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Railway Market Opening and Organisational Reforms in Sweden

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Presentation outline

- Railway liberalisation milestones
- Overview of changes in regulatory framework
- Current organisation
- Experience and effects
- Conclusions and current issues

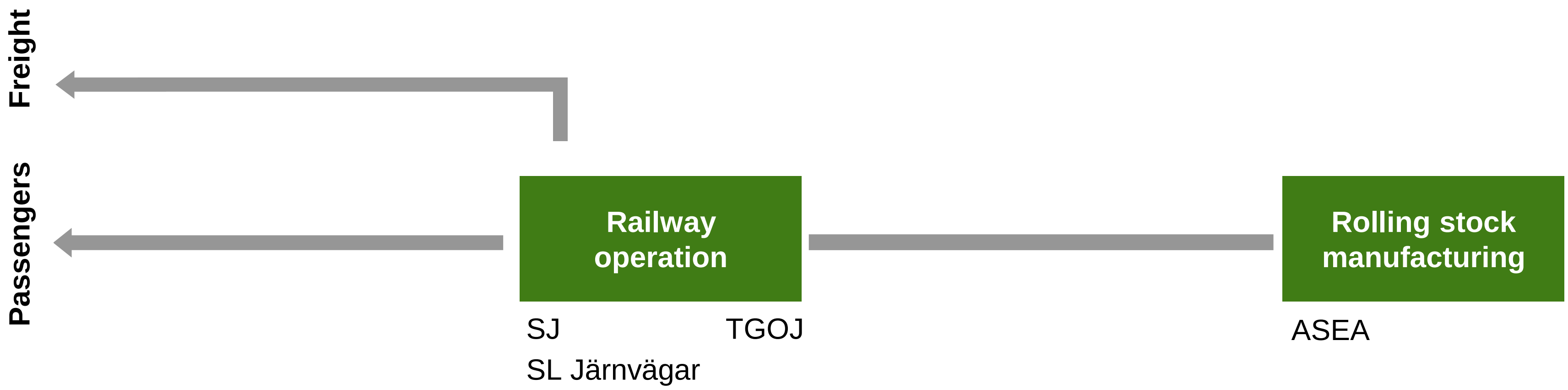
Swedish railway liberalisation – some milestones

1988	Vertical separation of track infrastructure (Banverket) from operations (SJ)
	Decentralisation of responsibility and resources to regional public transport authorities
1990	First tenders for regional passenger services
1993	First tenders for interregional (long-distance) passenger services
1996	Deregulation of freight services
2001	Separation and corporatisation of SJ's divisions

Swedish railway liberalisation – some milestones (contd.)

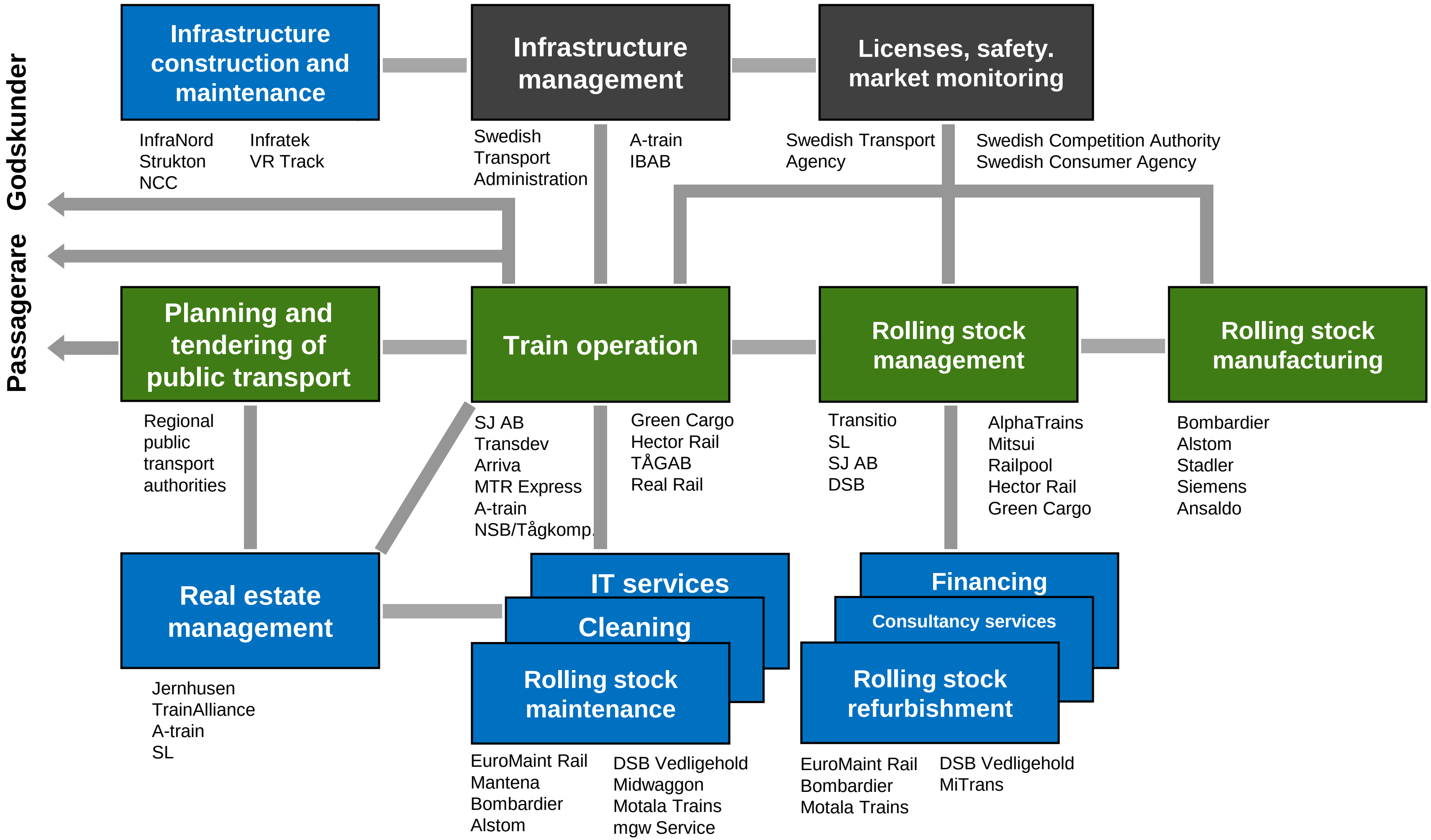
2007	Market opening for night trains and chartered trains
2009	Swedish Transport Agency established, with multi-modal safety and regulatory responsibilities
	Market opening for weekend traffic and international passenger services
2010	Multi-modal infrastructure manager Swedish Transport Administration (Trafikverket) established (merger between Banverket and the Road Administration)
2011	Market opening for domestic passenger services, with full effect from December 2011
2012	New law on public transport (affecting interface between tendered services and commercial services)

