

A SHIP IS SAFE IN HARBOR,  
BUT THAT'S NOT WHAT  
SHIPS ARE FOR.

William Shedd

## 2. Current trade situation

Daniel Karlsson

# Agenda

- 
- How the logistics situation has looked in recent years
  - How did we end up here?
  - The effect of congestion and queuing outside and in ports and container shortages
  - Trade conflict between China and the United States
  - The impact of the war on today's trade situation
  - The sustainability perspective
  - Task: Current trade situation

# Revision questions

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- Why are Swedish companies so sensitive to disruptions in the global transport system?
- What is meant by the term "resilience"?
- Explain what is meant by the term trade conflict and how it affects those involved countries and their economies



## The logistics situation in recent years



I've got the booking



There's no containers



I've got the container



vessel is delayed



vessel departed POL



transhipment  
confirmed



Strike at POD

# The logistics situation during 2020-2024

- Container shortage
- Lack of ships •
- Closed ports •
- Closed factories •
- Rising raw material prices • Rising freight prices • Extended lead times

Anyone affected by this?



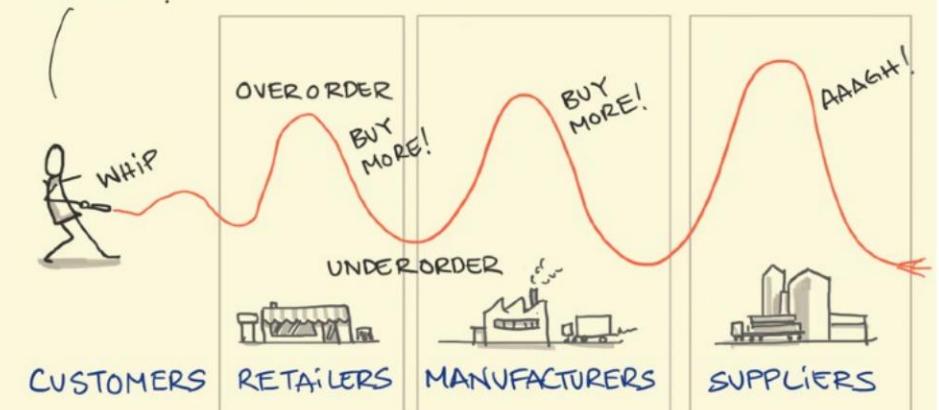
## THE BULLWHIP EFFECT

SMALL CHANGES  
IN DEMAND

CAN PRODUCE  
→

A WHIP-LIKE  
EFFECT UPSTREAM

QUICK! BUY TOILET PAPER



sketchplanations

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# How did we end up here?

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# Definition logistics

*"The activities that have to do with obtaining the right product or service at the right place, at the right time and in the right quantity at the lowest possible cost"*

# Some key figures

- Capital formation •

means that a company's capital is tied up in e.g. inventory, accounts receivable, machines, vehicles, or the like, and therefore cannot be used for other purposes in the business

- Lead time:

- The time from identification of the customer's needs to satisfaction of needs.

- Lead time (GLT): • The

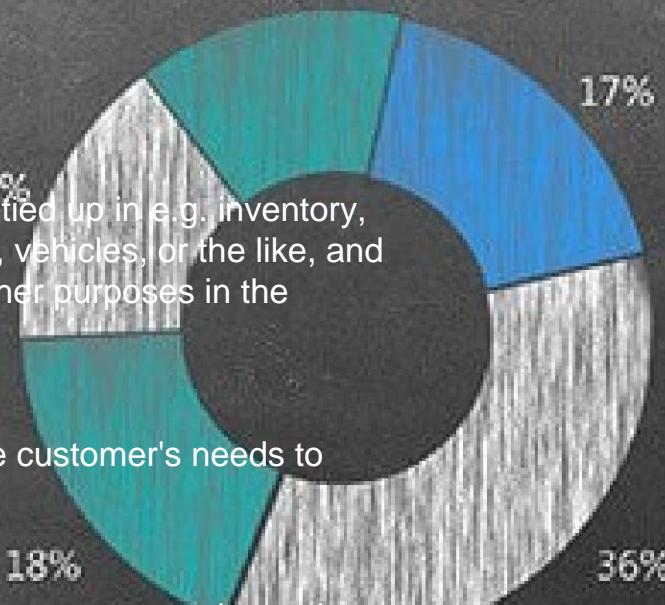
time it takes for a product/service to pass a certain section (production, warehouse, distribution, etc.)

- Inventory turnover rate (LOH):

- The number of times the inventory is traded over a certain period of time, usually a year. Makes it possible to compare between different layers, articles, etc.

- Delivery ability:

- The seller's ability to meet the desired delivery time, delivery security, stock availability and delivery flexibility.



