices at which goods could be purchased. This was a hybrid index that included some controlled and some free prices. (World bank, 1980, p. 543). According to this measurement, effective prices increased at a much faster pace that the official numbers; "true inflation" peaked in September of 1973 at a six-months annualized rate of 1,830%, three hundred percentage points higher than the government gauge (See Figure 3 for the two measures of inflation).

8.4 The collapse of real wages and the growing malaise among the middle class

One of the costliest consequences of accelerating inflation and breakdown of supply chains and output was the decline of real wages. By September 1973 real wages and salaries were, on average, 35% lower than at their peak in 1971, and had declined by 14% relative to the pre-Allende period (Dornbusch and Edwards, 1991).

In Figure 4 I present data on the evolution of real *minimum wages*, using four alternative price deflators: official CPI, adjusted World Bank/Universidad de Chile CPI, World Bank CPI (an alternative adjusted measure), and food component of the official CPI. These indexes have an average of 100 in 1970. Although the precise evolution of real wages depends on the deflator used, the behavior is similar, and follows a saw-tooth pattern. The data show rapid improvement in the real *minimum wage* during the early months of the *Unidad Popular*, followed by an even faster collapse during the second half of 1973. When the official CPI is used there are four "high points" during the *Unidad Popular* period: January 1971=150, January 1972 = 181; October 1972 (immediately after the Millas Plan) = 172; and March 1973 (just before the congressional election) = 198. According to this official measure, the lowest point in real *minimum wages* was reached in September 1973, the month of the coup d'état, with an index value of 83. This was 17% below the average for 1970 and less than half the UP's peak in March 1973.

In Figure 5 I present data on average wages (white collar workers) and salaries (blue collar workers), also deflated by different price indexes. In contrast with the figures in Fable 4 on the minimum wage, these data are only available quarterly. These figures are smoother than those on the minimum wages, as nominal wages paid to workers changed month to month; the minimum wage, in contrast, increased at discreet intervals, only. Depending on the deflator the peak in average real wages was reached either the third quarter of 1971 or the first quarter of 1972, with an improvement between 26% and 35%, relative to 1970. The trough was observed either in July or October of 1973. Depending on the deflator, the real wages and salaries index was, at its lowest, between 59 and 30 (with 1970=100).

9. The role of external factors in the economic crisis

An important question is to what extent external factors – and, in particular, US actions, including the cutoff of loans – contributed to the crisis and the explosion of inflation. In this Section I deal with the issue by discussing the Nixon administration reaction to Salvador Allende's election. On September 5, 1973, one day after the presidential the election, Edward Korry, the US ambassador to Chile, sent a cable to the US Department of State, commenting on the results:

> "Chile voted calmly to have a Marxist-Leninist state, the first nation in the world to make that choice freely and knowingly… There is no reason to believe that the Chilean armed forces will unleash a civil war… It is a sad fact that Chile has taken the path to Communism with little more than a third (36pct) of the nation approving this choice, but it is an immutable fact. It will have the most profound effect on Latin America and beyond."

On September 15, President Richard Nixon met in the White House with Central Intelligence Agency (CIA) director Richard Helms, National Security Adviser Henry Kissinger, and Attorney General John Mitchell to discuss the events in Chile. It was decided to launch a plan—eventually code-named Operation FUBELT—coordinated by Thomas Karamessines, the CIA's deputy director for plans, to impede Allende's accession to power. As noted, Helms took notes at the meeting and wrote that one of the goals of the strategy was to "make the [Chilean] economy scream."

In the weeks that followed the CIA considered two tracks to stop Allende from being inaugurated. “Track I” was based on what was known as the “Frei gambit,” a maneuver where Congress would elect Jorge Alessandri, who came second in the election, as president. Alessandri would immediately resign the post and a new election would be called. Outgoing Christian Democratic president Eduardo Frei, who was barred from immediate reelection, would now be allowed to run, and would defeat Allende. However, Eduardo Frei refused to be part of this scheme, and in early October 1970, the Agency tried a new stratagem. “Track II” consisted of generating enough political and economic chaos to convince the military to stage a coup. The CIA provided arms—submachine guns and pistols—to a group of civilians that, on October 22, tried to kidnap General René Schneider, the commander in chief of the Chilean Army. The attempt failed, and the general was seriously wounded as he tried to repeal the kidnappers. General Schneider died three days later, becoming an instant hero of the Left. (Davis, 1985).

