



المركز التونسي للإقتصاد
Observatoire Tunisien de l'Economie

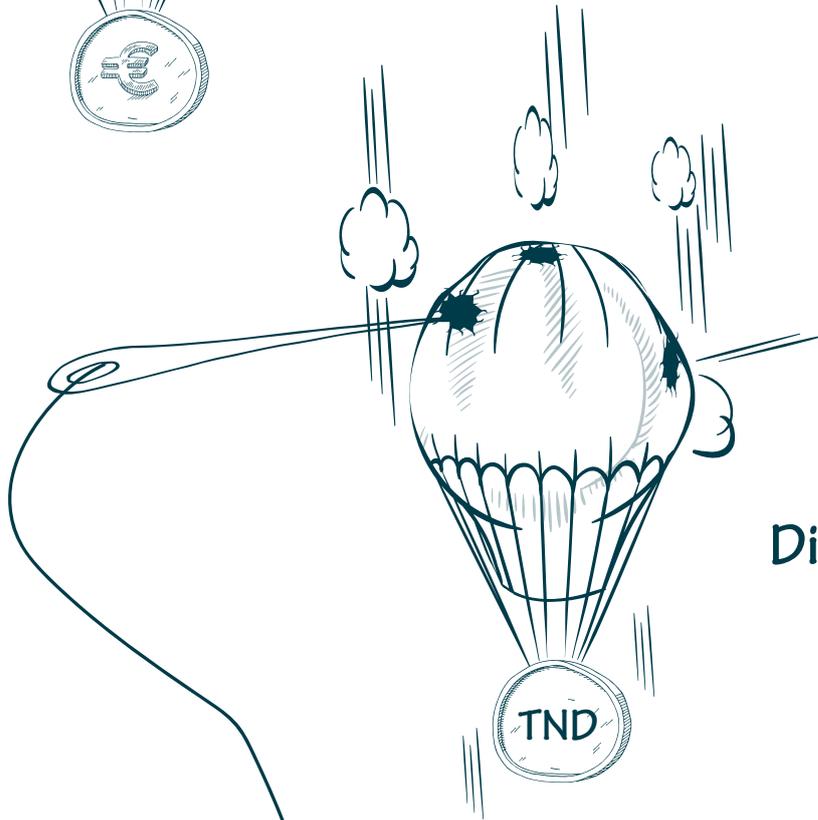
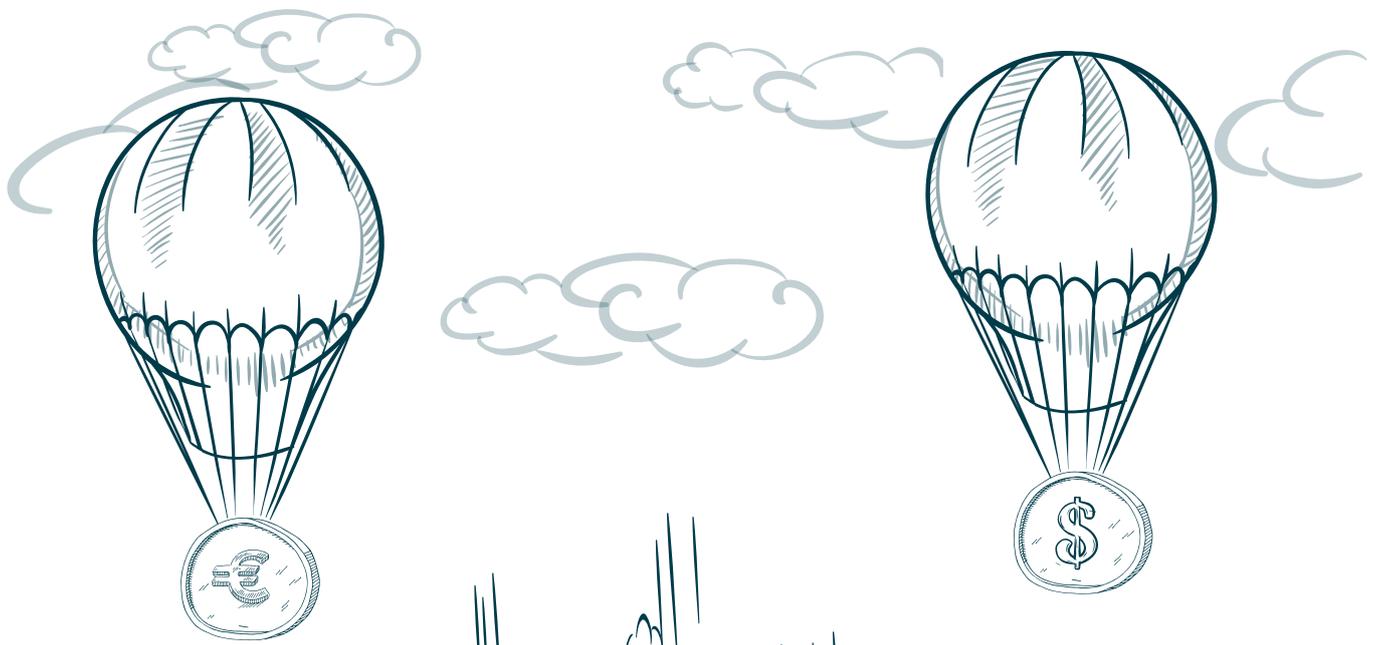
Explanatory Paper | n°3

Understanding the devaluation of the Dinar



Observatoire Tunisien de l'Economie

08/06/2023



Dinar Falls



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Deciphering the reform implementation in Tunisia

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«Le Dinar a chuté» (The Dinar has fallen): Over the past few years, this expression has become so commonplace on radios and shows discussing economic news to the extent that Tunisians have incorporated it into their language and even their humor.