Swedish railway market 1988



Source: Ole Kjörrefjord and own development

Swedish railway market 2019



Source: Ole Kjörrefjord and own development

Overview of changes in regulatory structure (rail transport market access)

Part of rail transport market	**1988**	**2019**
Passenger services		
Regional (non-profitable)	SJ holds monopoly and receives subsidies	Procurement by competitive tendering (competition *for* the tracks); since 1990 Open access (competition *on* the tracks); since 2011
Inter-regional (non-profitable)	SJ holds monopoly and receives subsidies	Procurement by competitive tendering (competition *for* the tracks); since 1993 Open access (competition *on* the tracks); since 2011
Inter-regional (profitable)	SJ holds monopoly	Open access (competition *on* the tracks); implemented step-by-step 2009-2011
Freight services	SJ holds monopoly	Open access on all lines (competition *on* the tracks); since 1996

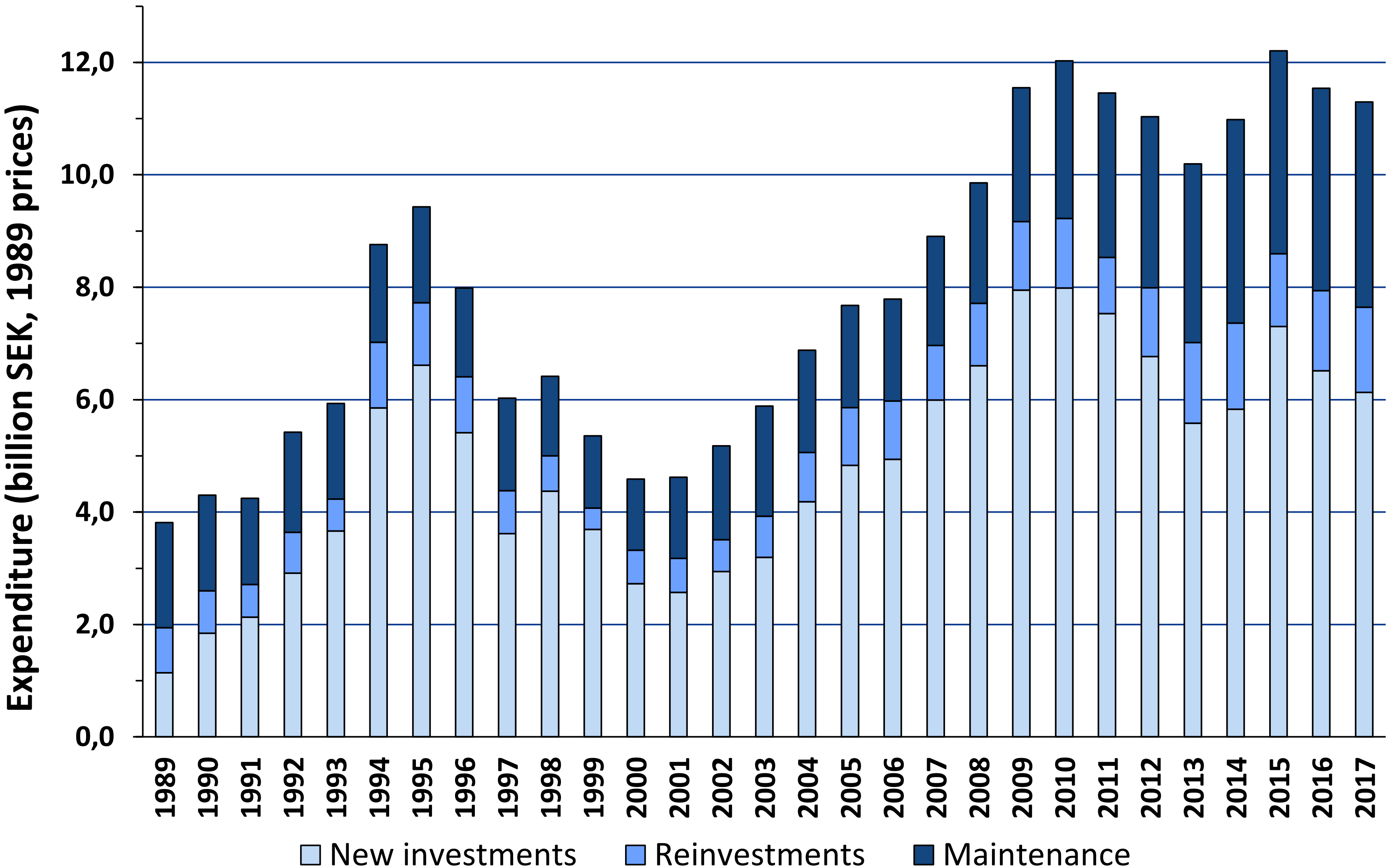
Current organisation of the Swedish railway sector – some characteristics