When the US Senate “Church Committee” investigated CIA activities in Chile, after Nixon’s resignation, it found that the agency had been involved in early attempts to keep Allende from becoming president – the Track I and II efforts mentioned above. However, after reviewing thousands of confidential documents and cables, it was determined that despite providing about 8 million dollars to the opposition, there was no evidence supporting the view that the CIA was *directly* behind Pinochet’s coup. (US Senate, 1975).

In August 2023, when the 50th anniversary of the coup d’état that deposed Salvador Allende approached, the Biden administration declassified two pages from President Nixon’s daily briefing books from September 1973. On September 8, Nixon was told that there was a strong possibility of a coup attempt led by Chilean navy officers, and that Allende believed that “the armed forces will ask for his resignation if he doesn’t change his economic and political policies.” Concerned about an “armed confrontation,” Allende thought that “his supporters do not have enough weapons to prevail in such an event.” On the day of the coup – Tuesday, September 11, 1973 -- Nixon’s daily briefing addressed the Chilean situation once again. The report, written the night before, said that “[a]lthough military officers are increasingly determined… they may still lack an effectively coordinated plan that would capitalize on the widespread civilian opposition.” The authors of the brief were wrong. When the report hit Nixon’s desk, Allende was already under siege in La Moneda presidential palace. (State Department, 2023).

Although it is still not clear what was the full extent of the CIA’s support for Pinochet and his co-conspirators, there is increased agreement that the failure of Allende’s economic policies, including the eruption of very high inflation, contributed to widespread disaffection with the socialist experiment. Possibly, the best summary on the role of foreign forces in the collapse of the Chilean economy was given by Clodomiro Almeyda, Allende 's minister of foreign affairs and one of the country's leading Marxist intellectuals. In 1977 he wrote: (Almeyda, 1977, p. 37; emphasis added).

> "There are those who believe that external factors were ultimately responsible for the frustration of the Chilean revolutionary experience. There is particular emphasis on the significance of the American financial blockade, the economic and technical assistance provided by the CIA to the adversaries of Unidad Popular, and the American influence and infiltration within the Chilean Armed Forces. These factors tilted the balance of power in favor of the counter-revolutionary coup. In the Chilean case, as in most cases, external actions aimed at promoting subversion worked upon pre-existing internal destabilizing factors, deepening and extending their negative effects, thus favoring the success of the coup d'état. *Thus, the American financial blockade and the obstacles to Chilean-American trade worsened the balance of payments crisis and accentuated certain supply problems, but it cannot be said that they caused or originated them*."

10. Concluding remarks

After the March 1973 congressional elections politics became highly toxic, and the possibility of agreement and dialogue between the government and the opposition diminished by the day. On June 29, 1973, the junior officers of Armored Regiment No. 2 led an insurrection. The coup failed because it had no support from anyone with the rank of general or admiral. Less than three months later, on September 11, 1973, General Augusto Pinochet led a coup d'état that deposed President Salvador Allende. *The New York Times* carried the news on its front page on September 12:

> "The coup followed weeks of nationwide strikes and economic chaos, with growing groups of workers and professionals joining in demands that Dr. Allende halt his attempts to bring socialism to Chile and resign…A statement that the President had committed suicide was issued after the attack…"

The original economic and political strategies *Unidad Popular's* were based on the creation of a virtuous circle. Nationalized industrial firms would increase output at a rapid clip, generating a large surplus that would help finance investment in other sectors, including housing for the poor. The newly nationalized copper mines would provide significant funds to finance social programs. In addition, agrarian reform would result in a rapid expansion of food production. Price and exchange controls would keep inflation under wraps, and higher wages would improve the incomes of the poor in a sustainable fashion. Ample international reserves would finance imports of food and necessities. Economic success, in turn, would generate greater support for the government – the Left talked about improving the "correlation of forces" --, allowing it to move forward with its revolutionary program and a swift transition towards Socialism. However, nothing of that sort happened. The imagined virtuous circle was wrecked by very large fiscal deficits, huge money printing, by runaway inflation and black markets, by shortages and political violence, by declining real wages, and by political malaise.

