Edexcel A - AS Level Economics

Theme 1 – Introduction to Markets and Market Failure

1.4 Government Intervention

Revision Notes

Contents

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1.4.1 Government intervention in markets

Most economies around the world are a **mix** of free markets and government intervention. But why do governments get involved in the first place? Here's the scoop:

Fixing Market Mess-Ups (a.k.a. Market Failure)

- Markets don't always work perfectly. Sometimes, resources aren't used in the best way for society. Firms and people are busy chasing their own goals, so the government steps in to balance things out like controlling how much stuff is made or used.

Collecting Cash for Important Stuff

- Governments need money to fund schools, hospitals, and public services. They earn this cash through taxes or privatising industries. This keeps the system running smoothly.

Making Life Fairer (Promoting Equity)

- Life isn't fair, but governments try to make it a bit better by narrowing the gap between the rich and poor. They use tools like taxes to redistribute wealth, helping those in need while ensuring society stays stable.

Supporting Businesses

- In a global economy, some industries need a little push to stay competitive. Governments back these key players so they don't fall behind, helping the whole economy in the process.

Helping Struggling Households

- Poverty doesn't just hurt individuals; it drags down the economy too. Governments aim to reduce poverty by redistributing income and offering safety nets, like benefits, to keep things moving forward.

1.4.1 Government intervention in markets

Common Tools Governments Use

To step in, governments often rely on methods like:

- **Taxes** to influence prices
- **Subsidies** to encourage production or consumption
- **Maximum prices** to make goods affordable
- **Minimum prices** to ensure fair wages or incomes

1.4.1 Government intervention in markets

Indirect Taxation

A tax is a mandatory charge by the government to raise revenue to fund public services and programs. There are two main types: direct and indirect taxes.

Direct taxes are taken directly from individuals or organizations, usually on income. Examples include personal income tax and corporation tax (on company profits).

Indirect taxes are applied to goods and services when purchased, essentially taxing spending. These come in two forms:

- **Specific tax**: A fixed amount per unit, like £0.50 sugar tax on a bottle of fizzy drink or £1 on every litre of petrol.
- **Ad valorem tax**: A percentage of a good's price, like a 20% VAT on clothes.

When an indirect tax is introduced, it increases the price of goods or services. This tax creates a gap between what producers earn and what consumers pay. This shifts the supply curve upward and left (decreasing supply).

1.4.1 Government intervention in markets

Indirect Taxation

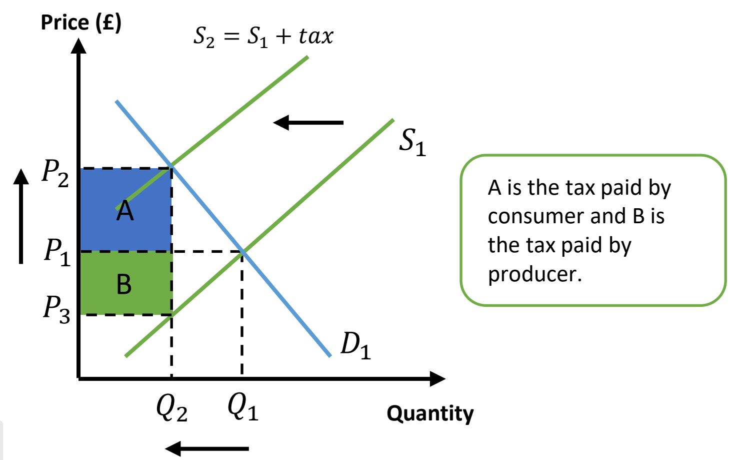


Diagram Breakdown:

1. **Before the Tax:**
   The market starts at equilibrium (P_1, Q_1). No stress, just balance.
2. **After the Tax Hits:**
   - The supply curve shifts up from S_1 to $S_1 + tax$.
   - Prices rise (P_1 to P_2), and fewer goods are bought (Q_1 to Q_2).
3. **Who Pays What?**
   1. **Consumers** pay the chunk marked "A" (higher prices).
   2. **Producers** lose part of their revenue, marked "B".