14%

17%

15%

36%

13%

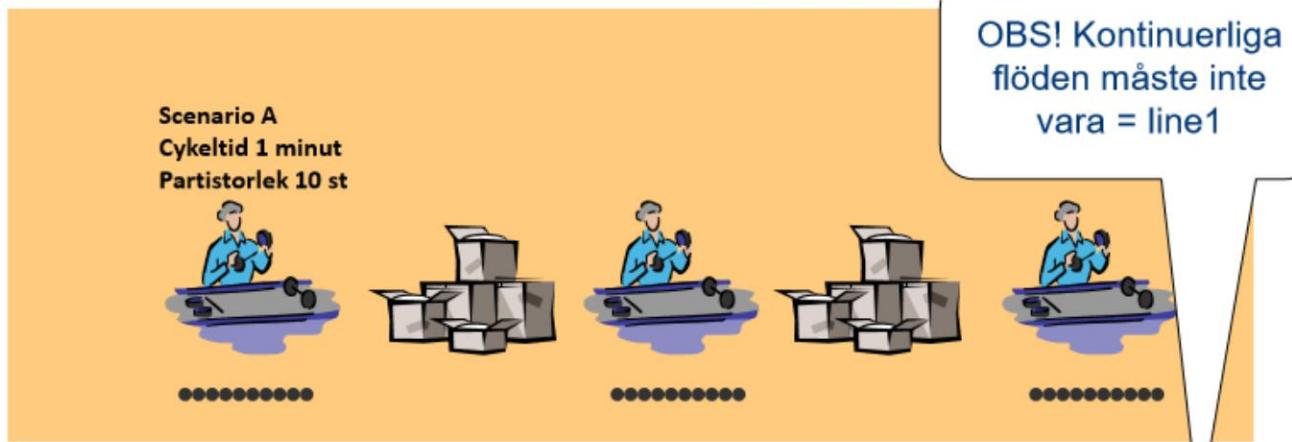
17%

22%

51%

# Resource efficiency or flow efficiency?

- Resource efficiency:
  - Is based on the efficient use of resources
  - For example, one machine, a machine group, an employee, a department, or the entire organization
- Flow efficiency:
  - Building and maintaining a flow through the system/organization must be efficient
    - The flow unit should flow is often the product or service (flow item)
    - The flow unit must move all the time



**Scenario A:**

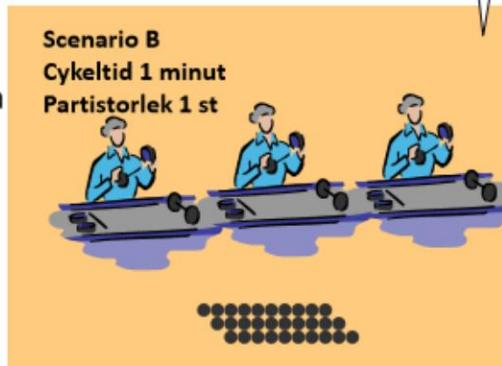
Genomloppstid för den första produkten: 21 min

Genomloppstid för alla 10 produkter: 30 min

**Scenario B:**

Genomloppstid för den första produkten: 3 min

Genomloppstid för 10 produkter: 12 min



- Reduce buffer
- Reduce PIA
- Reduce GLT
- Reduce transport
- Increase efficiency

# Single piece flow

## Costs of holding inventory

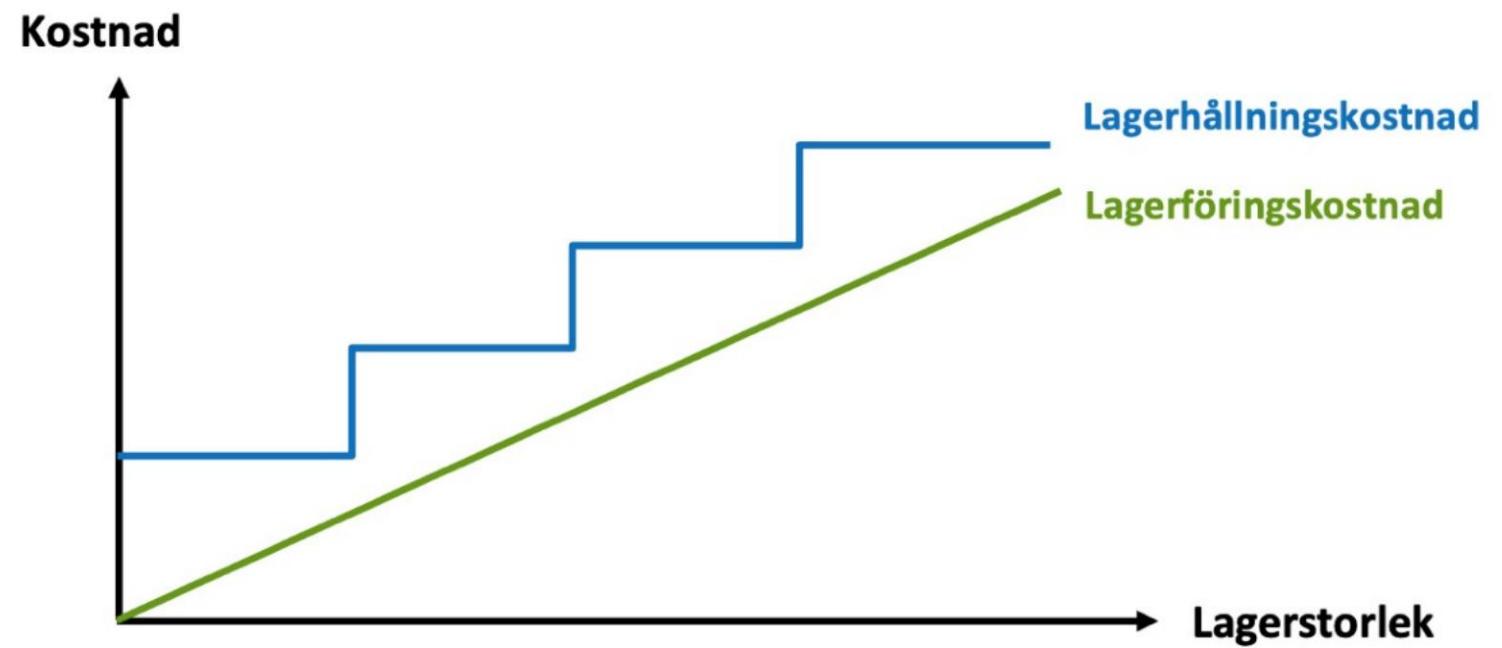
### Lagerföringskostnader *lagernivåberoende*

