


# National Economic Supply as an Emergency Precaution

**Other Publication****Author(s):**

[Hauri, Andrin](#) 

**Publication date:**

2019-11-06

**Permanent link:**

<https://doi.org/10.3929/ethz-b-000375190>

**Rights / license:**

[In Copyright - Non-Commercial Use Permitted](#)

**Originally published in:**

CSS Analyses in Security Policy 253

# National Economic Supply as an Emergency Precaution

Supplying modern societies with important goods and services has become more volatile due to the globalization of the flow of goods. In Switzerland, enterprises and the state cooperate on national economic supply to ensure the provision of vital requirements in times of crises. Changes are required if this system is to continue in the future.

By Andrin Hauri

The secure, uninterrupted supply of vital commodities and services is a core prerequisite for the smooth operation of highly developed countries such as Switzerland. Although this task has always been a challenging one, modern societies are marked by ever closer technical and operative interconnectedness resulting in new and stronger dependencies, which make them increasingly vulnerable to disruptions of supply. Even small impairments of supply can now rapidly cause severe economic damage or endanger the population. For instance, an extended disruption of digital communication would have significantly more detrimental effects today than ten years ago.

In parallel to this development, the globalization of economic flows across more and more sectors has also added to the potential causes of market disruptions in vital supply chains. Given the prevalence of longer, faster, and more complex supply processes that are based on just-in-time production and extend across the entire globe, stockpiles are shrinking, early warning times are foreshortened, and acceptable margins of error in global commodity flows are narrowing. Moreover, in certain sectors, global production is increasingly becoming concentrated in a few central locations and in the hands of a diminishing number of companies. For instance, in the pharmaceutical industry, certain medical substanc-



A barge on the Rhine. Despite a long period of historic low tide in autumn/winter, around 10% of all imports reached Switzerland via the Rhine in 2018. *Wolfgang Rattay / Reuters*

es that are in widespread use are now only produced in a few large-scale facilities in Asia. Due to these increasing dependencies in the supply system, a localized event can now rapidly bring about a market disruption in the global supply chain and expand in cascades to affect further supply processes. As a highly developed, resource-poor landlocked country that relies on imports for many vital commodities and services (see box p. 2) and that is the final destina-

tion of many global supply chains, Switzerland is comparatively vulnerable to disruptions of supply.

Efforts to secure the fundamental economic supply of a country should follow a middle course between government provisions and the individual responsibility of corporate sectors and the general population. If the state becomes too closely involved, the incentive for taking precautions diminish-

Selected imports to Switzerland (2018)	
Natural gas	36,890 GWh
Electricity	31,020 GWh
Petroleum and distillates	9,710,035 t
Chemical and pharmaceutical industrial products	5,424,150 t
Foodstuffs and luxury food	4,059,264 t
Animal feed	1,886,671 t
Electronic devices and gadgets	273,538 t
<b>Net degree of self-sufficiency in food sector: 56% (2000) / 48% (2016)</b>	
<b>Import dependency: Petroleum 100%; natural gas 100%; energy overall 75%</b>	
<i>Sources: FCA, Swiss Gas Industry Association, SFOE, FONES</i>	

es. If the state remains aloof, the danger is that businesses and the population at large could suffer serious injury at the next shortfall.

### Safeguarding supply

The phenomenon of short-term bottlenecks in the supply of vital goods and services, i.e., disruptions lasting from weeks to months, is not a new one, although efforts to avoid or manage them have become more and more relevant in the light of the growing vulnerability of modern societies. For instance, the International Energy Agency in Paris was founded in 1974 as an organization for coordinating the global response to shortfalls in the global oil supply. At the EU level, too, there have been numerous initiatives in the past decades for improving short-term security of supply. For instance, the Gas Coordination Group, founded in 2006, coordinates intervention measures in cases of EU-wide or regional disruptions of natural gas supplies while also helping to develop preventive action plans and emergency procedures in member states. Finally, the individual European states also have various government agencies at the national level that are tasked with ensuring short-term vital supplies, such as Finland's National Emergency Supply Organization.

