

A Question of Balance: Finding Equilibrium in a Transformed NdFeB Environment

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Greetings from Alma College



Thanks for inviting Dr. Trout to your conference. It means we won't have class today!

Outline

- The Rare Earths
- What is balance?
- Why should I care about balance?
- How does balance affect me?
- What can I do?
- Conclusions

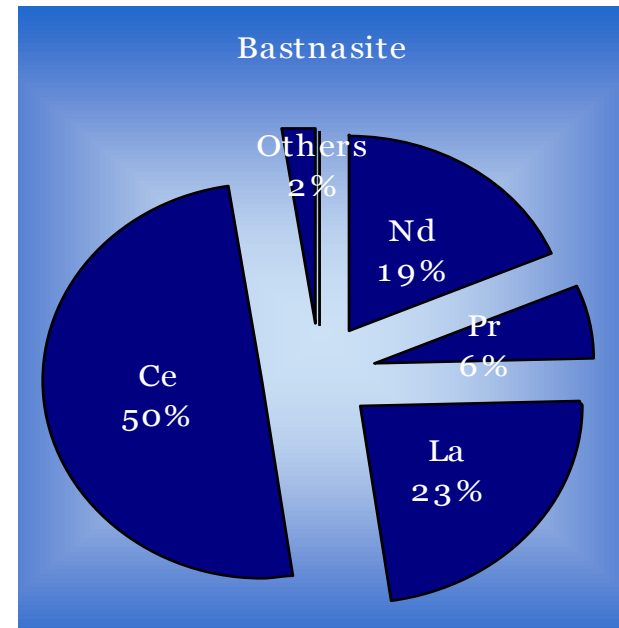
The Rare Earths

		Sc													
		Y													
		La													

Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu

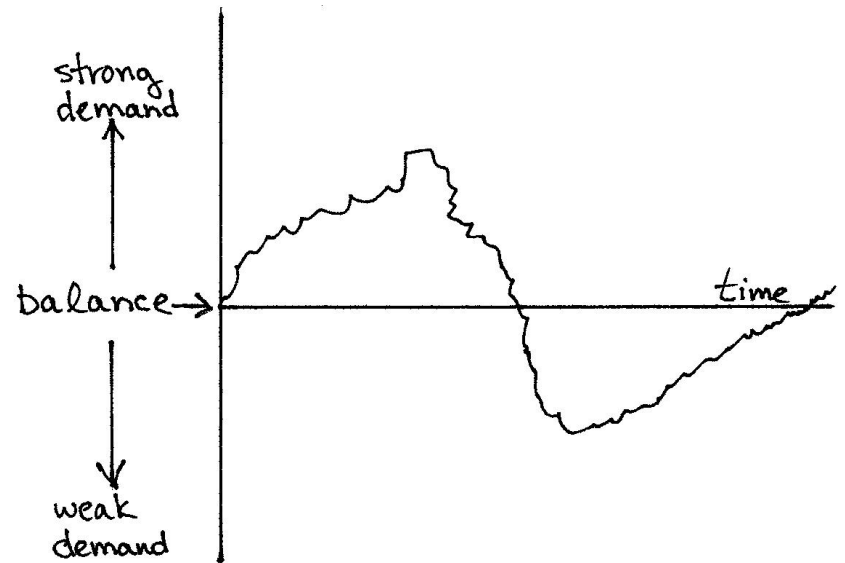
What is balance?

- An imaginary concept
- Supply = demand
- Ore mined = RE's needed



Why should I care about balance?

- Happens occasionally
- Why is it important?



How does balance affect me?

- Rare Earth Suppliers
 - Increases cost of popular RE's, i.e. Nd, Dy
 - For other RE's
 - Surpluses
 - Lower prices
- Magnet Producers & Users
 - Increased prices
 - Potential shortages

What can I do?

- Rare Earth Suppliers
 - Increase or resume production
 - Develop markets for other RE's
 - Invest to become more efficient
- Magnet Producers
 - Try to pass along price increases
 - Decrease waste
 - Recycle

What can I do?

- Magnet Users
 - Try to pass along price increases
 - Wise design, do more with less
 - Recycle, reduce waste
- Everyone
 - Do not panic

Conclusions

- The marketplace is adjusting....slowly
 - Wise use
 - Investment
- Each of us can either help *or* hurt
- Time and patience
- More transparency is needed
- The status quo is transient