- Kapitalkostnader
- Värdeminskning
- Svinn
- Åldrande
- Förstörelse
- Försäkring
- Inventering

### Lagerhållningskostnader *operativa kostnader*

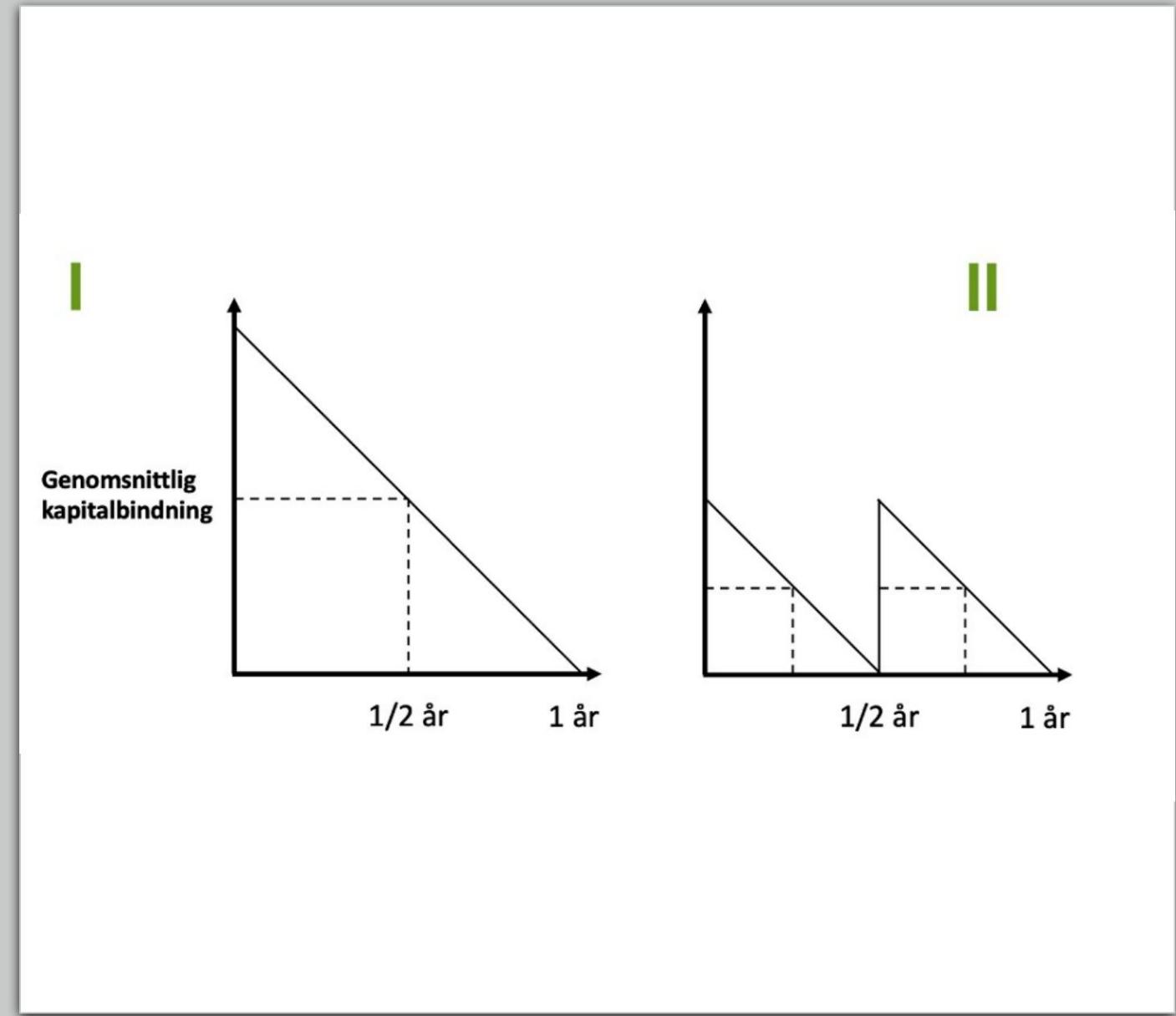
- Lagerpersonal
- Informationssystem
- Inventarier
- Hanteringsutrustning
- Lagerbyggnader

## Costs of holding inventory



# Capital tie-up

- If we halve the order quantity, we halve the capital commitment
- At the same time, we are increasing other costs..
  - Twice as many orders, deliveries, checks, invoices, payments, etc.
- ..and increases the risk of shortages occurring