With that said, this expression tells the story of an economic phenomenon not without an impact on the everyday life of citizens. The value of the national currency is one of the core reasons that define the availability of basic products on the domestic market whether it is gas, fuel or bread made of imported soft wheat.

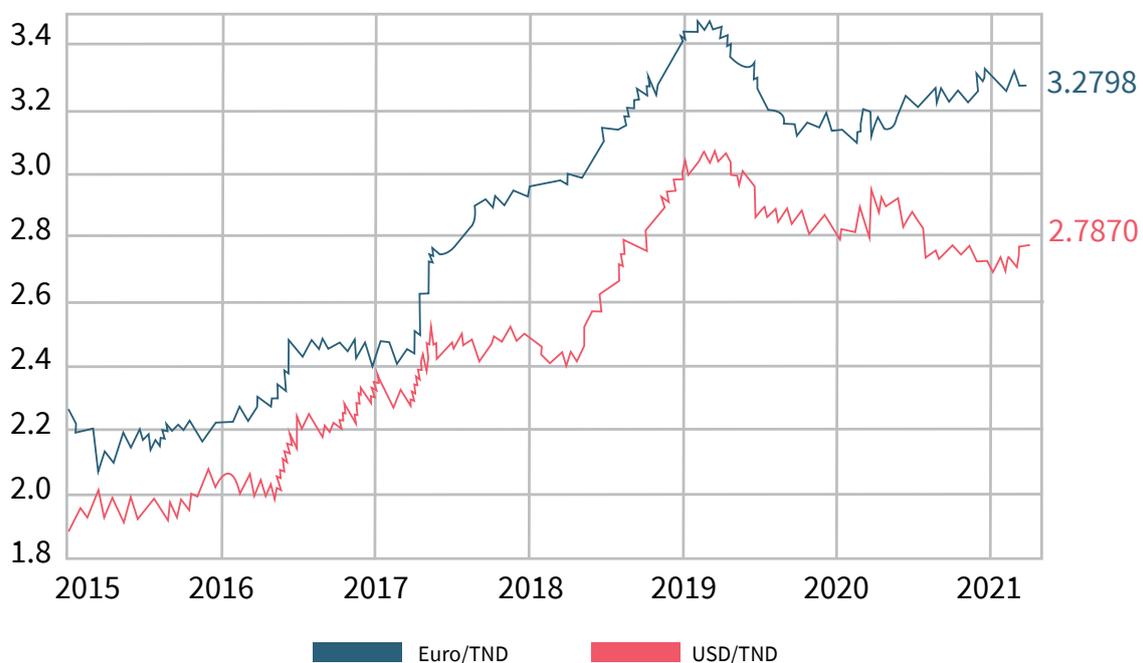
The expression «Fall of the dinar» implies that it is a spontaneous phenomenon with an unknown maker, or that it is attributed to the «invisible hand of the market». However, the fluctuation in the value of the dinar over the last decade has often been the result of an intentional policy of the Tunisian monetary authority, the Central Bank of Tunisia.

From 2011 to 2022, the dinar lost 52% of its value against the US dollar.¹ The variation in the value of the dinar has never been as constant as it was during the last decade.

We know that the exchange rate of the Tunisian dinar has been subject to a series of reforms «guided» by the IMF recommendations under the two reform programs that Tunisia undertook with the institution in 2013, and later on, in 2016. Indeed, it was from 2013 onwards that the value of the dinar started to fall.

Figure 1: Dinar exchange rates against the Euro and US Dollar 2011-2021

Source : BCT²



What are these reforms? By what mechanisms has the value of the dinar shifted from the hands of the state to the invisible hand of the market?

In this fact sheet, we explore the history of the reforms related to the devaluation of the Tunisian dinar.

¹ <https://kapitalis.com/tunisie/2022/11/07/tunisie-sos-le-dinar-ne-vaut-plus-rien/>

² <https://www.bct.gov.tn/bct/siteprod/documents/Balance.pdf>

Returning to theory: How is the value of a currency determined?

Determining the value of a currency is set by the country's monetary policy. Countries choose the exchange regime they will apply, depending on their economic situation.

The exchange regime: this is the set of rules that determines the level of intervention by monetary authorities on the foreign exchange market. In a way, it defines the relationship between the national and foreign currencies.

There are three main types of exchange regimes:

Fixed parity	Le régime de parité semi-fixe	Le régime flottant/ flexible
<p>The monetary authority fixes the value of the local currency to a foreign currency (e.g., the Dollar or the Euro). This means that if the foreign currency is appreciated, the value of the local currency rises.</p> <p>One example is the CFA Franc. The CFA Franc has a fixed parity with the Euro, and its value depends directly on fluctuations in the Euro on the international market</p>	<p>The monetary authority sets the value of the currency on the basis of a currency basket, or a managed system where fluctuation is limited to a defined interval. Tunisia is an example of countries that have used a semi-fixed parity for a long time, with the fluctuation interval defined by the CBT (the Central Bank of Tunisia).</p> <p>«The exchange rate is determined on the interbank market, and the CBT intervenes to regulate market liquidity according to its own rates, making it the main market maker.»³</p>	<p>Under this system, the monetary authority refrains from intervening in interbank market exchanges to support the value of the currency. It is therefore the dynamics of supply and demand on the money market that define the value of each currency with regards to all other currencies.</p> <p>Turkey is an example of a country that has adopted a flexible exchange rate regime⁴</p>

On the other hand, we need to distinguish between two phenomena that cause the value of a national currency to fall in relation to another international currency: devaluation and depreciation.