- Institutional vertical separation between infrastructure and train operations (since 1988)
- Mixed market access models (competition for *and* on the tracks)
- National multi-modal authority Trafikverket (Swedish Transport Administration) is the main (80%) rail infrastructure manager, with strong focus on procurement from external contractors
- Trafikverket also handles the annual path allocation, completely independent of any train operating company
- Train operating companies (and other organisers of train services) apply for paths and pay track access charges
- Decentralised responsibility for regional passenger train services to 21 county public transport agencies (PTAs, controlled by municipalities and counties with their own taxation power)
- Railway stations owned/managed by several different actors; the most important ones by real-estate company Jernhusen

Experience and effects of reforms

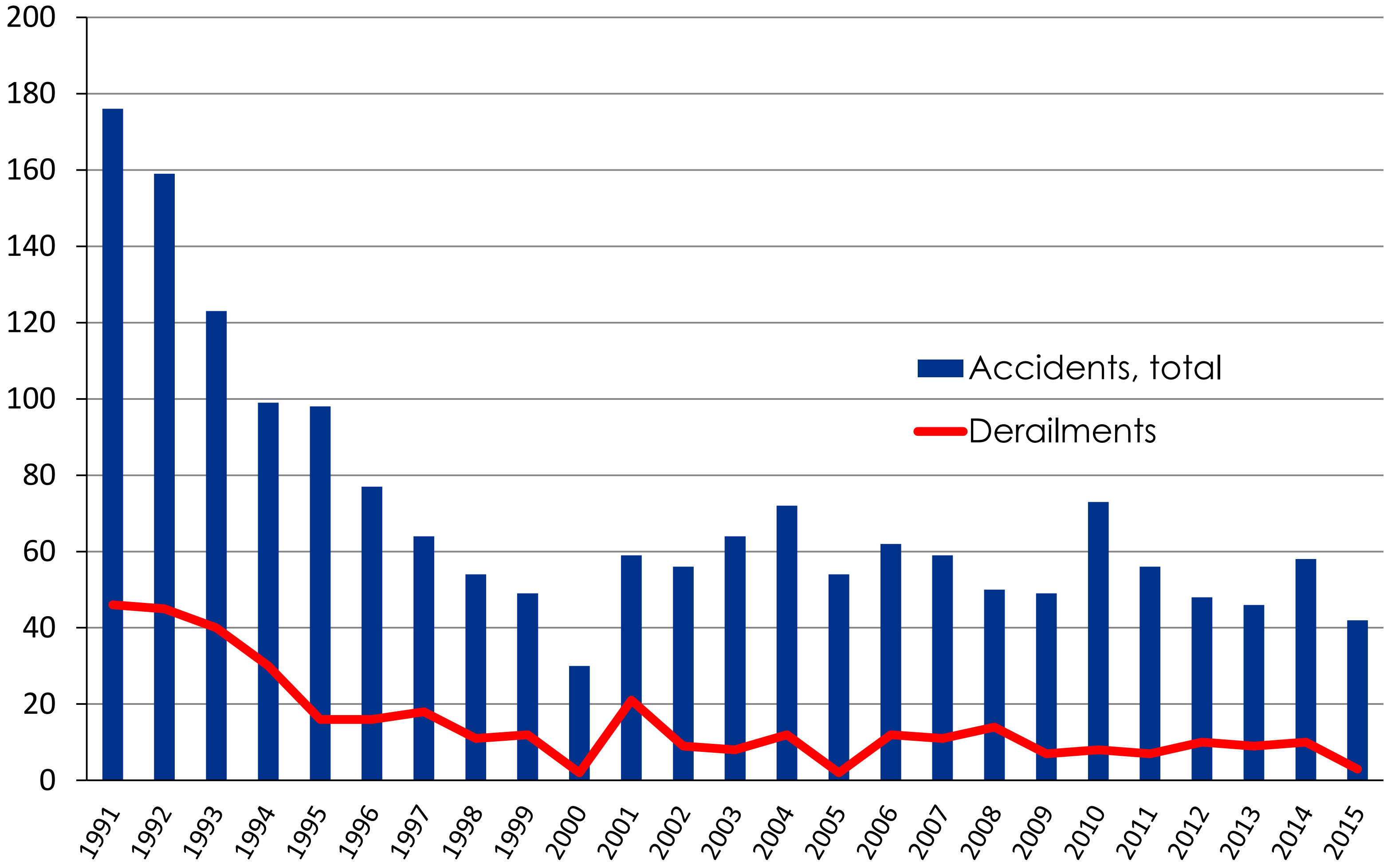
- Increased investments in rail infrastructure and rolling stock
- Strong local and regional commitment to develop the supply of passenger services
- Strong growth in demand
- Improvements in (for example) productivity and safety
- Innovations, new pricing models
- Punctuality a recurrent issue of concern
- In recent years, a decrease in average speed of trains (mainly due to capacity constraints)
- Appearance of several new entrants, reducing the market share of the incumbents
- Tendering leading to reduced need for operating subsidies (initially 10-25%) but also strategic and faulty bids
- Increased supply and falling prices following open access competition