### Economic Supply in Switzerland

As a country with a long tradition of economic liberalism, Switzerland places a premium on individual responsibility and aims to minimize state intervention. However, the experience of the First World War, which caused supply shortfalls in the country, convinced the Federal Council that Switzerland, too, requires a degree of state precautions against supply shortfalls. Thus, the Federal War Office for Alimentation was founded, which in time became today's National Economic Supply (NES) organi-

zation, part of the Federal Department of Economic Affairs, Education and Research. In its contemporary form, it is a uniquely Swiss solution for safeguarding the country against bottlenecks in vital supplies.

The legal mandate of NES is derived from Article 102 of the Swiss Federal Constitution, according to which the federal administration ensures the nation's supply of vital commodities and services in cases of power-political or military threats as well as in times of severe shortages that cannot be managed by the corporate sector independently. To this end, the NES together with economic and administrative actors prepares economic management measures designed to maintain vital supplies through targeted state intervention in cases of shortfalls. This mission statement and the involvement of the private sector signal that in its economic supply policy, too, Switzerland pursues a liberal economic approach and remains faithful to its principles, including the precedence of the private sector and subsidiarity. The state only intervenes when private enterprises are unable to fulfill their supply mandate. In doing so, the interventions of the NES are restricted to the necessary minimum, and no parallel structures are established. Thus, even in an emergency situation, the NES will not become a "national supplier", but only acts as a facilitator authorized to enact executive measures that are designed to enable private enterprise to fulfill its supply mandate through familiar actors and via regular supply channels.

The deliberate proximity of the state's economic supply policy to the private sector is also reflected in the NES twofold structure: One part of the office is formed by the militia organization, in which about 250 economic and administrative specialists make

their knowledge and expertise available to the NES. Across six topical subdivisions, these experts are responsible for overseeing the supply situation and for preparing and implementing management measures in their respective economic sectors. This helps to ensure that the procedures prepared by the NES are feasible and will be supported by the private sector in case of a crisis. The other part of the NES consists of the comparatively small Federal Office of National Economic Supply (FONES), which serves as a staff unit for the specialist divisions. The NES organization is headed by a delegate on a part-time basis. The law requires that this person must be from the private sector.

Five of the NES specialist divisions – *Foodstuffs*, *Therapeutic Products*, *Energy*, *Information and Communications Technology (ICT)*, and *Logistics* – are responsible for ensuring the integrity of these essential supply processes. The *Industry Division*, on the other hand, is concerned with the provision of industrial material and equipment required by the other specialist divisions, such as packaging. The divisions responsible for *Energy*, *ICT*, and *Logistics* supply processes also indirectly serve as interfaces with other units and are therefore of relatively greater importance, since failures of these processes would have immediate effects on other

## The state only intervenes when private enterprises are unable to fulfill their supply mandate.

aspects of supply. For instance, a sustained lack of electricity would also have severe impacts on all other supply processes.

### Forms of State Intervention

The NES prepares economic management measures for steering both supply and demand of vital commodities and services. The first measures to be implemented are those that are least invasive, i.e., the NES tries to minimize negative outcomes for consumers by expanding supply before reducing demand through restrictions and bans. The nature of available measures depends on the services in question, with significant variation between the different vital supply processes.

In the case of storable goods for which mandatory stockpiles exist, the first step during a crisis would be to increase supply by releasing those stockpiles. If this is not feasible, other options for expanding the available supplies include sensitizing con-

sumers through appeals for voluntary economization, for instance by way of energy savings, or by promoting imports and steering production to raise supplies of foodstuffs. When it comes to vital services, the same aim is pursued by means such as temporary deregulation in the field of logistics or by prioritizing services that serve the interests of NES, for instance in transshipment terminals. Only if supply-side crisis response measures prove insufficient or if it is apparent that a disruption will endure longer will the NES take further-reaching demand-side measures. This includes, for example, restrictions on sales or consumption for food or electricity, allocations or rationing of various vital goods such as natural gas and fuels, or limiting end-users' telecommunications bandwidth in favor of services that are relevant to supply.