³ CBT (2014), «les mécanismes de transmission de la politique monétaire en Tunisie» Working Paper Series No.1-2014. p. 38. Available at : https://www.bct.gov.tn/bct/siteprod/documents/WPS_2014_01.pdf

⁴ Jérôme Héricourt & Julien Reynaud, «La crise monétaire turque de 2000/2001 : une analyse de l'échec du plan de stabilisation par le change du FMI», *Économie internationale* 108 (2006), p. 6. Disponible sur : <https://www.cairn.info/revue-economie-internationale-2006-4-page-5.htm>

<p>Currency devaluation</p> <p>Currency devaluation is a monetary policy pursued by central banks, which involves changing the parity between two currencies. More precisely, it involves modifying the official exchange rate of a currency, i.e. its value expressed in gold or another international reference currency, by lowering it. ⁵</p>	<p>Monetary depreciation</p> <p>Currency depreciation is the decline in value of one currency against another. This is a system in which the value of a currency is defined by the forex market⁶, based on supply and demand.</p> <p>The opposite of currency depreciation is appreciation. This occurs when a currency strengthens. Forex traders can take advantage of both appreciation and depreciation. ⁷</p>
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Currency devaluation is therefore intentional. It is a policy or tool employed by the monetary authority, whereas currency depreciation, in theory, is not intentional and results from phenomena that are simply beyond the control of the state or the concerned monetary authority.⁸

The exchange rate is the linchpin of international economic relations, as it is the most important element in guiding countries' foreign transactions. It reflects a country's economic situation, both internally and externally. Exchange rate stability reflects the integrity of economic fundamentals and fiscal and monetary policies, as well as its ability to respond to external shocks and exogenous factors to which any economy may be exposed.⁹

The impact of exchange rate changes on a country's economic variables and macro-economic equilibrium is certainly significant.¹⁰

⁵ <https://www.fortuneo.fr/cote-finances/bourse/devaluation-monetaire-594>

⁶ The foreign exchange market is the place where all participants come together to buy or sell one currency against another. In financial jargon, the foreign exchange market is often referred to as Forex, a contraction of the English term FOREIGN EXchange.

⁷ <https://www.ig.com/fr/glossaire-trading/depreciation-definition#:~:text=La%20d%C3%A9pr%C3%A9ciation%20d%27une%20monnaie,l%27offre%20et%20la%20demande>.

⁸ <https://blog.ibanfirst.com/fr/devaluation-monetaire-quelles-consequences#:~:text=Contrairement%20%C3%A0%20la%20d%C3%A9valuation%20d,en%20suivant%20les%20indicateurs%20%C3%A9conomiques>.

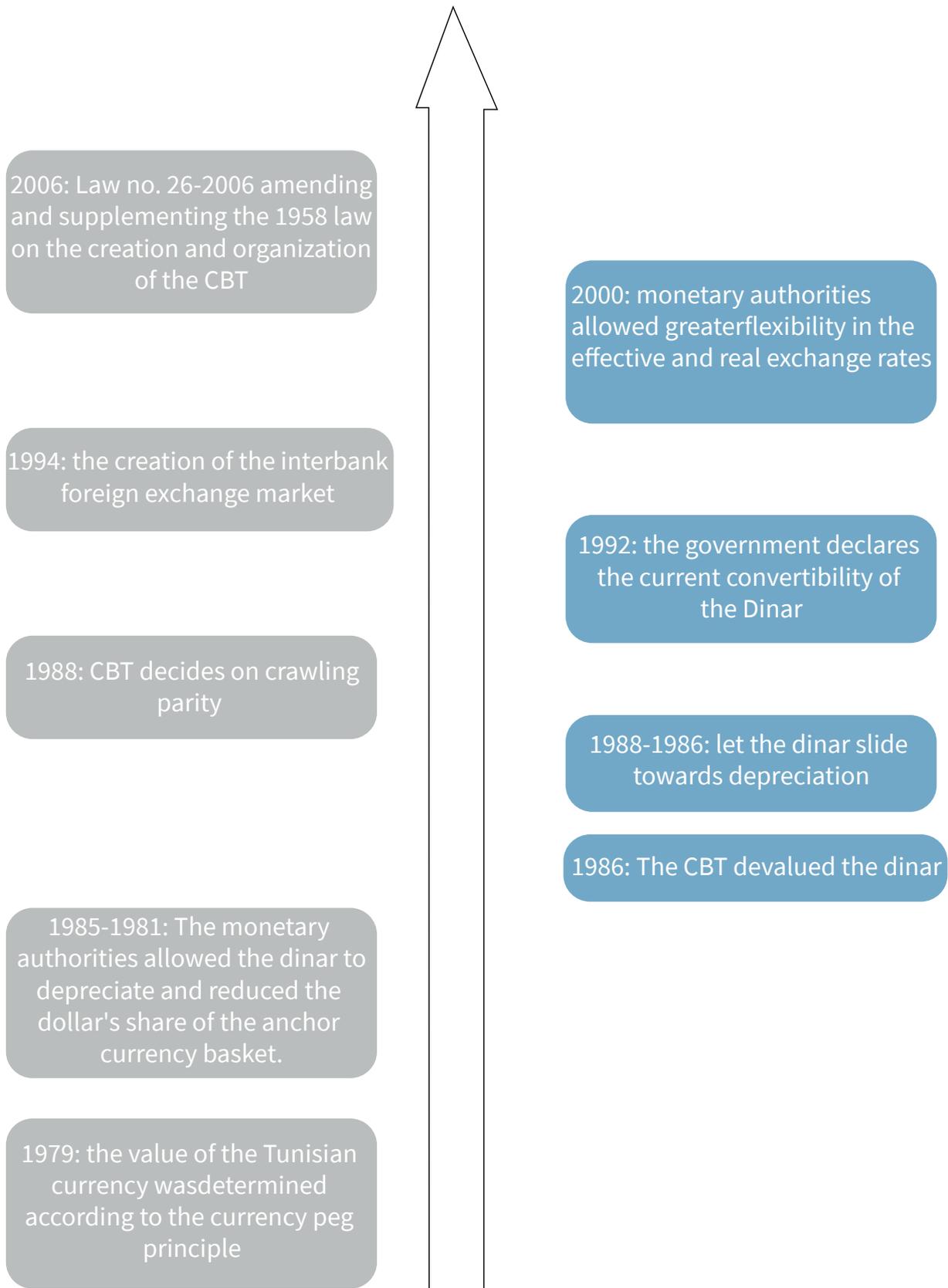
⁹ <https://www.iasj.net/iasj/download/78b49dabc95be3c2>