# Why companies have inventory

## Manage uncertainties

- Demand variations •
- Quality deficiencies
- Prices
- Transports •
- Balances

## Economy

- Purchasing economics • Transport economics • Special order costs

# Make or buy?



- Whether a company should manufacture the product or perform the service themselves, or whether to purchase it from an external supplier
  - Often called outsourcing
- To answer the question "make or buy", we need to answer a number of other questions:
  - Is it our core competence?
  - Is it best for us or an external supplier
    - conditions to meet the customer's needs and expectations?
  - Who can do it at the lowest total cost?
- A strong trend in recent decades has been to specialize, become the best at what we do and buy the rest from the best possible supplier

## Different types of purchases



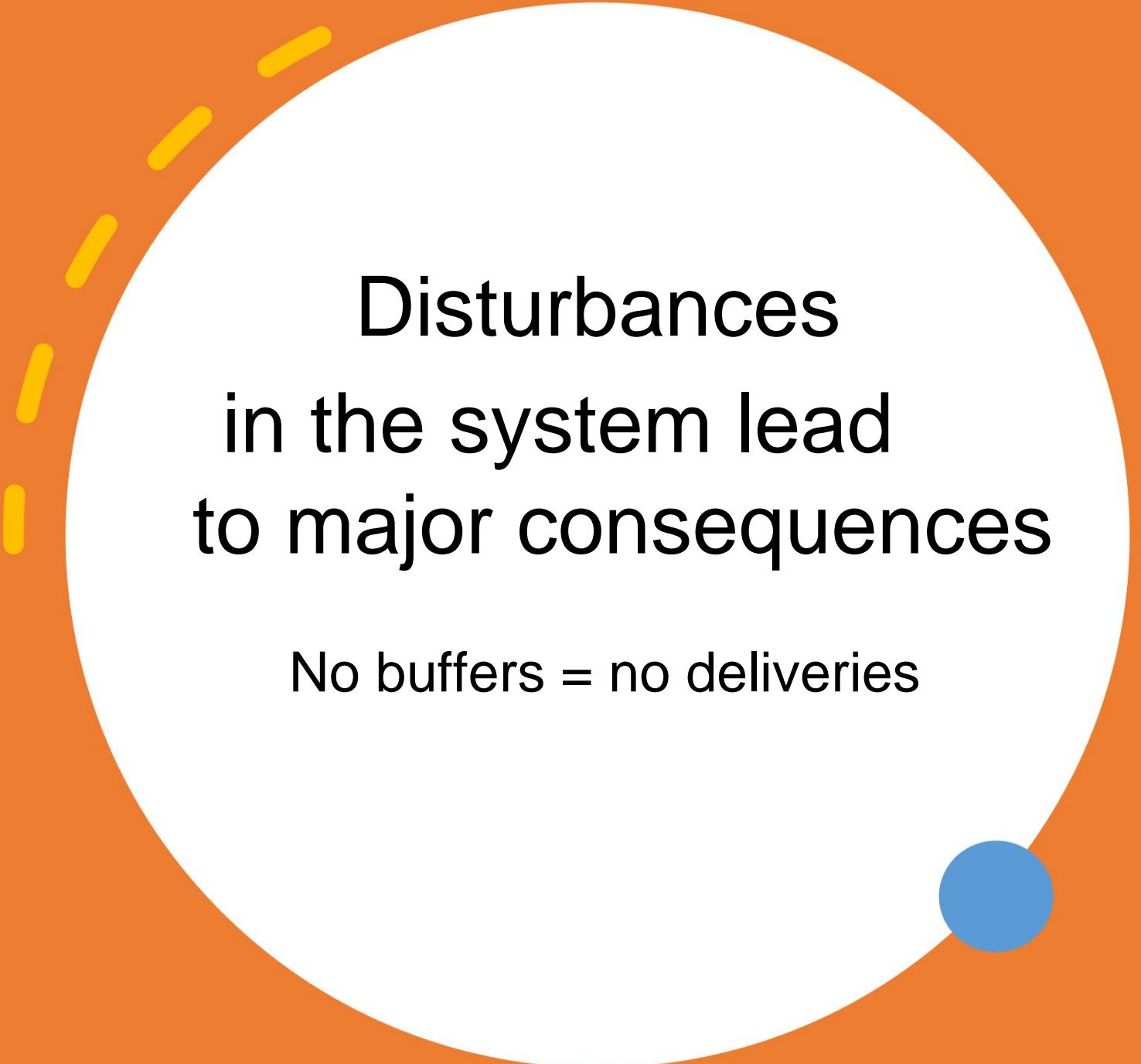
GLOBAL SOURCING



SINGLE SOURCING



MULTIPLE SOURCING



Disturbances  
in the system lead  
to major consequences

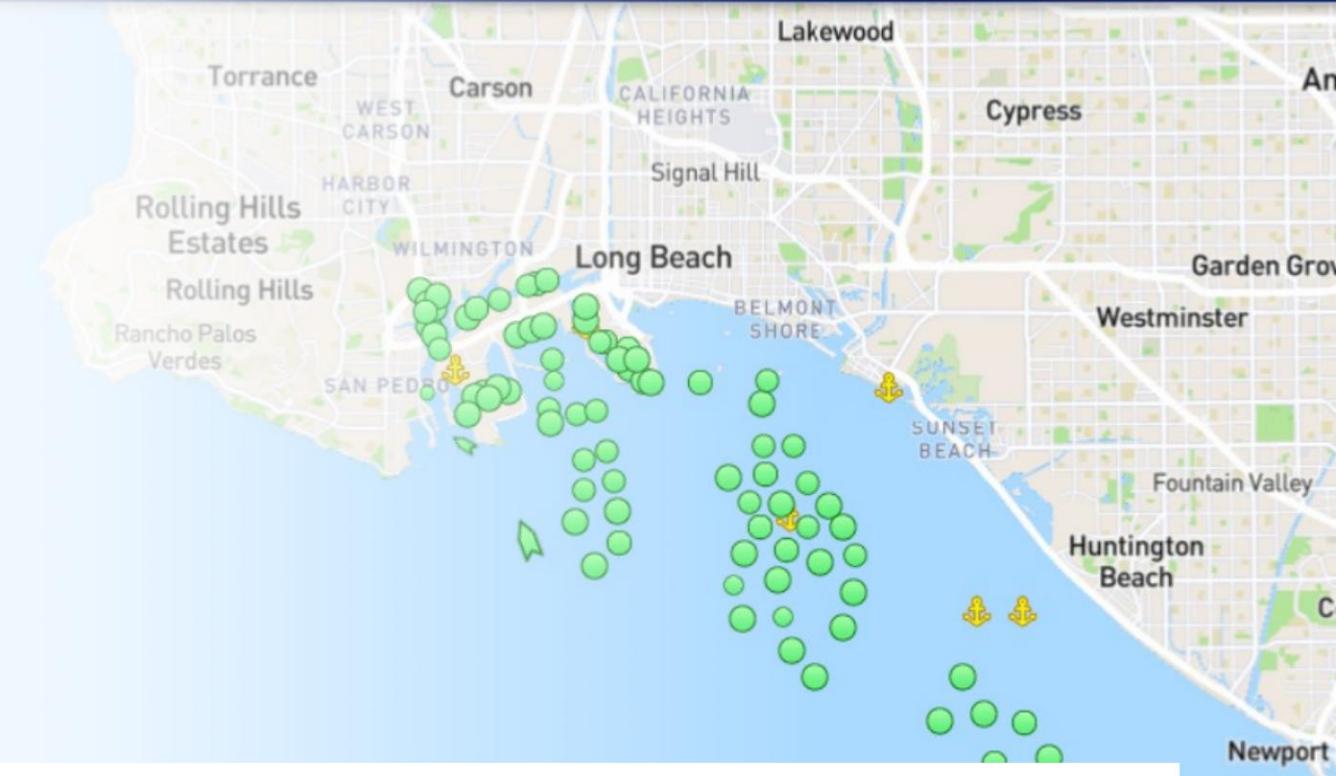
No buffers = no deliveries



Autumn 2021

## Crowding and queuing outside ports (congestion)

- Picture of 37 container ships which waiting outside the Port of Los Angeles in August 2021
  - Before covid it used to be 0-1st



"Warehouses are overflowing, rail yards and carriages are maxed out, chassis and containers continue to be hard to come by, ships are coming in and waiting at anchor to get worked, and factories are behind in orders, even though output is at record levels," said Port of Los Angeles Executive Director Gene Seroka.

**“ I think (Federal Maritime Commission Chairman Daniel Maffei) said it best recently,  
‘What we’re trying to do is squeeze 10 lanes of freeway traffic down into five.’ ”**

## Crowding and queuing outside ports (congestion)

Last week, a host of Chinese ports faced congestion headaches. Vessels due to stop at Ningbo were diverted and cargo processing slowed. This was, in part, due to stricter disinfection measures under China's 'zero-tolerance' coronavirus policy.