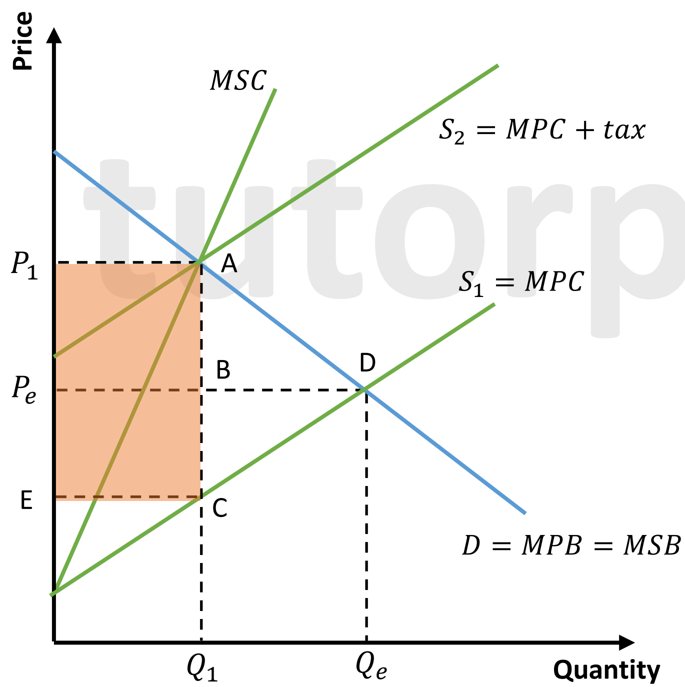
The government, meanwhile, happily pockets the sum of A and B as tax revenue.

1.4.1 Government intervention in markets

Indirect Taxation

How Taxes Fix Negative Externalities

- When a product or activity causes harm to others (a negative externality), the government can step in with an indirect tax to fix the problem. This tax makes production more expensive for businesses, shifting the supply curve (or the Marginal Private Cost, MPC curve) from **S1** to **S2**.



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Indirect Taxation

What's the Issue?

- Without intervention, the free market produces at **PeQe**, where **MPC = MPB** (Marginal Private Benefit). But here's the problem: at this point, the harm caused to society (**Marginal Social Cost, MSC**) is greater than the benefit. The **socially optimal level** is actually at **P1Q1**, where **MSB = MSC** (Marginal Social Benefit = Marginal Social Cost).

How Does the Tax Work?

- By introducing a tax, the government forces businesses to "internalise" the external cost (like pollution or noise). This shifts the market to **P1Q1**, which is better for everyone. It reduces overproduction and cuts down on the harm caused to society. 🎉

Bonus: Government Revenue 💰

- The orange rectangle in the diagram shows the revenue raised by the government from this tax. This money could be used to fix the damage caused by the externality (like funding clean-up projects or public health campaigns).

- The tax is shared between producers and consumers based on demand and supply elasticities. Consumers pay the red area; producers pay the blue area.

Specific vs Ad Valorem Taxes

- This example uses a **specific tax**, which adds a fixed cost per unit. An **ad valorem tax** (a percentage-based tax) would also work, but the curve would shift slightly differently.

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Indirect Taxation

Advantages

- **Solves Problems:** Taxes fix externalities by making markets operate at the socially optimal level, reducing harm like pollution.
- **Generates Revenue:** Taxes fund public services like healthcare, education, and recycling programmes.
- **Adaptable:** Governments can adjust taxes based on the level of harm (e.g. higher taxes on coal than bread).

Disadvantages

- **Hard to Measure:** It's tricky to calculate the exact harm and set the right tax.
- **Black Markets:** High taxes can lead to illegal trade, like untaxed alcohol or fuel.
- **Limited Effect on Necessities:** Inelastic goods like fuel won't see much demand reduction despite high taxes.
- **Hits the Poor Harder:** Lower-income groups spend more of their income on taxed basics like energy or fuel.
- **Conflicting Goals:** Governments may focus on revenue over fixing the externality.
- **Costly to Enforce:** Collecting and monitoring taxes can be expensive, especially for small or informal markets.