¹⁰ See. (I.) Louati & (C.) Ben Rouine , “ l’impact de la dévaluation du Dinar” , observatoire tunisien de l’économie

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History of the Tunisian exchange rate regime: Framing the Dinar, protecting it from shocks and controlling inflation

Figure 2 : The evolution of Tunisia's exchange rate policy (2006-1979)



The evolution of Tunisia's exchange rate policy (1979-2006)

Historically, Tunisia's exchange rate policy, defined by the Central Bank (CBT), aimed at stabilizing the value of the dinar in order to protect the country's economic interests. To achieve this, the CBT opted for a managed exchange rate regime. The main aim of this regime is to adjust the value of the Tunisian dinar against a basket of currencies.

Since 1979, the value of the Tunisian currency has been determined according to the principle of currency pegging, i.e. the CBT calculates the reference exchange rate on the basis of a fixity in relation to a basket of currencies.

In 1986, Tunisia adopted the IMF-led Structural Adjustment Plan (SAP), which was accompanied by a nominal devaluation of the dinar against foreign currencies of around 7%.¹¹

Following the devaluation of the currency in 1986, the Tunisian monetary authorities aimed at maintaining a constant real effective exchange rate in order to preserve economic competitiveness with partner countries. In effect, this involved depreciating the dinar to offset the difference between domestic and foreign inflation. The CBT allowed the dinar to depreciate until 1988, when it decided to adopt the crawling peg regime¹².

A few years later, in 1992, the Tunisian government declared the current convertibility of the dinar, followed in March 1994 by the creation of the interbank foreign exchange market, with the aim of giving greater flexibility to the determination of the exchange rate.

Since 2000, the CBT has begun to limit its intervention in order to support the competitiveness of exporting companies. Subsequently, Act no. 2006-26 of May 15, 2006, amending and supplementing Act no. 58-90 of September 19, 1958, on the creation and organization of the Central Bank of Tunisia, restricted the main mission of Tunisia's monetary policy to the preservation of price stability.¹³

In short, the Tunisian Central Bank (CBT) has always played an important role in maintaining the value of the dinar. The monetary policy of the CBT was characterized by a managed exchange rate regime, the intermediate objective of which was to adjust the exchange rate of the dinar against a basket of currencies dominated by the euro. The ultimate objective of this policy was both to defend the value of the currency and preserve the competitiveness of the Tunisian economy.¹⁴

11 Fatma Marrakchi Charfi, «Equilibrium real exchange rate and misalignments: Lessons from a VAR-ECM model for the case of Tunisia», PANOECONOMICUS, 2008, 4, str. Pp. 439-464.

12 12 «A crawling peg is an exchange rate regime in which the value of one currency is linked to the value of another currency, but can fluctuate within a certain limit. The parity is adjusted regularly according to predetermined parameters, in order to compensate for changes in financial and economic factors, such as the inflation differential between the two countries.» definition taken from:

13 Article 33 (nouveau)

14 BCT (2014), «les mécanismes de transmission de la politique monétaire en Tunisie “ Working Paper Series No.1-2014., p. 4. Disponible sur : https://www.bct.gov.tn/bct/siteprod/documents/WPS_2014_01.pdf

The reform objectives and the IMF's arguments

“Une plus grande flexibilité du taux de change et un resserrement de la politique monétaire devraient permettre d'améliorer le déficit courant, d'apaiser les tensions inflationnistes et d'accroître le taux de couverture des réserves internationales.”

Première revue de l'accord au titre du mécanisme élargi de crédit, Juillet 2017¹⁴

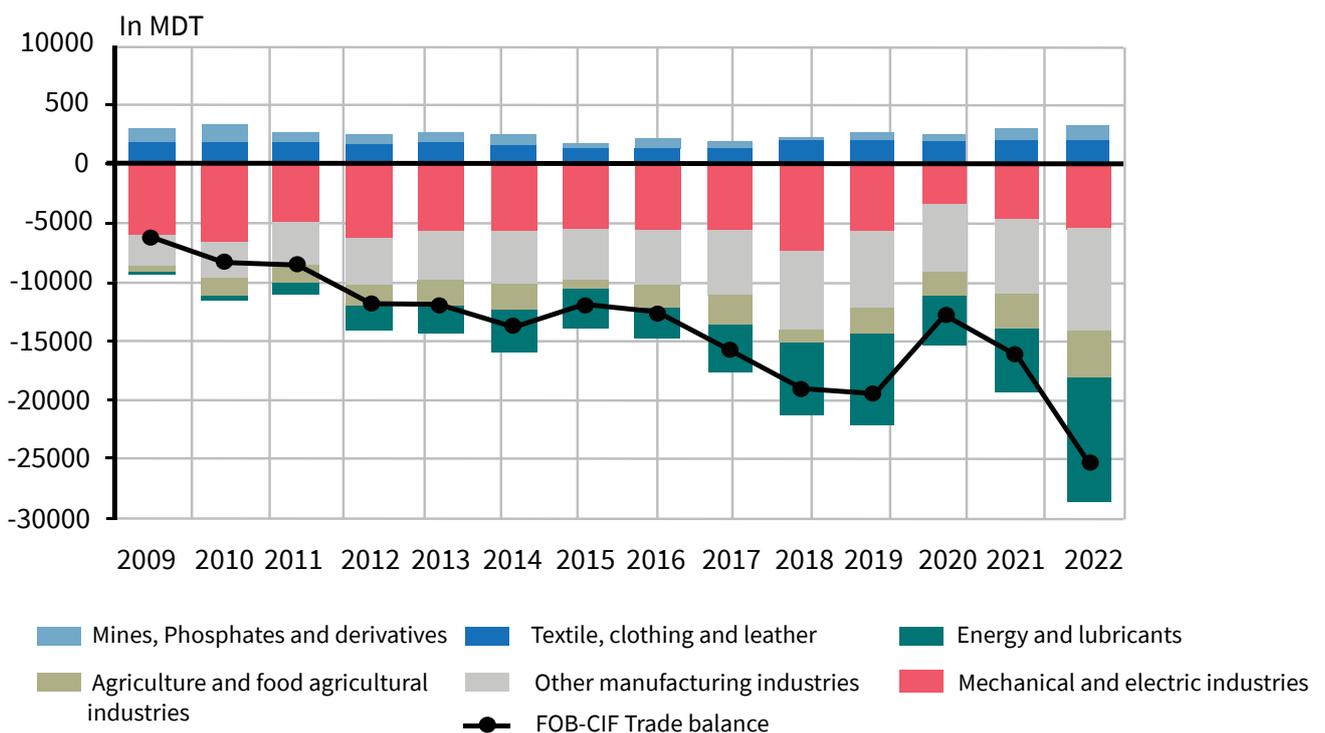
According to IMF rhetoric, the main aim of this policy is to reduce the trade deficit by promoting exports and reducing imports, and should, therefore, help protect the stock of foreign currency reserves and ease inflationary pressures.