Rail infrastructure investments and maintenance



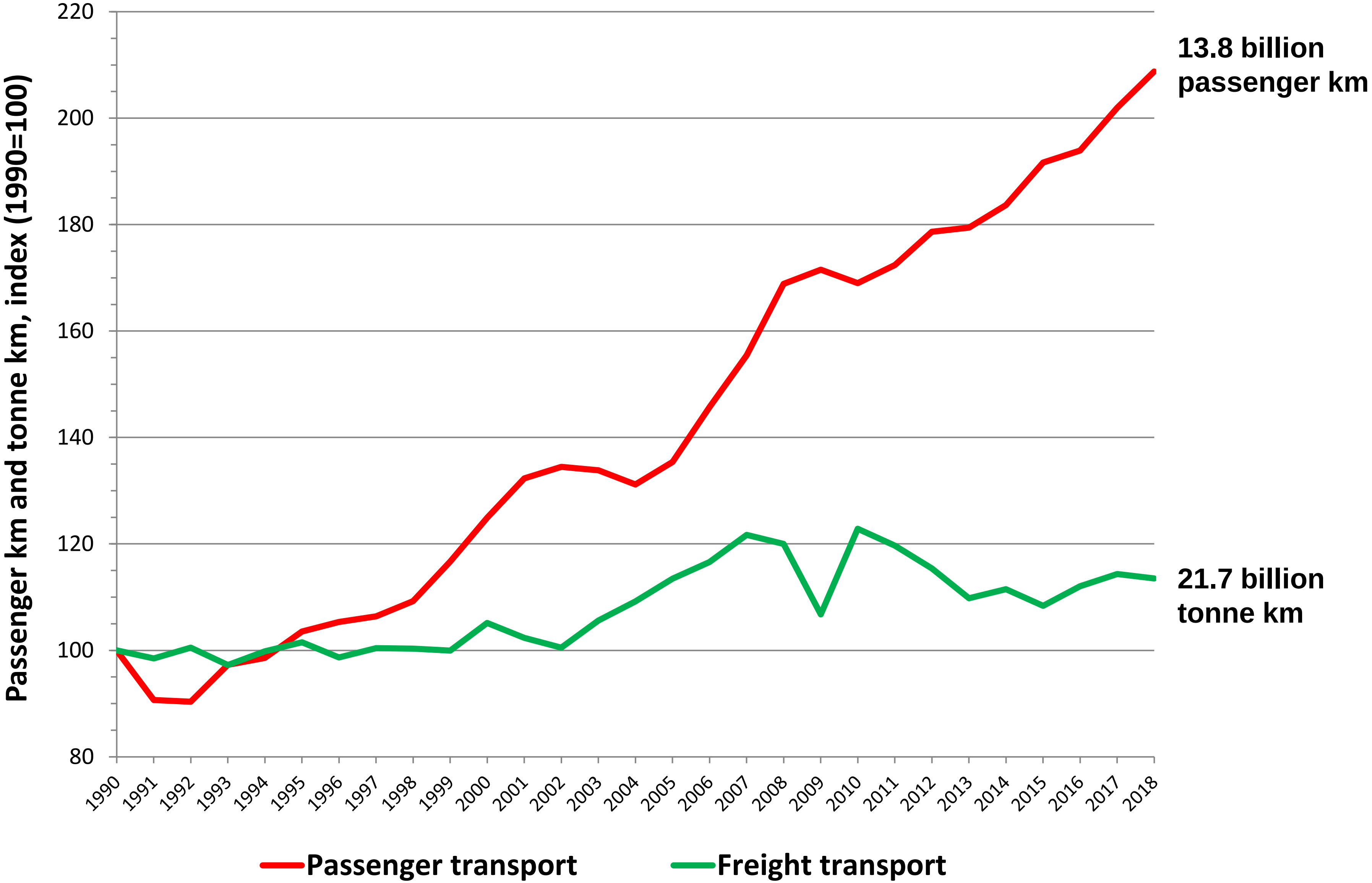
Source: Trafikverket, and own calculations