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Indirect Taxation

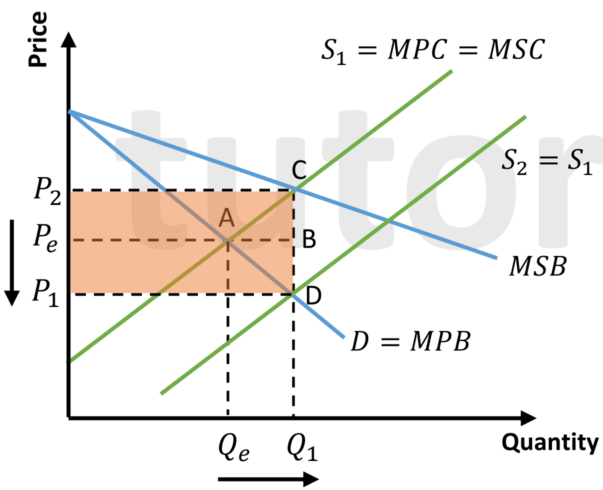
Examples:

- **Plastic Tax:** Reduces waste by encouraging reusable bags and biodegradable materials.
- **Congestion Charges:** Cuts traffic and funds public transport.
- **Water Taxes:** Discourages wasteful water use and funds conservation efforts.

Subsidies

A subsidy is financial support, often from the government, to help businesses produce more. For example, farmers may get subsidies to grow more crops, which increases supply and lowers food prices. This benefits both producers and consumers, making goods cheaper and more accessible.

When the government gives a subsidy, it shifts the supply curve. This helps increase the quantity and lowers the price for consumers.



Without help, the market produces at QePe, where private costs and benefits (MPC = MPB) balance out. But society's ideal spot is at Q1P2, where social costs and benefits (MSC = MSB) align. A subsidy shifts the supply curve to the right (from S1 to S2), making it cheaper for producers to create more and reach that socially optimal output.

1.4.1 Government intervention in markets

Subsidies

The result? Social welfare is maximised. The market now produces at a level that benefits everyone, with government spending (the orange box in the diagram [P2CBP1]). Think of it as the government stepping in to make sure resources are used where they do the most good.

Part of the subsidy is passed on to consumers equal to the area PeBDP1 and the other portion of the subsidy (P2CBPe) remains with the producer.

Advantages of subsidies:

- **Boosts society's benefits**: Subsidies help reach the ideal output, where everyone benefits and welfare is at its best.
- **Promotes fairness**: Subsidies can level the playing field, helping smaller farms or struggling renewable energy projects.

Disadvantages of subsidies:

- **Expensive for governments**: Subsidies cost a lot and can divert money from other crucial areas like healthcare or education.
- **Hard to target perfectly**: Governments may not always know the right amount of subsidy needed to fix the problem (e.g., how much support clean water projects need).
- **Difficult to stop**: Once subsidies are in place, removing them can lead to backlash, like protests or companies struggling to survive without support.

Subsidies can support public transport to cut traffic and pollution, boost AI tech startups for better healthcare, and fund affordable housing projects.

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1.4.1 Government intervention in markets

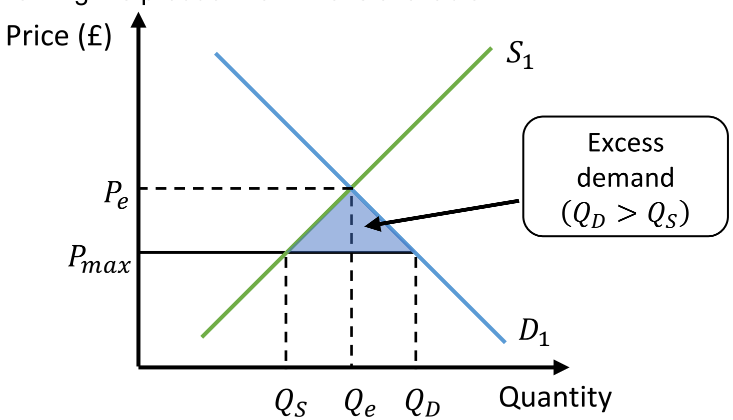
Maximum Prices

A **maximum price**, also known as a **price cap**, is like a rulebook move from the government to make certain essential goods or services more affordable for everyone. This price cap is set **below** the free market price (Pmax < Pe), ensuring that suppliers can't overcharge. But it creates a bit of chaos in the form of **excess demand** (or a shortage). Why? Because at this lower price, more people want the good (QD), but fewer suppliers are willing to provide it (QS).