Reducing the trade deficit:

For the financial institution, in a stabilized exchange rate regime, domestic products would be more expensive to export, so companies would see their price competitiveness fall and their sales drop, resulting in a drop in foreign currency earnings for the country. Thus, currency devaluation will

generate a competitiveness effect that encourages exports, since the price of domestic products expressed in foreign currency will fall. On the other hand, it redirects domestic demand towards domestic production by raising the price of imported products expressed in domestic currency. According to this thesis, devaluation of the dinar would, thus, be an asset for promoting exports and reducing imports. Practice doesn't always follow theory.

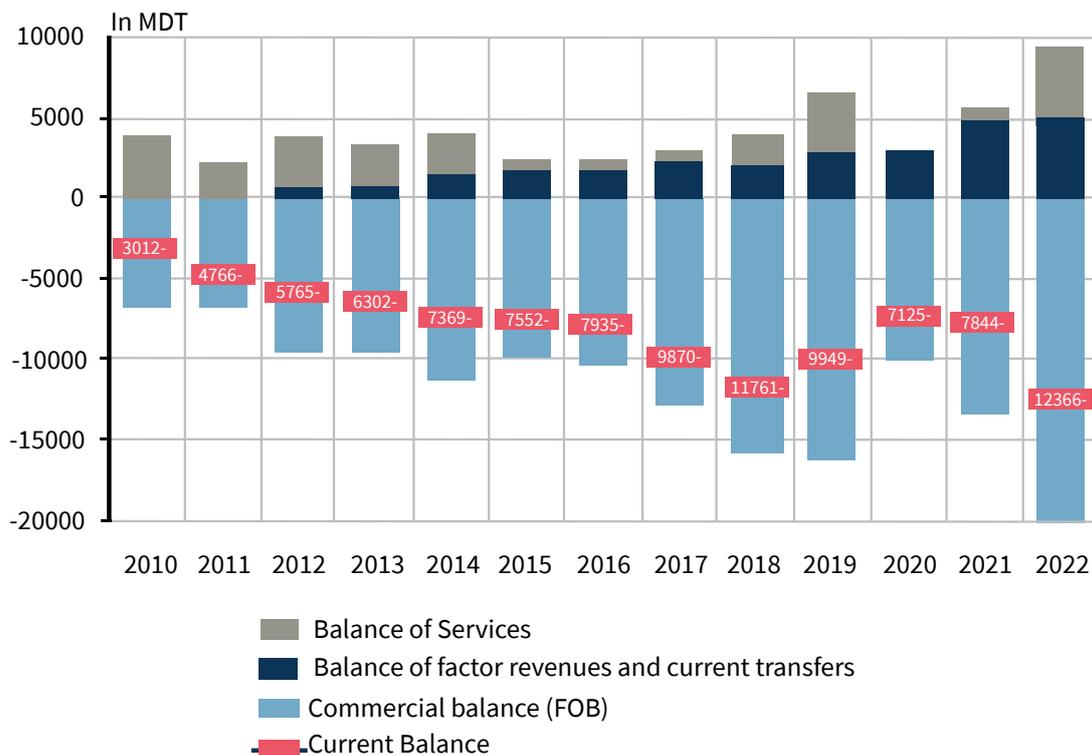
Figure 3: FOB-CIF trade balance in million dinars