Safety



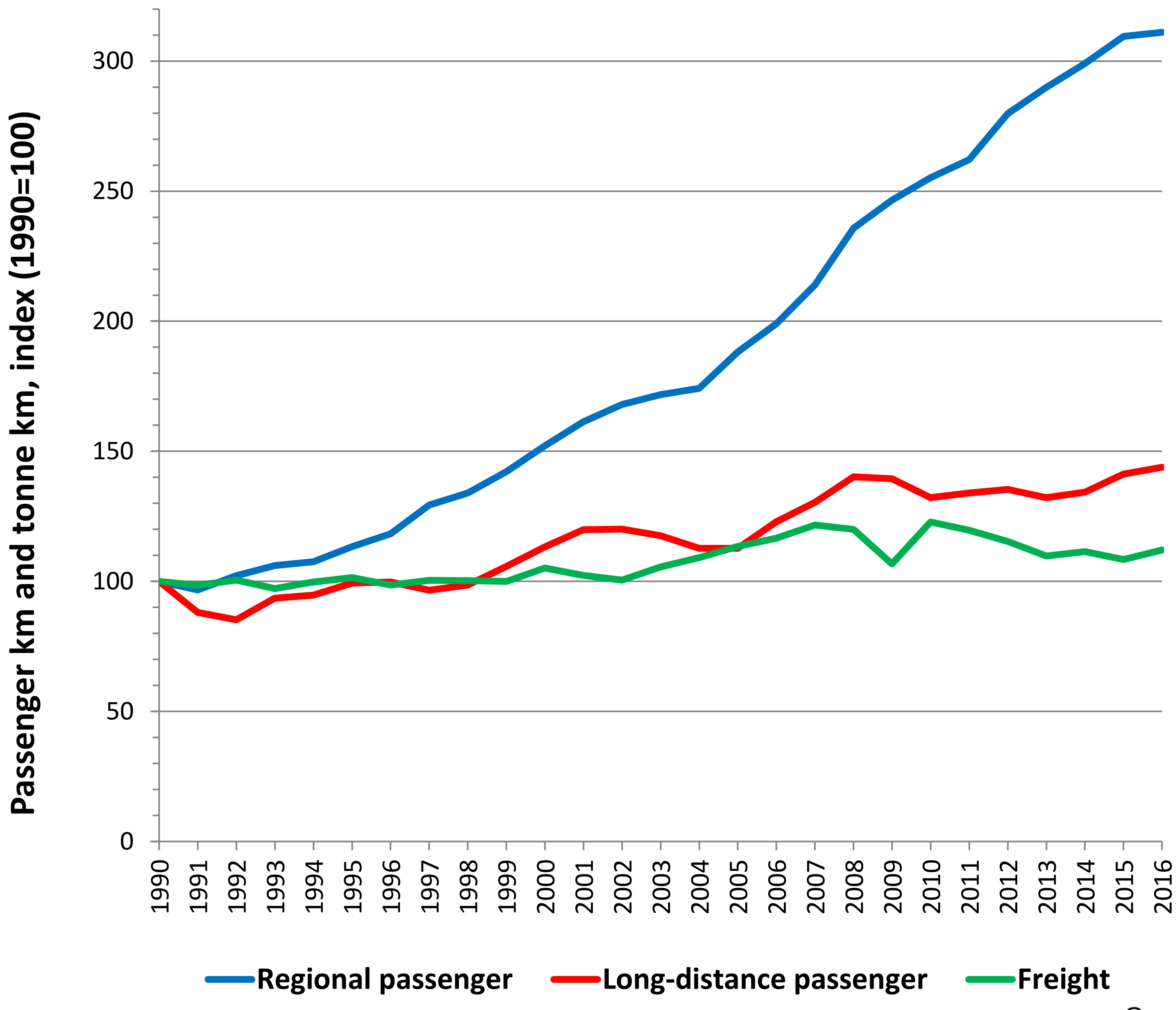
Source: Trafikanalys

Development of demand (1)