MarineTraffic data shows that more than 50 container vessels were queuing at Ningbo port on Tuesday 17 August.

"China's zero tolerance policy is good for the pandemic but bad for the supply chain," Dawn Tiura, chief executive officer of Sourcing Industry Group, told Reuters.

*"This timing is very tough considering the uptick in back-to-school and return-to-work shopping in addition to the upcoming holiday shopping season."*

Vessels were re-routed to nearby ports in a bid to control the backlog.

But Shanghai port had 34 vessels waiting at anchorage, compared to 27 on Aug 10. The number of vessels waiting at Xiamen port [700 km south of Ningbo], meanwhile, rose to 18 on August 17. The week before, it was just four.

## Container shortage (click on the image for link)

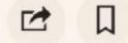
- The number of containers globally is not the problem
- Closed and overloaded ports result in containers not being available when they are needed.
- Importers do not receive their deliveries on time
- Exporters do not receive their deliveries on time

# Containerbristen kan vara kvar i åratal

Containerbristen förväntas kulminera i september. Men det kan ta åratal att komma tillräffa med grundproblemet, varnar branschfolk. **Men det finns vinnare på krisen.**

Joakim Goksör/TT

Publicerad 2021-09-12



# What companies did to save their supplies

Publicerad: 31 augusti 2021, 08:37



Ikea vidtar nu åtgärder för att få hem produkter till varuhusen.

Foto: Press/Getty Images

**Störningar i de globala produktions- och leveranskedjorna drabbar Ikea. Nu har möbeljätten valt att köpa in egna containrar och hyra in fartyg för att kunna förse varuhusen med produkter.**

What  
companies  
are doing  
to save their supplies  
(click image for link)



Will companies change their purchasing strategies with all this?