Last observations: 2022

Source : INS and calcul BCT

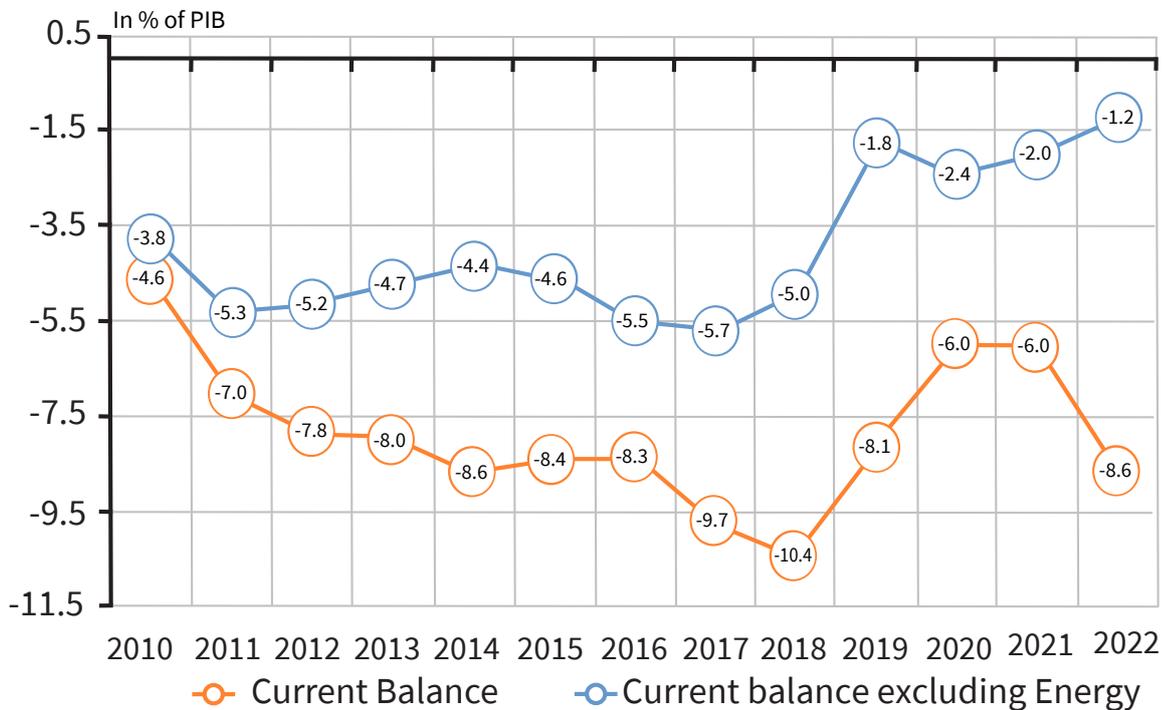
Figure 4: Current balance by main item



Last observations: 2022

Source : BCT

Figure 5: Share of GDP of Total current balance excluding Energy



Last observations: 2022

Source : BCT ¹⁵

¹⁵ NOTE ON ECONOMIC AND MONETARY DEVELOPMENTS AND MEDIUM-TERM OUTLOOK available at: https://www.bct.gov.tn/bct/siteprod/documents/Document_20230130_fr.pdf

The results have not always proved the theory right. These graphs clearly show that over the period of 2016-2018, trade and current balance deficits have worsened, not improved.

Indeed, it is important to note that the country relies heavily on imports of the raw materials it needs (energy, cereals, pharmaceuticals) and of intermediate goods for its manufacturing production. Consequently, the devaluation increased the cost of purchasing the necessary raw materials, as well as the cost of production for companies, which had a reverse impact on the price of exported products.

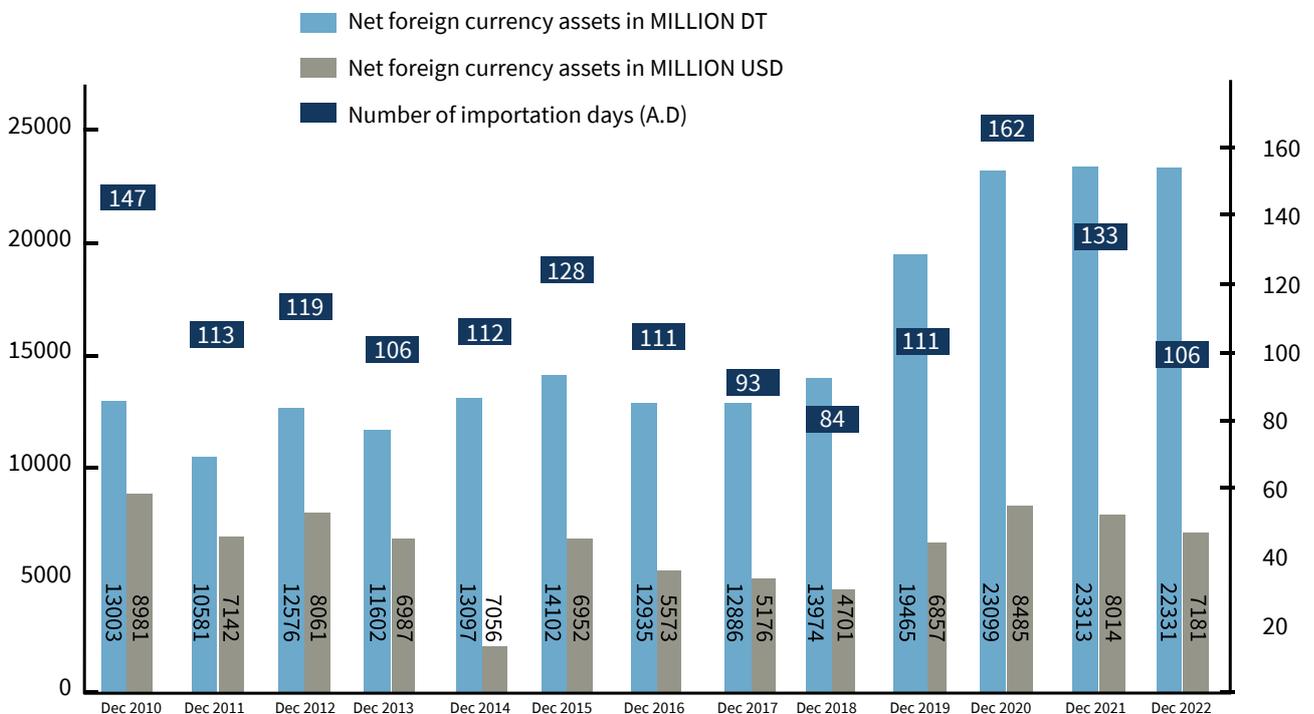
This shows that the theory put forward by the IMF, according to which currency devaluation would reduce the trade deficit, does not necessarily apply to Tunisian reality. Dependence on imports of raw materials and intermediate goods has thwarted the so-called «expected positive effects» of devaluation because production costs have risen, which potentially affects the value of exported products.