For example: the government can cap rents to make housing affordable. By capping rents, more people can afford homes. However, some landlords might pull out of the market, leading to a **housing shortage**. Another example could be **fuel caps during a crisis** to ensure people can still fill their cars without going broke.

In the graph:

- The free-market equilibrium is at Pe and Qe.
- The **maximum price (Pmax)** reduces the price but creates a gap between QS (what's supplied) and QD (what's demanded).
- That shaded triangle? It's the **excess demand** showing more people wanting the product than what's available.



1.4.1 Government intervention in markets

Minimum Prices

A **minimum price** is like a safety net set by the government to stop prices from falling too low. It's usually done to either help producers or reduce the consumption of harmful goods (like alcohol). For it to work, the minimum price has to be **above** the current market price, so sellers can't legally charge anything less.

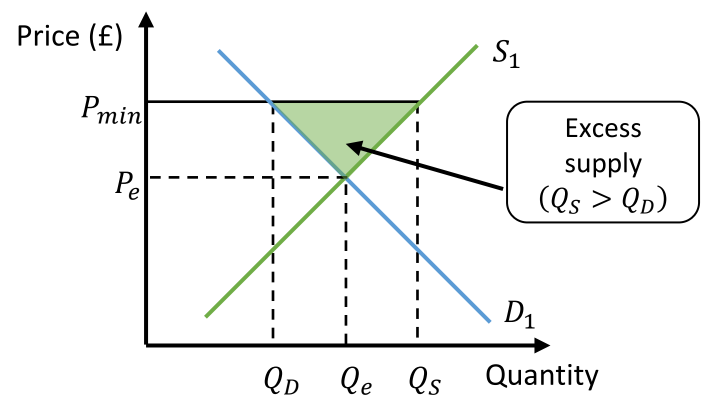
Imagine this: the government sets a **minimum price on milk** to support farmers. The new price is higher than the market price, so farmers make more money. However, now there's **excess supply,** the farmers are producing more (QS), but shoppers only want less (QD). This creates a surplus, shown in the diagrams as the **orange triangle** (QS - QD).

Another example could be **minimum wages**. It ensures workers earn a fair amount, but if the wage is set too high, businesses might not hire as many people, leading to unemployment (excess supply of workers).

Government response to **minimum prices:**

Agriculture: Farmers benefit as they earn more. The government buys the extra supply and may **export it** or store it for later.

Demerit goods (e.g., alcohol): Producers face lower demand and excess supply. The government **doesn't buy the surplus**, so producers cut back on production.



Pros and Cons of Maximum and Minimum Prices

Advantages:

1. **Helps society and fairness:** Prices can be set where the social benefit equals the social cost (MSB = MSC). This means everyone benefits, and society's well-being improves.
    - **Example:** Minimum wages can reduce poverty by ensuring workers earn a fair income.
2. **Improves access and equity:** Maximum prices make essential goods like food or housing affordable, while minimum prices ensure farmers or producers get paid fairly.
    - **Example:** Rent controls can help people afford housing in expensive cities.

Disadvantages:

1. **Messes up supply and demand:** Maximum prices can cause shortages (too many people want it, but there's not enough to go around). Minimum prices can cause surpluses (too much is produced, but not enough buyers).
    - **Example:** With rent caps, more people want homes, but fewer landlords want to rent them out, creating a housing shortage.
2. **Hard for governments to get it right:** It's tricky to decide where to set these prices. If they're set too high or too low, they can miss the mark and create unintended problems.
    - **Example:** Misjudging a minimum price for crops could leave tons of unsold food.

1.4.1 Government intervention in markets

Buffer Stock Scheme: Keeping Prices Steady

A **buffer stock scheme** is like a safety net for prices, used for goods like agricultural products where prices can swing wildly. Here the government implements both a maximum and minimum price at the same time. Imagine wheat farmers: some years they grow too much, and prices crash; other years, there's barely any, and prices skyrocket. A buffer stock scheme helps keep things balanced.