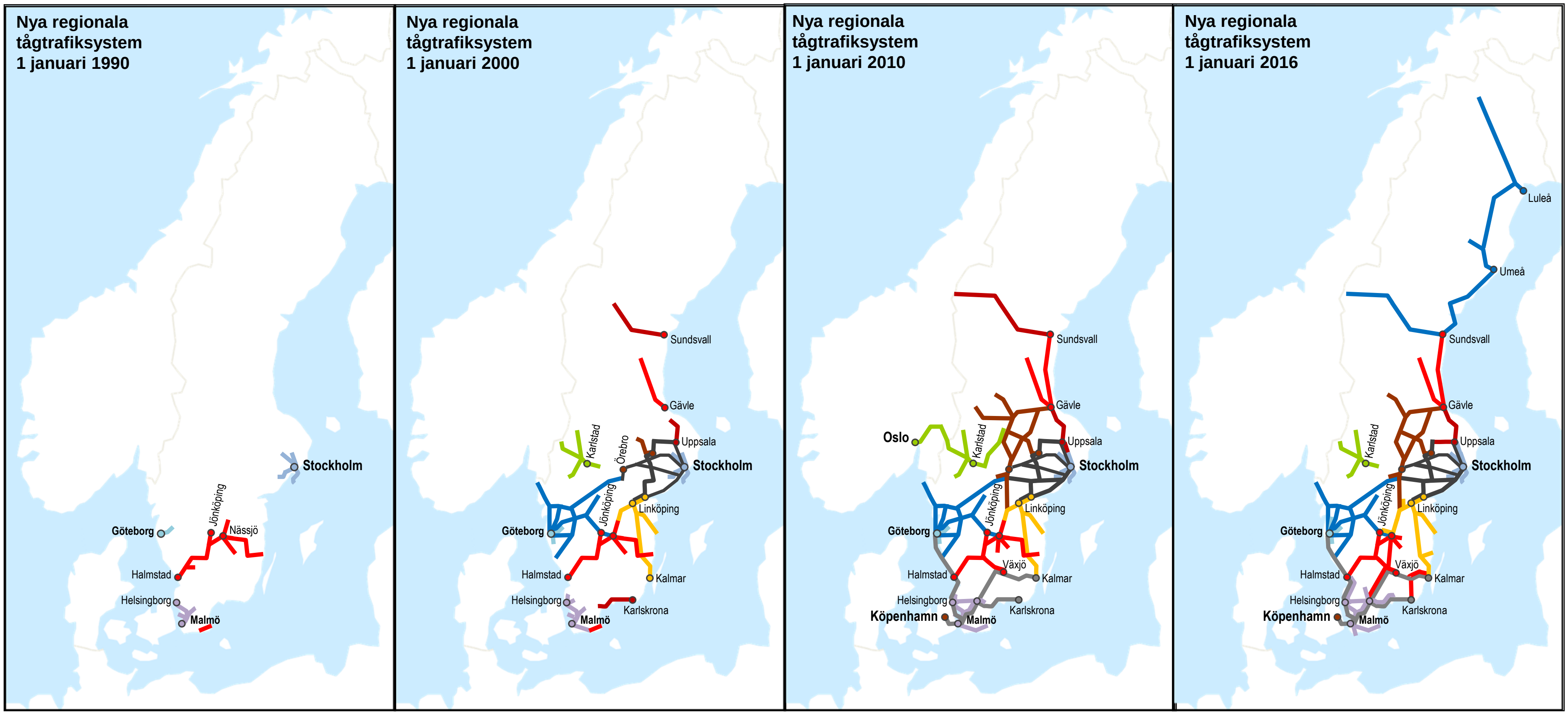
Source: Trafikanalys

Development of demand (2)