Clearly, the IMF's logic and theoretical forecasts have not produced the expected results in the Tunisian context.

Protecting the foreign currency reserves

For the International Monetary Fund (IMF), exchange rate flexibility will help rebuild foreign currency reserves by boosting export momentum, increasing competitiveness and supporting monetary policy. Above all, the IMF's main argument is that making the exchange rate more flexible would enable the CBT to reduce its interventions on the interbank market to support the value of the dinar, thereby saving on international currency reserves.

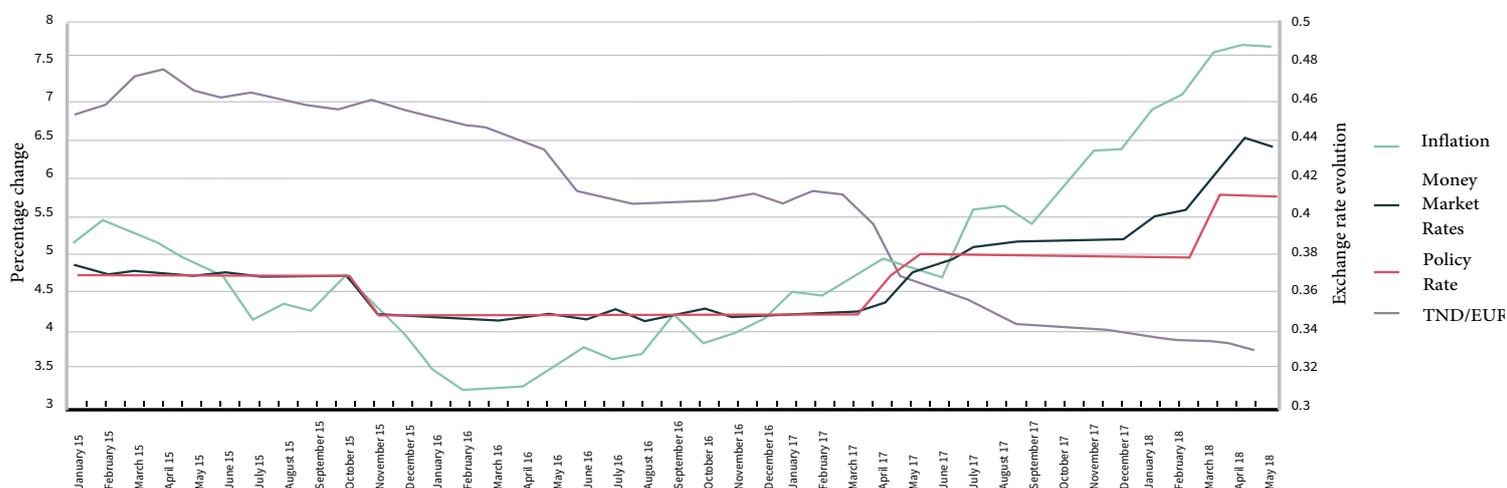
Figure 6 : Evolution of net foreign currency assets (in Million Dinars and US Dollars)



The figures in this graph show that, despite the arguments put forward by the IMF that devaluation would preserve foreign exchange reserves, the reality has been quite different for Tunisia. Instead of boosting reserves, devaluation led to a significant drop, from 128 days of imports in 2015 to only 84 days of imports in 2018. This drop below the critical threshold of 90 days highlights the negative consequences of this reform demanded by IMF.

Easing inflationary pressures

Figure 7 : Inflation Vs Exchange rate Vs Interest rate 2015-2018



Source: BTC, INS, processed by TEO ¹⁶

The starting point for Tunisia's rising inflation occurred around April 2016. That month, IMF demanded that Tunisia enacted a law on the independence of the CBT, which was to focus on countering inflation while liberalizing the dinar. As a result, the CBT issued a circular on March 10, 2017 instituting a new monetary policy inspired by IMF ideology. This ideology considers that inflation is solely due to excessive credit distribution, and advocates raising interest rates to deal with it.

In Tunisia, however, the reality is quite different. Inflation rose mainly with the liberalization of the dinar in April 2016, then accelerated after the dinar dropped in March 2017. According to calculations by the Tunisian Observatory of Economy, «between January 2013 and March 2016, the correlation coefficient between inflation and the TND/EUR exchange rate was low (0.25), while it became very strong between April 2016 and May 2018 (-0.91)»¹⁷. These figures thus support our interpretation that inflation is due mainly to the liberalization of the dinar and the fall in its value, which increases the prices of imported goods.»¹⁸

¹⁶ <http://www.economie-tunisie.org/fr/observatoire/inflation-et-taux-interets-echec-du-fmi>

¹⁷ <http://www.economie-tunisie.org/fr/observatoire/inflation-et-taux-interets-echec-du-fmi>

¹⁸ Ibidem, available at: <http://www.economie-tunisie.org/fr/observatoire/inflation-et-taux-interets-echec-du-fmi>

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The impact of the reform: reverse results

Contrary to IMF forecasts, the devaluation of the dinar has had the opposite effect on foreign trade:¹⁹

Increase in public debt: the drop of the Dinar against the main currencies in the foreign debt portfolio, namely EUR and USD, has led to an increase in outstanding debt. ²⁰	More expensive imports and higher inflation: Freeing up the dinar and the fall in its value explain inflation, which has resulted in higher prices for imported goods.	Trade deficit: the IMF mandated liberalization of the dinar has led to an increase in the trade deficit, resulting in a larger devaluation of the Tunisian local currency.	Foreign currency reserves: The liberalization of the dinar has had a negative impact on the trade deficit. It also has led to a deterioration in the overall balance of payments since 2016, inducing a sharp fall in net foreign currency assets. ²²
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Deciphering the implementation in IMF agreements and reviews

Agreement and review	Date	Type of conditionality and execution deadline	The title of the reform according to the box of prior actions and structural benchmarks in IMF reports with extracts from review reports
SBA R0: Agreement text	October 2013	Structural benchmark Scheduled for mid-March 2014	Establishment of an electronic platform for bank interconnection and entry into force of the market makers' agreement. ²³

¹⁹ See , OTE(2021), Op.Cit.