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## **50 års trender i sjön när världshandeln kollapsar**

**Ett halvt sekel av managementteorier om just in time, lean production och outsourcing har på bara dryga 12 månader blivit passé. Den senaste tidens långa rad av omfattande störningar i de globala leverantörskedjorna tvingar industrin att radikalt tänka om.**

**Per Olof Lindsten**

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**Uppdaterad:** 25 maj 2021, 16:09 **Publicerad:** 25 maj 2021, 09:49

# Or is the trading pattern not affected?

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NYHET 15 juni 2021

## Företagens lagerhållning ökar

Svenska företagare håller fast vid globala värde- och leverantörskedjor trots pandemin. Däremot anser många att det har blivit viktigare med ökad lagerhållning och ett större leverantörsnätverk för att minska sårbarheten i framtiden. Det visar en ny rapport från Svenskt Näringsliv.

## DHL GLOBAL CONNECTEDNESS INDEX: GLOBALISERINGEN ÄR MOTSTÅNDSKRAFTIG, MEN USA OCH KINA FRIKOPPLAS

15 mars 2023

DHL och New York Universitys Stern School of Business publicerade i dagarna den senaste upplagan av *DHL Global Connectedness Index* för 2022, som är en djupgående rapport om globaliseringens nuläge och framtidsutsikter. Rapporten, som baseras på analys av data från 171 länder och regioner, visar hur flöden av varor, mänsklig kapital och information rör sig globalt. En av slutsatserna i rapporten är att de internationella flödena har varit anmärkningsvärt motståndskraftiga under senare års kriser, men frikopplingen mellan USA och Kina fortsätter.

# Content of the article

- How has global trade been affected by the challenges of recent years?
- What is meant by globalization being resilient? And what do you think it is due to?

# Trade conflict between China and the US

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- Began in July 2018 with US punitive tariffs of 25% on Chinese imports
- China immediately responded with punitive tariffs on US imports
- New agreement in January 2020 with relief in customs duties (Phase 1 agreement)
- Since then back and forth applicable reliefs resp. more restrictions

## STOR SVENSK NÄRVARO I BÅDE USA OCH KINA

Procent

100

90

80

70

60

50

40

30

20

10

0

**64%**

USA

**59%**

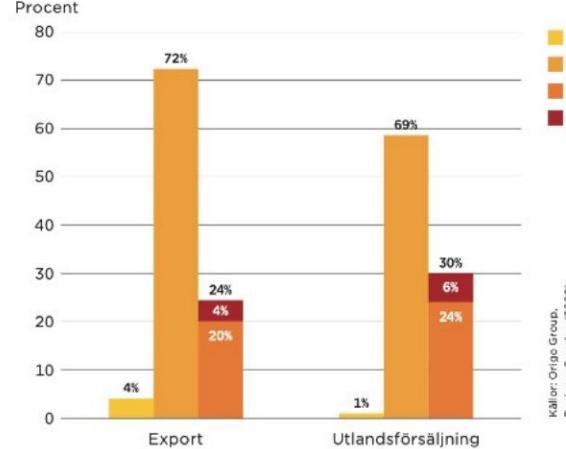
KINA

Företag med försäljning i USA  
respektive Kina, andel i procent

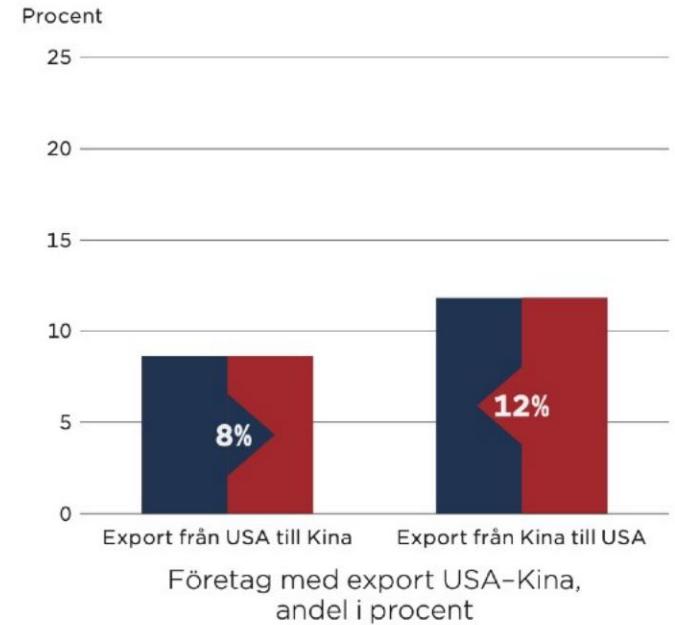
Källor: Origo Group, Business Sweden (2020)