In Table 3 I present a summary of economic performance during the *Unidad Popular's* government. For comparison purposes, I have included data for 1968-1970, as well as for 1974, the first full year of the Pinochet dictatorship. As may be seen, in 1973 the public sector deficit reached the astonishing figure of 30% of GDP. The figures in this Table confirm the analysis presented above: after a promising first year, the economy entered a spiral of higher prices and output decline, which resulted in lower wages, currency devaluation, black markets, shortages, and rationing.

In 1974, Paul Rosenstein-Rodan, one of the world authorities on economic development, wrote:[34]

> "Salvador Allende died not because he was a socialist, but because he was an incompetent. After he took office, he accomplished a major redistribution of income that dramatically increased demand, but he did nothing to increase production to satisfy that demand. Instead, he printed money. A breakdown was inevitable, and the resulting inflation not only destroyed the income redistribution that had taken place, but lowered real wages below the level of 1970."

[34] Rosenstein-Rodan (1974, 7).

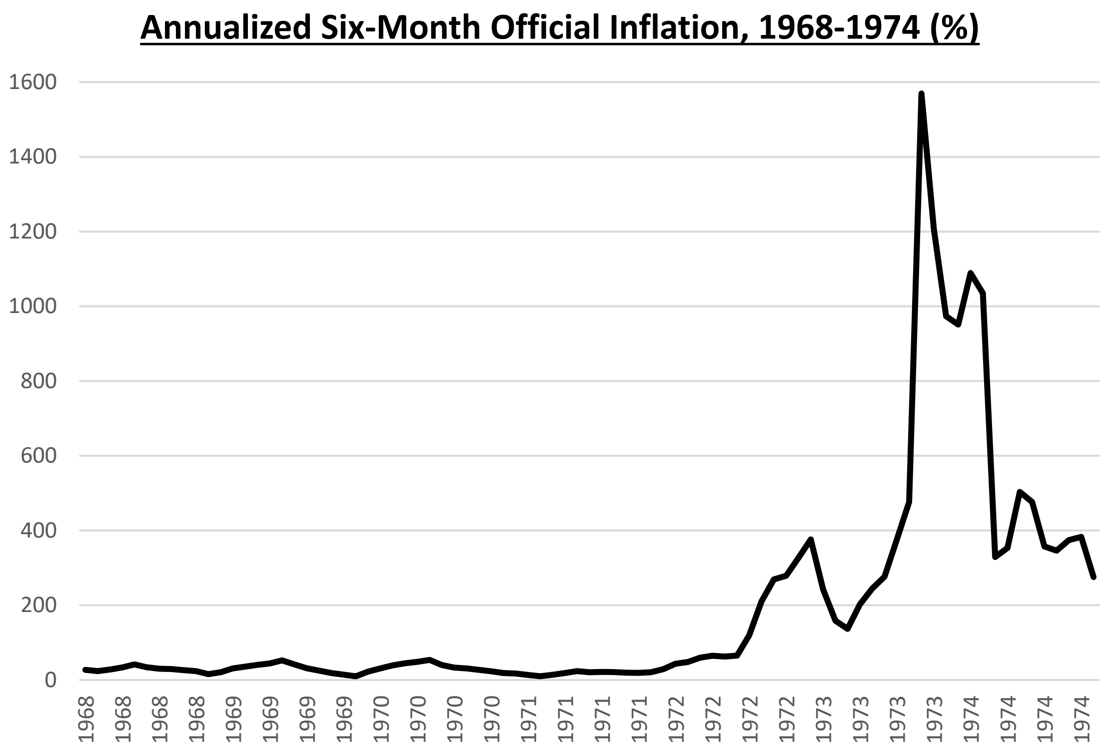

Figure 1: Annualized Six Month Inflation (%), 1968-1974

Source: Banco Central de Chile.

