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A Monetary Fact Should Survive Its Conversion

A proposal for preserving reported monetary amounts, historical conversion context and provenance in digital journalism.

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Why digital journalism should separate the reported amount from the way it is made readable

In March 2001, *The Guardian* reported that Japan had introduced more than a dozen stimulus packages totalling more than **111 trillion yen**. For British readers, it added a useful translation: **£653 billion**.

Nothing is obviously wrong with that sentence.

The yen figure is the reported amount. The pound figure helps a British reader understand its scale.

More than twenty-five years later, the article is still online.

The original amount remains 111 trillion yen. The relationship between yen and pounds does not.

That does not make the old conversion wrong. It makes it historical.

The useful distinction is simple: **the monetary fact and the reader-facing conversion are not the same thing.**

Digital journalism should preserve that distinction.

Journalism already knows conversion matters

This is not a proposal to teach journalists what exchange rates are.

News organisations have long converted foreign currencies for readers. Harvard Law School's editorial guide, which says it follows AP Stylebook guidelines with minor local modifications, describes currency conversion as necessary when foreign amounts need to be made intelligible to readers. It also warns against converting non-current amounts because exchange rates change over time.

That is sensible editorial practice.

There is prior work on making the conversion itself dynamic, too. In 2017, the digital lab at the Swiss newspaper *Le Temps* sketched a journalistic markup language that could display an amount in `reader.currency`. Its author explicitly noted that the calculation should use the exchange rate at publication time, while acknowledging that this could distort the information as rates changed later.

That earlier proposal gets very close to the problem here.

The remaining question is what the publishing system should preserve underneath the rendered sentence.

A conventional article usually preserves the converted number in prose. It does not necessarily preserve, as a first-class editorial object, the date, rate source and method that produced it.

The number survives. The logic behind the number may not.

Preserve the fact first

A monetary statement can be thought of as two layers.

The first is what the reporting establishes:

- the amount;
- the original currency;
- the date or period the amount belongs to, when known;
- the source.

That is the reported monetary fact.

The second layer is a representation made for a reader:

- pounds for a British audience;
- kroner for a Danish audience;
- dollars for another publication;
- perhaps no conversion at all.

The conversion should help explain the fact. It should not replace it.

A publication could preserve the original amount once and derive a reader-facing representation from it. The historical conversion actually used by the publication could remain fixed and reproducible, while other representations could be offered separately.

The reporting stays stable. The representation can change.

Money has a date

An exchange rate belongs to a time.

The relevant time is not always the publication date.

If a story concerns an acquisition, the transaction or valuation date may matter. A contract may have a different relevant date. An annual budget may require a period method rather than a single daily rate.

Sometimes the correct date is unknown.

Unknown should remain a legitimate state.

A system that can fetch a rate automatically should not be allowed to invent the meaning of the number automatically.

The arithmetic is mechanical.

Choosing what the amount refers to is journalism.

Sometimes there is more than one rate

Argentina shows why this matters.

In July 2024, Reuters reported three materially different peso-dollar rates at the same time: an official rate of **919.5 pesos per dollar**, a financial-market CCL rate of **1,416.2**, and an informal “blue” rate of **1,500**.

A converter can take “Argentine pesos” and a date and still produce a misleading answer if it silently chooses the wrong exchange-rate regime.

So a responsible system needs an escape hatch.

If more than one rate is materially plausible, the publication should identify the rate it chose and why — or not convert automatically.

A precise number is not automatically a meaningful number.

Store more than you show

There is an obvious danger in solving this problem badly.

An article would become less readable if every amount expanded into a wall of metadata.

Research gives a reason to contextualise numbers, but also a reason to be restrained. Three randomized online experiments involving more than 3,200 participants found that useful numerical “perspectives” improved readers' recall of measurements, estimation of unfamiliar quantities and detection of manipulated numerical errors. A separate study of 3,135 UK online news consumers found automated data-driven stories were perceived as less comprehensible; readers' evaluations of numerical features were among the factors explaining that gap, and the authors recommended reducing the quantity of numbers when post-editing automated stories.

The design lesson is:

> **Store more than you show.**

The article might simply display:

111 trillion yen (≈ £653bn at the relevant 2001 exchange-rate context)

The underlying record can preserve which rate was used, when it was observed and where it came from.

Most readers do not need all of that in the sentence.

They may still need the publication to have it.

"What is that today?" is a different question

A reader returning to an old article may also want to know what the same nominal amount converts to at a current exchange rate.

That can be useful, but it should be optional and labelled carefully.

A current nominal FX conversion is not the same as an inflation-adjusted value, a purchasing-power comparison or a measure of economic significance.

Those questions require different methods.

This is technically ordinary

The mechanics are already available.

Frankfurter, an open-source exchange-rate service, exposes current and historical rates programmatically and can filter by named data providers. The European Central Bank likewise provides programmatic access to exchange-rate time series through its SDMX web services.

So the difficult part is not multiplication.

It is editorial workflow.

Someone still has to identify the relevant date, recognise unusual exchange-rate regimes, decide whether a conversion is useful and preserve the rate context actually used.

That cost is real.

The proposal therefore should not apply to every casual mention of money. It makes the most sense when the amount matters enough that misunderstanding its scale would weaken the story.

For historical reporting, the publication should preserve the historical conversion it actually used rather than silently recalculating it forever. A current conversion, if offered, can remain a separate live view.

Implementation status at Hedegreen Research

The standard described here is a proposal, not a description of a deployed article feature.

Hedegreen Research is currently building and testing a local currency engine and the **Readable Money** reference tool. The article-level monetary-fact integration described here is not yet deployed, and the exact reader interface remains subject to testing.

Five principles for a readable monetary fact

When a foreign monetary amount matters to understanding a digital news story:

1. **Preserve the original.** Keep the reported amount, currency, relevant date or period, and provenance. 2. **Separate fact from conversion.** A reader-currency value is a derived representation, not a replacement fact. 3. **Make the conversion reproducible.** Record the rate source, date and method actually used. 4. **Do not hide ambiguity.** If several exchange-rate regimes are materially plausible, identify the choice or do not convert automatically. 5. **Show only what helps.** Keep the article readable while making richer context inspectable when needed.

This is not a requirement to convert every foreign amount.

It is a proposal not to throw away the structure needed to make a responsible conversion reproducible.

What is still unproven

The studies cited here support the broader proposition that the presentation and contextualisation of numbers can affect comprehension. They do **not** establish that the exact interface proposed here is better than conventional currency reporting.

We do not yet know whether readers understand a foreign amount better when shown a historically appropriate local-currency conversion than when shown a conventional static conversion. We do not know whether an optional current conversion helps or distracts. We do not know how much newsroom effort is justified by the gain.

Those are empirical questions.

They should be tested rather than assumed.

The proposal is therefore deliberately narrow:

the reported monetary amount and the way it is rendered for a reader are different things, and digital journalism should preserve that distinction.

Once that distinction exists, an article can remain historically stable without being locked to one permanent representation.

That is a small change in how money is published.

It also leaves a larger question for the rest of this series:

If a monetary fact can be separated from the way it is rendered, what other parts of journalism are still being flattened into prose simply because that is how articles have traditionally been built?

Sources and prior work

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RELATION MEMORY

NEARBY [An Article Is Not a Document] · Both distinguish a readable public surface from the records that sustain it. The earlier essay concerns article production, claims and version history; this proposal isolates one monetary fact and its derived conversions.

NEARBY [What Is Law Made Of?] · Both question whether information must remain flattened into prose. The law essay examines legal authority and representation; this article preserves a reported amount and treats currency conversion as a derived representation, without transferring the legal authority claim.