Here's how it works:

- **When prices drop below a set minimum**, the government steps in to buy the extra supply. This stops prices from falling too low.
- **When prices shoot above a set maximum**, the government sells from its stored stock to bring prices back down.

This keeps prices stable and ensures farmers earn a steady income, but it comes with challenges:

- **High costs for the government:** Buying and storing all that extra produce isn't cheap.
- **Encourages overproduction:** Farmers might grow too much, knowing the government will always buy it.

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Other methods of government intervention

1. Pollution Permits: Pay to Pollute Less

Governments give out “pollution tickets” to factories, letting them release a set amount of pollution. Want to pollute more? Buy extra tickets from cleaner companies. This helps reduce **negative externalities** of production and also makes pollution expensive, so firms invest in cleaner technology. Bonus: Cleaner companies can sell their extra tickets and earn money.

Advantages of pollution permits

- **Revenue for the government**: Selling permits and fining companies brings in money, which can be spent on projects like renewable energy or tree planting.
- **Pollution is guaranteed to drop**: By limiting the number of permits, the government makes sure pollution stays under control.
- **Tech gets greener**: Companies are motivated to upgrade to cleaner technologies. Because it's often cheaper than buying more permits.

Disadvantages of pollution permits

- **Prices might go up**: Businesses often pass on the extra costs of permits to customers.
- **Costs a fortune to monitor**: Keeping an eye on who’s polluting and enforcing rules takes a lot of effort (and cash).
- **Tricky to set the right number**: Deciding how many permits to allow isn’t easy. Too many, and pollution won’t drop. Too few, and businesses struggle.

1.4.1 Government intervention in markets

Other methods of government intervention

2. Public Goods: Stuff Everyone Uses

Think parks, streetlights, and lighthouses, things we all enjoy but no business wants to provide because they can’t stop people from using them for free (free rider problem). That’s where the government comes in, using taxes to make sure we get these essentials.

Advantages of public goods

- **Promotes equality**: By ensuring everyone has access to basic needs like education or clean water, the government helps bridge the gap between the rich and poor.
- **Fixes market failure**: The government steps in to provide essential goods (like fire services or vaccines) that the market would otherwise ignore. This boosts social welfare and keeps things running smoothly.
- **Benefits the public**: For example, funding public libraries gives people free access to knowledge, helping students, jobseekers, and lifelong learners thrive.

Disadvantages of public goods

- **Could mess up priorities**: Without market signals, governments might overspend on unnecessary things. Imagine too many sports stadiums but no public toilets.
- **It’s expensive**: Running big public projects costs loads of money, which could’ve been spent elsewhere (this is what economists call "high opportunity cost"). Plus, admin costs can pile up.
- **Corruption risk**: Politicians and officials might prioritise their own interests or conflicting goals, leading to misuse of funds or poor decisions.

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1.4.1 Government intervention in markets

Other methods of government intervention

3. Provision of information

Sometimes, markets fail because not everyone has the same information, this is called an **information gap**. To fix this, governments step in with easy-to-access resources (like job centres) or force companies to provide the information e.g., nutritional labels.

Advantages

- It helps people make **smarter choices.** With better information, consumers can act **rationally**, making the market run smoother.
- It works even better when paired with other policies. For example, combining it with taxes can help reduce demand for harmful products like sugary drinks in the long run.

Disadvantages

- Even the **government might not know everything;** if they don't have the right facts, how can they inform others?
- It's **not cheap**. Running campaigns, creating websites, or printing labels costs the government time and money (which could've been used elsewhere).
- People can be stubborn. Even with all the information, some might just **ignore it** or stick to old habits.

1.4.1 Government intervention in markets

Other methods of government intervention

4. Regulation

Governments set up rules to protect us all from the harm caused by **negative externalities** (like noise pollution or unsafe products). Here's how they make sure these rules are followed:

They create **regulatory agencies** to enforce the rules and keep everything in order. If someone breaks the rules? They might face **fines** or even **jail time**.

Examples of regulators:

- **Food Standards Agency**: Ensuring the food you eat is safe and up to standard.
- **Ofsted**: Ensuring schools and nurseries are up to standard.
- **The Financial Conduct Authority (FCA)**: Watching over banks, investments, and insurance to protect consumers.