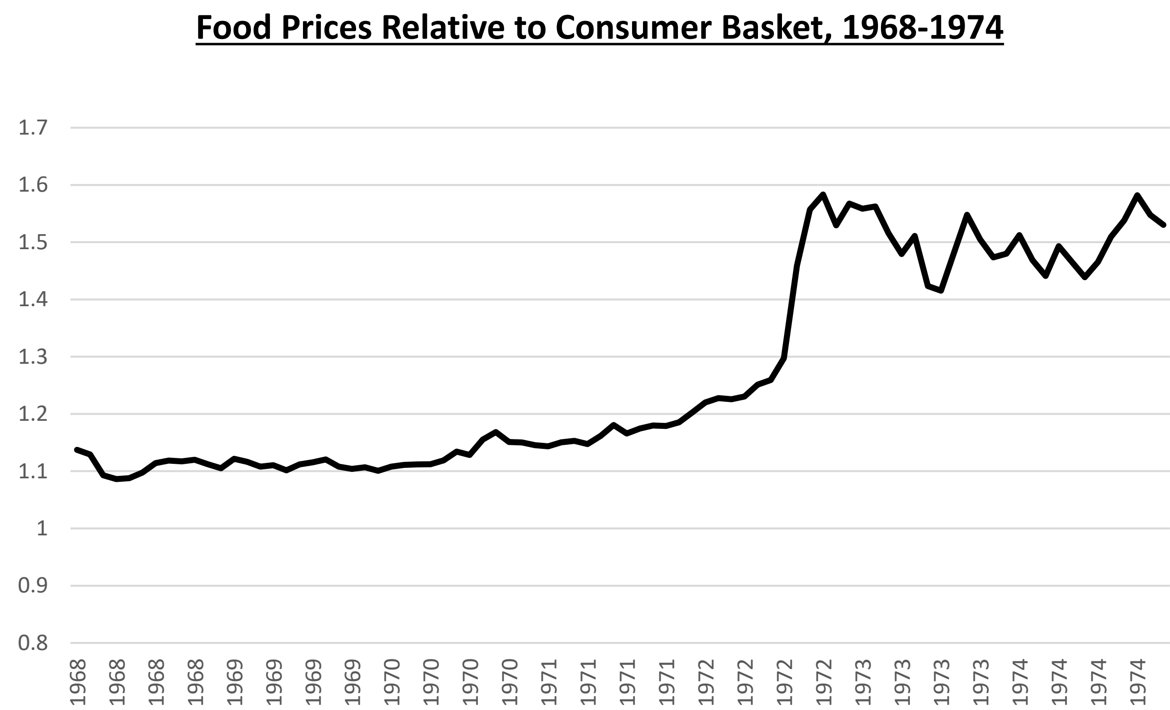

Figure 2: Relative Food Prices, 1968-1974

Source: Banco Central de Chile.