# The impact of the trade war on Sweden

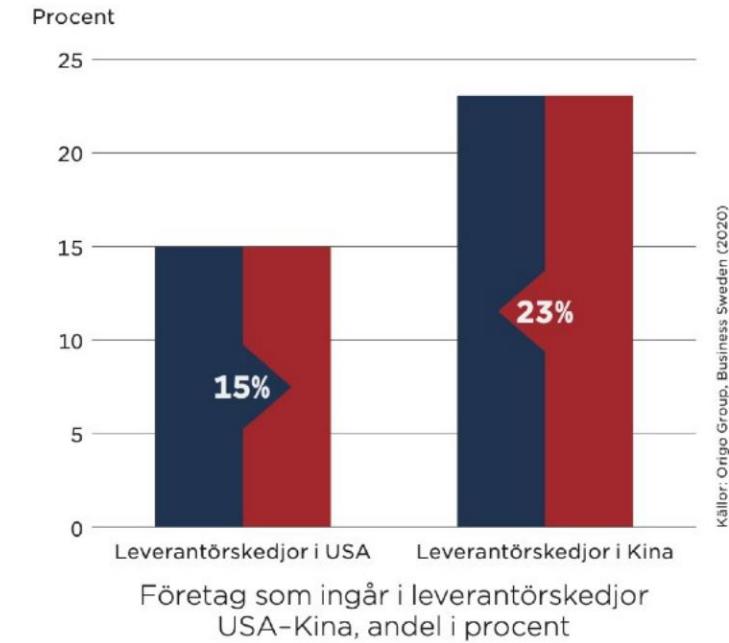
EN TREDJEDEL AV FÖRETAGEN PÅVERKAS NEGATIVT AV HANDELSKRIGET



SVENSKA FÖRETAG DRABBAS GENOM EGEN EXPORT FRÅN USA TILL KINA OCH VICE VERSA...



... OCH ÄN FLER ÄR EXPONERADE FÖR KONFLIKTEN SOM UNDERLEVERANTÖRER

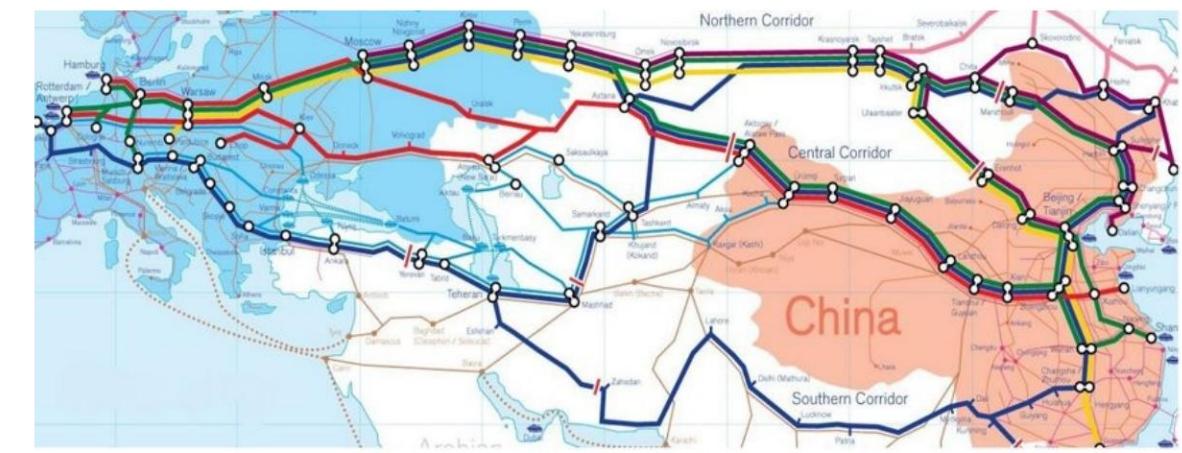
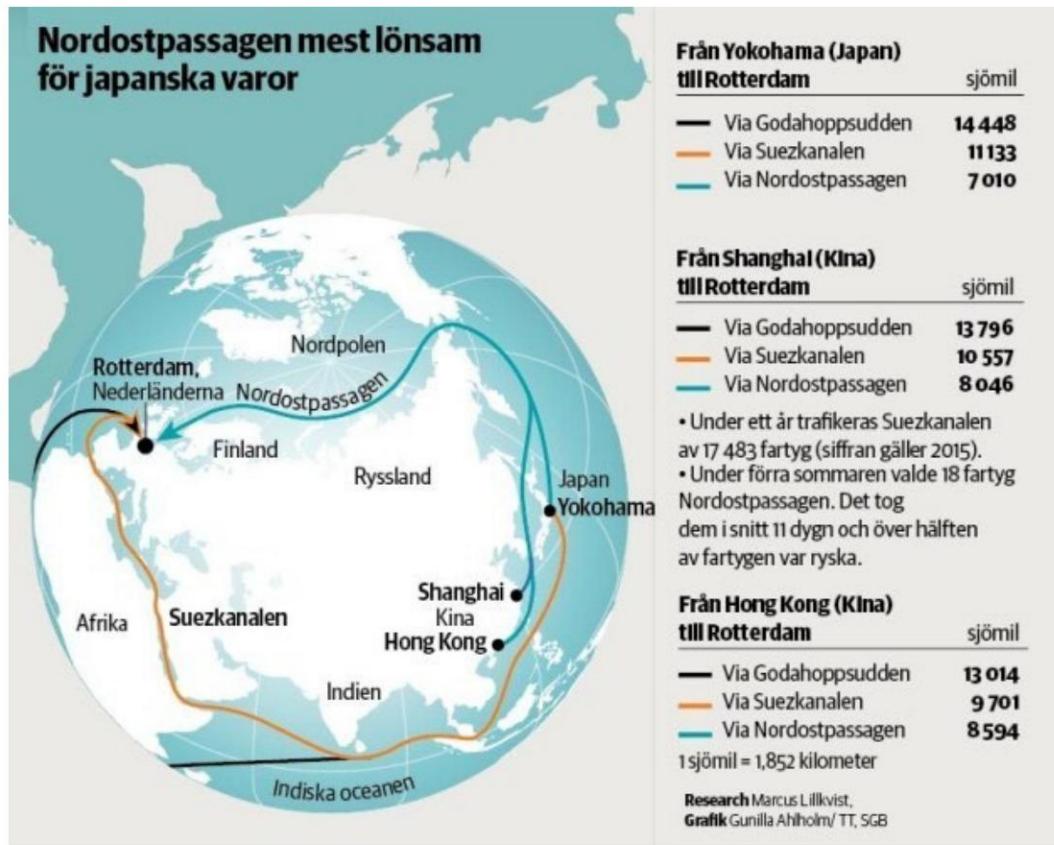