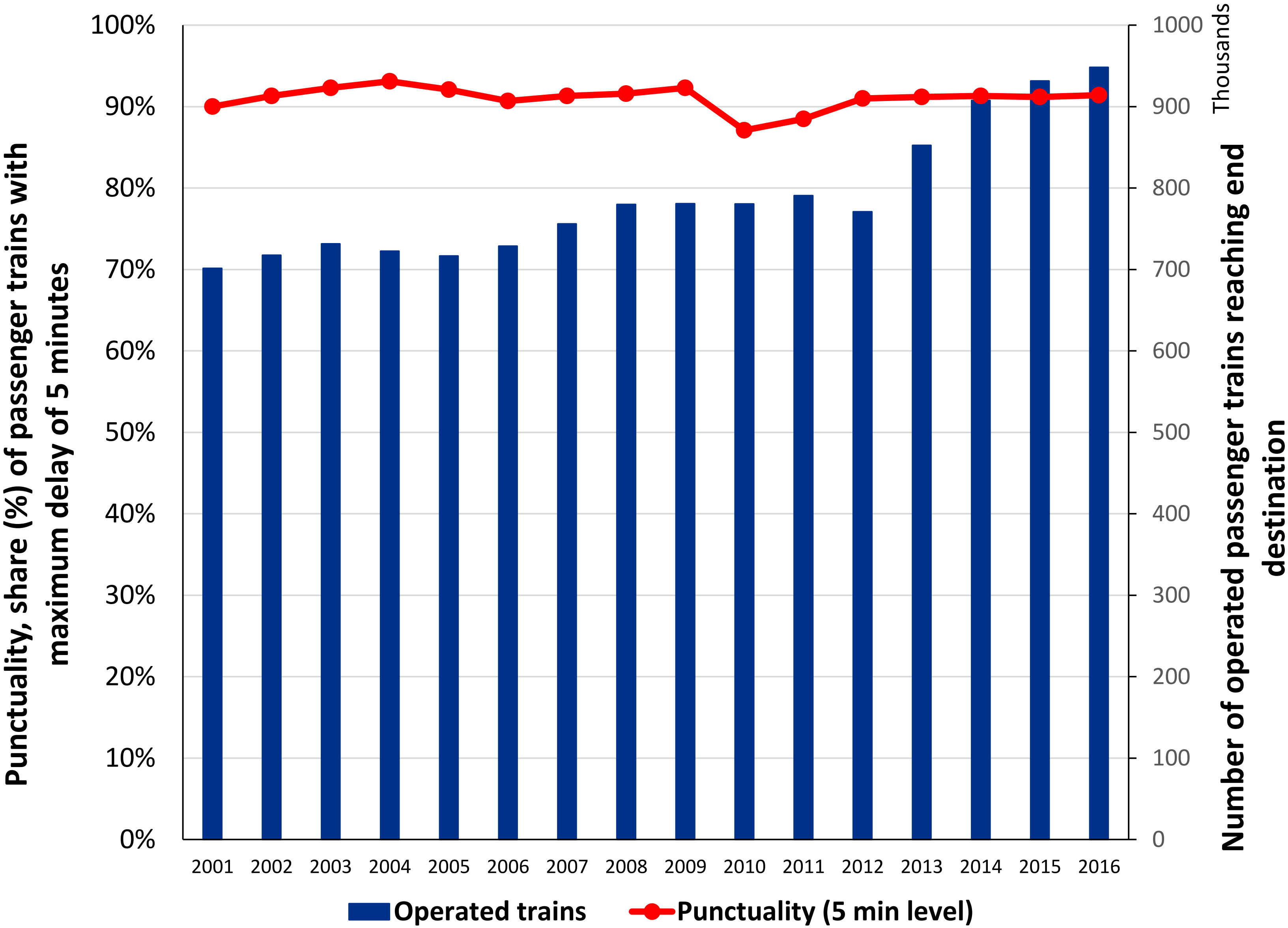
Source: Trafikanalys

Regional train systems 1990-2016



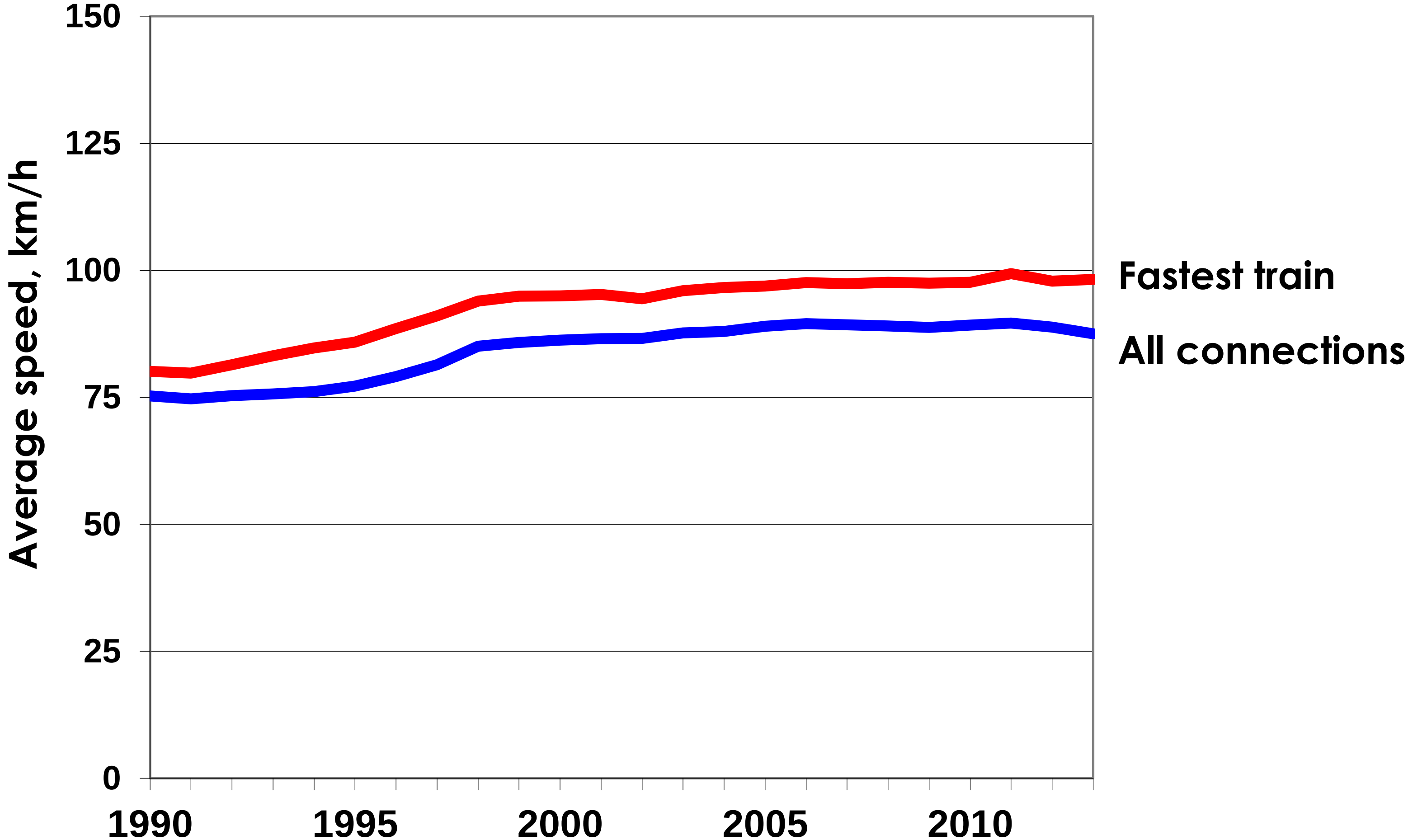
Source: Oskar Fröidh, KTH

Punctuality and operated trains



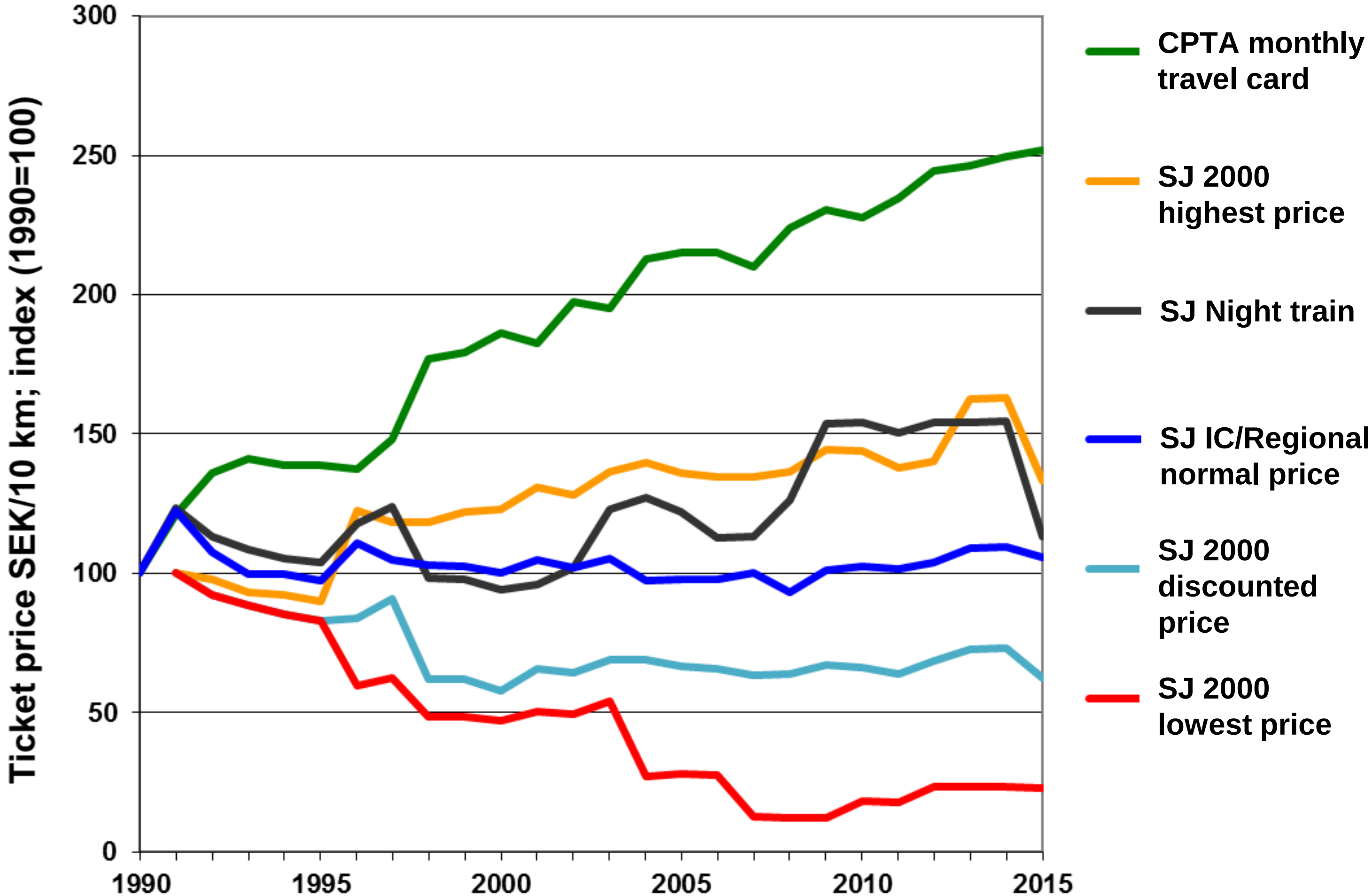
Source: Trafikanalys

Speed of passenger trains



Source: Nelldal et al (2013)

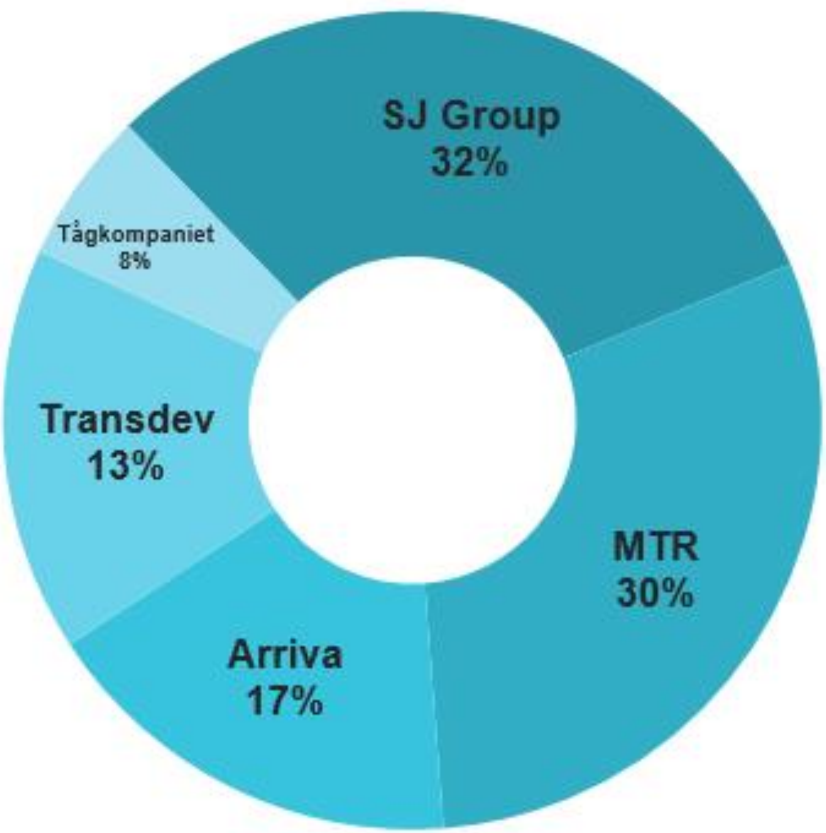
Ticket price development



Source: Nelldal et al (2015)

Market entry in passenger services
Tendered services

Estimated market share within tendered rail services in Sweden, 2018



Competition on the tracks Stockholm-Gothenburg

MTR Express

- 8 departures per day since August 2015
- New non-tilting Flirt trains from Stadler
- Travel time: 3h 30 min
- 1 ticket class and 3 types of flexibility/service level
- On average 25 % cheaper than SJ (March 2015-June 2016)
- Punctuality (July-Sep 2016)
  (5 min): 88%
  (15 min): 95%

SJ

- 18 departures per day
- Refurbished tilting X2 trains from Bombardier
- Travel time: 3h 10 min
- 2 ticket classes and 3 types of flexibility
- Prices falling about 13 %
- Punctuality (July-Sep 2016)
  (5 min): 73 %
  (15 min): 88 %
- 7 % increase in passengers 2016

Conclusions and current issues

- 30 years of reforms in the Swedish railway sector (driven by internal needs and EU legislation) have resulted in a highly vertically and horizontally separated sector and a very open market
- A number of improvements in performance can be seen, but also a fair amount of issues to be handled:
  - Capacity constraints and path allocation
  - Growth of tendered services sometimes at the expense of commercial services
  - Backlog of track infrastructure maintenance
  - Division of roles and responsibilities; cooperation and coordination between actors
  - Information and support to passengers, in particular during disruptions