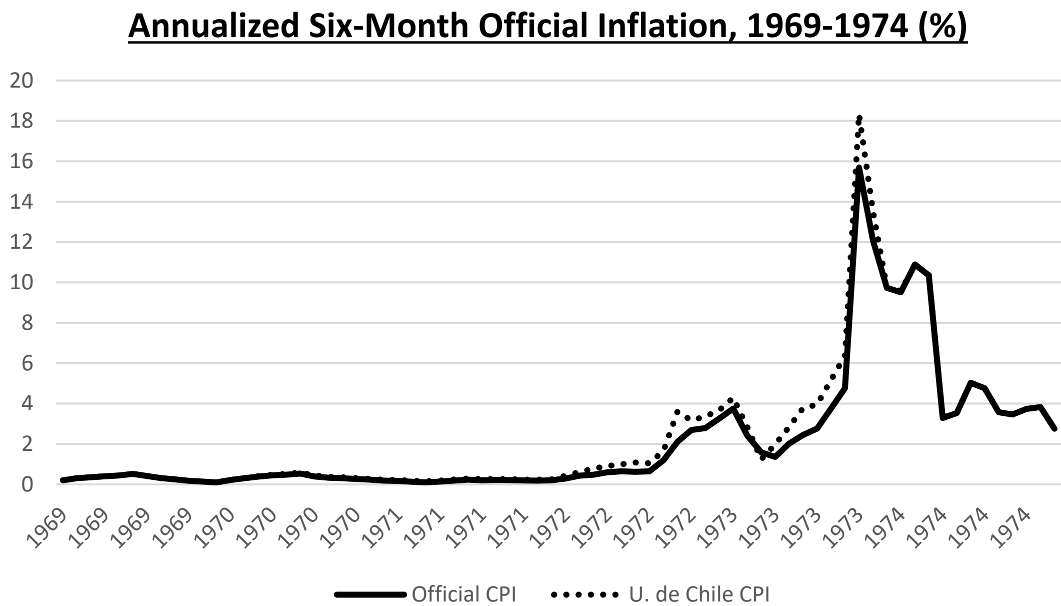

Figure 3: Two measures of inflation (x100), 1969-1974

Source: World Bank, 1980.

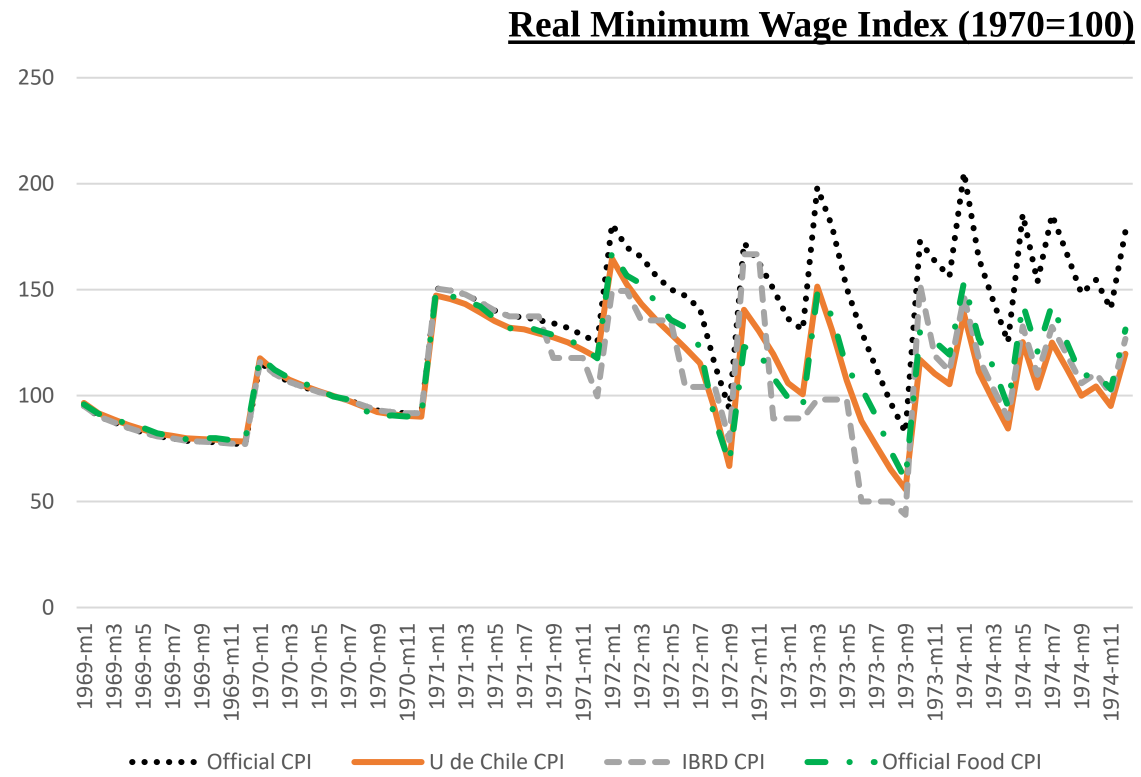

Figure 4: Real Minimum Wages Indexes (1970=100)

Sources: Banco Central de Chile and World Bank.