# The impact of the war in Ukraine

- Swedish companies generally have low exposure to Russia and Ukraine
- Instead, we see more indirect effects, mostly affected to a large extent
  - Global financial markets
  - Oil price increases
  - Disruption of assets
  - Disruption of global supply chains
  - Transport routes are also affected

# The impact of the war in Ukraine

Transport routes within Europe and between Asia and Europe are also affected



Written by  
the Port of  
Gothenburg  
in Feb. 2022:



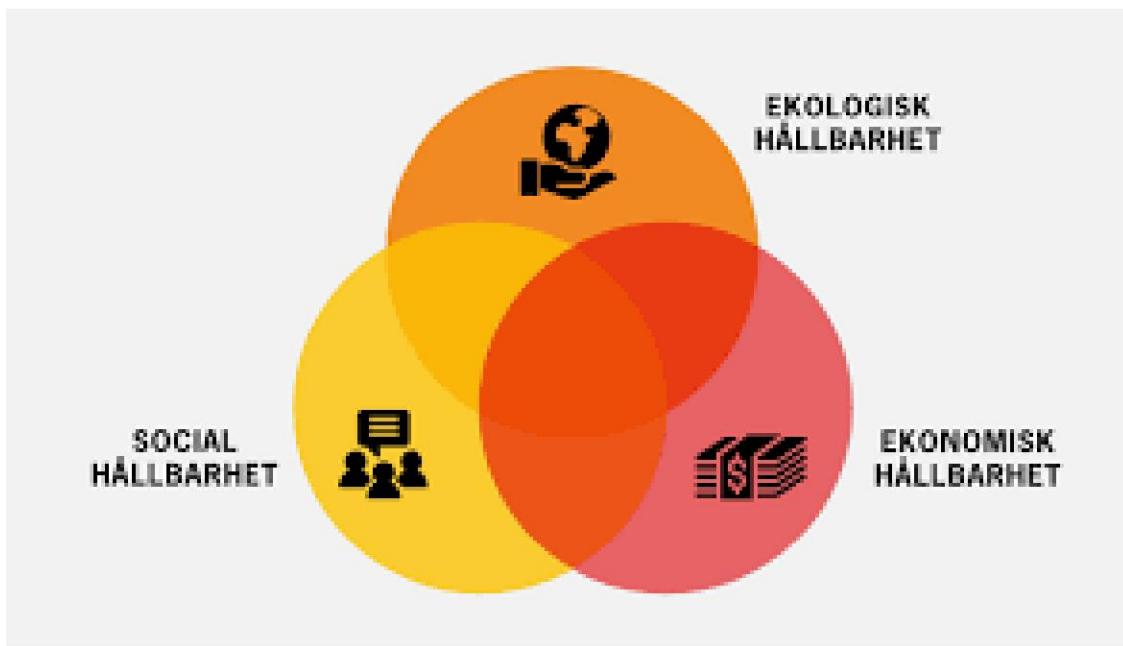
*"At the time when the Northeast Passage becomes navigable for regular freight shipping, the Port of Gothenburg's importance for transport between Sweden and Asia will be further strengthened. The transport time would be significantly reduced and Gothenburg would then also become the first port in Europe to be called by ships*

# Attacks on merchant ships in the Red Sea

- Causes ships to choose to take the longer route via the Cape of Good Hope instead of through the Suez Canal
- Longer lead time and higher prices affects both importing and exporting companies
- Strongly increased prices are predicted, for both transport and insurance



# The sustainability perspective



## HÅLLBARA LEVERANSER ÄR EN KONKURRENSFÖRDEL

14 september, 2022

Enligt en studie av SAPIO Research på uppdrag av Descartes blir anser endast 38 procent av konsumenterna att handeln lever upp till förväntningarna på hållbara leveransalternativ.

# Sustainable trade

- Higher demands from customers around transparent supply chains
- Higher requirements from the EU regarding environmental and social sustainability reporting (CSRD)



# Task: Current trade situation

- Can we find fresh news that might be of interest to a logistician in an international environment? • New business opportunities?
  - Changed conditions?
  - Proactive information?
  - Etc.
- Areas we have talked about so far in the course:
  - Increasing international trade
  - Risks of international trade
  - Trade restrictions
  - Effects of Covid 19, as well as the trade conflict between the US and China
  - The war in Ukraine
  - The attacks in the Red Sea
  - The sustainability perspective