Advantages

- **Protects Consumers**: Clear rules keep consumers informed and safe from shady practices. Think food safety standards or workplace regulations.
- **Tackles Market Failures**: Regulations make sure businesses consider externalities (like pollution) and stop consumers from being taken advantage of.

Disadvantages

- **It's Costly**: Monitoring and enforcing laws can drain government funds, leaving less for other priorities (opportunity cost alert!).
- **One Size Doesn't Fit All**: Different companies have different needs, and blanket rules don't always work.
- **Higher Prices**: Businesses might pass their added costs (from following regulations) onto you, the consumer.
- **Stifles Innovation**: Too many rules can create red tape, discouraging new ideas or competition in industries.

1.4.2 Government failure

Government failure happens when the government tries to fix a problem in the market (like market failure) but ends up making things worse. Instead of helping, their intervention causes **more harm** by wasting resources and creating a **net welfare loss**.

- **Bigger Welfare Loss**: The "fix" backfires, leaving society worse off.
- **Poor Value for Money**: Taxpayer money goes down the drain without achieving much.
- **Lasting Consequences**: The damage could take years to undo, affecting the economy and people's lives.

Causes of government failure

Governments step in to fix markets, but sometimes their "solutions" make things worse. Let's explore how:

1. Distorting Price Signals

Governments sometimes send the wrong message with their price controls:

- **Example 1: Agricultural Markets**
  A minimum price on crops? Sounds great – except farmers grow too much, and the extra goes to waste.
- **Example 2: Housing Markets**
  A **minimum price** for rent to protect landlords might sound nice. But it could lead to landlords holding onto empty properties, leaving fewer homes available for renters.

💡 **Takeaway**: Interventions can accidentally create waste, shortages, or overproduction.

1.4.2 Government failure

Causes of government failure

2. Unintended Consequences

People are clever and always aim to maximise their self interest. When governments step in, producers and consumers find ways around the system. Instead of solving issues, interventions can fuel unintended chaos. For example, **loopholes** or even create **illegal markets** (think black markets for banned goods).

3. Excessive Administrative Costs: It's Expensive.

Running these schemes isn't cheap:

- Managing all the rules and regulations costs **a lot of money.**
- Sometimes, the expense of running these programmes outweighs the benefits they bring. Imagine spending £10 to save £5.

4. Information Gaps: Nobody's Perfect

Governments aren't perfect. They:

- Lack **perfect information** (just like the rest of us).
- Face **political pressure** to please everyone.
- Make decisions based on **flawed data**, which leads to bad calls.

1.4.2 Government failure

Government failure in various markets

Clean Air Zones – Great Idea, Poor Execution

- To reduce air pollution, clean air zones were introduced in cities, charging high-polluting vehicles to enter. While it improved air quality, small businesses relying on older vans faced skyrocketing costs. Many had to close down or relocate, defeating the purpose of supporting local economies.

Rail Privatisation – Derailing Expectations

- The UK privatised its rail network to improve efficiency, but ticket prices soared, and delays became more common. Commuters faced **record-high fares**, while service quality declined. Instead of competition improving things, it left the public paying more for less.

Sugar Tax – A Bittersweet Solution

- The sugar tax was introduced to combat obesity by increasing prices of sugary drinks. While consumption fell slightly, people shifted to **cheaper high-calorie snacks**, which didn't solve the health issue. Worse, some lower-income families found themselves paying more for their usual groceries.

Housing Crisis – The Rent Control Dilemma

- Rent caps were introduced in some cities to make housing affordable. Sounds great, right? But landlords withdrew properties from the rental market, creating a **shortage of homes**. Tenants ended up competing for fewer properties, leaving many struggling to find a place to live.

1.4.2 Government failure

Government failure in various markets

Failed Tech Projects – Money Down the Drain

1. **Track and Trace App**: The UK government spent millions on a COVID-19 contact tracing app that barely worked and wasn't even compatible with all smartphones.

2. **Universal Credit System**: A welfare reform programme aimed at simplifying benefits turned into a nightmare. Delays in payments caused hardship for vulnerable families, and the costs of rolling it out spiralled out of control.

Please see the '1.4 Government Intervention Worked Examples' pack for exam style questions.

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