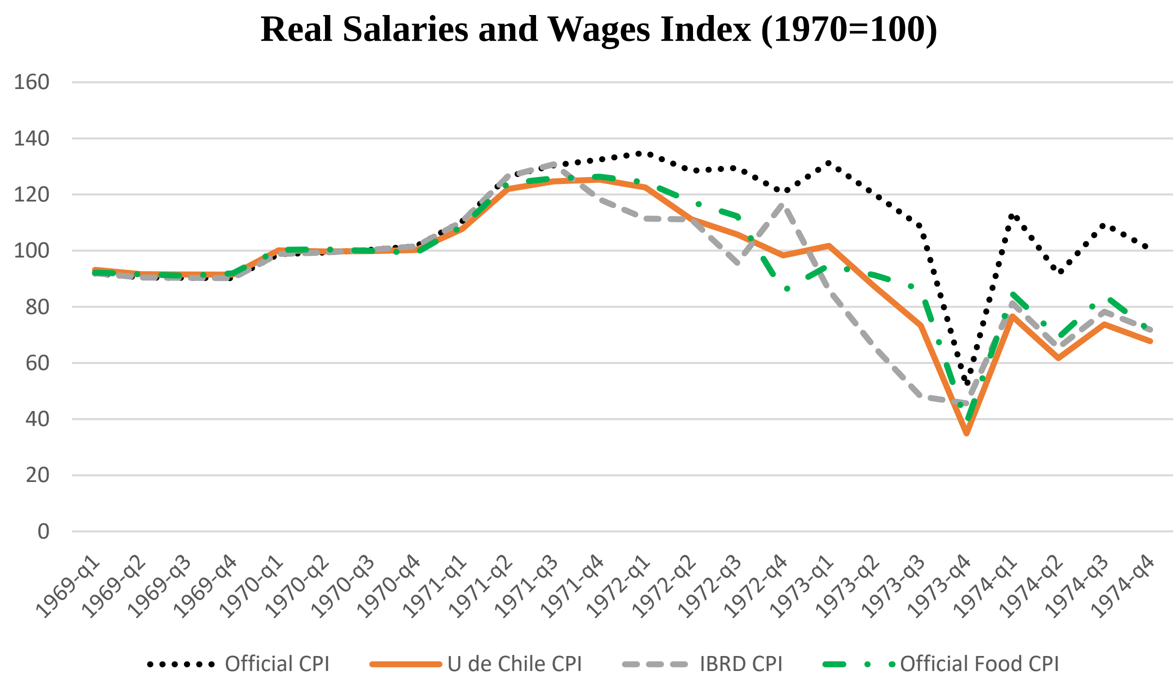

Figure 5: Real Wages Indexes (1970=100)

Sources: Banco Central de Chile and World Bank.

Table 1: GDP Projections in The Puppet (Millions of 1970 Escudo)

	1970	**1971**	**% change 1971/1970**
Agriculture	6,443	6,900	7
Fishing	256	250	-
Mining	10,327	13,000	25
Manufacturing	25,150	28,000	12
Construction	3,530	4,400	25
Electricity, gas and water	1,653	1,750	6
Services	42,193	44,200	5
Total	59,612	98,500	10

Source: Vuskovic et. al. (1970).

Table 2: Projection of Aggregate Demand in The Puppet (Millions of 1970 Escudo)

	1970	**1971**	**1971-1970 (%)**
Consumption expenditure of households	62,215	68,200	10
Consumption expenditure of government	11,960	13,000	8
Gross fixed capital formation	12,944	14,300	12
Existences	1,237	1,308	-
Exports	13,819	17,200	25
Imports	12,566	15,500	25
Total	89,612	98,500	10

Source: Vuskovic et. al. (1970).

Table 3

Chile's Economic Performance, 1968-1974

	Public-sector deficit (% of GDP)	**Rate of growth of money supply (%)**	**Inflation % per annum (Six month annualized) ***	**Current account balance (% of GDP)**	**Real wages Index (1967-1970=100)**	**Real GDP growth % per year**
1968	2.4	36.8	16	–2.2	99	3.60
1969	1.5	43.6	14	–0.1	107	3.71
1970	6.7	66.2	19	–1.3	106	2.05
1971	15.3	135.9	21	–2.4	120	8.96
1972	24.5	178.3	327	–4.3	112	–1.21
1973	30.4	365.1	1,208	–8.8	91	–5.57
1974	10.5	319.6	275	–3.7	86	0.97

*Percentage change in the official price level, calculated as the six-month annualized rate, each December.

Sources: Edwards and Edwards (1991); Larraín and Meller (1991); Banco Central de Chile (2001); Dornbusch and Edwards (1991).

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