²⁰ Ben Rouine C. (2017) The negative impact of the falling dinar on the trade deficit. Datanalysis n°11. Tunisian Economic Observatory. Available at: <https://www.economie-tunisie.org/fr/observatoire/infoeconomics/impact-negatif-de-la-chute-du-dinar-sur-le-deficit-commercial>

²¹ Ben Rouine C. (2017) L'impact négatif de la chute du dinar sur le déficit commercial. Datanalysis n°11. Observatoire Tunisien de l'Economie. Disponible sur : <https://www.economie-tunisie.org/fr/observatoire/infoeconomics/impact-negatif-de-la-chute-du-dinar-sur-le-deficit-commercial>

²² Ben Rouine . C. & Louati . I., " l'impact de la dévaluation du Dinar ", Briefing paper n°11, observatoire tunisien de l'économie. P. 8.

²³ letter of intent FMI may 2013

SBA R 1 & 2	Feb 2014	Structural benchmark completion Scheduled for October 2015	Establishment of a weekly foreign exchange auction mechanism. Draft central bank law in line with international practice submitted to the Central Bank Council. (SB - 06/30/2014)
SBA R3	May 2014		NA Draft central bank law in line with international practice submitted to the Central Bank Council. (In progress) => An IMF technical assistance mission is scheduled for May 2014.
SBA R4	SEPT 2014		- Draft central bank law in line with international practice submitted to the Central Bank Council. (Completed) => A new central bank law in line with international practice was prepared with IMF technical assistance and presented to the CBT Council on June 25, 2014.
SBA R5	DEC 2014		NA Implementation of a comprehensive foreign exchange auction mechanism by the Central Bank of Tunisia. The platform was established
SBA R6	OCT 2015		NA Establishment of a weekly foreign exchange auction mechanism (not achieved)
Extended Fund Facility (EFF) 2016	JUN 2016	Prior Actions	Adoption, by the Assembly of Representatives of the People of Tunisia (ARP), of the CBT Law, the Banking Law and the Bankruptcy Law, in line with international best practice.

MEDC R1	JUL 2017	Structural benchmark	Implementation of a comprehensive foreign exchange auction mechanism by the Central Bank of Tunisia.
MEDC R2	MAR 2018		NA Implementation of a comprehensive foreign exchange auction mechanism by the Central Bank of Tunisia. (not achieved)
MEDC R3	JUL 2018	Prior Actions	Intervention on the foreign exchange market. Compliance with monthly intervention budget in April and May.
MEDC R4	OCT 2018	Structural benchmark (New) Scheduled for June 2019	Communication of monetary policy decisions. Start publishing quarterly monetary policy reports including medium-term inflation and growth projections.
MEDC R5	JUL 2019		Monetary policy operations. Increase in the proportion of government accepted obligations as a guarantee in refinancing transactions with commercial banks up to 50%.

Since 2012, the CBT has implemented several reforms to its foreign exchange operational framework in order to meet IMF requirements/conditions and gain access to financing:

Change 1 (2012): Making the operational framework for exchange rate policy more flexible

In 2012, the CBT adopted a more flexible exchange rate policy through a new mode of intervention on the foreign exchange market. It replaced the reference rate calculated in relation to a basket of currencies, to calculate the reference exchange rate on the basis of an average exchange rate on the interbank market. In June 2012, the CBT cancelled the obligation imposed on banks to transfer daily currency amounts (leveling) to the CBT on a discretionary basis, thereby making the interbank currency market autonomous. This led to greater exchange rate volatility observed during the third quarter of 2012.²⁴

Change 2 (2013): Adoption of the floating exchange rate system

Since 2013, monetary policy in Tunisia has followed a more flexible exchange rate policy and this through the institutionalization of currency auctions on the foreign exchange market. Indeed, the CBT has opted for a less interventionist exchange rate policy on the foreign exchange market, thus reinforcing exchange rate flexibility

Change 3 (2014): Modernizing foreign exchange policy tools

Since 2014, the CBT has embarked on a major multifaceted reform aimed at modernizing its foreign exchange policy. In addition, the CBT has put in place the necessary measures to better supervise credit institutions and strengthen their governance structures. The main aim of these instruments is to stabilize the high volatility of the national currency's exchange rate, which is the outcome of the liberalization policy implemented under the IMF, and to guarantee the balance of external accounts.

Change 4 (April 2016): Adoption of the CBT independence law

During the negotiation of a new four-year agreement, the IMF put the vote on the independence of CBT above the priorities of the Assembly of Representatives of the People (ARP). It is a Prior Action (PA)²⁵ to any signature of a new agreement/review. Since 2016, the CBT's role is no longer to «Defend the value of the currency and ensure its stability» (Article 33, Law 1988). Its role is, however, limited to «maintaining price stability» (Article 7, Law 35-2016). The institution has given up management of the exchange rate to market forces, where market makers are expected to play a major role.²⁶

²⁴ Ali chebbi, 2013

²⁵ Ben RouinE (C.), "L'indépendance de la Banque centrale tunisienne : enjeux et impacts sur le système financier tunisien", OTE [Working paper], 2016

²⁶ Ben Rouine C., (2016) *L'indépendance de la Banque Centrale Tunisienne : enjeux et impacts sur le système financier tunisien*. Observatoire Tunisien de l'Economie. Working paper n°1. Disponible sur : <https://www.economie-tunisie.org/sites/default/files/20190220-workingpaper-ndeg1-bct-fr-bap.pdf>.

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