Many of these management measures constitute significant deviations from the principle of economic freedom, and some may have far-reaching consequences for society. Therefore, the decision to enact them is the prerogative of the Federal Council, upon application by the delegate. The mandatory stockpiles, which are released as the first NES measure in the case of many commodities, form the exception. Here, the delegate or the FONES may release up to 20 per cent of reserves, thus ensuring that the NES can react rapidly.

Since supply shortfalls today can quickly lead to severe damage, preventive approaches have gained importance for NES in recent years. Specifically, the systematic

## Given the increasing complexity of crucial supply processes, effective intervention options are shrinking.

monitoring of the supply situation has become more important as a way of identifying emerging shortfalls in a timely manner. For instance, the NES has created a reporting platform for therapeutic products where licensees must report imminent or existing shortages of certain pharmaceuticals. Moreover, since 2017, the revised National Economic Supply Act has authorized the federal government to foster companies' measures that are designed to ensure national supply, provided they contribute significantly to strengthening vital supply systems and infrastructures. However, since this creates costs for the taxpayer, the NES primarily aims to bolster the

Main instances of NES activity since 2010		
Energy	Therapeutic products	Foodstuffs
Strikes in France (Mineral oil products, 2010)	Shortage of Co-Amoxicillin (2012)	Low water levels in the Rhine (Animal feed, fertilizer, edible oils and fat, 2018)
Outage of Cressier refinery and low water levels in the Rhine (Mineral oil products, 2015)	Shortage of antibiotics (2015)	
General supply situation across Europe (Electricity, 2017)	Shortage of Engemycin (2016)	
Low water levels in the Rhine (Mineral oil products, 2018)	Shortage of Syntocinon (2018)	
General supply situation across Europe (Electricity, 2019)		
<i>Sources: FONES</i>		

resilience of supply processes against disruptions on a voluntary basis. One example is the ICT minimal standard for critical infrastructure operators, published in 2019, which is also available to all other interested enterprises. Other NES instruments that are now seeing increasing use are sectoral agreements, i.e., private-sector arrangements for mutual support and crisis response between supply-relevant companies or within vitally important sectors.

### New Focus

Until the late 1980s, the activities of NES focused on three main application scenarios: War, power-political threats, and severe shortages. With the end of the Cold War, the relevance of the first two cases for the supply situation was diminished in the 1990s, causing the *raison d'être* of the NES to be questioned from various quarters. Simultaneously, the globalization of economic flows began to pick up pace. Therefore, since the turn of the millennium, planning for NES has more strongly reflected the third criterion for state intervention – the occurrence of severe shortages. The eminent importance of the more constant and predictable criteria of “war” and “power politics” for NES thus gave way to considerations of market supply mechanisms, where a number of diverse, often diffuse and less predictable risks can bring about severe shortages for Switzerland. Today, the NES work is focused on the management of short- and medium-term supply shortages, independently of their specific causes.

The shift in focus and the changing external conditions today pose a challenge to the NES system. Given the increasing

complexity and internationalization of crucial supply processes, the number of effective intervention options available to national actors is rapidly shrinking, and the efficiency of measures by individual states is diminishing. As with other militia organizations, it is increasingly difficult for the NES to recruit suitable and motivated candidates to serve in a militia function. Today, the most appropriate points of contact work in international companies overseas; they lack an understanding of the Swiss militia system and have little incentive to get involved.

For international companies that are not domiciled in Switzerland, the NES system may also be a reason to scale down their own precautions for the small Swiss market and, in case of a supply shortage, to concentrate on other, bigger markets lacking such structures. This problem is further aggravated by the difficulty of determining the optimal timing for intervention in NES: If the state intervenes at an early stage, this increases the likelihood that the NES system will be misused as an element of corporate continuity management, leading to competitive distortions. On the other hand, if the state waits until a palpable society-wide supply shortage has occurred, this may cause great damage to the national economy or even, in the worst case, lead to deaths, even though options for intervention would have been available.

Irrespective of the focus on severe shortage situations today, the limited resources of the NES continue to be used to prepare measures that are unlikely to be deployed outside of enduring global war or disaster scenarios, for instance the rationing of foodstuffs or fuel. Despite the noticeable increase of NES missions in the past de-



cade (see box p. 3), its work continues to go largely unnoticed by the general public as long as it fulfills its mission reliably during shortages. While calls to reduce state intervention in supply policy and abolish the NES have largely fallen silent in Switzerland as its operations have increased, the issue of short-term security of supply has only intermittently gained importance in political discourse, while the financial and personnel resources of the NES have remained more or less unchanged. Due to Switzerland's great reliance on imports, combined with society's low tolerance for damage and the increasing complexity of supply, the relevance of the NES's mission is likely to increase in the future.

### Future-Ready

For the NES to be able to carry out its mission in the future, it must constantly adapt to rapidly changing external conditions. Adaptations that are already ongoing, such as the systematization of monitoring the supply situation, should be continued and intensified. An even stronger focus on preventive approaches and a more active promotion of voluntary precautions by the NES can strengthen the overall resilience of supply processes, while shortfalls that have already occurred could be managed with a lesser degree of state intervention. However, this would probably also necessitate additional investment in improving

the short-term security of supply, funded either by the state or the private sector, which would require political support.

In view of the constant increase in the complexity of supply processes, even improved preventive measures cannot prevent crises altogether. Therefore, the limited resources available to NES would be most ef-

## By strengthening its links to partner organizations in other countries, the NES could benefit from their experiences.

ficiently employed by focusing the NES response toolkit on the most frequent types of disruptions. Moreover, by strengthening its links to relevant international bodies and partner organizations in other countries, the NES could benefit from their experiences and identify examples of best practices for expedient state intervention. Where other federal authorities have already established such contacts, the NES can create cost-saving synergies by using them more systematically and through improved coordination within the federal administration.

The key role of the private sector in NES has proven helpful, and its representatives in the NES militia organization should continue to be accorded the necessary le-

way by the federal and corporate entities in the future in the interest of jointly preparing workable measures. Where appropriate and feasible, an incremental expansion of the militia organization to include more members from key international enterprises might also be helpful for identifying suitable points of contact even beyond the country's borders in times of crisis. Finally, even as a non-member of the EU, Switzerland could undertake political efforts to be integrated more actively in the relevant EU crisis mechanisms such as the Gas Coordination Group as a way of further improving multilateral coordination in case of supply shortfalls.

Despite manifold challenges, since its re-orientation during the 2000s, the NES system has proven its value as an insurance against bottlenecks in vital supply processes. If this system is to be upheld in the future, society and political actors alike will have to devote sufficient attention and support to the issue of short-term security of supply and NES.

**Andrin Hauri** is a Researcher at the Center for Security Studies (CSS) at ETH Zurich. He focuses on resilience and crisis management, including critical infrastructure, supply security and international security.

CSS Analyses is edited by the Center for Security Studies (CSS) at ETH Zurich. Each month, two analyses are published in German, French, and English. The CSS is a center of competence for Swiss and international security policy.

Editors: Julian Kamasa, Fabien Merz, Lisa Watanabe, Benno Zogg  
Translation: Chris Findlay; Proofreading: Julian Kamasa, Lisa Watanabe  
Layout and graphics: Miriam Dahinden-Ganzoni  
ISSN: 2296-0244; DOI: 10.3929/ethz-b-000375190

Feedback and comments: [analysen@sipo.gess.ethz.ch](mailto:analysen@sipo.gess.ethz.ch)  
More issues and free online subscription:

[www.css.ethz.ch/en/publications/css-analyses-in-security-policy](http://www.css.ethz.ch/en/publications/css-analyses-in-security-policy)

Most recent issues:

**Ceasefires in Intra-state Peace Processes** No. 252  
**AI in Military Enabling Applications** No. 251  
**Russia and China: The Potential of Their Partnership** No. 250  
**Kazakhstan: A Centrepiece in China's Belt and Road** No. 249  
**European Strategic Autonomy and the US** No. 248  
**Europe and the Global AI Race** No. 247